CONTENT

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TEHNO ROEKT 75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

CONTENT

ABOUT THE COMPANY

Tehnoproekt LLC was founded in April 1999 on the base of REVALVE/PKTBA Company. Since that time our company has evolved from a developer of design documentation into an integrated manufacturer.

Tehnoproekt LLC has its own Design-Engineering and Manufacturing Departments, production facilities and a full range of control and test equipment.

Our company specializes in the designing, manufacturing and supply of valves for oil, gas, nuclear, railway industries and others.

PRODUCTION PROCESS

In production process Tehnoproekt LLC applies high performance CNC machines operating on a three-shift basis and cutting the part edges with accuracy up to 5 microns and repeatability to 2.5 microns. These options ensure the accuracy of the required product sizes and consequently increase performance reliability of our products.

Specialists of Design-Engineering Department constantly introduce inovative technical solutions into design of sophisticated equipment.

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OUR PRODUCTS

Our products are the result of bilateral dialogue with the Customers. In designing process our experts take into account all the requirements and the peculiarities of the projects as much as possible. We do not offer typical solutions. We adapt them to Customer's requirements.

A product line includes the following equipment:

Solenoid Valves
(Trademark KEO)

Check Valves
(Trademark KO)

Safety Valves
(Trademark PROK)

Safety Valves Assembly
(Trademark BPK)

Impulse Safety Valves
(Trademark IPK)

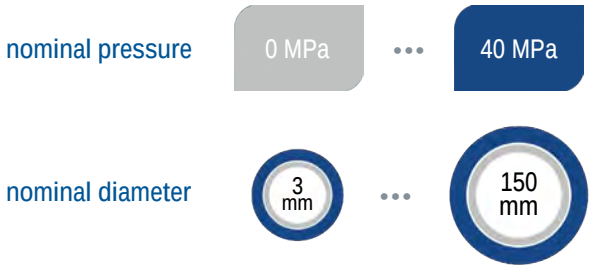
Pressure Regulators
(Trademark REDUT-D)

Pneumatic Hydraulic Booster
(Trademark PGM)

Solenoid Drives
(Trademark EV and EMP)

Sight Glasses
(Trademark OKO)

Pipeline valves of Tehnoproekt LLC are designed for various applications (gaseous hydrocarbons, petroleum, water, methane, liquefied hydrocarbons, etc.), a range of nominal pressure from 0 to 40 MPa and nominal diameter from 3 to 150 mm.



The pipeline valves of Tehnoproekt LLC are applied at the stages of production, preparation, processing, distribution and transportation of oil and gas (fuel gas treatment systems, booster compressor plants, gas odorization plants, gas conditioning units, gas engine power stations, fuel supply systems and oil supply systems of gas turbine power plants, etc.).

Production | Preparation | Processing | Distribution | Transportation

Our company actively cooperates with our Customers at all stages from implementing the products into the project to putting them into operation. Qualified and highly professional work at every stage allows our company to move forward with confidence confirming that Tehnoproekt LLC is a manufacturer of advanced flow control equipment.

CERTIFICATES

In the course of designing and development of highly technical equipment we constantly develop new products and confirm them with Patents and Certificates of Compliance.

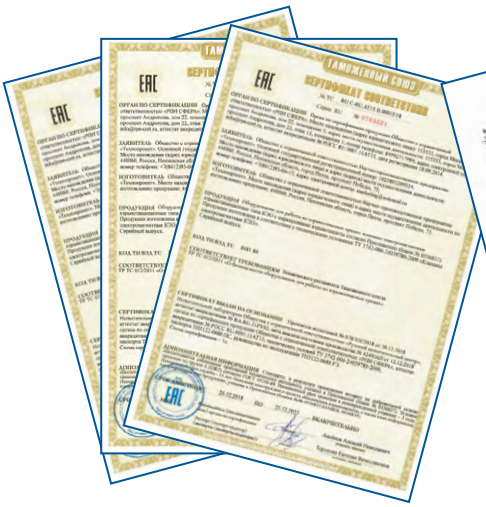
CERTIFICATE OF QUALITY MANAGEMENT SYSTEM ISO 9001:2015

THE CERTIFICATE OF CONFORMITY TO STO GAZPROM 9001-2018

INTERGAZSERT CERTIFICATION OF COMPLIANCE FOR KEO SOLENOID VALVES

PATENT ON TRADEMARK «TEHNOPROEKT»

PATENT ON TRADEMARK «KEO»



CERTIFICATE OF COMPLIANCE ON: KEO, KO, OKO, REDUT-D, PROK, IPK, BPK

DECLARATION OF COMPLIANCE ON: KEO, KO, OKO, REDUT-D, PROK, IPK, BPK, EMP

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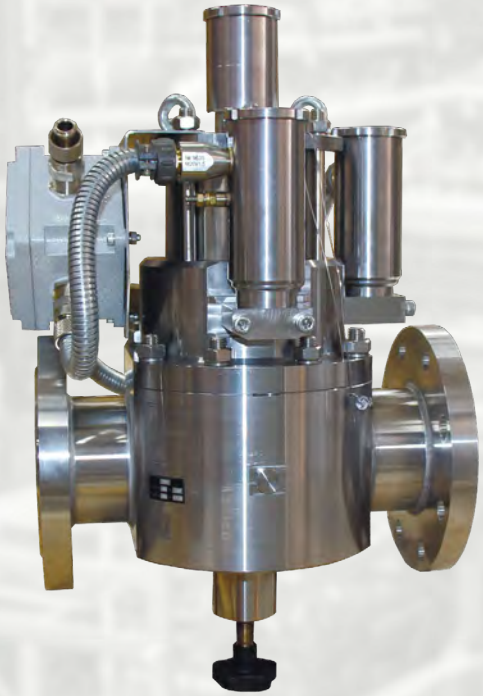
KEO

Explosion proof and general purpose solenoid valves



EXPLOSION PROOF AND GENERAL PURPOSE SOLENOID VALVES

DESIGNATION:

Solenoid valve is a blocking device designed for medium flow control.
Solenoid valves are applied in pneumatic and hydraulic systems inside and outside facilities and under the shelters.

VARIETIES:

Solenoid valves are manufactured in the following variates:

- general purpose (no explosion protection);
- explosion proof (Exd).

Solenoid valves of general purpose are intended to be used at the facilities of general industrial purpose.

Explosion proof solenoid valve is designed to be applied in hazardous areas inside and outside facilities except for underground shafts, mines and their related facilities according to the State Standard GOST 31441.1 and GOST 31610.0.

ORDER CODE:

Function and configuration:		
0	straight way	isolation valves
1	through way	
2	angle body valve	
4	distributing valve	
6	straight way	regulating valves
7	through way	
8	angle body valve	

Pipe connection:	
0	gland joint
1	female thread
2	male thread
3	flanges
4	butt joint
5	special connection
6	claw connection
7	welding
8	clamping connection

Mode of action and valve normal position:	
1	Direct action, NC
2	Direct action, NO
3	Power-assisted valve (pressurized fluid flow used as a power), NC
4	Power-assisted valve (pressurized fluid flow used as a power), NO
5	Direct action balanced piston valve, NC balanced
6	Direct action balanced piston valve, NO balanced

Type of solenoid:	
EM	general purpose
EV	explosion proof (EX)

Voltage, V:
When power supply voltage (U) less than 100 V, the 1st digit shall be “0”

Pressure, kgf/cm²

Trade mark

K E O X X X / X X X / X X X / X X X / X X E X X X / X X / X X X / X

Diameter, mm

Solenoid type number

Additional solenoid modifier

Medium:	
0	gaseous medium
1	liquid medium
4	steam
2, 3, 5, 6, 7, 8, 9	chemically active medium

Additional modifier

Current type:
AC - alternating current
DC - direct current

Medium temperature:	
0, 1, 2, 5, 6, 7	Up to 100ºC including
3, 4, 8, 9	Over 100ºC

Types of optional modules:	
0	no optional modules
1	manual override
2	valve position indicator
3	valve position lock
4	manual override and valve position indicator
5	manual override and valve position lock
6	valve position indicator and valve position lock
7	manual override, valve position indicator and valve position lock
8	special configuration of optional modules
9	box

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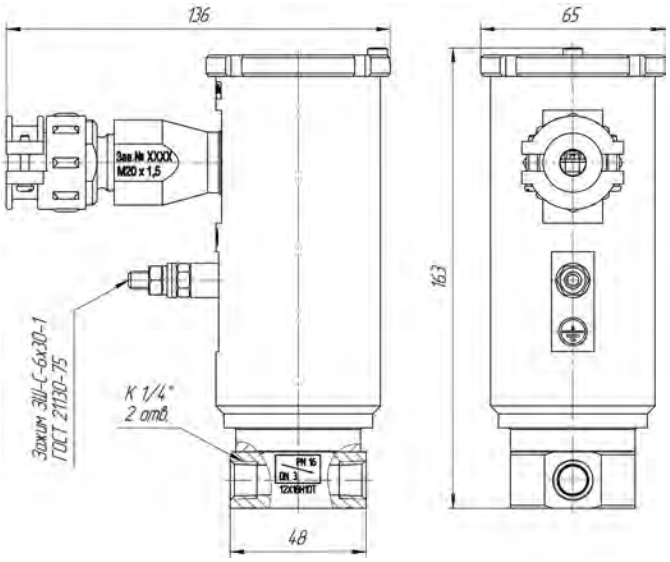
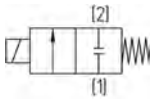
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 03/16/760/111 EV 05/DC/024/41





IP66 Ex

SPECIFICATION

Mode of action	direct action
Nominal Diameter, DN, mm	3
Nominal Pressure, PN, MPa	1.6
Differential pressure required for valve operation, ΔP, MPa	0...1.6
Connection	K ¼"
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-40...+45
Medium temperature range, ºC	-40...+45
Voltage, V	24±10% DC
Power consumption, W	12
Cyclic duration factor (CDF), %	100
Dimensions, mm	136 x 65 x 163
Weight, kg	28±0.2

POSSIBLE VARIETIES

- KEO 03/16/760/111 EV 05/AC/230/41 (NC);
- KEO 03/16/760/112 EV 05/DC/024/41 (NO).

MEDIUM

STANDARD VALVE MODEL:

- chemically active medium (ethyl mercaptan).

SPECIAL VALVE MODEL:

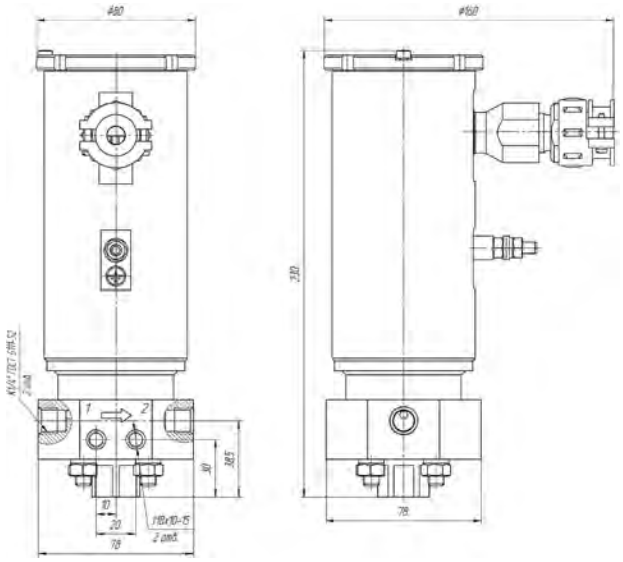
- air, nitrogen, carbon dioxide, hydrogen, inert gases, gaseous hydrocarbons (propane, butane, methane and its mixture);
- water, diesel fuel, synthetic and mineral oils;
- petroleum;
- liquefied hydrocarbon (propane-butane mixture);
- spirits (alcohol), non-carbonated alcohol-containing liquids.

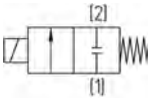
Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

Final valve order code shall be specified when ordering.

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 03/250/650/111 EV 07/DC/024/21





IP66 Ex

SPECIFICATION

Mode of action		direct action
Nominal Diameter, DN, mm		3
Nominal Pressure, PN, MPa		25.0
Differential pressure required for valve operation, ΔP, MPa		0...25.0
Connection		female thread
Valve position		normally closed
Trim impermeability	pressure difference up to 2.0 MPa	no applicable regulations
	pressure difference over 2.0 MPa	class A
Climate category		NF2
Medium temperature range, ºC		-50...+60
Voltage, V		24±10% DC
Power consumption, W		20±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		160 x 78 x 230
Weight, kg		6

MEDIUM

STANDARD VALVE MODEL:

- methanol (oil products contact not accepted).

Final valve order code shall be specified when ordering.

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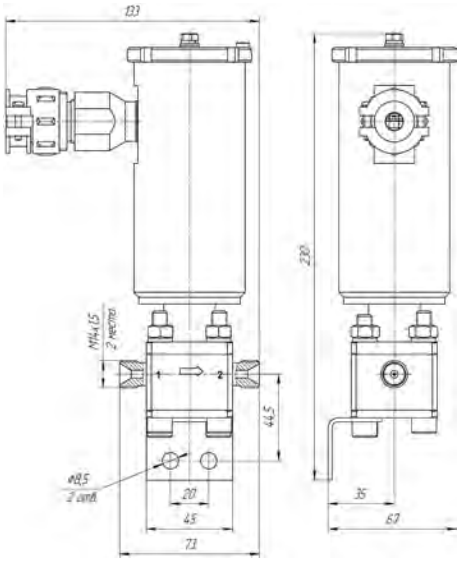
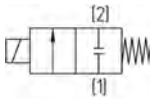
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 03/250/150/113 EV 05/DC/024/3





IP66 Ex

SPECIFICATION

Mode of action	power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm	3
Nominal Pressure, PN, MPa	25.0
Differential pressure required for valve operation, ΔP, MPa	0.08...25.0
Connection	female thread
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-50...+45
Medium temperature range, ºC	-40...+60
Voltage, V	24±10% DC
Power consumption, W	20
Cyclic duration factor (CDF), %	100
Dimensions, mm	165 x 63 x 232
Weight, kg	3.2

POSSIBLE VARIETIES

- KEO 03/250/050/123 EV 05/DC/230/3.

MEDIUM

STANDARD VALVE MODEL:

- hydraulic liquid Panolin polar 5.

Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

Final valve order code shall be specified when ordering.

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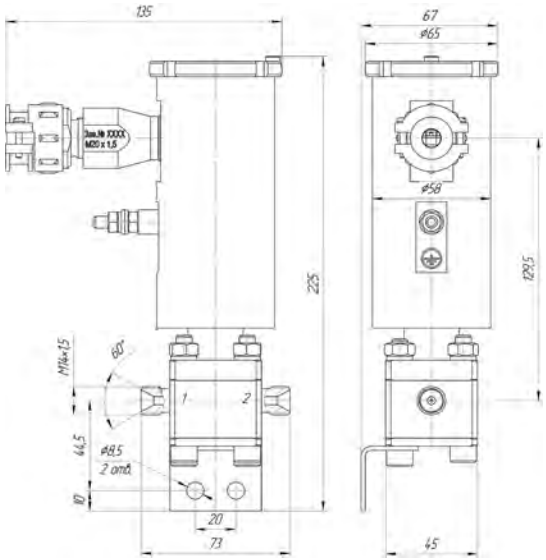
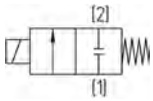
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 03/250/050/121 EV 05/AC/230/31





IP66 Ex

SPECIFICATION

Mode of action	power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm	3
Nominal Pressure, PN, MPa	25.0
Differential pressure required for valve operation, ΔP, MPa	0...25.0
Connection	male thread
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-50...+60
Medium temperature range, ºC	-40...+60
Voltage, V	230±10% AC
Power consumption, W	20
Cyclic duration factor (CDF), %	100
Dimensions, mm	135 x 67 x 225
Weight, kg	2.6

POSSIBLE VARIETIES

- KEO 03/250/050/121 EV 05/DC/024/31

MEDIUM

STANDARD VALVE MODEL:

- air, nitrogen, carbon dioxide, hydrogen, inert gases, gaseous hydrocarbons (propane, butane, methane and its mixture).

Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

Final valve order code shall be specified when ordering.

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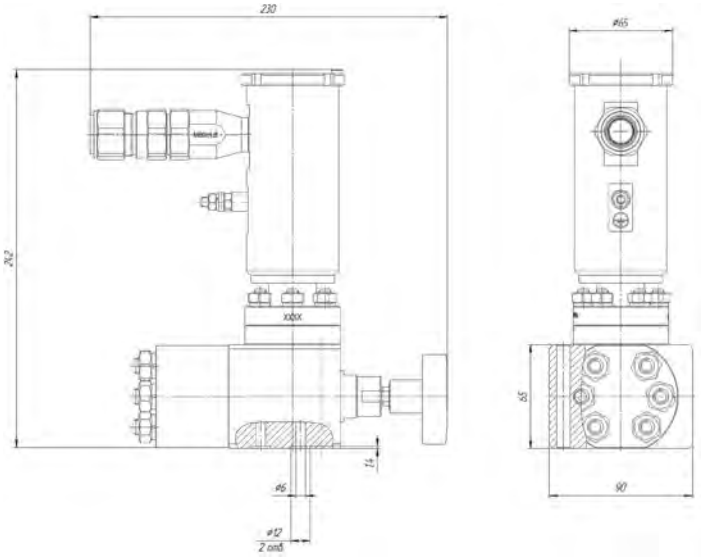
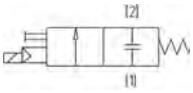
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 06/400/161/143 EV 05/DC/024/34





IP66 Ex

SPECIFICATION

Mode of action	direct action
Nominal Diameter, DN, mm	6
Nominal Pressure, PN, MPa	40.0
Differential pressure required for valve operation, ΔP, MPa	1.0...40.0
Connection	butt joint
Valve position	normally closed
Trim impermeability	class A
Climate category	NF1
Ambient temperature range, ºC	-40...+40
Medium temperature range, ºC	-40...+40
Voltage, V	24±10% DC
Power consumption, W	20
Cyclic duration factor (CDF), %	100
Dimensions, mm	230 x 90 x 242
Weight, kg	7.3

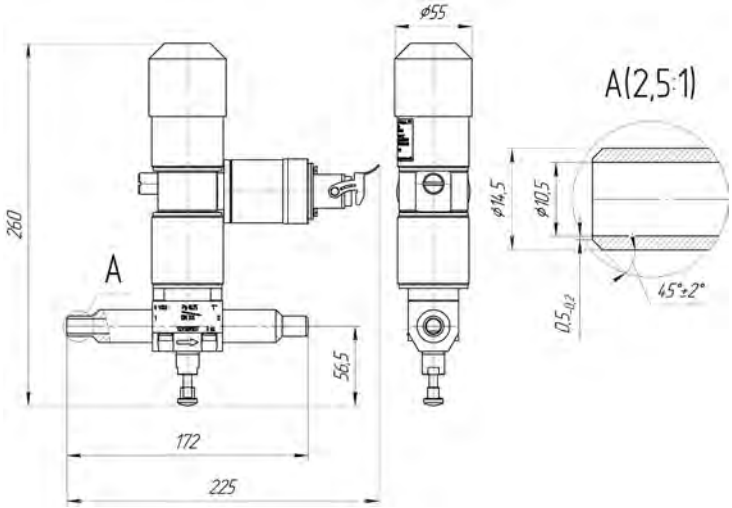
MEDIUM

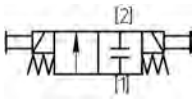
STANDARD VALVE MODEL:

- Composite hydraulic liquid PMC-20-Yugra (ПМС-20-Югра).

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 10/2.5/077/125/1 EM 09/DC/024/1





IP55

Protection class 3H upon State Standard НП-001-15

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		10
Nominal Pressure, PN, MPa		0.25
Differential pressure required for valve operation, ΔP, MPa		0...0.25
Connection		butt welding joint
Valve position		normally closed
Trim impermeability		class A
Climate category		NF
Ambient temperature range, ºC		-40...+50
Medium temperature range, ºC		-40...+100
Voltage, V		24±10% DC
Power consumption, W (no more)	actuating solenoid	50
	discharging solenoid	50
Cyclic duration factor (CDF), %		100
Dimensions, mm		172 x 55 x 252
Weight, kg		3±0.3

POSSIBLE VARIETIES

- KEO 15/2.5/077/125/1 EV 09/DC/024/2

OPTIONAL MODULES

- manual override;
- valve position lock;
- valve position indicator.

MEDIUM

STANDARD VALVE MODEL:

- air, argon, nitrogen, carbon dioxide, inert gases, gaseous hydrocarbons (propane, butane, methane and its mixtures).

Final valve order code shall be specified when ordering.

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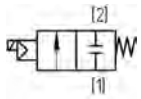
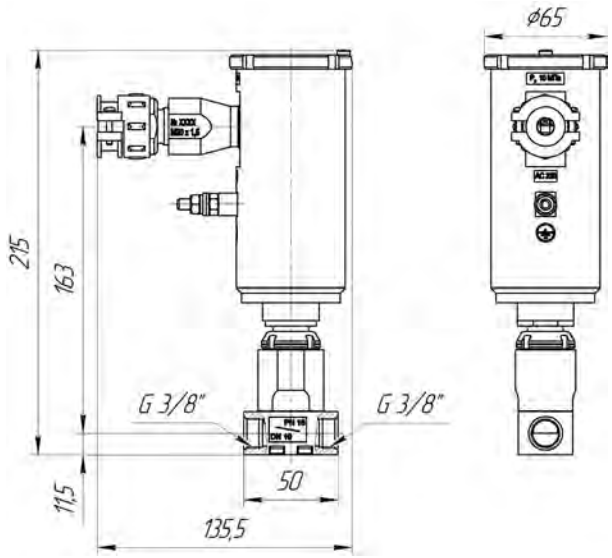
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 10/16/510/113 EV 05/AC/230/31





IP66 Ex

SPECIFICATION

Mode of action	power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm	10
Nominal Pressure, PN, MPa	1.6
Differential pressure required for valve operation, ΔP, MPa	0.1...1.6
Connection	G 3/8
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-50...+45
Medium temperature range, ºC	-40...+45
Voltage, V	230±10% AC
Current frequency, Hz	50
Power consumption, W	16
Cyclic duration factor (CDF), %	100
Dimensions, mm	135.5 x 65 x 215
Weight, kg	2.9±0.3

POSSIBLE VARIETIES

- KEO 10/16/510/113 EV 05/DC/024/X

MEDIUM

STANDARD VALVE MODEL:

- liquefied hydrocarbon (propane-butane mixtures).

Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

Final valve order code shall be specified when ordering.

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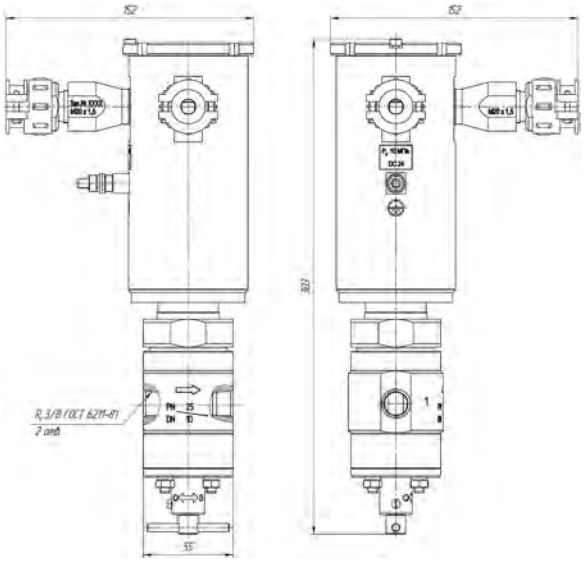
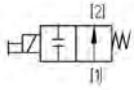
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 10/25/054/112 EV 07/DC/024/22





IP66 Ex

ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

Mode of action		direct action
Nominal Diameter, DN, mm		10
Nominal Pressure, PN, MPa		2.5
Differential pressure required for valve operation, ΔP, MPa		0...2.5
Connection		female thread, Rc 3/8
Valve position		normally open
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-60...+65
Medium temperature range, ºC		-40...+80
Voltage, V		24±10% DC
Power consumption, W (no more)	In power augmentation mode (no more)	120
	In holding mode	10±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		145 x 80 x 312
Weight, kg		6±0.5

OPTIONAL MODULES

- manual override;
- valve position lock.

MEDIUM

STANDARD VALVE MODEL:

- natural gas, air.

Final valve order code shall be specified when ordering.

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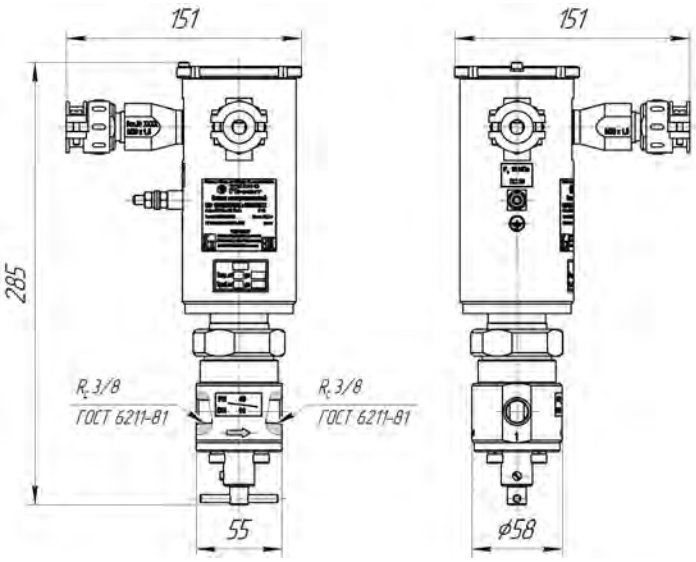
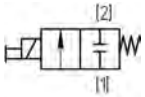
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 10/40/834/115 EV 07/DC/024/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		10
Nominal Pressure, PN, MPa		4.0
Differential pressure required for valve operation, ΔP, MPa		0...4.0
Connection		female thread
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-45...+50
Medium temperature range, ºC		0...+100
Voltage, V		24±10% DC
Current frequency, Hz		50
Power consumption, W (no more)	In power augmentation mode (no more)	200
	In holding mode	10±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		151 x 151 x 285
Weight, kg		5.7±0.5

POSSIBLE VARIETIES

- KEO 10/40/831/115 EV 07/AC/230/22;
- KEO 10/40/834/115/8 EV 07/DC/024/22;
- KEO 10/40/834/115/1 EV 07/DC/024/22.

MEDIUM

STANDARD VALVE MODEL:

- crude mineral oil, associated petroleum gas, diesel fuel, petroleum, kerosene.

Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

Final valve order code shall be specified when ordering.

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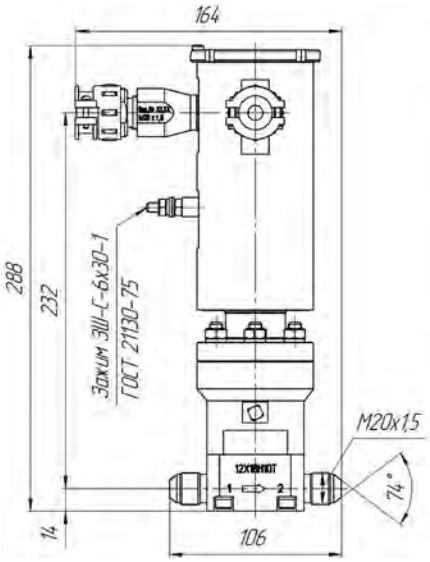
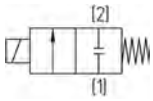
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 10/75/032/125 EV 07/DC/024/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		10
Nominal Pressure, PN, MPa		7.5
Differential pressure required for valve operation, ΔP, MPa		0...7.5
Connection		male thread
Valve position		normally closed
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-40...+70
Medium temperature range, ºC		-30...+150
Voltage, V		24±10% DC
Power consumption, W (no more)	In power augmentation mode (no more)	230
	In holding mode	12±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		164 x 151 x 288
Weight, kg		7±0.7

OPTIONAL MODULES

- valve position indicator.

MEDIUM

STANDARD VALVE MODEL:

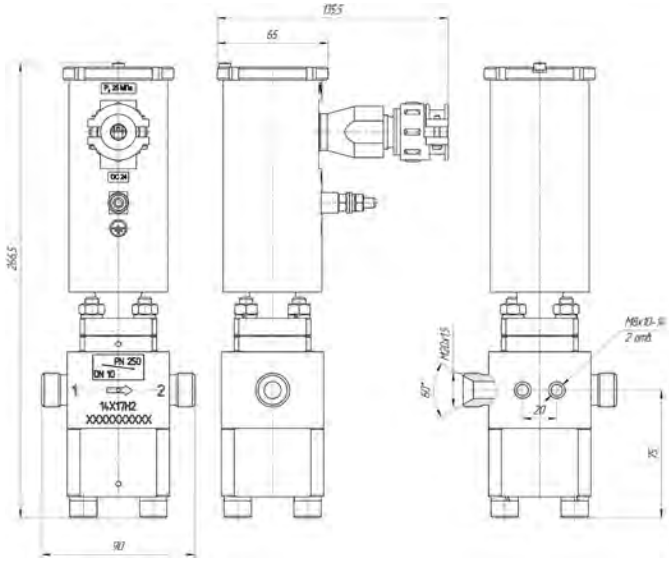
- natural gas.

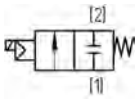
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 10/250/050/123 EV 05/DC/024/31





IP66 Ex

SPECIFICATION

Mode of action		power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm		10
Nominal Pressure, PN, MPa		25.0
Differential pressure required for valve operation, ΔP, MPa		0.3...25.0
Connection		Male thread
Valve position		normally closed
Trim impermeability	up to 2.0 MPa	class D
	more than 2.0 MPa	class A
Climate category		NF2
Ambient temperature range, ºC		-50...+60
Medium temperature range, ºC		-50...+60
Voltage, V		24±10% DC
Power consumption, W		20±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		135.5 x 90 x 266.5
Weight, kg		5±0.5

POSSIBLE VARIETIES

- KEO 10/250/050/123/2 EV 05/DC/024/31;
- KEO 10/250/050/113 EV 05/AC/230/31 female thread;
- KEO 10/250/050/123/1 EV 05/DC/024/31;
- KEO 10/250/650/113 EV 05/AC/230/31 female thread.

MEDIUM

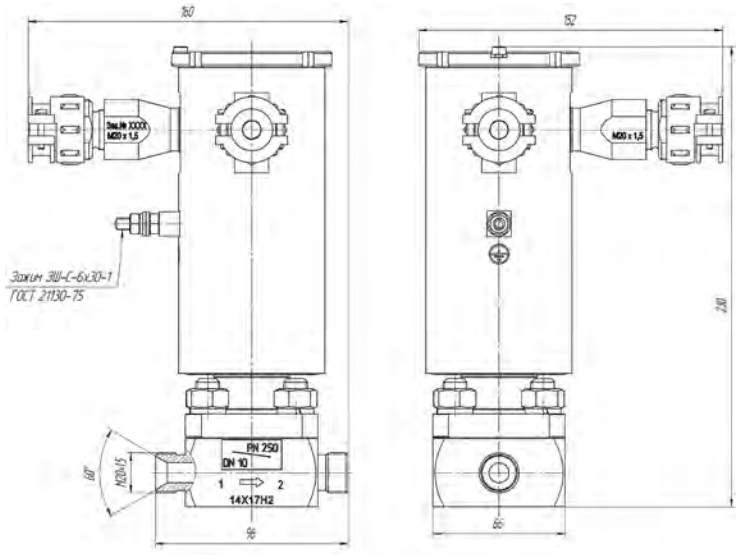
STANDARD VALVE MODEL:

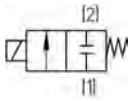
- methane, air, nitrogen, natural gas;
- KEO 10/250/650/113 EV 05/AC/230/31 - methanol.

Final valve order code shall be specified when ordering.

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 10/250/062/125 EV 07/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		10
Nominal Pressure, PN, MPa		25.0
Differential pressure required for valve operation, ΔP, MPa		0...25.0
Connection		male thread
Valve position		normally closed
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-40...+50
Medium temperature range, ºC		-40...+80
Voltage, V		230±10% AC
Current frequency, Hz		50
Power consumption, W	in power augmentation mode (no more)	230
	in holding mode	10±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		160 x 152 x 230
Weight, kg		6.4

POSSIBLE VARIETIES

- KEO 10/250/062/125 EV 07/DC/024/22;
- KEO 10/250/062/125/1 EV 07/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

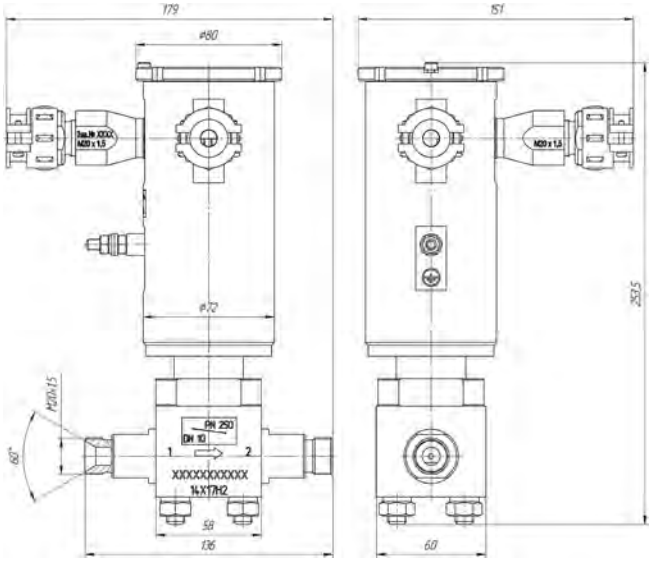
- methane.

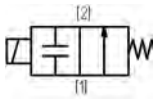
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 10/250/072/126 EV 07/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		10
Nominal Pressure, PN, MPa		25.0
Differential pressure required for valve operation, ΔP, MPa		0...25.0
Connection		male thread
Valve position		normally open
Trim impermeability	up to 2.0 MPa	no applicable regulations
	more than 2.0 MPa	Class A
Climate category		NF2
Ambient temperature range, ºC		-50...+60
Medium temperature range, ºC		-50...+80
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	230
	in holding mode	10±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		179 x 151 x 253.5
Weight, kg		6.4±0.5

POSSIBLE VARIETIES

- KEO 10/250/072/116 EV 07/AC/230/22 female thread;
- KEO 10/250/072/126 EV 07/DC/024/22;
- KEO 10/250/072/116/1 EV 07/AC/230/22 female thread.

MEDIUM

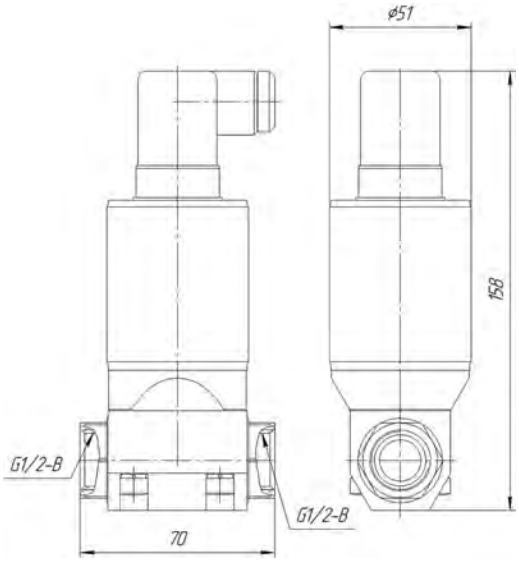
STANDARD VALVE MODEL:

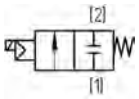
- methane, natural gas.

Final valve order code shall be specified when ordering.

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 15/10/150/115 EM 03/DC/024/1





IP66

SPECIFICATION

Mode of action	direct action balanced piston valve
Nominal Diameter, DN, mm	15
Nominal Pressure, PN, MPa	1.0
Differential pressure required for valve operation, ΔP, MPa	0...0.6
Connection	G ½
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-40...+45
Medium temperature range, ºC	-50...+60
Voltage, V	24±10% DC
Power consumption, W	16
Cyclic duration factor (CDF), %	100
Dimensions, mm	70 x 51 x 158
Weight, kg	1.4±1

POSSIBLE VARIETIES

- KEO 15/10/150/115 EM 03/AC/230/1

MEDIUM

STANDARD VALVE MODEL:

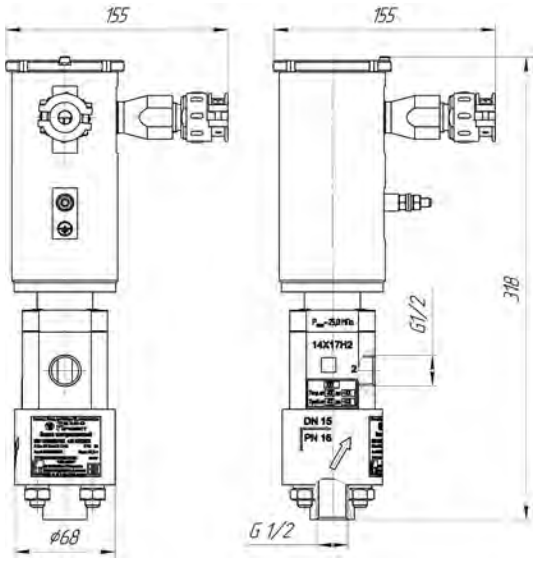
- water, diesel fuel, synthetic and mineral oils.

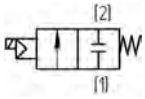
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 15/16/262/211 EV 07/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		15
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0...0.5
Connection		female thread
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-50...+45
Medium temperature range, ºC		-40...+45
Voltage, V		230+10% AC
Current frequency, Hz		50
Power consumption, W	in power augmentation mode (no more)	230
	in holding mode	19±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		155 x 155 x 318
Weight, kg		7±0.7

POSSIBLE VARIETIES

- KEO 15/16/262/211 EV 07/DC/024/22

MEDIUM

STANDARD VALVE MODEL:
- petrolium, diesel fuel, petrochemicals.

Final valve order code shall be specified when ordering.

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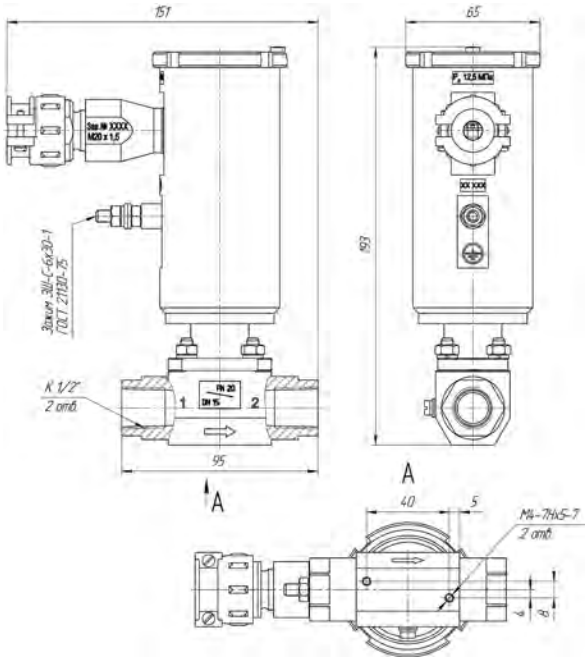
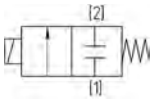
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 15/20/760/115 EV 05/DC/024/41





IP66 Ex

SPECIFICATION

Mode of action	direct action balanced piston valve
Nominal Diameter, DN, mm	15
Nominal Pressure, PN, MPa	2.0
Differential pressure required for valve operation, ΔP, MPa	0...1.0
Connection	K ½
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-40...+45
Medium temperature range, ºC	-40...+45
Voltage, V	24±10% DC
Power consumption, W	20±1
Cyclic duration factor (CDF), %	100
Dimensions, mm	144 x 65 x 198
Weight, kg	3±0.3

MEDIUM

STANDARD VALVE MODEL:

- chemically active medium (ethyl mercaptan).

Final valve order code shall be specified when ordering.

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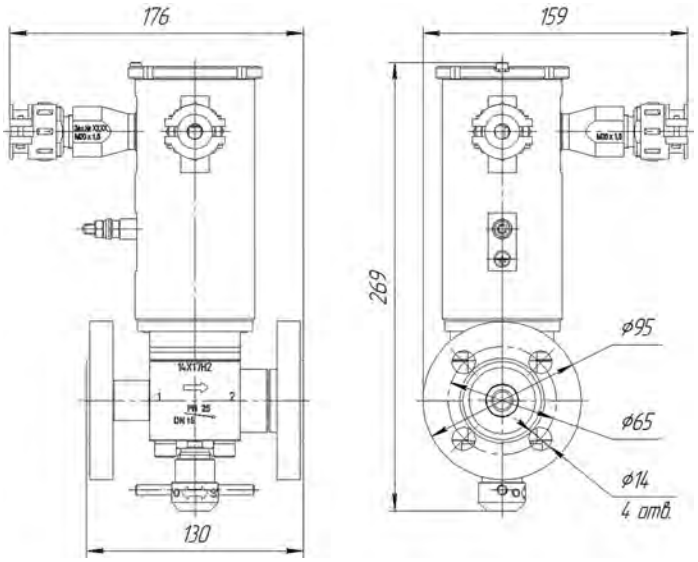
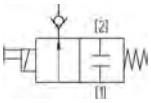
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 15/25/514/135 EV 07/DC/024/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		15
Nominal Pressure, PN, MPa		2.5
Differential pressure required for valve operation, ΔP, MPa	in downstream direction	0...2.5
	in the reversed direction	0...1.2
Connection		flanges
Valve position		normally Closed
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-50...+60
Medium temperature range, ºC		-40...+45
Voltage, V		24±10% DC
Power consumption, W	in power augmentation mode (no more)	230
	in holding mode	8±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		176 x 159 x 269
Weight, kg		6±0.6

POSSIBLE VARIETIES

- KEO 15/25/514/135 EV 07/AC/230/22;
- KEO 15/25/264/135 EV 07/DC/024/22;
- KEO 15/25/164/135 EV 07/AC/230/22;
- KEO 15/25/168/135 EV 07/AC/230/22;
- KEO 15/25/714/135 EV 07/DC/024/22.

MEDIUM

STANDARD VALVE MODEL:
- propane-butane, associated petroleum gas, natural gas, air, nitrogen, oil products vapors.

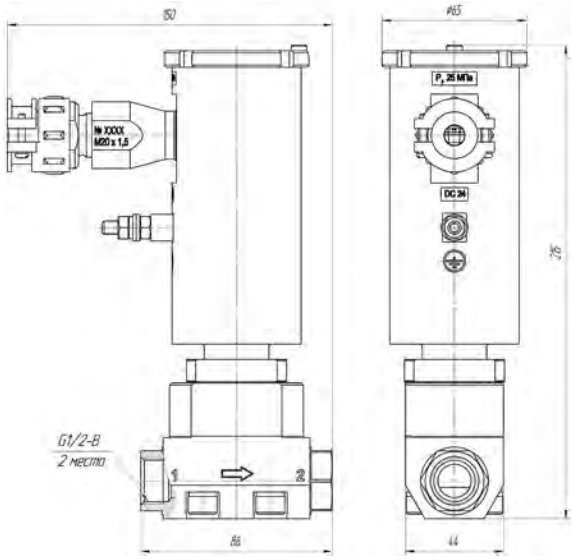
SPECIAL VALVE MODEL:
- water, diesel fuel, synthetic and mineral oils;
- petroleum.

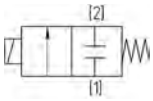
Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

Final valve order code shall be specified when ordering.

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 15/60/010/113 EV 05/DC/024/31





IP66 Ex

SPECIFICATION

Mode of action	power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm	15
Nominal Pressure, PN, MPa	6.0
Differential pressure required for valve operation, ΔP, MPa	0.3...6.0
Connection	G ½-B
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+45
Voltage, V	230±10% AC
Current frequency, Hz	50
Power consumption, W	20±1
Cyclic duration factor (CDF), %	100
Dimensions, mm	146 x 65 x 215
Weight, kg	4±0.4

MEDIUM

STANDARD VALVE MODEL:

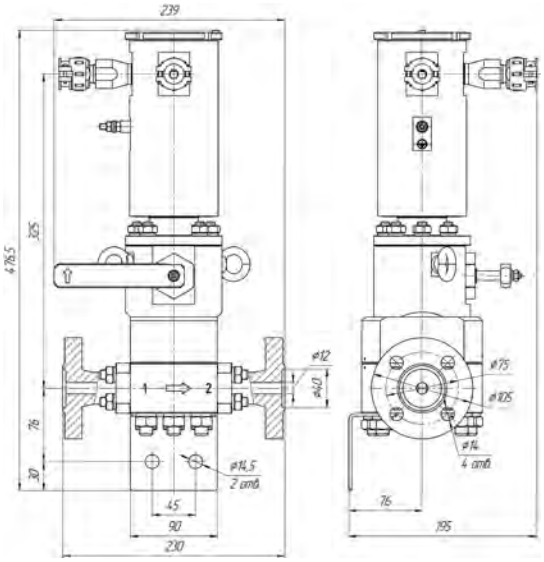
- air, nitrogen, carbon dioxide, hydrogen, inert gases, gaseous carbons (propane, butane, methane and its mixtures).

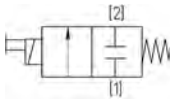
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 15/100/174/135 EV 06/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		15
Nominal Pressure, PN, MPa		10.0
Differential pressure required for valve operation, ΔP, MPa		0...10.0
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-60...+60
Medium temperature range, ºC		-50...+85
Voltage, V		230±10% AC
Current frequency, Hz		50
Power consumption, W	in power augmentation mode (no more)	230
	in holding mode	20±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		239 x 181.5 x 429
Weight, kg		24

OPTIONAL MODULES

- manual override;
- valve position indicator.

POSSIBLE VARIETIES

- KEO 15/100/174/135 EV 06/DC/024/22;
- KEO 15/100/174/115/1 EV 06/AC/230/22;
- KEO 15/100/174/135/4 EV 06/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

- hydrocarbon natural gas and associated petroleum gas with C_1-C_{10};
- hydrocarbon condensate with C_1-C_{10}.

Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

Final valve order code shall be specified when ordering.

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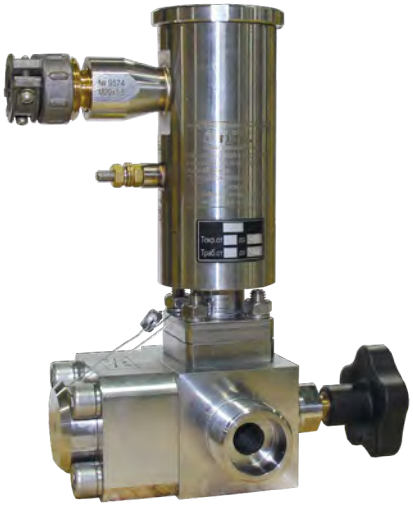
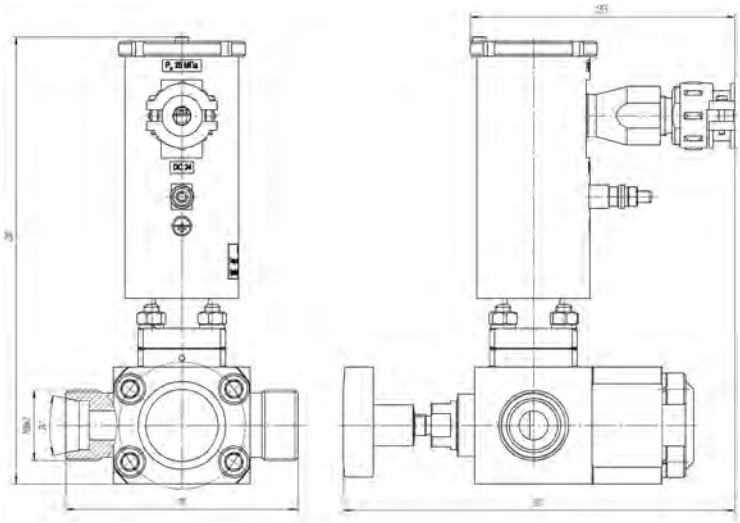
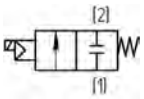
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 15/250/051/123 EV 05/DC/024/31







IP66 Ex

SPECIFICATION

Mode of action		power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm		15
Nominal Pressure, PN, MPa		25
Differential pressure required for valve operation, ΔP, MPa		0.3...25.0
Connection		male thread
Valve position		normally closed
Trim impermeability	from 0 to 2.0 MPa	no applicable regulations
	from 2.0 to 25.0 MPa	class A
Climate category		NF2
Ambient temperature range, ºC		-40...+60
Medium temperature range, ºC		-50...+60
Voltage, V		24±10% DC
Power consumption, W		10±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		119 x 101 x 230
Weight, kg		7

MEDIUM

STANDARD VALVE MODEL:

- air, nitrogen, carbon dioxide, hydrogen, inert gases, gaseous hydrocarbons (propane, butane, methane and its mixtures).

Final valve order code shall be specified when ordering.

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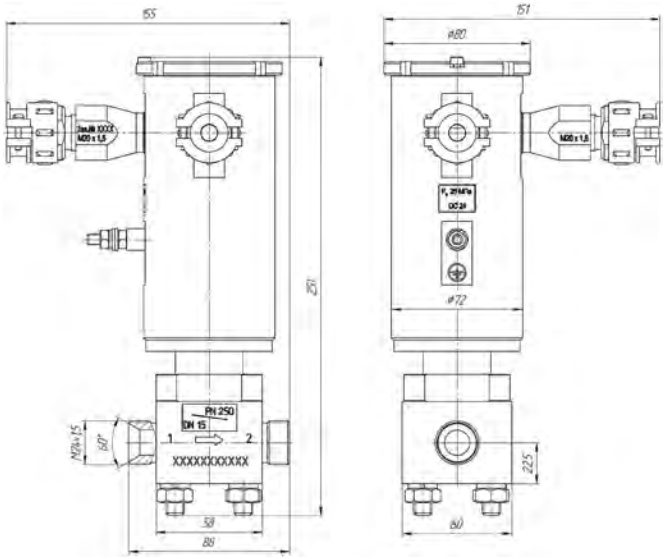
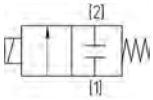
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 15/250/062/125 EV 07/DC/024/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		15
Nominal Pressure, PN, MPa		25.0
Differential pressure required for valve operation, ΔP, MPa		0...25.0
Connection		male thread
Valve position		normally closed
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-40...+50
Medium temperature range, ºC		-40...+45
Voltage, V		24±10% DC
Power consumption, W	in power augmentation mode	230
	in holding mode	10±1
Cyclic duration factor (CDF), %		100
Opening/closing time, s, no more		1/1
Dimensions, mm		155 x 151 x 251
Weight, kg		5.8±0.5

POSSIBLE VARIETIES

- KEO 15/250/062/125 EV 07/AC/230/22;
- KEO 15/250/062/115 EV 07/AC/230/22 female threaded;
- KEO 15/250/082/115 EV 07/AC/230/12 female threaded.

MEDIUM

STANDARD VALVE MODEL:

- methane.

Final valve order code shall be specified when ordering.

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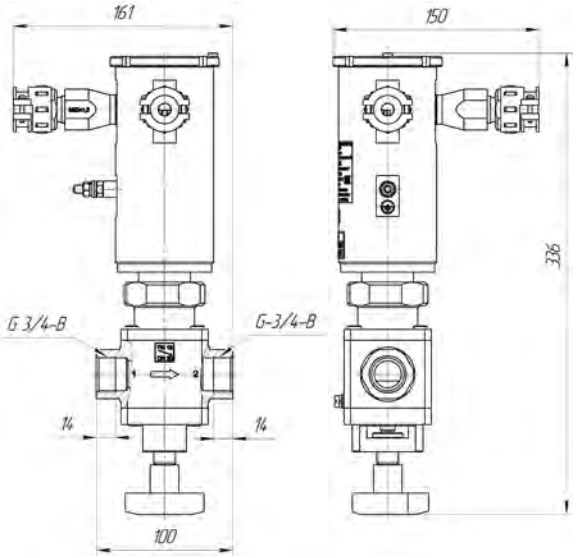
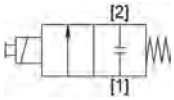
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 20/16/124/111 EV 07/AC/230/32





IP66 Ex

SPECIFICATION

Mode of action		direct action
Nominal Diameter, DN, mm		20
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0...0.2
Connection		female thread G ¾
Manual switch-on override		screw-shaped
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		+10...+40
Medium temperature range, ºC		+5...+70
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	230
	in holding mode	15±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		161 x 150 x 336
Weight, kg		7±0.5

MEDIUM

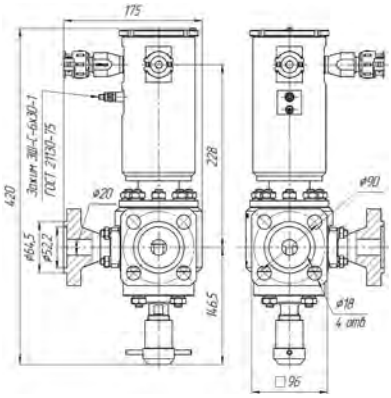
STANDARD VALVE MODEL:
- oil-water mixture.

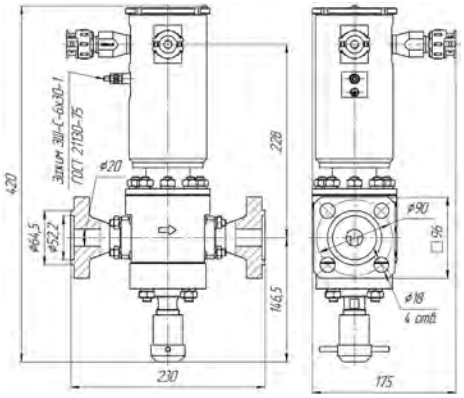
Final valve order code shall be specified when ordering.

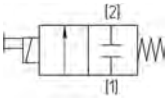
75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 20/75/074/236 EV 06/DC/024/22







IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		20
Nominal Pressure, PN, MPa		7.5
Differential pressure required for valve operation, ΔP, MPa		0...7.5
Connection		flanges
Valve position		normally open
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-60...+70
Medium temperature range, ºC		-40...+100
Voltage, V		24±10% DC
Power consumption, W	in power augmentation mode (no more)	230
	in holding mode	18±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		425 x 175 x 175
Weight, kg		18±1

POSSIBLE VARIETIES

- KEO 20/75/074/136 EV 06/AC/230/22

MEDIUM

STANDARD VALVE MODEL:

- air, nitrogen, carbon dioxide, inert gases, gaseous hydrocarbons (propane, butane, methane and its mixture).

Final valve order code shall be specified when ordering.

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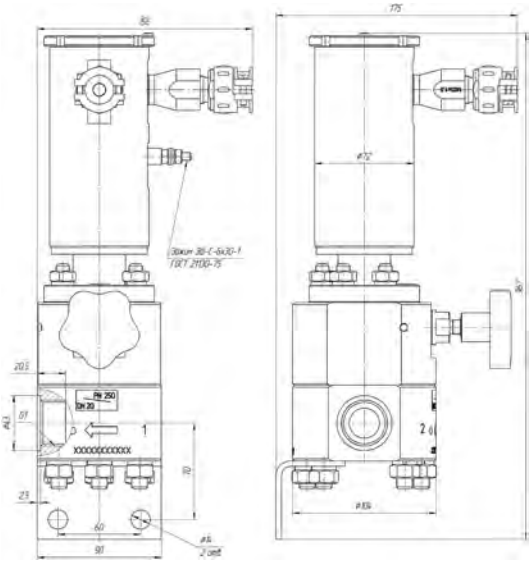
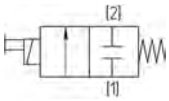
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 20/250/054/115 EV 07/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		20
Nominal Pressure, PN, MPa		25.0
Differential pressure required for valve operation, ΔP, MPa	in downstream direction	0...25.0
	in the reversed direction	0.3...25.0
Connection		female threaded
Manual switch-off override		screw-shaped
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-50...+60
Medium temperature range, ºC		-50...+60
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	230
	in holding mode	10±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		156 x 175 x 367
Weight, kg		11±1

POSSIBLE VARIETIES

- KEO 20/250/054/115 EV 07/AC/230/22

MEDIUM

STANDARD VALVE MODEL:

- natural gas and associated petroleum gas, compressed natural gas.

Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

Final valve order code shall be specified when ordering.

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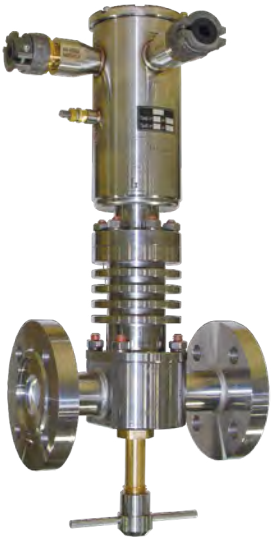
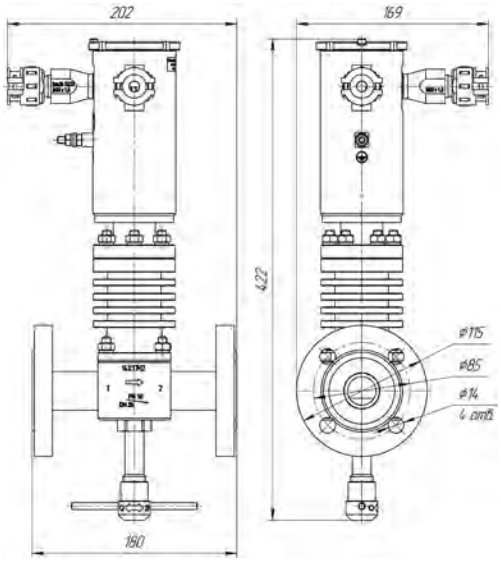
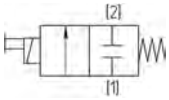
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 25/10/084/135 EV 07/AC/230/12







IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		25
Nominal Pressure, PN, MPa		1.0
Differential pressure required for valve operation, ΔP, MPa		0...1.0
Connection		fanged
Manual switch-off override		screw-shaped
Valve position		normally closed
Trim impermeability		class C
Climate category		NF2
Ambient temperature range, ºC		0...+40
Medium temperature range, ºC		+5...+270
Voltage, V		230±10% AC
Power consumption, W	In power augmentation mode (no more)	230
	In holding mode	10±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		202 x 169 x 422
Weight, kg		11±1

MEDIUM

STANDARD VALVE MODEL:
- air.

Final valve order code shall be specified when ordering.

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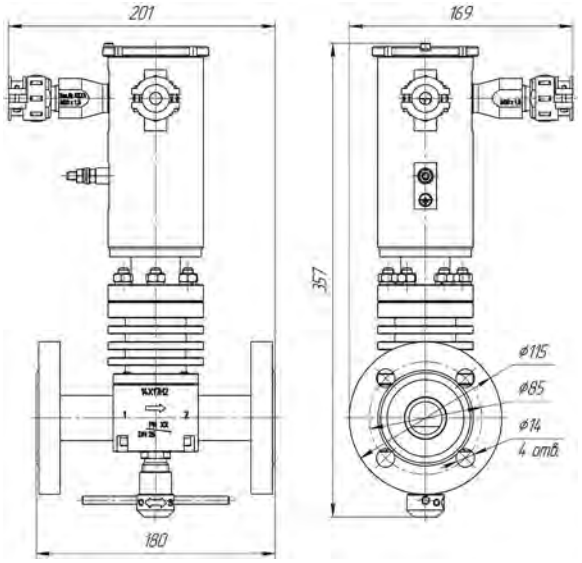
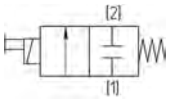
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 25/16/174/135 EV 07/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		25
Nominal Pressure, PN, MPa		16
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Connection		flanges
Manual switch-off override		screw-shaped
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-40...+45
Medium temperature range, ºC		-40...+80
Voltage, V		230±10% AC
Power consumption, W	In power augmentation mode (no more)	230
	In holding mode	8±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		201 x 169 x 357
Weight, kg		11±1

POSSIBLE VARIETIES

- KEO 25/16/074/135 EV 07/AC/230/22;
- KEO 25/16/194/135 EV 07/AC/230/22;
- KEO 25/16/014/135 EV 07/DC/024/22;
- KEO 25/16/194/135 EV 07/DC/024/22;
- KEO 25/25/194/135 EV 07/AC/230/22;
- KEO 25/10/194/135 EV 07/AC/230/12.

MEDIUM

STANDARD VALVE MODEL:
- spirits, air.

SPECIAL VALVE MODEL:
- gas-air mixture, natural gas, air;
- mineral, synthetic, thermal oils, nitrogen, hydrocarbon gases (propane, butane, methane and its mixtures), steam, acossiated petrolium gas;
- liquefied hydrocarbon (propane-butane mixture).

Final valve order code shall be specified when ordering.

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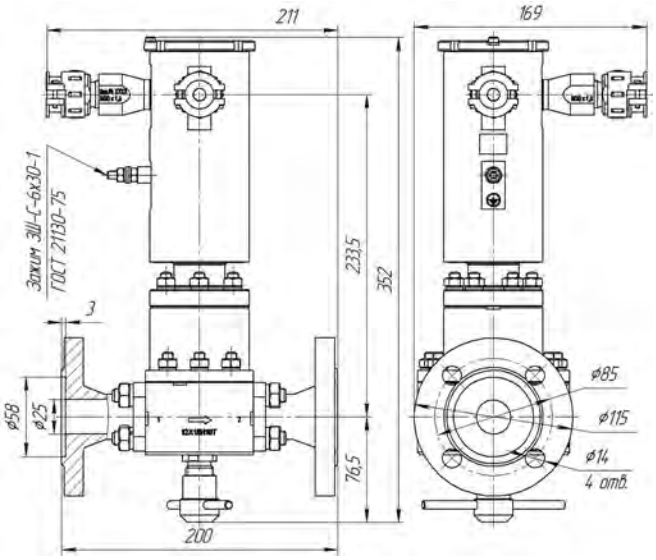
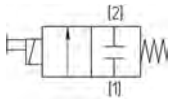
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 25/40/054/135 EV 07/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action	direct action balanced piston valve
Nominal Diameter, DN, mm	25
Nominal Pressure, PN, MPa	4
Differential pressure required for valve operation, ΔP, MPa	0...4.0
Connection	flanges
Valve position	normally closed
Trim impermeability	class A
Climate category	NF1
Ambient temperature range, ºC	-40...+60
Medium temperature range, ºC	-50...+85
Voltage, V	230±10% AC
Power consumption, W	10±1
Cyclic duration factor (CDF), %	100
Dimensions, mm	202 x 169 x 352
Weight, kg	11±1

MEDIUM

STANDARD VALVE MODEL:

- natural gas, acossiated petrolium gas with C_1-C_{10};
- hydrocarbon condensate with C_1-C_{10}.

Final valve order code shall be specified when ordering.

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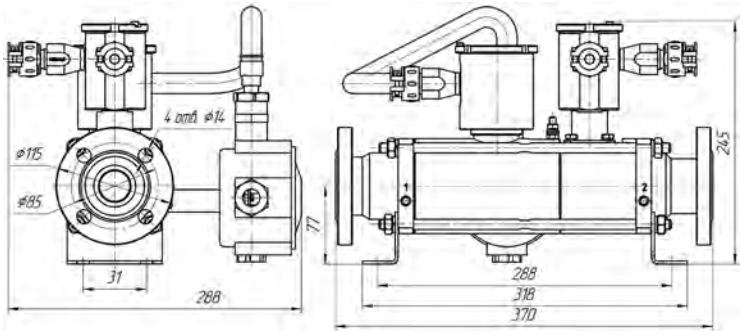
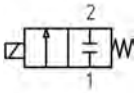
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 25/40/109/131 EV 10/AC/230/21





IP66 Ex

SPECIFICATION

Mode of action		direct action
Nominal Diameter, DN, mm		25
Nominal Pressure, PN, MPa		4.0
Differential pressure required for valve operation, ΔP, MPa		0...3.0
Testing pressure Pt, MPa		6.0
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-50...+70
Medium temperature range, ºC	oil, heavy residual oil, oil	+5...+150
	petroleum, diesel fuel	-40...+60
Voltage of traction and heating winding , V		230±10% AC
Voltage of valve position indicator, V		24±10% DC
Power consumption, W	In power augmentation mode (no more)	250
	In holding mode	36±1
	In heating mode (no more)	130
Cyclic duration factor (CDF), %		100
Dimensions, mm		370 x 288 x 245
Weight, kg		20±2

MEDIUM

STANDARD VALVE MODEL:

- oil, heavy residual oil, oil, petrolium, diesel fuel.

Final valve order code shall be specified when ordering.

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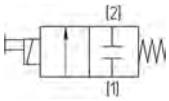
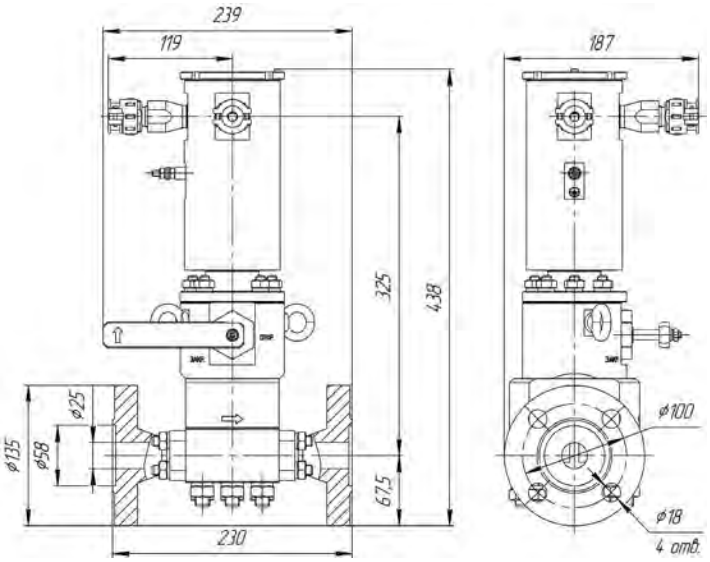
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 25/100/064/135 EV 06/DC/024/22





IP66 Ex

SPECIFICATION

Mode of action	direct action balanced piston valve
Nominal Diameter, DN, mm	25
Nominal Pressure, PN, MPa	10
Differential pressure required for valve operation, ΔP, MPa	0...10.0
Connection	flanges
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-60...+50
Medium temperature range, ºC	-40...+80
Voltage, V	24±10% DC
Power consumption, W	16±1
Cyclic duration factor (CDF), %	100
Dimensions, mm	239 x 187 x 438
Weight, kg	26±2

POSSIBLE VARIETIES

- KEO 25/100/064/135 EV 06/AC/230/22;
- KEO 25/100/064/135/4 EV 06/DC/024/22;
- KEO 25/100/064/135/4 EV 06/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

- hydrocarbon natural gas and associated petroleum gas with C_1-C_{10};
- hydrocarbon condensate with C_1-C_{10}.

Final valve order code shall be specified when ordering.

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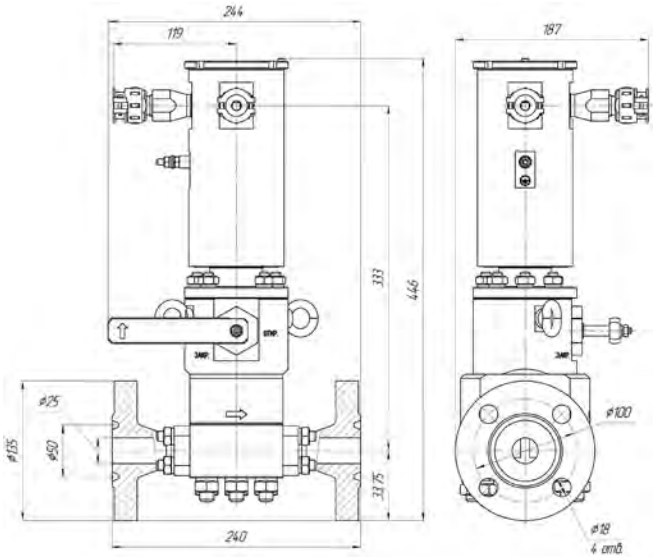
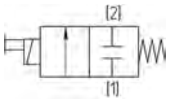
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 25/160/074/135 EV 12/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action	direct action balanced piston valve
Nominal Diameter, DN, mm	25
Nominal Pressure, PN, MPa	16.0
Differential pressure required for valve operation, ΔP, MPa	0...16.0
Connection	flanges
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-60...+50
Medium temperature range, ºC	-40...+80
Voltage, V	230±10% AC
Power consumption, W	16±1
Cyclic duration factor (CDF), %	100
Dimensions, mm	244 x 187 x 446
Weight, kg	28.5

POSSIBLE VARIETIES

- KEO 25/160/074/135/4 EV 12/AC/230/22

MEDIUM

STANDARD VALVE MODEL:

- hydrocarbon natural gas and associated petroleum gas with C_1-C_{10};
- hydrocarbon condensate with C_1-C_{10}.

Final valve order code shall be specified when ordering.

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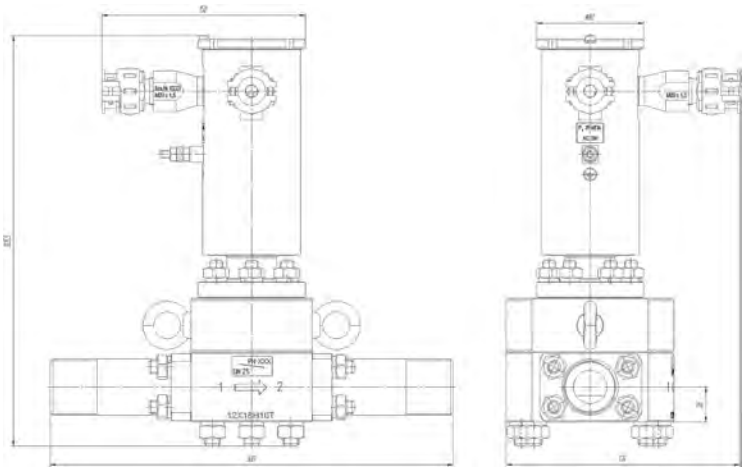
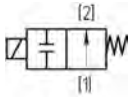
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 25/250/172/156 EV 07/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		25
Nominal Pressure, PN, MPa		25.0
Differential pressure required for valve operation, ΔP, MPa		0...25.0
Connection		lensed
Valve position		normally open
Trim impermeability at differential pressure	from 0 to 2.0 MPa	class D
	from 2.0 to 25.0 MPa	class A
Climate category		N1
Ambient temperature range, ºC		-40...+40
Medium temperature range, ºC		+5...+80
Voltage, V		230±10% AC
Power consumption, W	In power augmentation mode (no more)	230
	In holding mode	16±1
Cyclic duration factor (CDF), %		100
Valve operation frequency, cycles per hour (no more)		60
Dimensions, mm		300 x 175 x 305
Weight, kg		14.5±1.0

POSSIBLE VARIETIES

- KEO 25/200/042/136 EV 07/AC/230/22

MEDIUM

STANDARD VALVE MODEL:

- natural gas, water, gas condensate, oil, liquefied hydrocarbons.

Final valve order code shall be specified when ordering.

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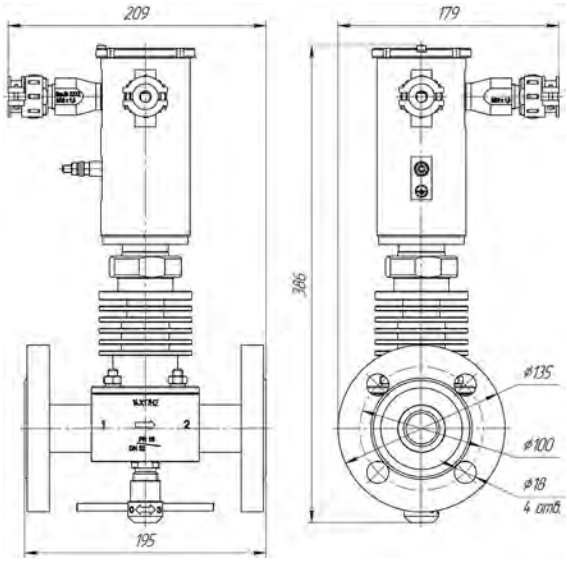
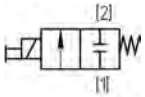
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 32/16/134/135 EV 07/DC/024/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		32
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-20...+40
Medium temperature range, ºC		-20...+150
Voltage, V		24±10% DC
Power consumption, W	In power augmentation mode (no more)	230
	In holding mode	8±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		209 x 179 x 386
Weight, kg		11

POSSIBLE VARIETIES

- KEO 32/16/134/135 EV 07/AC/230/22;
- KEO 32/16/161/135 EV 07/AC/230/22;
- KEO 32/16/264/135 EV 07/AC/230/22;
- KEO 32/16/264/135 EV 07/DC/024/22;
- KEO 32/16/610/135 EV 07/AC/230/22;
- KEO 32/16/610/135 EV 07/DC/024/22.

MEDIUM

STANDARD VALVE MODEL:

- turbine oil, nitrogen, natural gas.

Final valve order code shall be specified when ordering.

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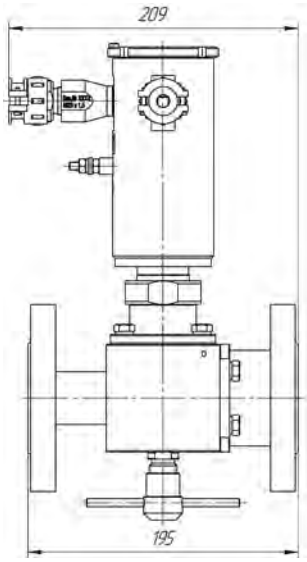
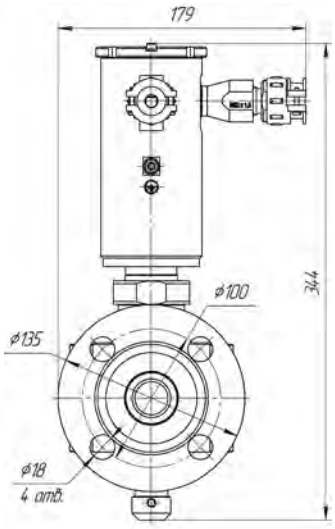
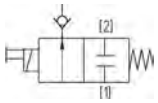
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 32/25/514/131 EV 07/DC/024/22







IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		32
Nominal Pressure, PN, MPa		2.5
Differential pressure required for valve operation, ΔP, MPa		0...2.5
Differential pressure providing trim impermeability in the reversed direction, MPa		0...1.2
Connection		flanges
Valve position		normally closed
Trim impermeability	in downstream direction from 0....2.5 MPa	class A
	in the reversed direction from 0...1.2 MPa	class A
Climate category		NF2
Ambient temperature range, ºC		-50...+60
Medium temperature range, ºC		-40...+45
Voltage, V		24±10% DC
Power consumption, W	In power augmentation mode (no more)	130
	In holding mode	10±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		209 x 179 x 344
Weight, kg		12±1

MEDIUM

STANDARD VALVE MODEL:

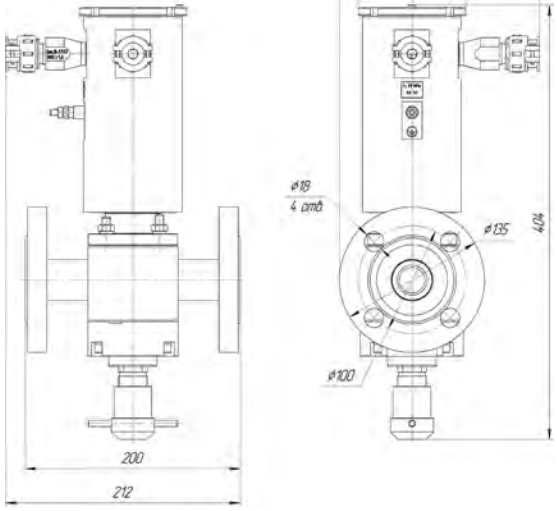
- motor propane-butane mixture upon State Standard GOST 27578-87;
- technical propane-butane mixture.

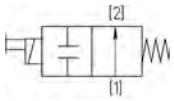
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 32/25/134/136 EV 06/DC/024/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		32
Nominal Pressure, PN, MPa		2.5
Differential pressure required for valve operation, ΔP, MPa		0...2.5
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-20...+40
Medium temperature range, ºC		-20...+150
Voltage, V		24±10% DC
Power consumption, W	In power augmentation mode (no more)	230
	In holding mode	22±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		212 x 185 x 404
Weight, kg		11

POSSIBLE VARIETIES

- KEO 32/25/134/136 EV 06/AC/230/22;
- KEO 32/25/034/136 EV 06/AC/230/22;
- KEO 32/25/074/136/19 EV 06/DC/024/22;
- KEO32/25/074/136/9 EV 06/DC/024/22;
- KEO 32/25/134/136/2 EV 06/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

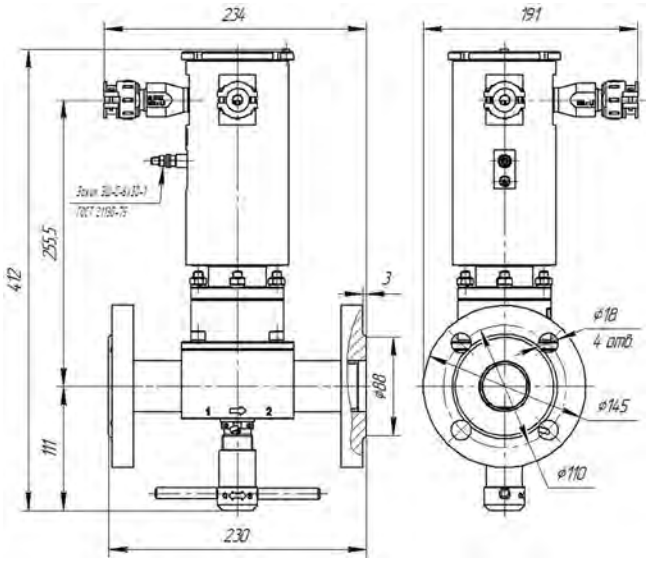
- water, diesel fuel, synthetic and mineral oil.

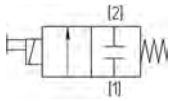
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 40/25/064/135 EV 06/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action	direct action balanced piston valve
Nominal Diameter, DN, mm	40
Nominal Pressure, PN, MPa	2.5
Differential pressure required for valve operation, ΔP, MPa	0...2.5
Connection	flanges
Valve position	normally closed
Trim impermeability	class A
Climate category	NF1
Ambient temperature range, ºC	-40...+60
Medium temperature range, ºC	-40...+60
Voltage, V	230±10% AC
Power consumption, W	12±1
Cyclic duration factor (CDF), %	100
Dimensions, mm	234 x 191 x 412
Weight, kg	18±1.8

POSSIBLE VARIETIES

- KEO 40/25/064/135 EV 06/DC/024/22

MEDIUM

STANDARD VALVE MODEL:

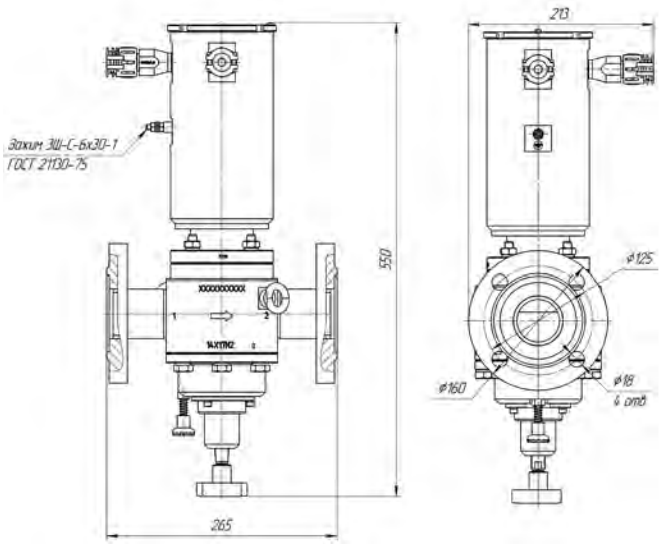
- air, natural gas, furnace gas, associated petroleum gas, carbon dioxide, inert gas, hydrocarbon gases (propane, butane, methane, propylene and its mixture.

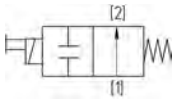
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/16/074/136/4 EV 11/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		50
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Пробное давление		2.4
Connection		flanges
Manual switch-off override		screw-shaped
Valve position		normally open
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-60...+60
Medium temperature range, ºC		-60...+80
Voltage, V		230±10% AC
Power consumption, W	In power augmentation mode (no more)	480
	In holding mode	19±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		265 x 213 x 550
Weight, kg		37±3

POSSIBLE VARIETIES

- KEO 50/16/074/136/4 EV 11/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:
- gas, air, nitrogen, gaseous condensate.

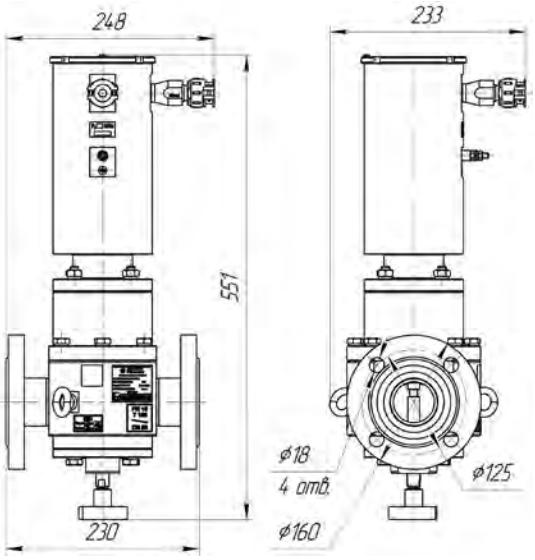
SPECIAL VALVE MODEL:
- natural gas according to STO Gazprom requirements, gaseous hydrocarbons, acossiated natural gas.

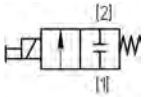
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/16/894/131 EV 11/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action
Nominal Diameter, DN, mm		50
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-60...+60
Medium temperature range, ºC		+5...+180
Voltage, V		230±10% AC
Current frequency, Hz		50
Power consumption, W	In power augmentation mode	480
	In holding mode	29±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		248 x 233 x 551
Weight, kg		44±4

OPTIONAL MODULES

- manual override;
- valve position indicator.

POSSIBLE VARIETIES

- KEO 50/16/194/131 EV 11/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

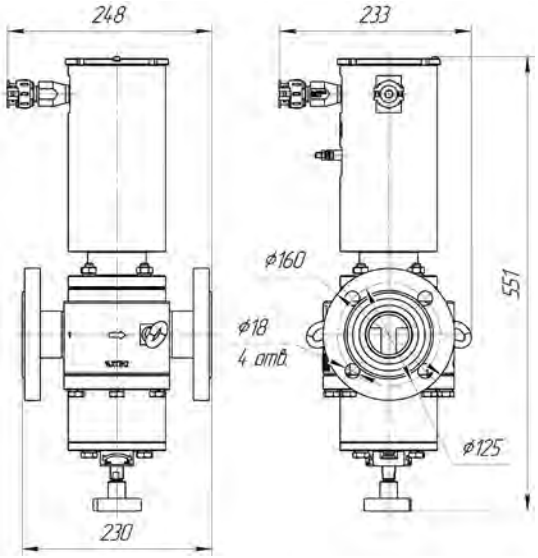
- commercial oil (viscosity no more 200 cSt);
- thernal oil (viscosity no more 200 cSt);
- mineral and synthetic oils (viscosity no more 100 cSt).

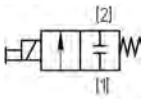
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/16/894/132 EV 11/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action
Nominal Diameter, DN, mm		50
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Connection		flanges
Valve position		normally open
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-60...+60
Medium temperature range, ºC		+5...+180
Voltage, V		230±10% AC
Current frequency, Hz		50
Power consumption, W	In power augmentation mode (no more)	480
	In holding mode	29±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		248 x 233 x 551
Weight, kg		44±4

OPTIONAL MODULES

- manual override;
- valve position indicator.

POSSIBLE VARIETIES

- KEO 50/16/194/132 EV 11/AC/230/22.

MEDIUM

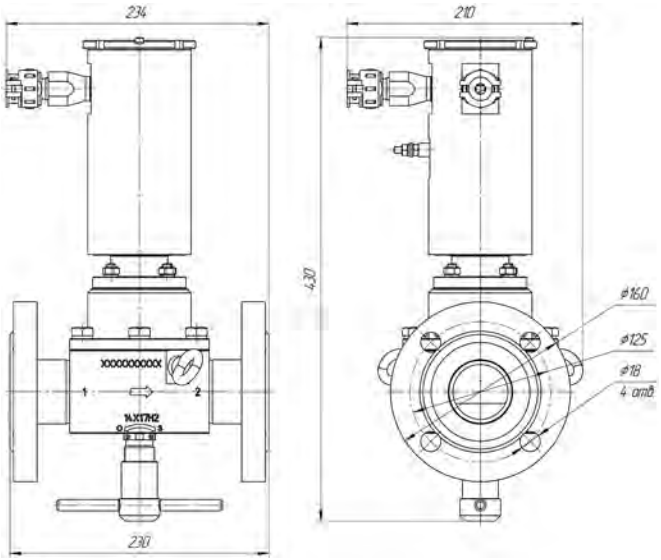
STANDARD VALVE MODEL:
- commercial oil (viscosity no more 200 cSt);
- thernal oil (viscosity no more 200 cSt);
- mineral and synthetic oils (viscosity no more 100 cSt).

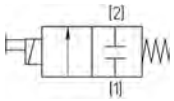
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/16/124/135/2 EV 06/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		50
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Connection		flanges
Manual switch-off override		screw-shaped
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-60...+40
Medium temperature range, ºC		+5...+120
Voltage, V		230±10% AC
Power consumption, W	In power augmentation mode (no more)	230
	In holding mode	19±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		234 x 210 x 430
Weight, kg		22±2

POSSIBLE VARIETIES

- KEO 50/16/212/135/3 EV 06/AC/230/22 (supplied without manual override);
- KEO 50/16/124/135/5 EV 06/AC/230/22;
- KEO 50/16/014/135/6 EV 06/AC/230/22;
- KEO 50/16/014/135 EV 06/DC/024/22;
- KEO 50/16/610/135 EV 06/AC/230/22 (supplied without manual override);
- KEO 50/16/084/135 EV 06/AC/230/22;
- KEO 50/16/074/135/42 EV 06/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:
- compressed oil, antifreezing solution G12.

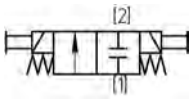
SPECIAL VALVE MODEL:
- petroleum, diesel fuel, oil, water, gaseous condensate;
- spirits (alcohol), non-carbonated alcohol-containing liquids;
- natural gas, air, nitrogen, inert gases, gaseous hydrocarbons (propane, butane, methane and its mixtures).

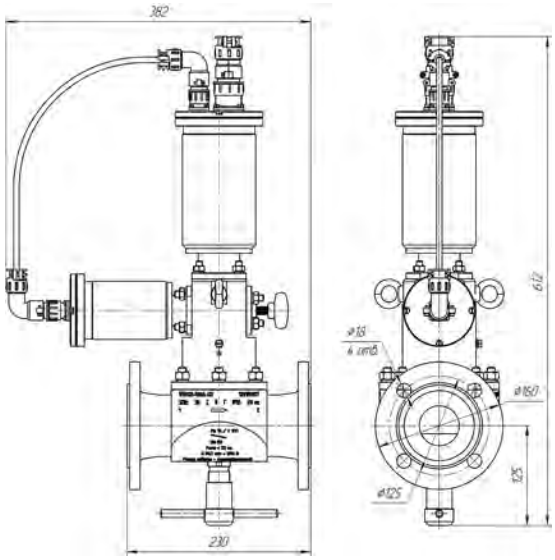
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/16/077/135 EM 60/AC/230/1





IP55

SPECIFICATION

Mode of action	power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm	50
Estimated Pressure, Pe, MPa	1.6
Estimated temperature, Te, ºC	100
Operating pressure, P, MPa	1.6
Operating temperature, T, ºC	100
Hydraulic test pressure, Ph, MPa	2.4
Hydraulic test temperature, Th, ºC (no less)	5
Nominal valve spool travel	15
Connection	flanges
Climate category	NF
Trim impermeability	class A
Voltage, V	220±10% AC
Power consumption, W	200
Dimensions, mm	382x160x612
Weight, kg	40±4

OPTIONAL MODULES

- valve position indicator;
- manual override;
- valve position lock.

POSSIBLE VARIETIES

- KEO 50/16/077/135/1 EM 60/AC/230/1.

MEDIUM

STANDARD VALVE MODEL:

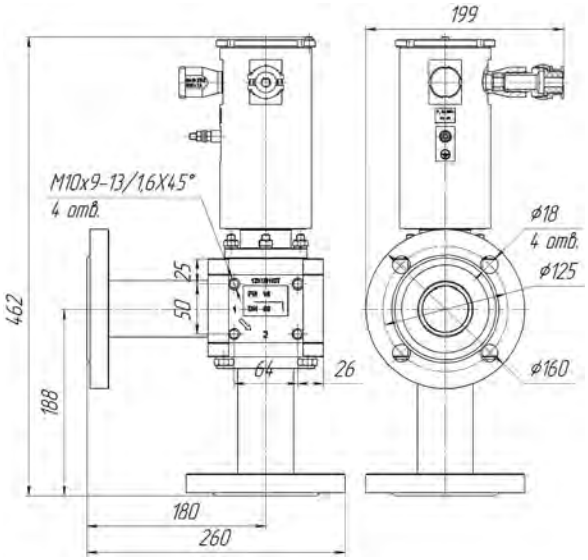
- air, nitrogen, argon, carbon dioxide, inert gases (propane, butane, methane and its mixtures).

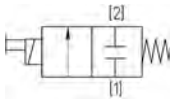
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/16/092/235/1 EV 06/DC/024/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		50
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-60...+70
Medium temperature range, ºC		-30...+180
Voltage, V		24±10% DC
Power consumption, W	in power augmentation mode (no more)	120
	in holding mode	20±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		260 x 192 x 460
Weight, kg		20

OPTIONAL MODULES

- valve position indicator

MEDIUM

STANDARD VALVE MODEL:

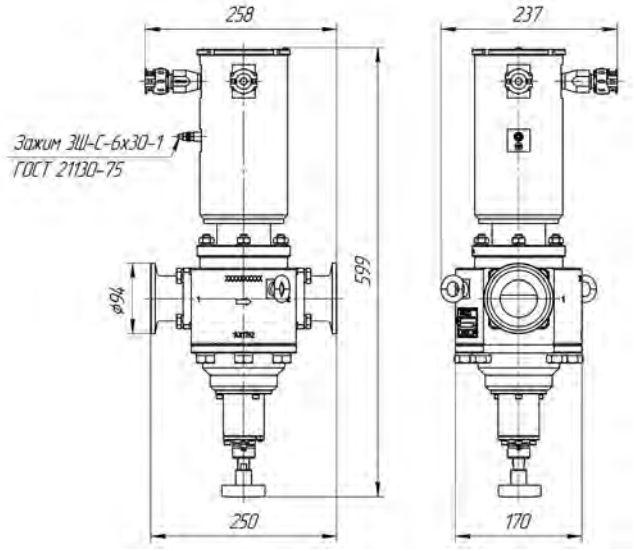
- air, nitrogen, carbon dioxide, inert gases, gaseous hydrocarbons (propane, butane, methane and its mixtures).

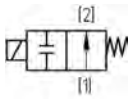
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/40/822/132 EV 11/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action
Nominal Diameter, DN, mm		50
Nominal Pressure, PN, MPa		4.0
Differential pressure required for valve operation, ΔP, MPa		0...0.3
Connection		flanges (clamping)
Valve position		normally open
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		0...+60
Medium temperature range, ºC		+5...+90
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	250
	in holding mode	30±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		290 x 210 x 604
Weight, kg		38±3

OPTIONAL MODULES

- valve position indicator.

POSSIBLE VARIETIES

- KEO 50/40/822/132/1 EV 11/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:
- crude oil, associated petroleum gas.

Final valve order code shall be specified when ordering.

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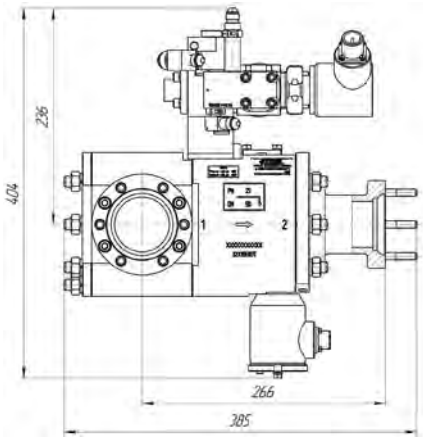
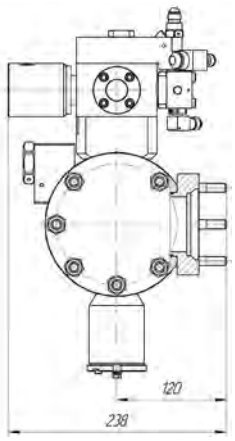
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/25/078/233 EM 62/DC/024/1





IP66

SPECIFICATION

Mode of action	direct action balanced piston valve
Nominal Diameter, DN, mm	50
Nominal Pressure, PN, MPa	2.5
Differential pressure required for valve operation, ΔP, MPa	1.0...2.5
Connection	flanges
Valve position	normally closed
Main trim impermeability at closed valve position in relation to “outlet”	class C
Main trim impermeability at open valve position in relation to “outlet”	class CC
Main trim impermeability at closed valve position in relation to “drain”	class CC
Climate category	NF2
Ambient temperature range, ºC	-40...+80
Medium temperature range, ºC	-20...+100
Voltage, V	24±10% DC
Power consumption, W (no more)	18±1
Cyclic duration factor (CDF), %	100
Opening/closing time, s (no more)	1/0.15
Dimensions, mm	460 x 192 x 260
Weight, kg	42±4

MEDIUM

STANDARD VALVE MODEL:

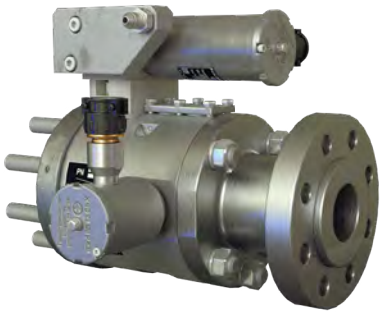
- natural gas.

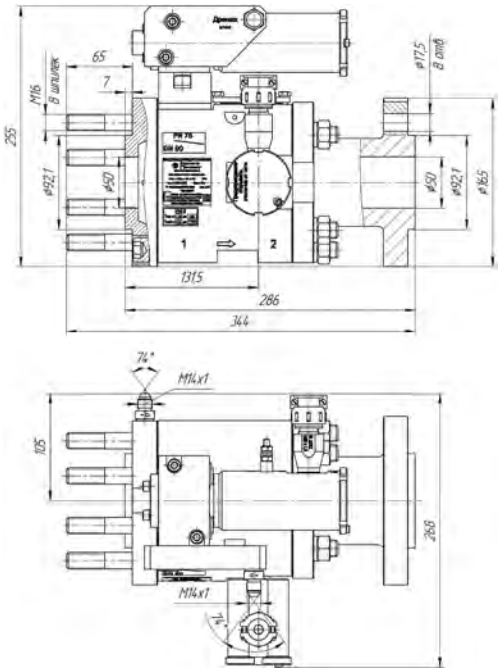
Final valve order code shall be specified when ordering.

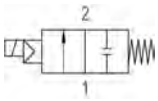
75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/75/072/133 EV 05/DC/024/31







IP66 Ex

SPECIFICATION

Mode of action	power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm	50
Nominal Pressure, PN, MPa	7.5
Differential pressure required for valve operation, ΔP, MPa	1.5...7.5
Connection	2" ANSI B16.5 Class 600 with end collar
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-40...+60
Medium temperature range, ºC	-40...+100
Voltage, V	24±10% DC
Power consumption, W	10±1
Cyclic duration factor (CDF), %	100
Dimensions, mm	341 x 252 x 275
Weight, kg	35±3

OPTIONAL MODULES

- valve position indicator.

MEDIUM

STANDARD VALVE MODEL:

- air, nitrogen, carbon dioxide, hydrogen inert gases, gaseous hydrocarbons (propane, butane, methane and its mixtures).

Final valve order code shall be specified when ordering.

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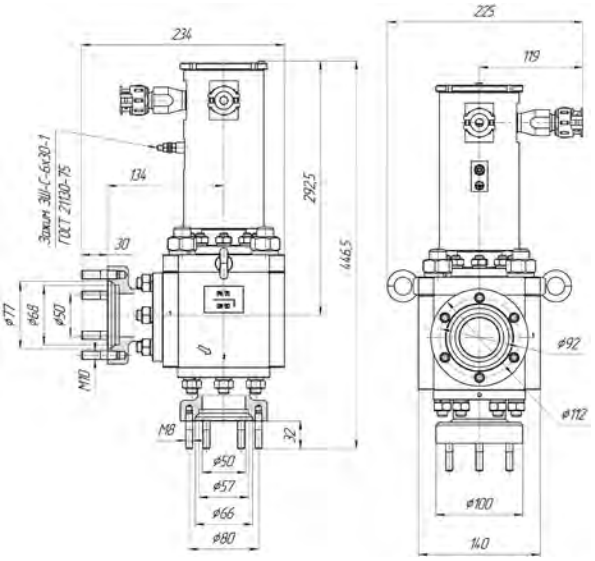
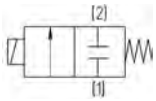
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/75/072/235 EV 06/DC/024/22





IP66 Ex

SPECIFICATION

Mode of action	direct action balanced piston valve
Nominal Diameter, DN, mm	50
Nominal Pressure, PN, MPa	7.5
Differential pressure required for valve operation, ΔP, MPa	0...7.5
Connection	flanges
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-40...+70
Medium temperature range, ºC	-40...+100
Voltage, V	24±10% DC
Power consumption, W	18±1
Cyclic duration factor (CDF), %	100
Dimensions, mm	234 x 225 x 446.5
Weight, kg	29±2
Opening/closing time, s (no more)	0.3/0.15

MEDIUM

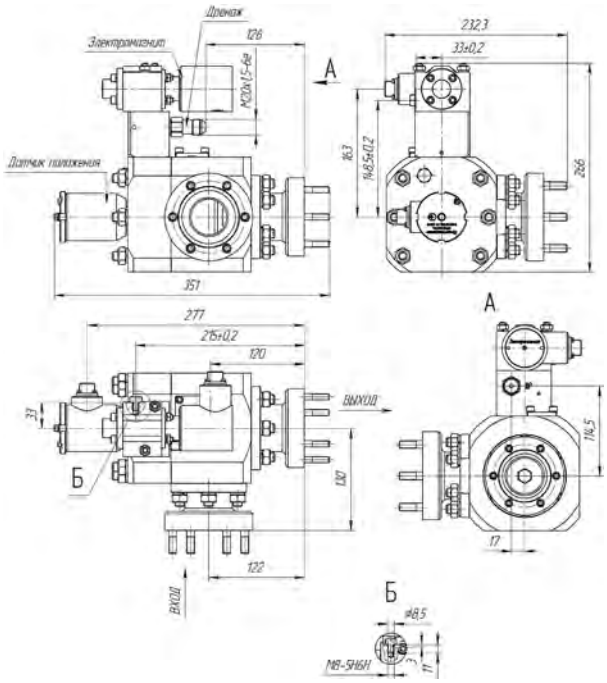
STANDARD VALVE MODEL:

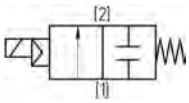
- air, natural gas, furnace gas and associated petroleum gas, nitrogen, carbon dioxide, inert gases, gaseous hydrocarbons (prpane, butane, methane and its mixtures).

Final valve order code shall be specified when ordering.

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/75/072/235 EM 71/DC/024/1





IP66 Ex

SPECIFICATION

Mode of action	direct action balanced piston valve
Nominal Diameter, DN, mm	50
Nominal Pressure, PN, MPa	7.5
Differential pressure required for valve operation, ΔP, MPa	2.0...7.5
Connection	flanges
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-20...+80
Medium temperature range, ºC	-40...+100
Voltage, V	24±10% DC
Power consumption, W	21±2
Cyclic duration factor (CDF), %	100
Dimensions, mm	351 x 232.3 x 266
Weight, kg	31±3
Opening/closing time, s (no more)	1.0/0.15

MEDIUM

STANDARD VALVE MODEL:

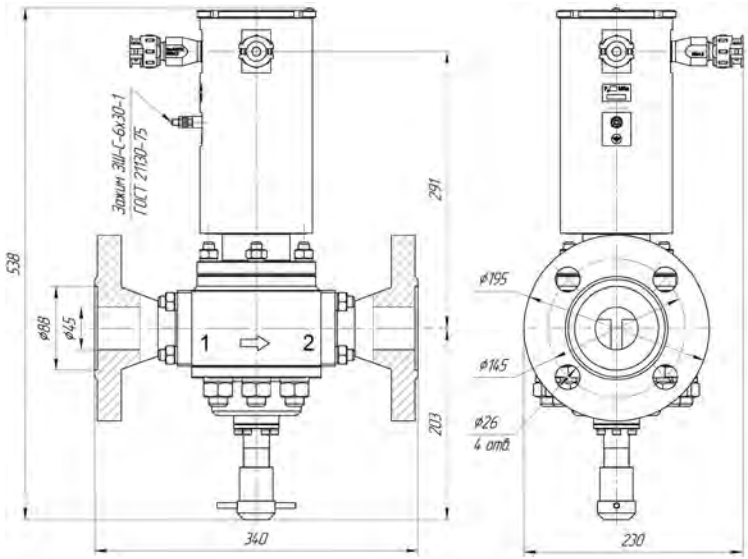
- natural gas upon State Standard GOST 5542-2014.

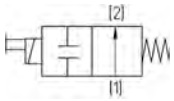
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/100/154/136 EV 11/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action	direct action balanced piston valve
Nominal Diameter, DN, mm	50
Nominal Pressure, PN, MPa	10
Differential pressure required for valve operation, ΔP, MPa	0...10.0
Connection	flanges
Valve position	normally open
Trim impermeability	class A
Climate category	NF1
Ambient temperature range, ºC	-40...+60
Medium temperature range, ºC	-40...+80
Voltage, V	230±10% AC
Power consumption, W (no more)	28±1
Cyclic duration factor (CDF), %	100
Dimensions, mm	340 x 230 x 538
Weight, kg	47±4.7

MEDIUM

STANDARD VALVE MODEL:

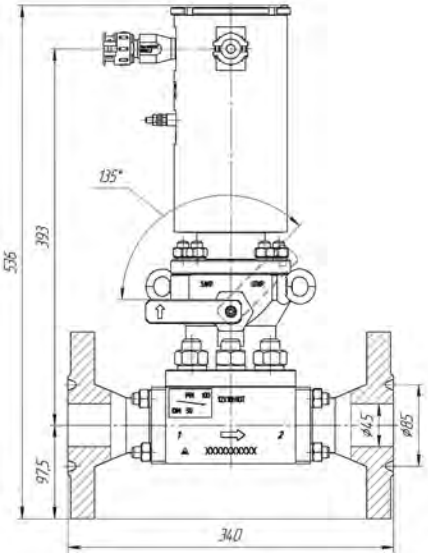
- mineral and synthetic oils, water, associated petroleum gas, natural gas, hydrocarbon condensate with C_1-C_{10}.

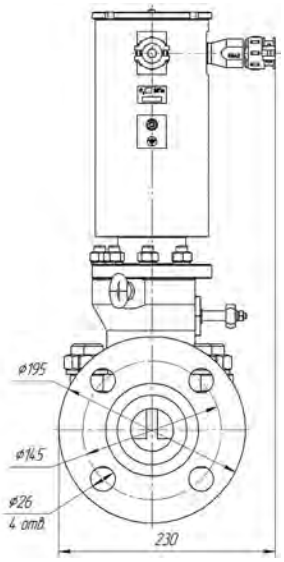
Final valve order code shall be specified when ordering.

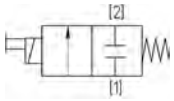
75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/100/064/135 EV 11/DC/024/22







IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		50
Nominal Pressure, PN, MPa		10.0
Differential pressure required for valve operation, ΔP, MPa		0...10.0
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-40...+60
Medium temperature range, ºC		-40...+60
Voltage, V		24±10% DC
Power consumption, W	in power augmentation mode (no more)	470
	in holding mode	16±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		340 x 230 x 536
Weight, kg		52±2

OPTIONAL MODULES

- manual override;
- valve position indicator.

POSSIBLE VARIETIES

- KEO 50/100/064/135 EV 11/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

- non-aggressive natural gas containing liquid hydrocarbon, carbon dioxide, methanol (CH_3OH), water condensate and mechanical impurities.

Final valve order code shall be specified when ordering.

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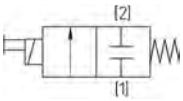
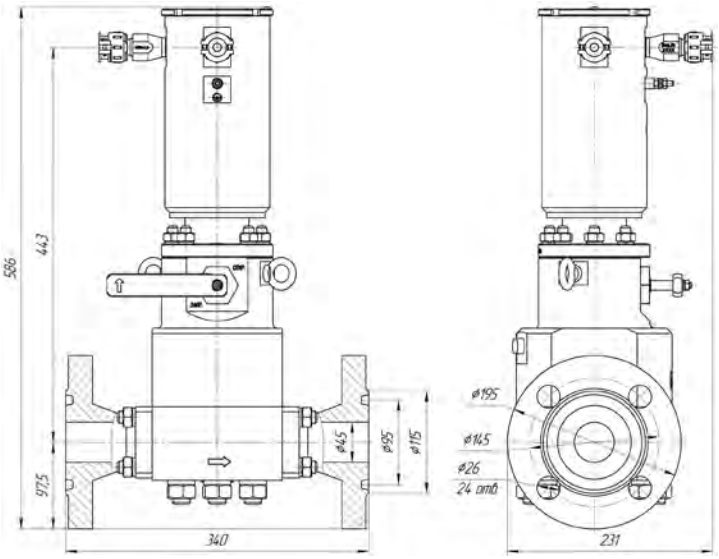
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 50/160/004/135 EV 11/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		50
Nominal Pressure, PN, MPa		16
Differential pressure required for valve operation, ΔP, MPa		0...16.0
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-60...+60
Medium temperature range, ºC		-60...+80
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	470
	in holding mode	16±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		340 x 230 x 538
Weight, kg		67±6

POSSIBLE VARIETIES

- KEO 50/160/074/135/4 EV 11/AC/230/22

MEDIUM

STANDARD VALVE MODEL:

- non-aggressive natural gas containing liquid hydrocarbon, carbon dioxide, methanol (CH_3OH), water condensate.

Final valve order code shall be specified when ordering.

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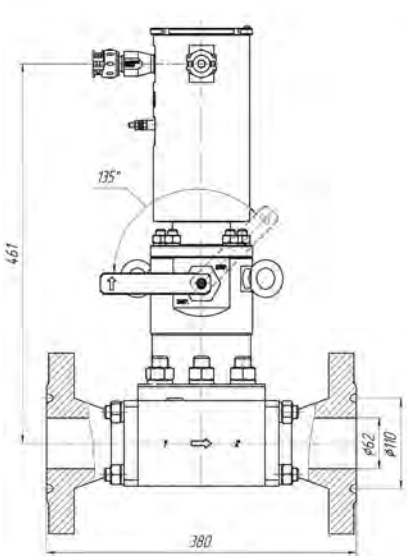
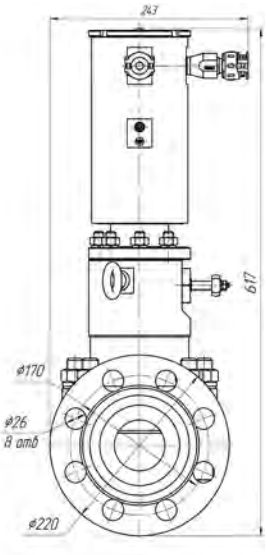
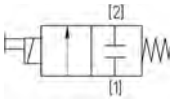
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 65/100/074/135 EV 11/AC/230/22







IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		65
Nominal Pressure, PN, MPa		10.0
Differential pressure required for valve operation, ΔP, MPa		0...10.0
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-60...+45
Medium temperature range, ºC		-50...+60
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	480
	in holding mode	25±1
Current frequency, Hz		50
Cyclic duration factor (CDF), %		100
Dimensions, mm		380 x 243 x 617
Weight, kg		69±6

OPTIONAL MODULES

- manual override.

POSSIBLE VARIETIES

- KEO 65/100/074/135/1 EV 11/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

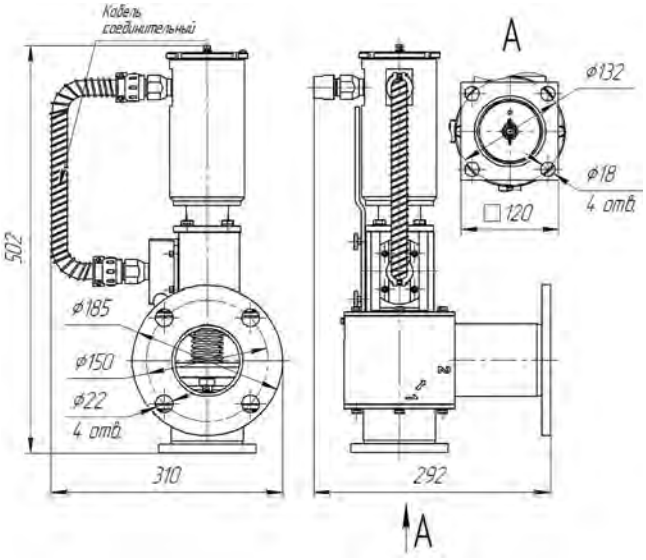
- natural gas, air, nitrogen, carbon dioxide, inert gases, gaseous hydrocarbons (propane, butane and its mixtures).

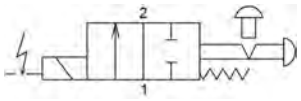
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 80/01/126/231 EM 45/AC/230/2





IP66

SPECIFICATION

Mode of action	direct action
Nominal Diameter, DN, mm	80
Nominal Pressure, PN, MPa	0.2
Connection	flanges
Valve position	normally closed
Trim impermeability at medium flow from cavity 2 into cavity 1	class B
Environment leakproofness of valve at pressure 0.2 MPa	class A
Climate category	NF2
Ambient temperature range, ºC	-60...+40
Medium temperature range, ºC	-60...+105
Voltage, V	230±10% AC
Power consumption in power augmentation mode, W (no more)	500
Current frequency, Hz	50
Cyclic duration factor (CDF), %	100
Dimensions, mm	502 x 300 x 310
Weight, kg	24±0.5

OPTIONAL MODULES

- valve position indicator;
- valve position lock.

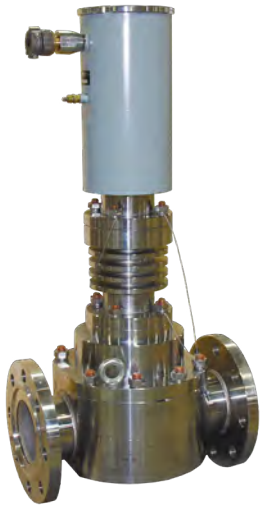
MEDIUM

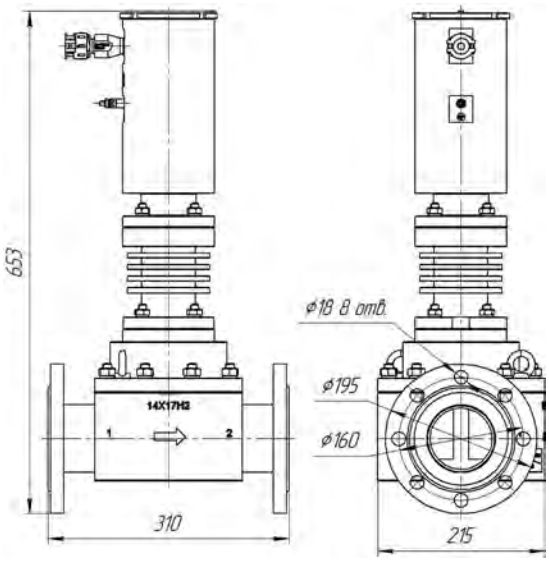
STANDARD VALVE MODEL:
- transformer oil.

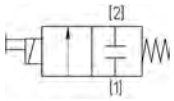
Final valve order code shall be specified when ordering.

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 80/10/082/135 EV 11/AC/230/11







IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		80
Nominal Pressure, PN, MPa		1.0
Differential pressure required for valve operation, ΔP, MPa		0...1.0
Connection		flanges
Valve position		normally closed
Trim impermeability		class B
Climate category		NF2
Ambient temperature range, ºC		-60...+70
Medium temperature range, ºC		-20...+300
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	600
	in holding mode	30±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		310 x 215 x 653
Weight, kg		50

OPTIONAL MODULES

• valve position indicator

MEDIUM

STANDARD VALVE MODEL:
• air.

Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

Final valve order code shall be specified when ordering.

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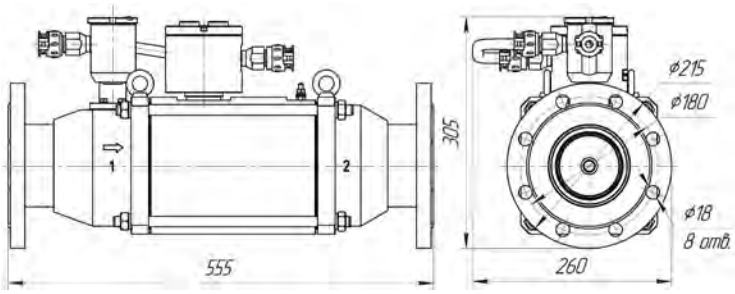
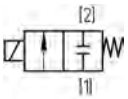
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 80/10/328/131/1 EV 09/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action
Nominal Diameter, DN, mm		80
Nominal Pressure, PN, MPa		1.0
Differential pressure required for valve operation, ΔP, MPa		0...1.0
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-50...+55
Medium temperature range, ºC	oil	+5...+120
	heavy crude oil, gas-oil	+40...+120
	marine fuel	+90...+120
Voltage, V		230±10% AC
Power consumption in power augmentation mode, W	in power augmentation mode (no more)	300
	in holding mode	60±1
	in heating mode (no more)	250
Current frequency, Hz		50
Cyclic duration factor (CDF), %		100
Dimensions, mm		555 x 260 x 305
Weight, kg		60

OPTIONAL MODULES

Special design module (heating winding).

POSSIBLE VARIETIES

- KEO 80/10/328/131/2 EV 09/AC/230/22;
- KEO 80/16/328/131/1 EV 09/AC/230/22;
- KEO 80/16/328/131/2 EV 09/AC/230/22;
- KEO 80/06/328/131/1 EV 09/AC/230/22;
- KEO 80/06/328/131/2 EV 09/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

- heavy crude oil, commercial oil, gas-oil, marine fuel, water.

Final valve order code shall be specified when ordering.

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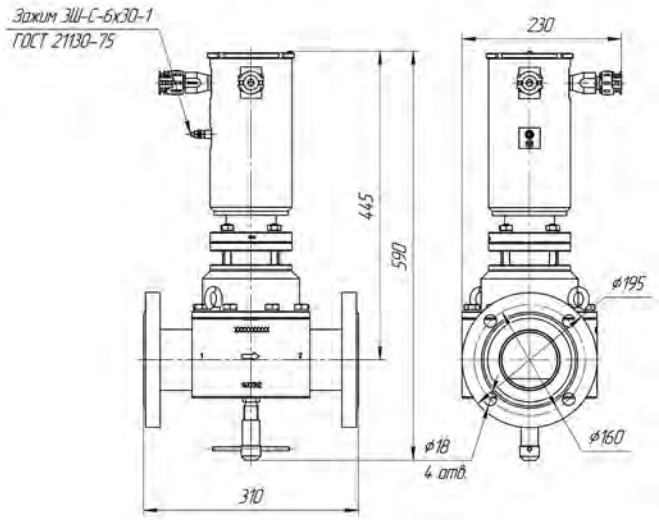
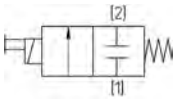
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 80/16/064/135 EV 11/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		80
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-40...+60
Medium temperature range, ºC		-50...+80
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode	480
	in holding mode	20±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		310 x 195 x 595
Weight, kg		51±5

OPTIONAL MODULES

- manual override;
- valve position indicator.

POSSIBLE VARIETIES

- KEO 80/16/064/135 EV 11/DC/024/22 flanges DN 100;
- KEO 80/16/164/135 EV 11/AC/230/22;
- KEO 80/16/164/135/15 EV 11/AC/230/22;
- KEO 80/16/194/135/5 EV 11/AC/230/22;
- KEO 80/16/262/135/13 EV 11/AC/230/22;
- KEO 80/16/264/135/15 EV 11/AC/230/22;
- KEO 80/16/764/135/15 EV 11/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

- gas, air, petroleum, diesel fuel.

Final valve order code shall be specified when ordering.

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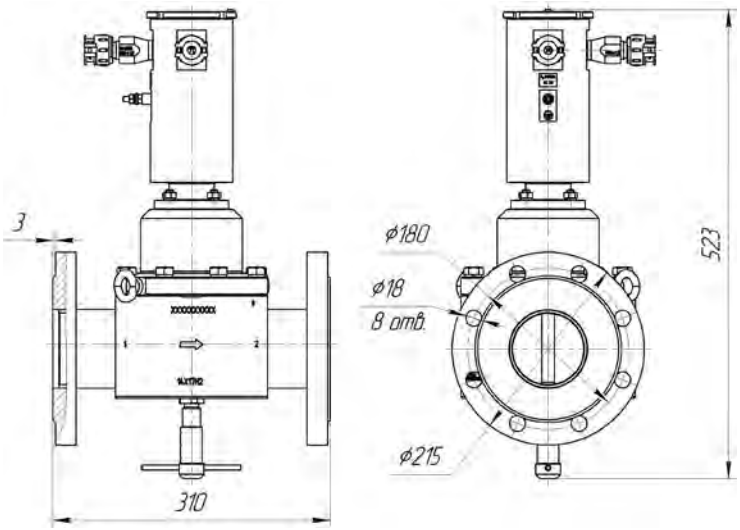
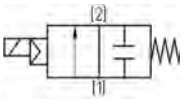
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 80/16/214/135 EV 06/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action
Nominal Diameter, DN, mm		80
Nominal Pressure, PN, MPa		1.6
Connection		flanges
Manual switch-off override		screw-shaped
Valve position		normally closed
Trim impermeability in downstream direction from 0....1.6 MPa (State Standard GOST 9544-2015)		class A
Trim impermeability in the reversed direction from 0...1.2 MPa (State Standard GOST 9544-2015)		class A
Climate category		NF1
Ambient temperature range, ºC		-50...+60
Medium temperature range, ºC		-40...+90
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	480
	in holding mode	29±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		310 x 215 x 523
Weight, kg		39±3

POSSIBLE VARIETIES

- KEO 80/16/214/135/1 EV 06/AC/230/22

MEDIUM

STANDARD VALVE MODEL:
- oil-water mixture.

Final valve order code shall be specified when ordering.

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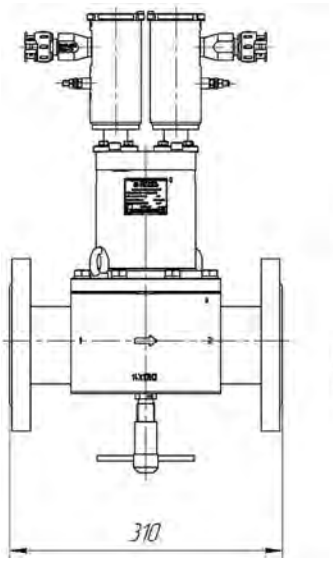
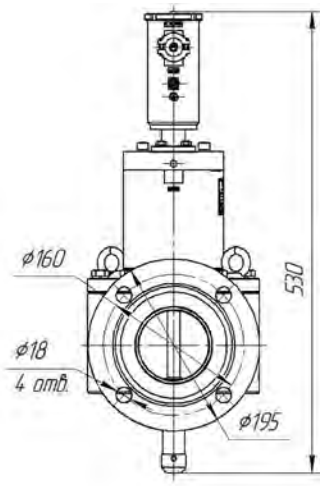
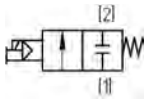
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 80/16/261/733 EV 05/AC/230/31







IP66 Ex

SPECIFICATION

Mode of action		power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm		80
Nominal Pressure, PN, MPa		0...1.6
Differential pressure required for valve operation, ΔP, MPa		0.06...1.6
Connection		flanges
Valve position		normally closed
Trim impermeability	in downstream direction	class A
	in the reversed direction up to 0,3 MPa	class A
Climate category		NF1
Ambient temperature range, ºC		-50...+45
Medium temperature range, ºC		-40...+45
Voltage, V		230±10% AC
Current frequency, Hz		50
Total power consumption of two solenoids, W (no more)		50
Cyclic duration factor (CDF), %		100
Dimensions, mm		310 x 295 x 530
Weight, kg		44±4

POSSIBLE VARIETIES

- KEO 80/16/261/733/1 EV 05/AC/230/31;
- KEO 80/16/261/733/001 EV 05/AC/230/31;
- KEO 80/16/261/733/101 EV 05/AC/230/31;
- KEO 80/16/261/833/1 EV 05/AC/230/31;
- KEO 80/16/261/833/001 EV 05/AC/230/31;
- KEO 80/16/261/833/101 EV 05/AC/230/31.

MEDIUM

STANDARD VALVE MODEL:

- petroleum, diesel fuel, mineral oil with viscosity up to 100 cSt.

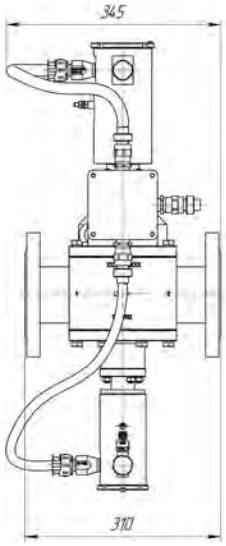
Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

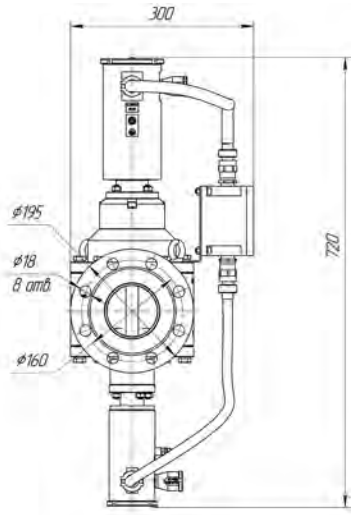
Final valve order code shall be specified when ordering.

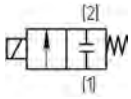
75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 80/16/268/735 EV 06/AC/230/22







IP66 Ex

SPECIFICATION

Mode of action		Power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm		80
Nominal Pressure, PN, MPa		0...1.6
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Orifice, mm	large diameter	80
	small diameter	32
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Ambient temperature range, ºC		-55...+60
Medium temperature range, ºC		-40...+90
Voltage, V		230±10% AC
Power consumption of large orifice diameter solenoid (80mm)	in power augmentation mode, W (no more)	480
	in holding mode, W	30±1
Power consumption of small orifice diameter solenoid (32mm)	in power augmentation mode, W (no more)	230
	in holding mode, W	12±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		310 x 360 x 720
Weight, kg		55

POSSIBLE VARIETIES

- KEO 80/16/268/735/1 EV 06/AC/230/22;
- KEO 80/16/268/735/19 EV 06/AC/230/22;
- KEO 80/16/268/735/12 EV 06/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

- petroleum, diesel fuel, industrial oil with viscosity no more than 100 cSt.

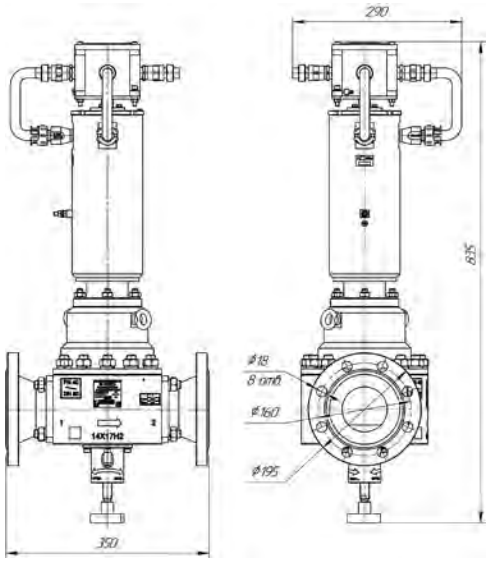
Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

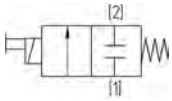
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 80/40/834/731/1 EV 16/AC/230/31





IP66 Ex

SPECIFICATION

Mode of action			direct action
Nominal Diameter, DN, mm			80
Nominal Pressure, PN, MPa			4.0
Differential pressure required for valve operation, ΔP, MPa			0...2.5
Testing pressure Pt, MPa			6.0
Connection			flanges
Manual switch-on override			screwed connection
Valve position			normally closed
Trim impermeability (direct flow) 0...2,5 MPa			class A
Flow rate K_v, m^3/h	flow rate 1 / flow rate 2		36.98 / 111.5
Resistance coefficient, ζ	flow rate 1 / flow rate 2		47.04 / 5.17
Climate category			NF1
Ambient temperature range, ºC			-60...+60
Medium temperature range, ºC			+5...+120
Voltage, V			230±10% AC
Power consumption, W	in power augmentation mode (no more)		400
	in holding mode (no more)	flow rate 1/flow rate 2	32±1 / 30±1
		total	62±2
Cyclic duration factor (CDF), %			100
Dimensions, mm			350 x 290 x 835
Weight, kg			72±7

POSSIBLE VARIETIES

- KEO 80/40/834/731/1 EV 16/AC/230/22.

MEDIUM

STANDARD VALVE MODEL:

- raw oil, commercial oil, heavy oil, gas oil, marine fuel.

Manufacturing of special valve model may lead to deviations from the standard product design, sealing materials and technical characteristics.

Final valve order code shall be specified when ordering.

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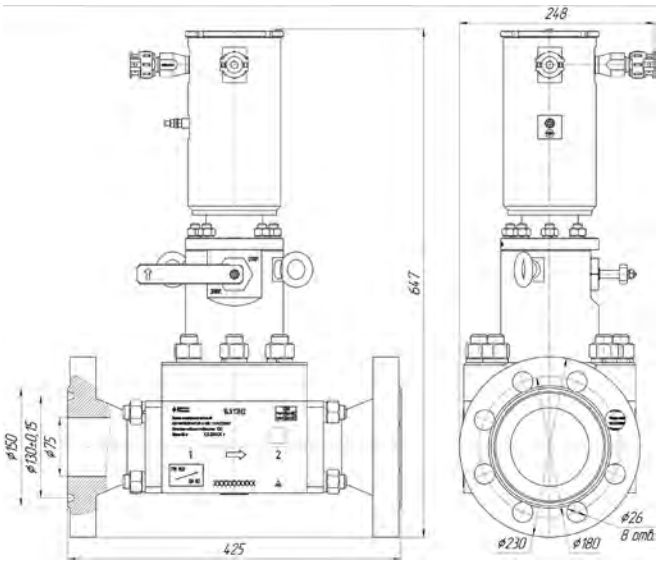
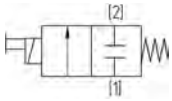
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 80/160/074/135/4 EV 11/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		80
Nominal Pressure, PN, MPa		16.0
Differential pressure required for valve operation, ΔP, MPa		0...16.0
Connection		flanges
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-60...+60
Medium temperature range, ºC		-60...+80
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	480
	in holding mode	25±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		420 x 241 x 652
Weight, kg		92

OPTIONAL MODULES

- manual override;
- valve position indicator.

POSSIBLE VARIETIES

- KEO 80/160/174/135 EV 11/AC/230/22

MEDIUM

STANDARD VALVE MODEL:

- natural gas, associated petroleum gas, natural gas condensate.

Final valve order code shall be specified when ordering.

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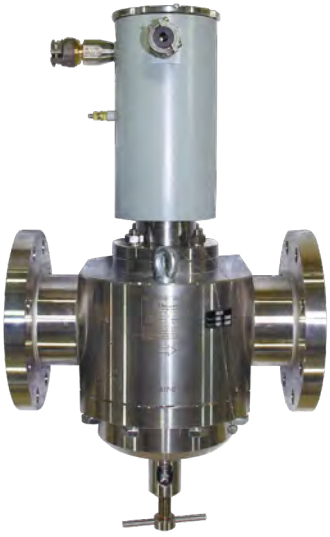
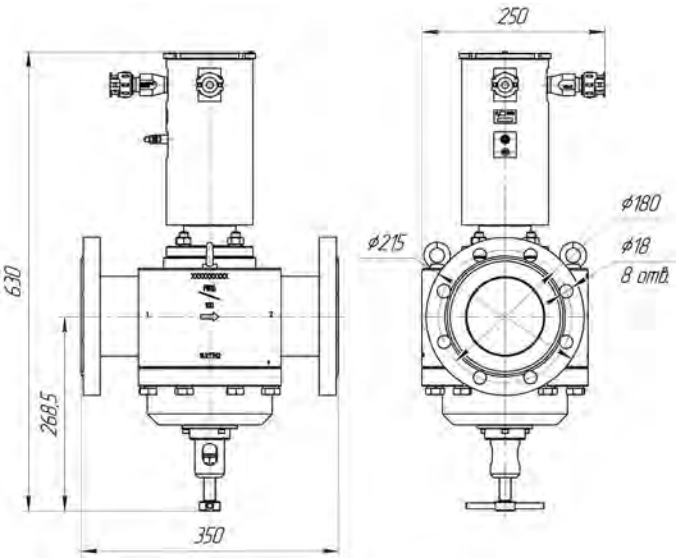
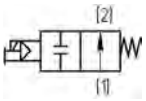
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 100/16/054/136 EV 11/AC/230/22







IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		100
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Connection		flanges
Valve position		normally open
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-40...+45
Medium temperature range, ºC		-40...+90
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	480
	in holding mode	30±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		350 x 239 x 632
Weight, kg		65

OPTIONAL MODULES

- manual override;
- valve position indicator.

POSSIBLE VARIETIES

- KEO 100/16/054/136 EV 11/DC/024/22

MEDIUM

STANDARD VALVE MODEL:
- natural gas, air.

Final valve order code shall be specified when ordering.

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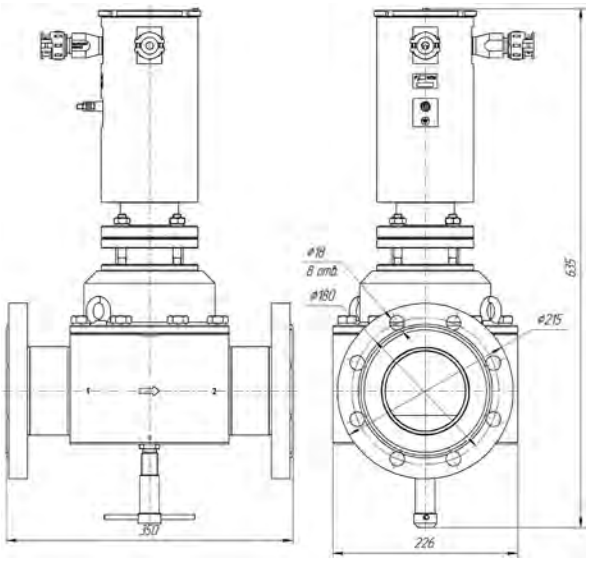
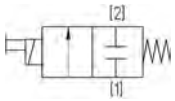
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 100/16/074/135 EV 11/DC/024/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		100
Nominal Pressure, PN, MPa		16.0
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Connection		flanges
Manual switch-off override		screw-shaped
Valve position		normally closed
Trim impermeability		class A
Climate category		NF1
Ambient temperature range, ºC		-60...+40
Medium temperature range, ºC		-50...+60
Voltage, V		24±10% DC
Power consumption, W	in power augmentation mode (no more)	480
	in holding mode	29±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		350 x 226 x 635
Weight, kg		61±6

POSSIBLE VARIETIES

- KEO 100/16/072/135 EV 11/AC/230/22 (supplied without manual override);
- KEO 100/16/074/135 EV 11/AC/230/22;
- KEO 100/16/272/135/3 EV 11/AC/230/22 (supplied without manual override);
- KEO 100/16/174/135 EV 11/AC/230/22;
- KEO 100/16/174/135/5 EV 11/AC/230/22;
- KEO 100/16/194/135 EV 11/AC/230/22;
- KEO 100/16/074/135/4 EV 11/AC/230/22;
- KEO 100/16/174/135/45 EV 11/AC/230/22.

MEDIUM

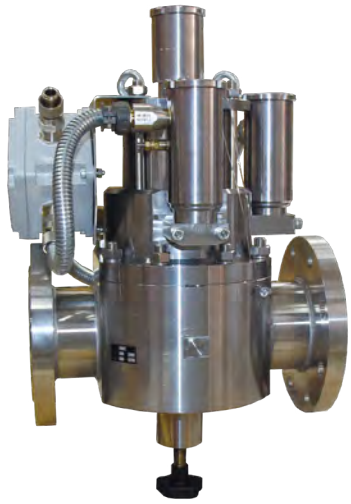
STANDARD VALVE MODEL:
- natural gas, nitrogen, carbon dioxide, gaseous hydrocarbons (propane, butane, methane, propylene);

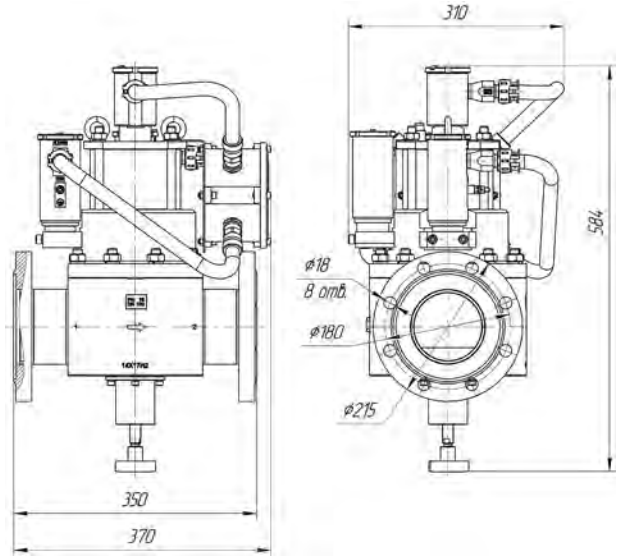
SPECIAL VALVE MODEL:
- petroleum, diesel fuel, oil, water, gaseous condensate;
- spirits (alcohol), non-carbonated alcohol-containing liquids.

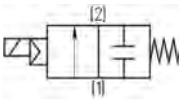
Final valve order code shall be specified when ordering.

EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 100/16/269/733 EV 05/DC/024/31







IP66 Ex

SPECIFICATION

Mode of action		power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm		100
Nominal Pressure, PN, MPa		1.6
Differential pressure required for valve operation, ΔP, MPa		0.1...1.6
Connection		flanges
Manual switch-off override		screw-shaped
Valve position		normally closed
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC	Commercial oil, mineral and synthetic oils	+5...+60
	Petroleum, diesel fuel, heavy crude oil, gas-oil, gaseous condensate	-60...+60
Medium temperature range, ºC	Commercial oil, mineral and synthetic oils	+5...+120
	Petroleum, diesel fuel, heavy crude oil, gas-oil, gaseous condensate	-60...+70
Voltage, V		24±10% DC
Power consumption, W (no more)		20
Cyclic duration factor (CDF), %		100
Dimensions, mm		370 x 310 x 584
Weight, kg		66±6

POSSIBLE VARIETIES

- KEO 100/16/269/733 EV 05/AC/230/31

MEDIUM

STANDARD VALVE MODEL:

- petroleum, diesel fuel, kerosine oil, gas-oil, gaseous condensate, commercial oil, mineral and synthetic oils.

Final valve order code shall be specified when ordering.

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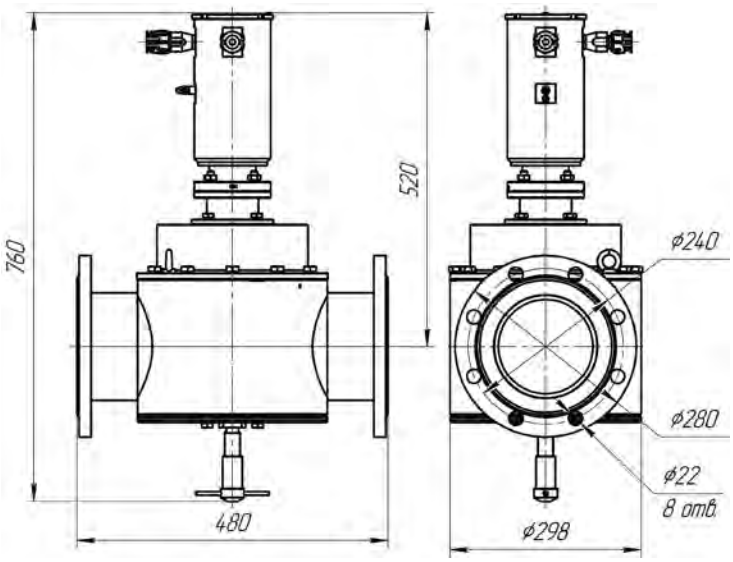
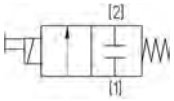
EXPLOSION PROOF 2-WAY SOLENOID VALVES

KEO 150/16/014/135 EV 11/AC/230/22





IP66 Ex

SPECIFICATION

Mode of action		direct action balanced piston valve
Nominal Diameter, DN, mm		150
Nominal Pressure, PN, MPa		16
Differential pressure required for valve operation, ΔP, MPa		0...1.6
Connection		flanges
Manual switch-off override		screw-shaped
Valve position		normally closed
Trim impermeability		class A
Climate category		NF2
Ambient temperature range, ºC		-40...+60
Medium temperature range, ºC		+40...+60
Voltage, V		230±10% AC
Power consumption, W	in power augmentation mode (no more)	480
	in holding mode	30±1
Cyclic duration factor (CDF), %		100
Dimensions, mm		480 x 298 x 760
Weight, kg		96±9

POSSIBLE VARIETIES

- KEO 150/16/262/135/3 EV 11/AC/230/22

MEDIUM

STANDARD VALVE MODEL:
- natural gas, nitrogen, carbone dioxide, gaseous hydrocarbons (propane, butanem methane, propylene);

SPECIAL VALVE MODEL:
- petroleum, diesel fuel, oil, water, gaseous condensate.

Final valve order code shall be specified when ordering.

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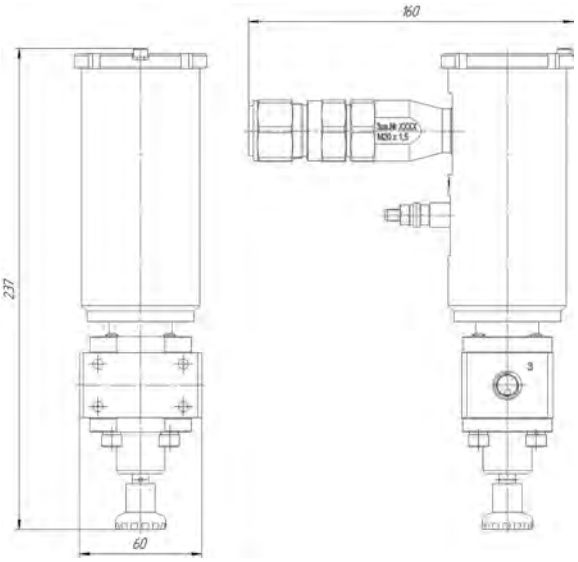
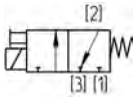
EXPLOSION PROOF 3-WAY SOLENOID VALVES

KEO 03/20/111/411 EV 05/DC/024/34





IP66 Ex

SPECIFICATION

Mode of action	direct action
Nominal Diameter, DN, mm	3
Nominal Pressure, PN, MPa	2.0
Differential pressure required for valve operation, ΔP, MPa	0.3...2.0
Connection	female thread
Manual switch-on override	pressure-actuated
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-50...+45
Medium temperature range, ºC	-40...+45
Voltage, V	24±10% DC
Power, W (no more)	15
Cyclic duration factor (CDF), %	100
Dimensions, mm	160 x 60 x 237
Weight, kg	3.0±0.3

OPTIONAL MODULES

- manual override.

POSSIBLE VARIETIES

- KEO 03/20/111/411/1 EV 05/DC/024/31

MEDIUM

STANDARD VALVE MODEL:
- compositional hydraulic liquid;
- antifreeze solution PMS-20-Yugra (ПМС-20-Югра).

Final valve order code shall be specified when ordering.

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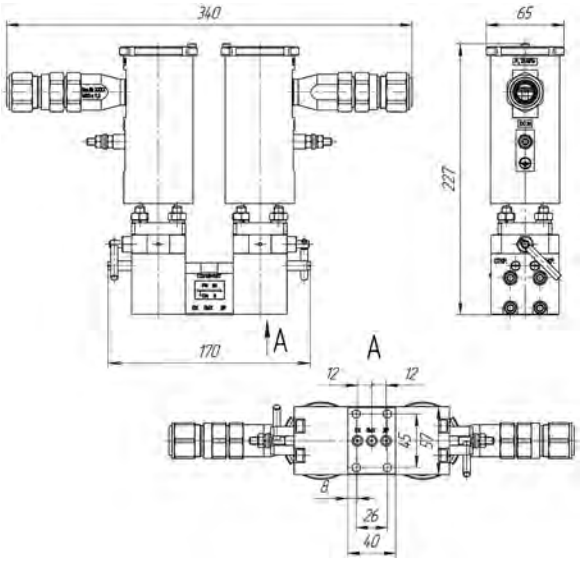
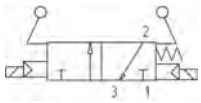
EXPLOSION PROOF 3-WAY SOLENOID VALVES

KEO 03/20/161/443 EV 05/DC/024/34





IP66 Ex

SPECIFICATION

Mode of action	power-assisted valve (pressurized fluid flow used as a power)
Вид действия	bistable*
Nominal Diameter, DN, mm	3
Nominal Pressure, PN, MPa	2.0
Differential pressure required for valve operation, ΔP, MPa	0.3...2.0
Connection	butt connection
Valve position	normally closed
Trim impermeability	class A
Climate category	NF1
Ambient temperature range, ºC	-40...+40
Medium temperature range, ºC	-40...+40
Voltage, V	24±10% DC
Power consumption, W	$21^{}_{-2}$
Cyclic duration factor (CDF), %	short-time operation
Dimensions, mm	340 x 65 x 227
Weight, kg	8±1

* Valve keeps its position (open or close) after solenoid de-energizing.

POSSIBLE VARIETIES

- KEO 03/20/161/443/3 EV 05/DC/024/34.

MEDIUM

STANDARD VALVE MODEL:
- antifreeze solution PMS-20-Yugra (ПМС-20-Югра).

Final valve order code shall be specified when ordering.

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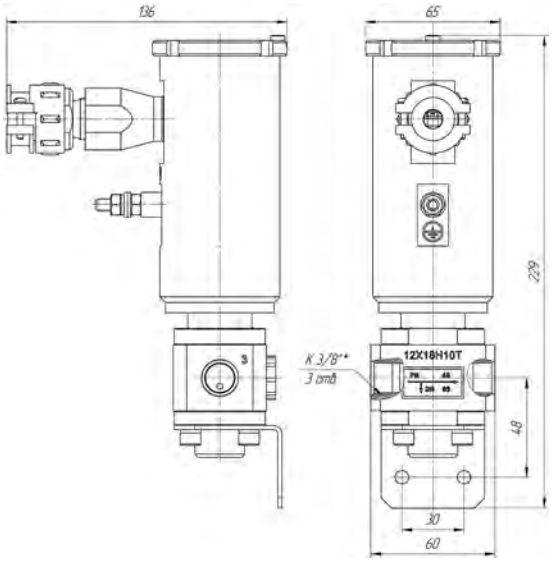
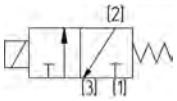
EXPLOSION PROOF 3-WAY SOLENOID VALVES

KEO 03/40/060/411 EV 05/AC/230/31





IP66 Ex

SPECIFICATION

Mode of action	direct action
Nominal Diameter, DN, mm	3
Nominal Pressure, PN, MPa	4.0
Differential pressure required for valve operation, ΔP, MPa	0...4.0
Connection	female thread
Valve position	normally closed
Trim impermeability	class B
Climate category	NF2
Ambient temperature range, ºC	-40...+45
Medium temperature range, ºC	-40...+45
Voltage, V	230±10% AC
Power consumption, W	22±1.5
Cyclic duration factor (CDF), %	100
Dimensions, mm	136 x 65 x 229
Weight, kg	3±0.3

POSSIBLE VARIETIES

- KEO 03/40/060/411 EV 05/DC/024/31

MEDIUM

STANDARD VALVE MODEL:

- air, nitrogen, carbon dioxide, inert gases, gaseous hydrocarbons (propane, butane, methane and its mixtures).

Final valve order code shall be specified when ordering.

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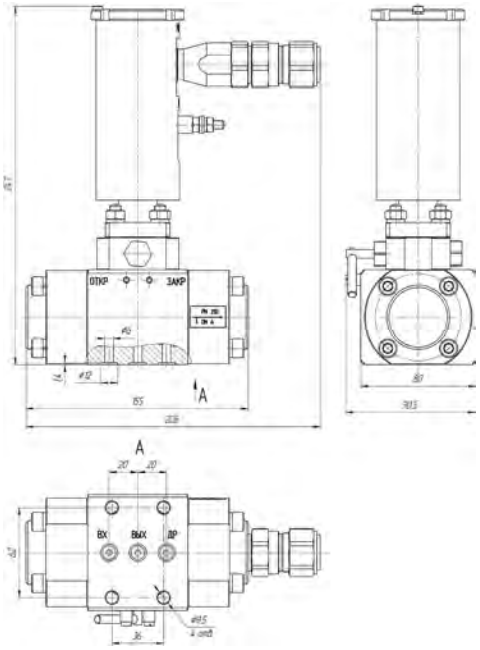
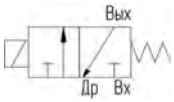
EXPLOSION PROOF 3-WAY SOLENOID VALVES

KEO 06/210/101/443/1 EV 05/DC/024/34





IP66 Ex

SPECIFICATION

Mode of action	power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm	6
Nominal Pressure, PN, MPa	21
Differential pressure required for valve operation, ΔP, MPa	9.0...21.0
Connection	butt connection
Valve position	normally closed
Trim impermeability	class A
Climate category	NF1
Ambient temperature range, ºC	-40...+40
Medium temperature range, ºC	-40...+40
Voltage, V	24±10% DC
Power, W (no more)	20±1
Cyclic duration factor (CDF), %	100
Dimensions, mm	205 x 91 x 248
Weight, kg	7.8±0.7

OPTIONAL MODULES

- manual override.

POSSIBLE VARIETIES

- KEO 06/210/101/443/2 EV 05/DC/024/34.

MEDIUM

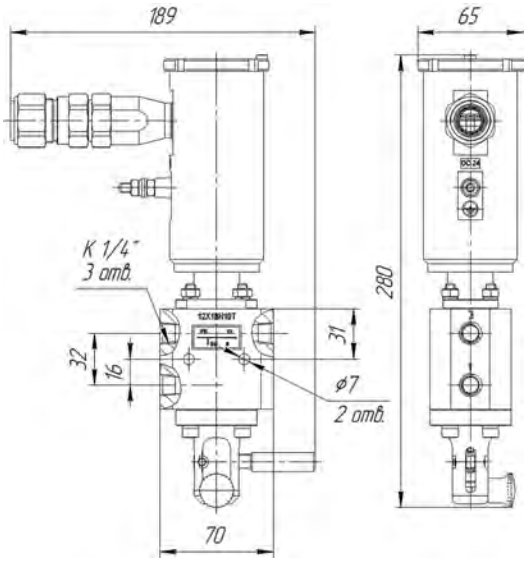
STANDARD VALVE MODEL:
- antifreeze solution PMS-20-Yugra (ПМС-20-Юрра).

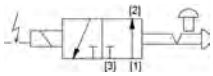
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 3-WAY SOLENOID VALVES

KEO 08/20/115/412 EV 05/DC/024/34





IP66 Ex

SPECIFICATION

Mode of action	direct action
Nominal Diameter, DN, mm	8
Nominal Pressure, PN, MPa	2.0
Differential pressure required for valve operation, ΔP, MPa	0.4...2.0
Connection	female thread
Valve position	normally open
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-50...+45
Medium temperature range, ºC	-40...+45
Voltage, V	24±10% DC
Power consumption, W	15
Cyclic duration factor (CDF), %	100
Dimensions, mm	189 x 65 x 280
Weight, kg	3.5±0.3

POSSIBLE VARIETIES

- KEO 08/20/115/412/1 EV 05/DC/024/31

MEDIUM

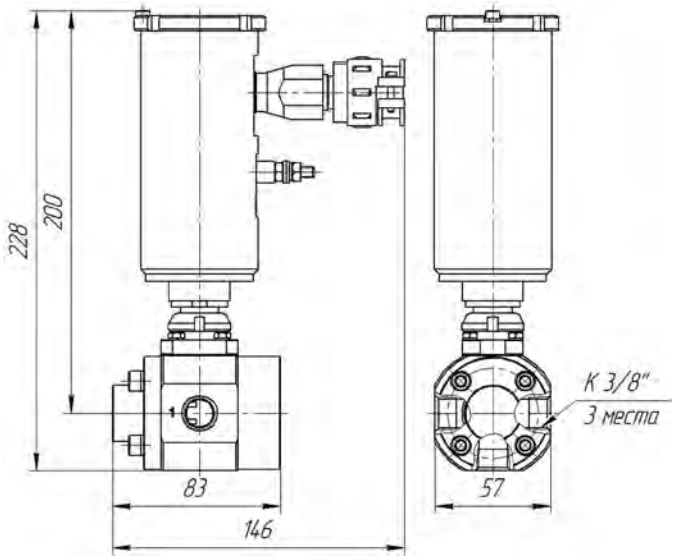
STANDARD VALVE MODEL:
- compositional hydraulic liquid.

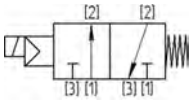
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF 3-WAY SOLENOID VALVES

KEO 10/16/010/413 EV 05/DC/024/31





IP66 Ex

SPECIFICATION

Mode of action	power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm	10
Nominal Pressure, PN, MPa	1.6
Differential pressure required for valve operation, ΔP, MPa	0.1...1.6
Connection	K 3/8"
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-50...+45
Medium temperature range, ºC	-40...+45
Voltage, V	24±10% DC
Power consumption, W	16
Cyclic duration factor (CDF), %	100
Dimensions, mm	130 x 57 x 232
Weight, kg	4

POSSIBLE VARIETIES

- KEO 10/16/010/413 EV 05/AC/230/31;
- KEO 10/16/110/413 EV 05/DC/024/31.

MEDIUM

STANDARD VALVE MODEL:

- air, nitrogen, carbon dioxide, inert gases, gaseous hydrocarbons (propane, butane, methane and its mixtures).

Final valve order code shall be specified when ordering.

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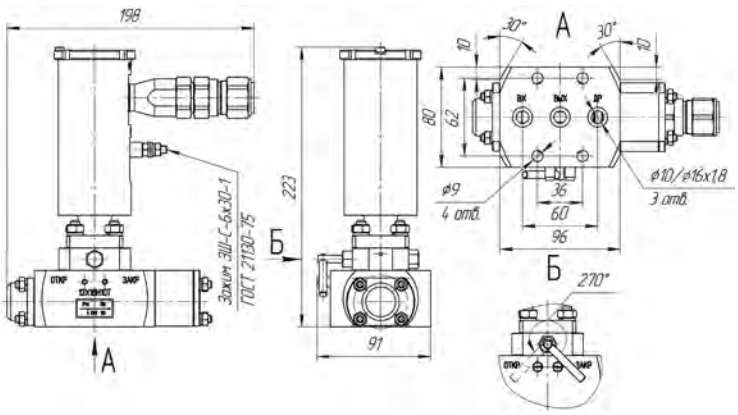
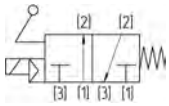
EXPLOSION PROOF 3-WAY SOLENOID VALVES

KEO 10/56/071/443/1 EV 05/DC/024/34





IP66 Ex

SPECIFICATION

Mode of action	power-assisted valve (pressurized fluid flow used as a power)
Nominal Diameter, DN, mm	10
Nominal Pressure, PN, MPa	5.6
Differential pressure required for valve operation, ΔP, MPa	0.3...5.6
Connection	butt connection
Valve position	normally closed
Trim impermeability	class A
Climate category	NF2
Ambient temperature range, ºC	-40...+60
Medium temperature range, ºC	-40...+70
Voltage, V	24±10% DC
Power consumption, W	15
Cyclic duration factor (CDF), %	100
Dimensions, mm	198 x 91 x 223
Weight, kg	5.5

POSSIBLE VARIETIES

- KEO 10/56/071/443/1 EV 05/DC/024/44;
- KEO 10/56/071/443/11 EV 05/DC/024/31;
- KEO 10/56/071/443/11 EV 05/DC/024/41;
- KEO 10/56/071/443/2 EV 05/DC/024/34;
- KEO 10/56/071/443/2 EV 05/DC/024/44;
- KEO 10/56/071/443/21 EV 05/DC/024/31;
- KEO 10/56/071/443/21 EV 05/DC/024/41.

MEDIUM

STANDARD VALVE MODEL :

- air;
- purified and natural gas dehydrated up to saturation point -40ºC.

Final valve order code shall be specified when ordering.

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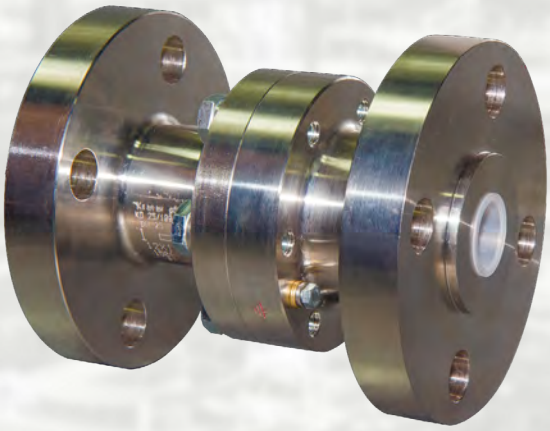
KO

Explosion proof check valves



EXPLOSION PROOF CHECK VALVES

DESIGNATION:

Check valve is designed to prevent backflow of working medium in pneumatic and hydraulic pipeline systems.

OPERATION:

When inlet preassure reaches the minimal differential pressure (ΔP, MPa) required check valves to operate, valve orifice opens and working medium starts to flow through the valve.

When the backflow occurs valve seat closes by means of reverse pressure and spring force.

Check valves are intended to be used in explosion hazardous areas inside and outside facilities except for the underground mines, shafts and its related facilities according to the State Standard GOST 31441.1.

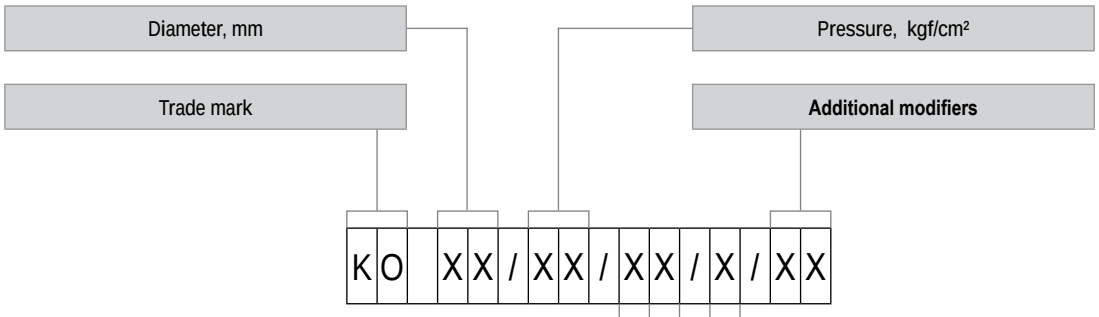
Check valves are classified as non-electric equipment.

Check valves are to be used in the pneumatic and hydraulic systems inside and outside the facilities, under the shelter.

VALVE PARAMETERS:

ΔP – differential pressure (MPa) required the valve to operate.

ORDER CODE:



Medium:	
0	gaseous medium
1	fluids
4	steam
2, 3, 5, 6, 7, 8, 9	chemically active medium

Connection:	
0	gland joint
1	female thread
2	male thread
3	flange
4	butt joint
5	special connection
6	claw connection
7	butt welding
8	clamping connection

Types of Optional Modules:	
0	supplied without optional modules
1	special configuration with additional modules

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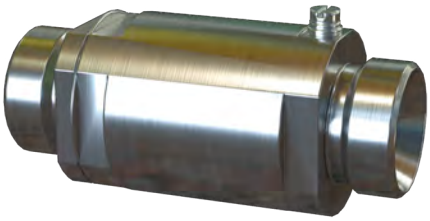
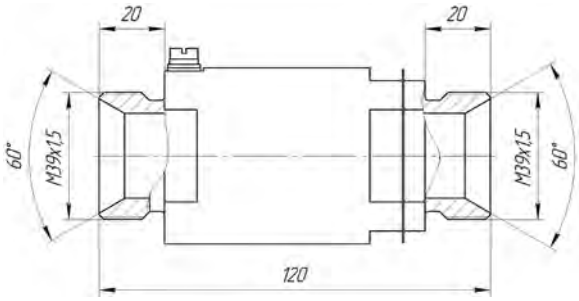
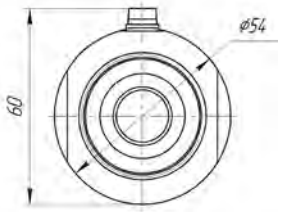
EXPLOSION PROOF MALE AND FEMALE THREADED CHECK VALVES

KO 15/16/00/2/00, KO 15/16/10/2/00







IP66 Ex

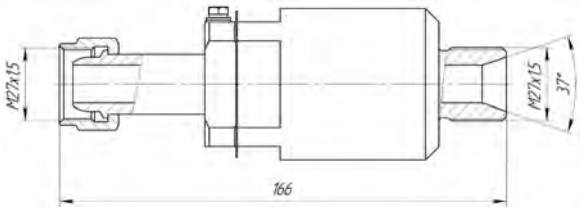
SPECIFICATION

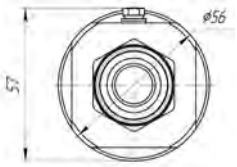
	KO 15/16/00/2/00	KO 15/16/10/2/00
Diameter, DN, mm	15	
Pressure, PN, MPa	1.6	
Pressure difference required for valve operation, ΔP, MPa	0.05...1.6	
Pipe connection	male threaded M39x1.5 - 8g	
Trim impermeability upon State Standard GOST 9544-2015	class A	
Climatic category upon State Standard GOST 15150-69	NF1	
Ambient temperature range, ºC	-60...+60	
Medium temperature range, ºC	-40...+50	+5...+120
Medium	associated petroleum gas, natural gas	compressor oil, mineral and synthetic oil
Dimensions, mm	120 x 54 x 60	
Weight, kg	1.4	
Body material	09G2S (09Г2С) (upon State Standard GOST 19281-2014)	12H18N10T (12X18H10T) (upon State Standard GOST 5632-2014)

Final valve order code shall be specified when ordering.

EXPLOSION PROOF MALE AND FEMALE THREADED CHECK VALVES

KO 15/250/00/2/00, KO 15/250/00/2/01





IP66 Ex

SPECIFICATION

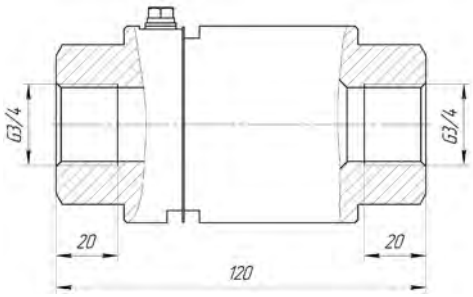
		KO 15/250/00/2/00	KO 15/250/00/2/01
Diameter, DN, mm		15	
Pressure, PN, MPa		1.6	
Pressure difference required for valve operation, ΔP, MPa		0.05...1.6	
Pipe connection	input	female threaded M27x1.5 - 7H	female threaded M36x2 - 7H
	output	male threaded M27x1.5 - 8g	male threaded M36x2 - 8g
Trim impermeability upon State Standard GOST 9544-2015		class A	
Climatic category upon State Standard GOST 15150-69		NF2	
Ambient temperature range, ºC		-50...+60	
Medium temperature range, ºC		-50...+100	
Medium		nitrogen, inert gases, gaseous hydrocarbons	
Dimensions, mm		166 x 55 x 57	
Weight, kg		1.6	
Body material upon State Standard GOST 5632-2014		12H18N10T (12X18H10T)	

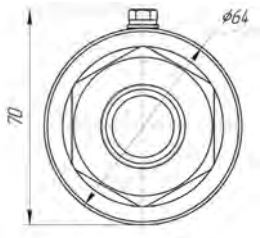
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF MALE AND FEMALE THREADED CHECK VALVES

KO 20/250/00/1/00





IP66 Ex

SPECIFICATION

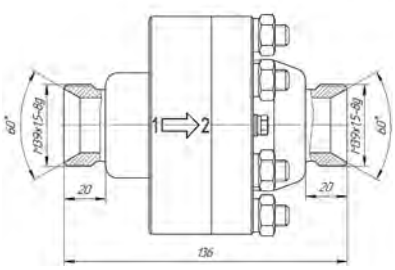
	KO 20/250/00/1/00
Diameter, DN, mm	20
Pressure, PN, MPa	25.0
Pressure difference required for valve operation, ΔP, MPa	0.05...25.0
Pipe connection	female threaded G ¾-H
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	NF1
Medium temperature range, ºC	-40...+80
Medium	compressed natural gas upon State Standard GOST 25577-2000
Dimensions, mm	120 x 64 x 70
Weight, kg	3.0
Body material upon State Standard GOST 5632-2014	14H17N2 (14X17H2)

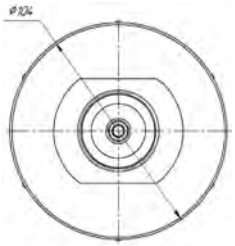
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF MALE AND FEMALE THREADED CHECK VALVES

KO 25/25/10/2/00, KO 25/100/00/2/00, KO 25/100/10/2/00





IP66 Ex

SPECIFICATION

	KO 25/25/10/2/00	KO 25/100/00/2/00	KO25/100/10/2/00
Diameter, DN, mm	25		
Pressure, PN, MPa	2.5	10.0	
Pressure difference required for valve operation, ΔP, MPa	0.03...2.5	0.03...10.0	
Pipe connection	male threaded M39x1.5 - 8g		
Trim impermeability upon State Standard GOST 9544-2015	class A		
Climatic category upon State Standard GOST 15150-69	NF1		
Ambient temperature range, ºC	-60...+60	-60...+50	-40...+60
Medium temperature range, ºC	0...+100	+5...+80	+5...+160
Medium	water, steam, nitrogen, tosol cooling fluid	natural gas and associated petroleum gas with C_1-C_{10}	mineral and synthetic oil with viscosity no higher than 200 cSt
Dimensions, mm	136 x 104 x 104		
Weight, kg	3.6		
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)		

POSSIBLE VARIATIONS

KO 25/100/00/2/01;
KO 25/100/10/2/01;
KO 25/100/10/2/02.

Final valve order code shall be specified when ordering.

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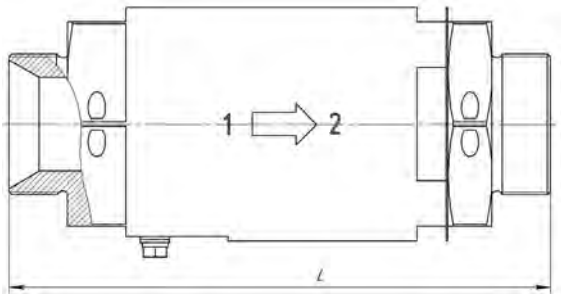
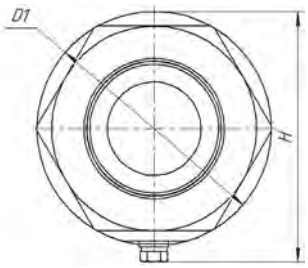
EXPLOSION PROOF MALE AND FEMALE THREADED CHECK VALVES

KO 32/10/10/2/00, KO 40/10/10/2/00





IP66 Ex

SPECIFICATION

	KO 32/10/10/2/00	KO 40/10/10/2/00
Diameter, DN, mm	32	40
Pressure, PN, MPa	1.0	
Pressure difference required for valve operation, ΔP, MPa	0.01...1.0	
Pipe connection	male threaded M48x1.5 - 8g	male threaded M52x1.5 - 8g
Trim impermeability upon State Standard GOST 9544-2015	class A	
Climatic category upon State Standard GOST 15150-69	NF4	
Ambient temperature range, ºC	+5...+45	
Medium temperature range, ºC	0...+120	
Medium	mineral and synthetic oil	
Dimensions, mm	185 x 80 x 86	189 x 80 x 86
Weight, kg	4.1	4.2
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)	

Final valve order code shall be specified when ordering.

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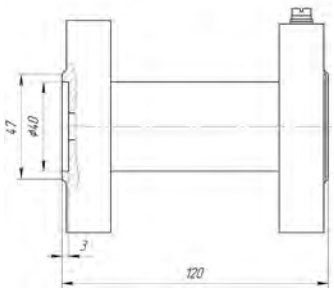
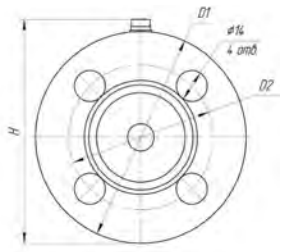
EXPLOSION PROOF FLANGED CHECK VALVES

KO 15/16/00/3/00, KO 15/63/00/3/00





IP66 Ex

SPECIFICATION

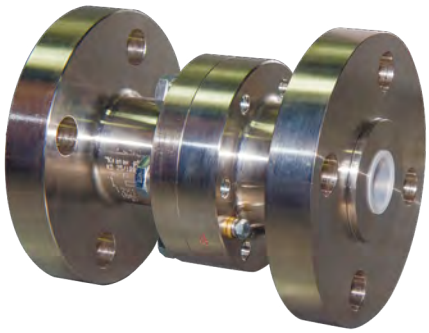
		KO 15/16/00/3/00	KO 15/63/00/3/00
Diameter, DN, mm		15	
Pressure, PN, MPa		1.6	6.3
Minimal relieving pressure Pr, MPa		0.05	
Pipe connection		flanged	
Trim impermeability upon State Standard GOST 9544-2015		class A	
Climatic category upon State Standard GOST 15150-69		NF1	
Ambient temperature range, ºC		-60...+60	
Medium temperature range, ºC		-10...+70	
Medium		nitrogen	
Dimensions, mm	flange diameter, D1, mm	95	105
	average hole diameter, D2, mm	65	75
	height, H, mm	100	110
Weight, kg		2.6	3.3
Body material upon State Standard GOST 19281-2014		09G2S (09Г2С)	

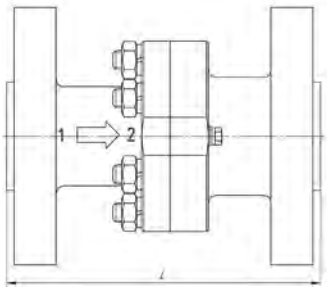
Final valve order code shall be specified when ordering.

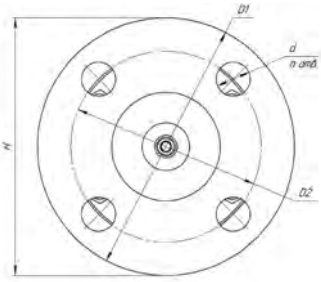
75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF FLANGED CHECK VALVES

KO 25/10/00/3/00, KO 25/10/10/3/00, KO 25/100/00/3/00, KO 25/100/10/3/00







IP66 Ex

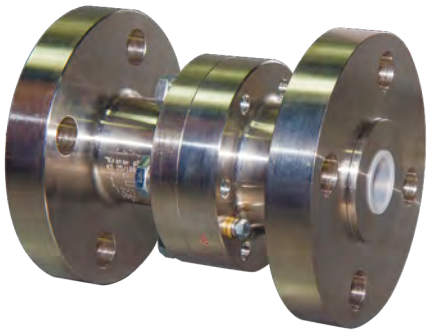
SPECIFICATION

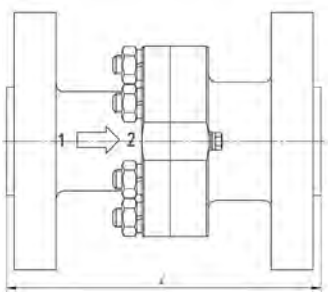
	KO 25/10/00/3/00	KO 25/10/10/3/00	KO 25/100/00/3/00	KO 25/100/10/3/00	
Diameter, DN, mm	25				
Pressure, PN, MPa	1.0		10.0		
Pressure difference required for valve operation, ΔP, MPa	0.001...0.2		0.03...10.0		
Pipe connection	flanged				
Trim impermeability upon State Standard GOST 9544-2015	class C		class A		
Climatic category upon State Standard GOST 15150-69	NF4		NF2		
Ambient temperature range, ºC	-5...+45		-60...+60	-45...+60	
Medium temperature range, ºC	-20...+120	+5...+120	-10...+60	-10...+180	+5...+180
Medium	air	mineral and synthetic oil	fuel gas, gasoline	natural gas, associated petroleum gas, gaseous hydrocarbons, gas condensate	mineral and synthetic oil
Dimensions, mm	135 x 115 x 115		165 x 135 x 135		
Weight, kg	4.0		7.5		
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)				

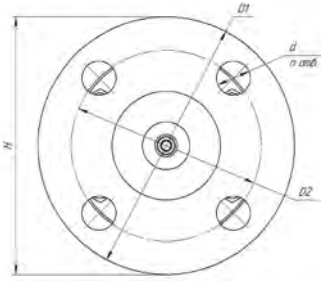
Final valve order code shall be specified when ordering.

EXPLOSION PROOF FLANGED CHECK VALVES

KO 25/160/00/3/00, KO 32/40/10/3/00, KO 50/25/10/3/00







IP66 Ex

SPECIFICATION

	KO 25/160/00/3/00	KO 32/40/10/3/00	KO 50/25/10/3/00*
Diameter, DN, mm	25	32	50
Pressure, PN, MPa	16.0	4.0	2.5
Pressure difference required for valve operation, ΔP, MPa	0.03...16.0	0.03...4.0	0.03...2.5
Pipe connection	flanged		
Trim impermeability upon State Standard GOST 9544-2015	class A		
Climatic category upon State Standard GOST 15150-69	NF1		
Ambient temperature range, ºC	-10...+60	-15...+40	-60...+60
Medium temperature range, ºC	-10...+60	+15...+125	+5...+160
Medium	natural gas	mineral and synthetic oil	associated petroleum gas, gas-oil mixture, mineral and synthetic oil
Dimensions, L x D1 x H, mm	165 x 135 x 135	150 x 135 x 135	170 x 160 x 160
Weight, kg	7.5	5.5	10
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)		

*POSSIBLE VARIATIONS

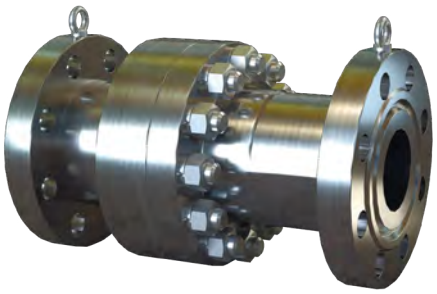
KO 50/25/10/3/02;
KO 50/25/10/3/03.

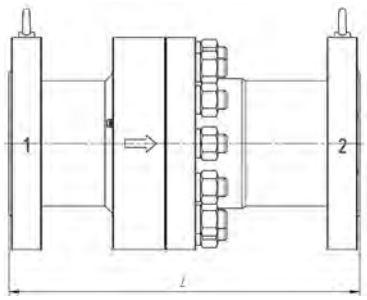
Final valve order code shall be specified when ordering.

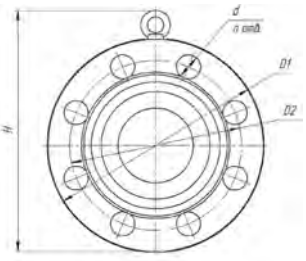
75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF FLANGED CHECK VALVES

KO 50/40/10/3/00, KO 50/100/00/3/00, KO 65/25/10/3/00







IP66 Ex

SPECIFICATION

	KO 50/40/10/3/00	KO 50/100/00/3/00		KO 65/25/10/3/00*
Diameter, DN, mm	50	50		65
Pressure, PN, MPa	4.0	10.0		2.5
Pressure difference required for valve operation, ΔP, MPa	0.05...4.0	0.01...10.0		0.03...2.5
Pipe connection	flanged			
Trim impermeability upon State Standard GOST 9544-2015	class A			
Climatic category upon State Standard GOST 15150-69	F1	NF1		
Ambient temperature range, ºC	-60...+40	-60...+50		-60...+60
Medium temperature range, ºC	0...+70	-50...+60	+5...+80	+5...+160
Medium	water	natural gas	mineral and synthetic oil	mineral and synthetic oil
Dimensions, L x D1 x H, mm	170 x 160 x 160	250 x 195 x 226		290 x 180 x 215
Weight, kg	10	27.5		17
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)			

*POSSIBLE VARIATIONS

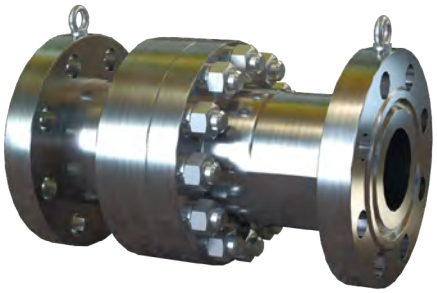
KO 65/25/10/3/01

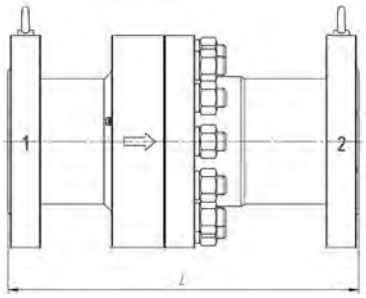
Final valve order code shall be specified when ordering.

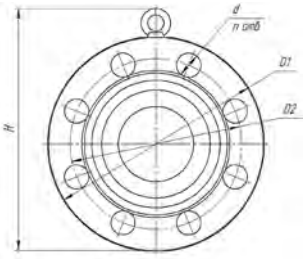
75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF FLANGED CHECK VALVES

KO 65/40/00/3/00, KO 65/63/00/3/00, KO 100/160/10/3/00







IP66 Ex

SPECIFICATION

	KO 65/40/00/3/00	KO 65/63/00/3/00	KO 100/160/10/3/00
Diameter, DN, mm	65	65	100
Pressure, PN, MPa	4.0	6.3	16.0
Pressure difference required for valve operation, ΔP, MPa	0.01...4.0	0.01...6.3	0.05...16.0
Pipe connection	flanged		
Trim impermeability upon State Standard GOST 9544-2015	class A		
Climatic category upon State Standard GOST 15150-69	NF4	F1	
Ambient temperature range, ºC	+5...+45	+5...+45	-60...+40
Medium temperature range, ºC	-40...+100	-50...+100	0...+70
Medium	natural gas, nitrogen	fuel gas, nitrogen	water
Dimensions, L x D1 x H, mm	240 x 180 x 211	264 x 200 x 220	430 x 265 x 298
Weight, kg	18	22.5	80.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)		

Final valve order code shall be specified when ordering.

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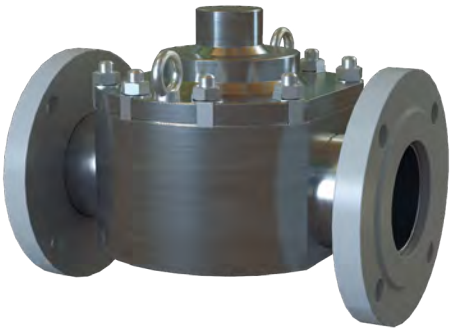
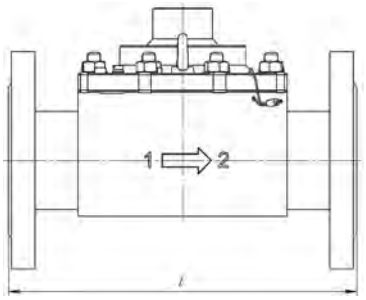
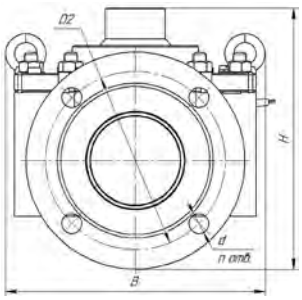
EXPLOSION PROOF FLANGED CHECK VALVES

KO 80/16/00/3/00, KO 100/10/00/3/00







IP66 Ex

SPECIFICATION

	KO 80/16/00/3/00	KO 100/10/00/3/00
Diameter, DN, mm	80	100
Pressure, PN, MPa	1.6	1.0
Pressure difference required for valve operation, ΔP, MPa	0.05...1.6	0.001...0.2
Pipe connection	flanged	
Trim impermeability upon State Standard GOST 9544-2015	class C	
Climatic category upon State Standard GOST 15150-69	NF1	
Ambient temperature range, ºC	-60...+45	-60...+50
Medium temperature range, ºC	+5...+300	-20...+120
Medium	air	
Dimensions, mm	310 x 215 x 235	350 x 238 x 246.5
Weight, kg	34	35
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)	

Final valve order code shall be specified when ordering.

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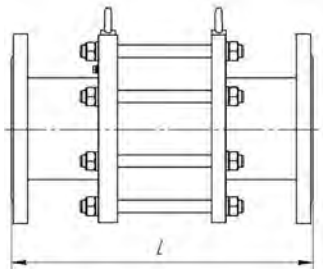
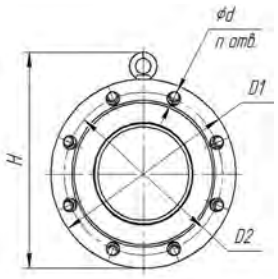
EXPLOSION PROOF FLANGED CHECK VALVES

KO 125/16/10/3/00, KO 150/16/10/3/00





IP66 Ex

SPECIFICATION

	KO 125/16/10/3/00	KO 150/16/10/3/00
Diameter, DN, mm	125	150
Pressure, PN, MPa	1.6	
Pressure difference required for valve operation, ΔP, MPa	0.01...1.6	
Pipe connection	flanged	
Trim impermeability upon State Standard GOST 9544-2015	class A	
Climatic category upon State Standard GOST 15150-69	NF1	
Ambient temperature range, ºC	-60...+60	
Medium temperature range, ºC	+5...+120	
Medium	associated petroleum gas, mineral and synthetic oil	mineral and synthetic oil
Dimensions, L x D1 x H, mm	400 x 245 x 280	350 x 292 x 324
Weight, kg	36	54
Body material upon State Standard GOST 5632-2014	14H17N2 (14X17H2)	

Final valve order code shall be specified when ordering.

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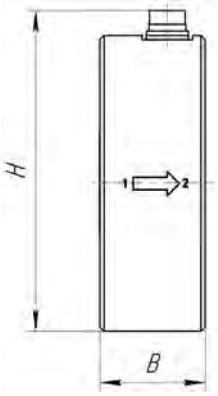
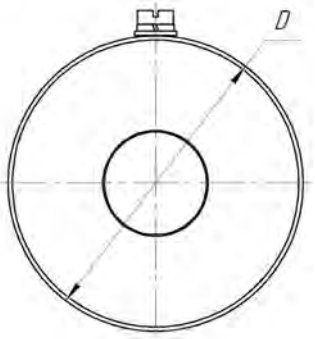
EXPLOSION PROOF LENSE SHAPED JOINT (INTERFLANGED) CHECK VALVES

KO 25/10/00/8/00, KO 25/10/10/8/00, KO 25/25/00/8/00, KO 50/25/00/8/00





IP66 Ex

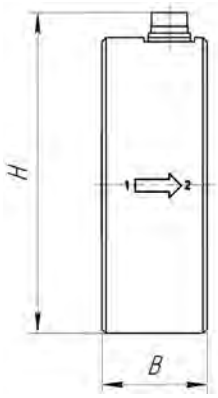
SPECIFICATION

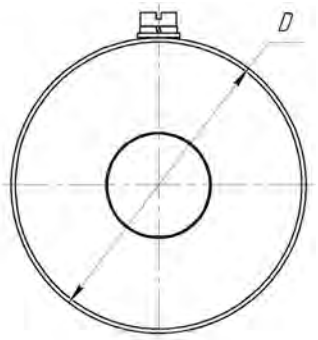
	KO 25/10/00/8/00	KO 25/10/10/8/00	KO 25/25/00/8/00	KO 50/25/00/8/00
Diameter, DN, mm	25			50
Pressure, PN, MPa	1.0		2.5	2.5
Pressure difference required for valve operation, ΔP, MPa	0.025...1.0		0.025...2.5	0.01...2.5
Pipe connection	clamping connection (interflanged connection)			
Trim impermeability upon State Standard GOST 9544-2015	class A			
Climatic category upon State Standard GOST 15150-69	NF1			NF2
Ambient temperature range, ºC	-60...+60			
Medium temperature range, ºC	-40...+120	+10...+120	-40...+120	-40...+120
Medium	air, associated petroleum gas, nitrogen, natural gas, gas condensate	mineral and synthetic oil with viscosity no higher than 200 cSt	air, associated petroleum gas, nitrogen, natural gas, gas condensate	air, associated petroleum gas, natural gas, fuel gas, gaseous hydrocarbons (propane, butane, methane, propylene and its mixtures)
Dimensions, L x D1 x H, mm	25 x 70 x 76			60 x 106 x 112
Weight, kg	0.6			2.6
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)			

Final valve order code shall be specified when ordering.

EXPLOSION PROOF LENSE SHAPED JOINT (INTERFLANGED) CHECK VALVES

KO 50/25/10/8/00, KO 50/25/50/8/00
KO 80/25/50/8/00, KO 80/40/10/8/00





IP66 Ex

SPECIFICATION

	KO 50/25/10/8/00	KO 50/25/50/8/00	KO 80/25/50/8/00	KO 80/40/10/8/00
Diameter, DN, mm	50		80	
Pressure, PN, MPa	2.5			4.0
Pressure difference required for valve operation, ΔP, MPa	0.01...2.5			0.05...4.0
Pipe connection	clamping connection (interflanged connection)			
Trim impermeability upon State Standard GOST 9544-2015	class A			
Climatic category upon State Standard GOST 15150-69	NF2		NF1	
Ambient temperature range, ºC	-60...+60			
Medium temperature range, ºC	+5...+120	-60...+45	-60...+120	+5...+120
Medium	mineral and synthetic oil with viscosity no higher than 200 cSt	air, associated petroleum gas, natural gas, fuel gas, nitrogen, carbon dioxide, inert gases, gaseous hydrocarbons (propane, butane, methane, propylene and its mixtures), liquefied petroleum gases with viscosity no higher than 0.17...0.35 cSt	air, natural gas, fuel gas, associated petroleum gas, nitrogen, carbon dioxide, inert gases, gaseous hydrocarbons (propane, butane, methane, propylene and its mixtures)	mineral and synthetic oil with viscosity nohigher than 200 cSt
Dimensions, L x D1 x H, mm	60 x 106 x 112		70 x 139 x 145	
Weight, kg	2.6		4	
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)			

Final valve order code shall be specified when ordering.

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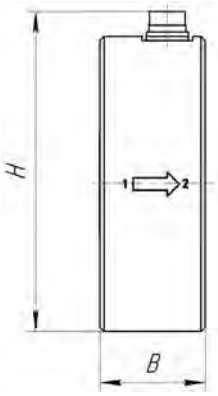
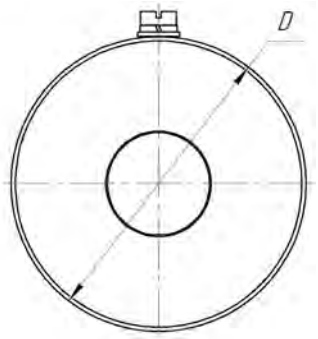
EXPLOSION PROOF LENSE SHAPED JOINT (INTERFLANGED) CHECK VALVES

KO 80/63/00/8/00, KO 100/06/00/8/00, KO 100/06/10/8/00, KO 100/10/10/8/00





IP66 Ex

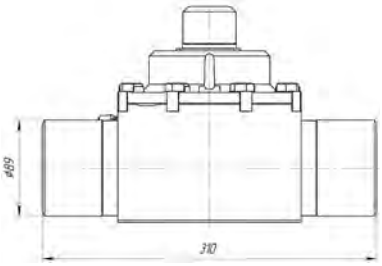
SPECIFICATION

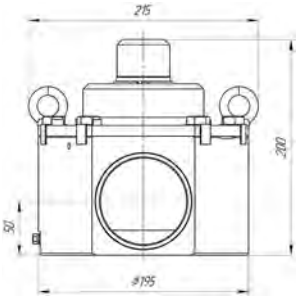
	KO 80/63/00/8/00	KO 100/06/00/8/00	KO 100/06/10/8/00	KO 100/10/10/8/00
Diameter, DN, mm	80	100		
Pressure, PN, MPa	6.3	0.6		1.0
Pressure difference required for valve operation, ΔP, MPa	0.01...6.3	0.025...0.6	0.01...0.6	
Pipe connection	clamping connection (interflanged connection)			
Trim impermeability upon State Standard GOST 9544-2015	class A			
Climatic category upon State Standard GOST 15150-69	NF1			
Ambient temperature range, ºC	-40...+60	-60...+60		
Medium temperature range, ºC	-40...+80	+5...+70	+5...+120	
Medium	natural gas, fuel gas, associated petroleum gas	air	mineral and synthetic oil	
Dimensions, L x D1 x H, mm	80 x 139 x 145	80 x 152 x 157		
Weight, kg	4.8	4		
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)			

Final valve order code shall be specified when ordering.

EXPLOSION PROOF BUTT WELDING CHECK VALVES

KO 80/16/10/7/00





IP66 Ex

SPECIFICATION

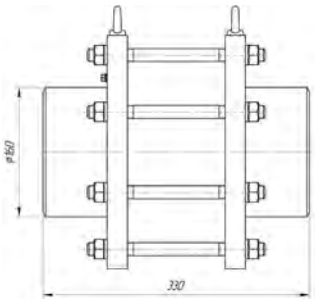
	KO 80/16/10/7/00
Diameter, DN, mm	80
Pressure, PN, MPa	1.6
Pressure difference required for valve operation, ΔP, MPa	0.01...25.0
Pipe connection	welding
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	NF1
Ambient temperature range, ºC	0...+50
Medium temperature range, ºC	+5...+150
Medium	mineral and synthetic oil
Dimensions, mm	310 x 195 x 200
Weight, kg	18.5
Body material upon State Standard GOST 5632-2014	14H17N2 (14X17H2)

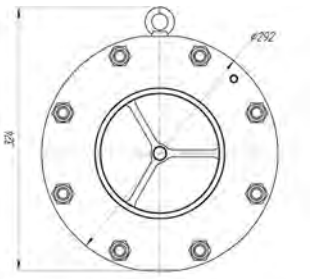
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF BUTT WELDING CHECK VALVES

KO 150/16/10/7/00





IP66 Ex

SPECIFICATION

	KO 150/16/10/7/00
Diameter, DN, mm	150
Pressure, PN, MPa	1.6
Pressure difference required for valve operation, ΔP, MPa	0.01...1.6
Pipe connection	welding
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	NF1
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	+5...+160
Medium	mineral and synthetic oil
Dimensions, mm	330 x 292 x 324
Weight, kg	38
Body material upon State Standard GOST 5632-2014	14H17N2 (14X17H2)

Final valve order code shall be specified when ordering.

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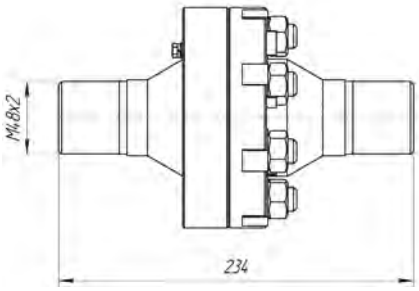
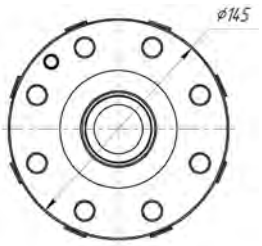
EXPLOSION PROOF SPECIAL TYPE CONNECTION CHECK VALVES

KO 32/250/00/5/00





IP66 Ex

SPECIFICATION

	KO 32/250/00/5/00
Diameter, DN, mm	32
Pressure, PN, MPa	25.0
Pressure difference required for valve operation, ΔP, MPa	0.05...25.0
Pipe connection	lense shaped joint
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	NF2
Ambient temperature range, ºC	-40...+40
Medium temperature range, ºC	0...+100
Medium	nitrogen, air
Dimensions, mm	236 x 145 x 145
Weight, kg	9
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

Final valve order code shall be specified when ordering.

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OKO

Explosion proof sight glass

EXPLOSION PROOF SIGHT GLASSES

DESIGNATION:

Sight glass is designed for visual control of working medium flow in pipelines. It is a pipeline accessory made of sight toughened glass.
Sight glasses are intended to be used in explosion hazardous area inside and outside facilities except for the underground mines, shafts and its related facilities according to the State Standard GOST 31441.1.
Sight glasses are classified as non-electric equipment.
Sight glasses are to be used in the pneumatic and hydraulic systems inside and outside the facilities, under the shelter.

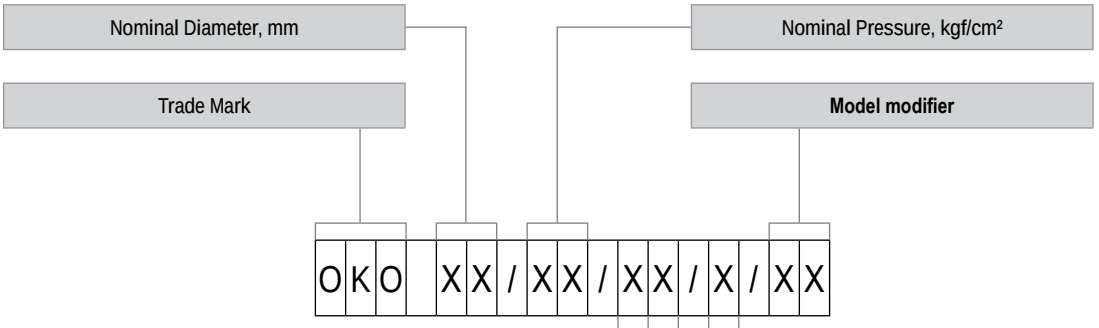
VARIETIES:

Sight glasses are manufactured:
- without additional equipment;
- with additional equipment (swing or rotary medium flow rate indicators, etc.).

PARAMETERS:

Medium flow shall be either unidirectional or bidirectional depending on the sight glass design.

ORDER CODE:



Medium:	
0	gaseous medium
1	liquid medium
4	steam
2, 3, 5, 6, 7, 8, 9	chemically active medium

Types of optional modules:		
0	1...9 (conventional designation of connection type)	gland joint
1		female thread
2		male thread
3		flanges
4		butt joint
5		special connection
6		claw connection
7		butt welding
8		clamping connection

Types of optional modules:	
0	Without optional modules
1	Special configuration of optional modules

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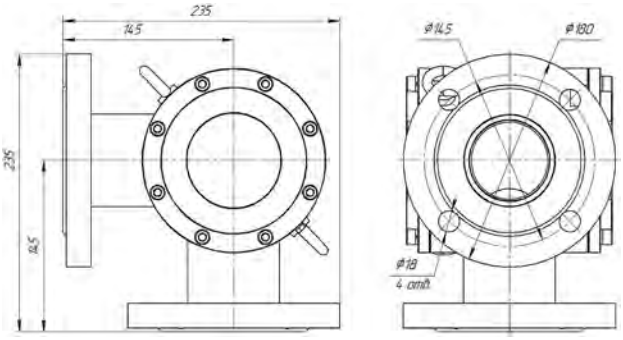
EXPLOSION PROOF SIGHT GLASSES

OKO 65/16/10/3/20



IP66 Ex

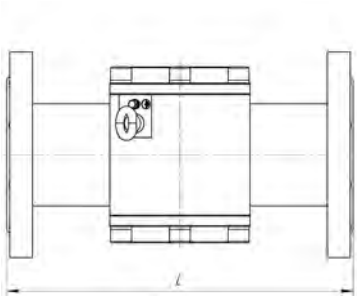
SPECIFICATION

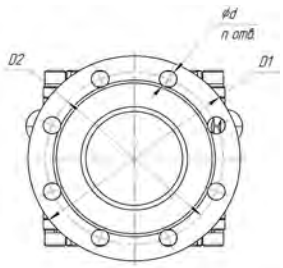
	OKO 65/16/10/3/20
Nominal Diameter, DN, mm	65
Nominal Pressure, PN, MPa	1.6
Operating Pressure Pp, MPa	0...1.6
Medium flow direction	bidirectional
Connection	flanges
Climatic category	N3, NF4
Ambient temperature range, C	+5...+60
Medium temperature range, C	+5...+80
Medium	mineral and synthetic oils
Installation length L, mm	145 x 145
Dimensions, mm	235 x180 x 235
Weight, kg	24
Body material upon State Standard GOST 5632-2014	14H17N2 (14X17H2)

Final valve order code shall be specified when ordering.

EXPLOSION PROOF SIGHT GLASSES

OKO 80/16/10/3/00, OKO 100/16/10/3/00, OKO 150/16/10/3/00





IP66 Ex

SPECIFICATION

	OKO 80/16/10/3/00	OKO 100/16/10/3/00	OKO 150/16/10/3/00
Nominal Diameter, DN, mm	80	100	150
Nominal Pressure, PN, MPa	1.6		
Operating Pressure Pp, MPa	0...1.6		
Medium flow direction	bidirectional		
Connection	flanges		
Climatic category	N3		
Ambient temperature range, C	+5...+60		
Medium temperature range, C	+5...+80		
Medium	mineral and synthetic oils		
Installation length L, mm	310	350	350
Flange diameter, D1, mm	195	215	280
Average fixation hole diameter, D2, mm	160	180	240
Fixation hole diameter, d, mm	18	18	22
Quantity of holes, n	4	8	8
Weight, kg	20	26	42
Body material upon State Standard GOST 5632-2014	14H17N2 (14X17H2)		

Final valve order code shall be specified when ordering.

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REDUT-D

Explosion proof pressure regulators

EXPLOSION PROOF PRESSURE REGULATORS

DESIGNATION:

Pressure regulator is designed to maintain constant pressure before or after regulator within the pipeline or in the system depending on regulator type.
Pressure regulators are intended to be used in explosion hazardous area inside and outside facilities except for the underground mines, shafts and its related facilities according to the State Standard GOST 31441.1.
Pressure regulators are classified as non-electric equipment.
Pressure regulators are applied in the pneumatic and hydraulic systems inside and outside the facilities, under the shelter

OPERATION:

The pressure within the pipeline or in the system before or after regulator is maintained by adjusting the regulating unit in relation to the seat by forces of medium pressure and regulator spring.

VARIETIES:

Pressure regulators are manufactured in the following configurations:
- downstream pressure regulator: maintains pressure within the pipeline or in the system after regulator;
- upstream pressure regulator: maintains pressure within the pipeline or in the system before regulator:

Control device availability:
- no pilot (pressure regulator of direct action);
- supplied with pilot.

Classification by protection device availability:
- no protection device;
- supplied with protection device:

a) when pressure exceeds the set point pressure value;
b) when pressure is lower than the set point pressure value;
c) when pressure exceeds and is lower than the set point pressure value.
Protection device blocks the medium flow to pressure regulator when inlet/outlet pressure exceeds/drops below the set point pressure.

PARAMETERS:

ΔP – pressure difference required for pressure regulator to operate (MPa).

ORDER CODE:

Nominal Diameter, mm	Nominal Pressure, kgf/cm²
Trade Mark	Maximum set point pressure, kgf/cm²
	Model modifier

R	E	D	U	T	-	D		X	X	/	X	X	/	X	X	/	X	X	/	X	/	X	X

Medium:	
0	gaseous medium
1	liquid medium
4	steam
2, 3, 5, 6, 7, 8, 9	chemically active medium

Connection:	
1	female thread
2	male thread
3	flanges

Optional modules:	
1	Downstream pressure regulator
2	Upstream pressure regulator
3	Downstream pressure regulator with protection device when presure increases preset allowed value
4	Upstream pressure regulator with protection device when presure increases preset allowed value
5	Downstream pressure regulator with protection device when presure decreases preset allowed value
6	Upstream pressure regulator with protection device when presure decreases preset allowed value
7	Downstream pressure regulator with protection device when presure increases and decreases preset allowed value
8	Upstream pressure regulator with protection device when presure increases and decreases preset allowed value

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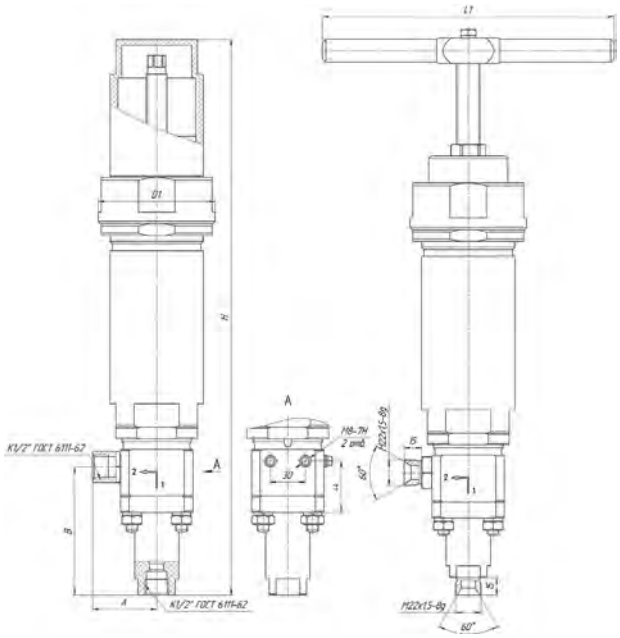
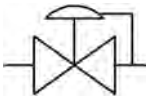
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 5/400/350/01/2/00, REDUT-D 10/125/6/01/1/00





IP66 Ex

SPECIFICATION

		REDUT-D 5/400/350/01/2/00	REDUT-D 10/125/6/01/1/00
Regulator type		downstream pressure regulator	
Type of action		direct action	
Nominal Diameter, DN, mm		5	10
Nominal Pressure, PN, MPa		40.0	12.5
Inlet Pressure, P_{INLET}, MPa		20.0...40.0	1.2...12.5
Outlet Pressure, P_{OUTLET}, MPa		15.0...35.0	0.15...2.5
Trim impermeability		class IV-S2	class IV-S1
Position		normally open	
Pressure retention accuracy, %		±10	
Connection		male thread M18x1,5-6g	female thread, к1/2"
Climatic category		F3.1	
Ambient temperature range, ºC		-10...+45	-10...+40
Medium temperature range, ºC		-50...+50	+5...+60
Dimensions, mm	A	55	
	B	108	110
	L1	250	-
	H	488	476
Medium		air	natural gas
Weight, kg		12.6	12.5
Body material upon State Standard GOST 5632-2014		(14H17N2) 14X17H2	

Final valve order code shall be specified when ordering.

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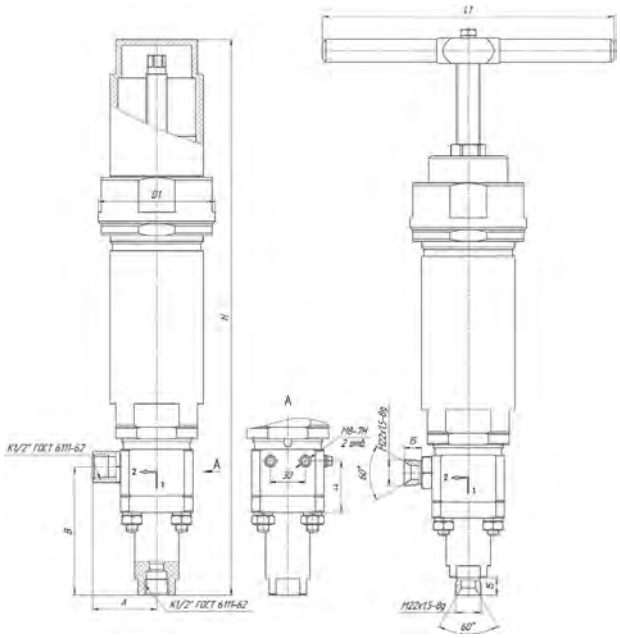
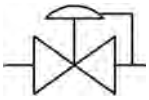
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 10/250/200/01/2/00, REDUT-D 10/350/200/01/2/00





IP66 Ex

SPECIFICATION

		REDUT-D 10/250/200/01/2/00	REDUT-D 10/350/200/01/2/00
Regulator type		downstream pressure regulator	
Type of action		direct action	
Nominal Diameter, DN, mm		10	
Nominal Pressure, PN, MPa		25.0	35.0
Inlet Pressure, P_{INLET}, MPa		5.0...25.0	0...35.0
Outlet Pressure, P_{OUTLET}, MPa		5.0...20.0	0...20.0
Trim impermeability		class IV-S1	class VI
Position		normally open	
Pressure retention accuracy, %		±10	
Connection		male thread M22 x1,5-8g	
Climatic category		NF2	F3.1
Ambient temperature range, ºC		-40...+50	-10...+40
Medium temperature range, ºC		+10...+60	+5...+60
Dimensions, mm	A	55	
	B	105	
	L1	-	250
	H	471	485
Medium		natural gas	air
Weight, kg		12.6	12.6
Body material upon State Standard GOST 5632-2014		(14H17N2) 14X17H2	

Final valve order code shall be specified when ordering.

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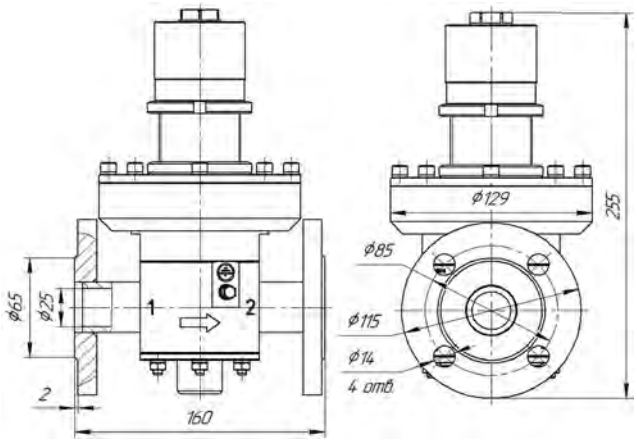
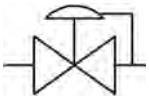
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 25/10/1/01/3/00





IP66 Ex

SPECIFICATION

	REDUT-D 25/10/1/01/3/00
Regulator type	downstream pressure regulator
Type of action	direct action
Nominal Diameter, DN, mm	25
Nominal Pressure, PN, MPa	1.0
Inlet Pressure, P_{INLET}, MPa	0.1...1.0
Outlet Pressure, P_{OUTLET}, MPa	0.02...0.1
Trim impermeability	class VI
Position	normally open
Pressure retention accuracy, %	± 15
Connection	flanges
Climatic category	NF4
Ambient temperature range, ºC	-5...+45
Medium temperature range, ºC	+5...+70
Medium	air
Dimensions, mm	160 x 129 x 255
Weight, kg	7.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

Final valve order code shall be specified when ordering.

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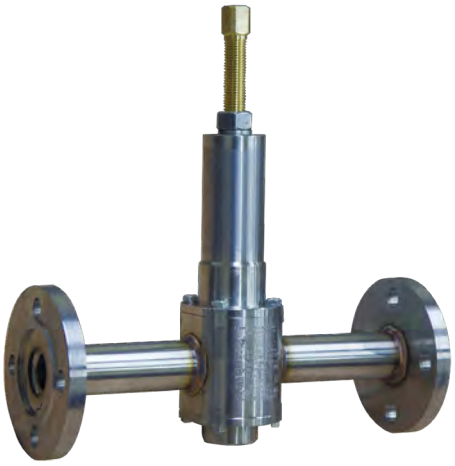
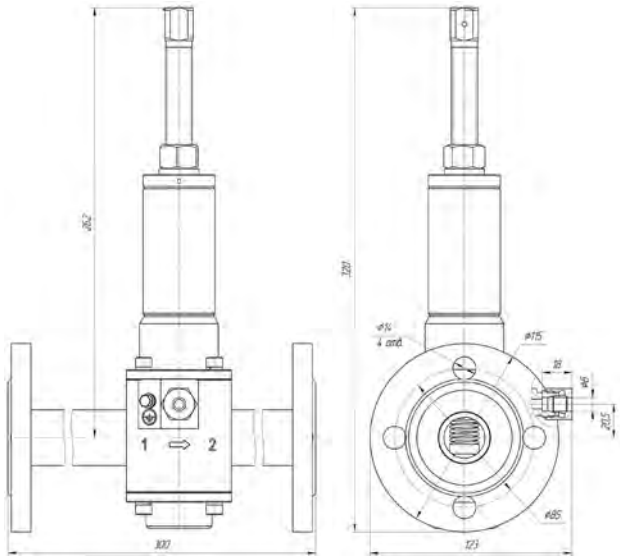
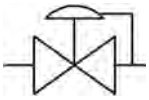
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 25/10/3.5/00/3/00







IP66 Ex

SPECIFICATION

	REDUT-D 25/10/3.5/00/3/00
Regulator type	downstream pressure regulator
Type of action	direct action
Nominal Diameter, DN, mm	25
Nominal Pressure, PN, MPa	1.0
Inlet Pressure, P_{INLET}, MPa	0.35...1.0
Outlet Pressure, P_{OUTLET}, MPa	0.25...0.5
Trim impermeability	class IV
Position	normally open
Pressure retention accuracy, %	±10
Connection	flanges
Climatic category	NF3
Ambient temperature range, ºC	+5...+40
Medium temperature range, ºC	-10...+65
Medium	air
Dimensions, mm	300 x 123 x 320
Weight, kg	5.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

Final valve order code shall be specified when ordering.

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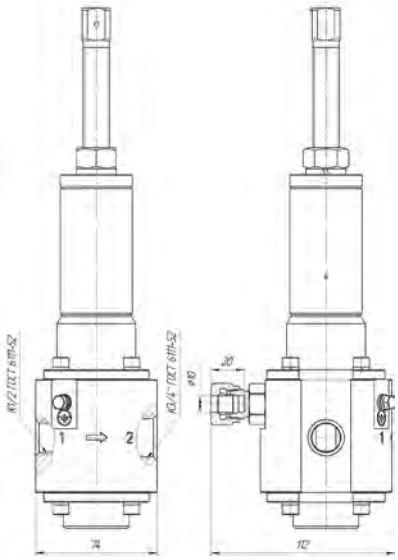
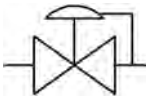
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 25/10/1.5/01/1/00





IP66 Ex

SPECIFICATION

	REDUT-D 25/10/1.5/01/1/00	
Regulator type	downstream pressure regulator	
Type of action	direct action	
Nominal Diameter, DN, mm	25	
Nominal Pressure, PN, MPa	1.0	
Inlet Pressure, P_{INLET}, MPa	0.3...1.0	
Outlet Pressure, P_{OUTLET}, MPa	0.1...0.2	
Trim impermeability	class IV	
Position	normally open	
Pressure retention accuracy, %	±10	
Connection	female thread	inlet K1/2
		outlet K3/4
Climatic category	F3.1	
Ambient temperature range, ºC	-10...+40	
Medium temperature range, ºC	+5...+55	
Medium	natural gas	
Dimensions, mm	74 x 112 x 320	
Weight, kg	4	
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)	

Final valve order code shall be specified when ordering.

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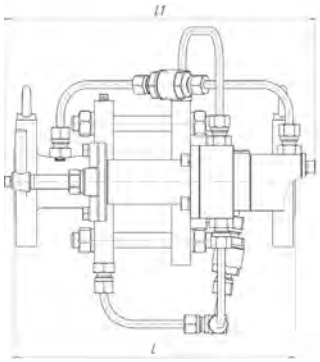
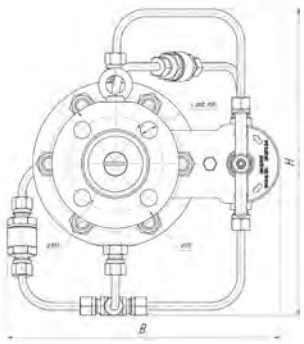
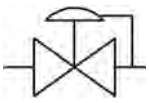
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 25/100/63/00/3/00, REDUT-D 25/160/63/01/3/00







IP66 Ex

SPECIFICATION

		REDUT-D 25/100/63/00/3/00	REDUT-D 25/160/63/01/3/00
Regulator type		downstream pressure regulator	
Type of action		pilot action	
Nominal Diameter, DN, mm		25	
Nominal Pressure, PN, MPa		10.0	16.0
Inlet Pressure, P_{INLET}, MPa		0.6...10.0	0.6...16.0
Outlet Pressure, P_{OUTLET}, MPa		0.3...6.3	
Differential pressure for regulator operation, ΔP, MPa		0.3	
Trim impermeability		class VI	
Position		normally closed	
Pressure retention accuracy, %	at constant flow rate	±3	
	at flow rate change from 10 to 90 %	±5	
	at the moment of full closing	±10	
Connection		flanges	
Climatic category		NF1	N3
Ambient temperature range, ºC		+5...+60	-45...+45
Medium temperature range, ºC		+5...+70	
Medium		natural gas	
Dimensions, mm	L	300	310
	L1 x B x H	330 x 290 x 322	330 x 290 x 324
Weight, kg		26.0	38.0
Body material upon State Standard GOST 5632-2014		12H18N10T (12X18H10T)	

Final valve order code shall be specified when ordering.

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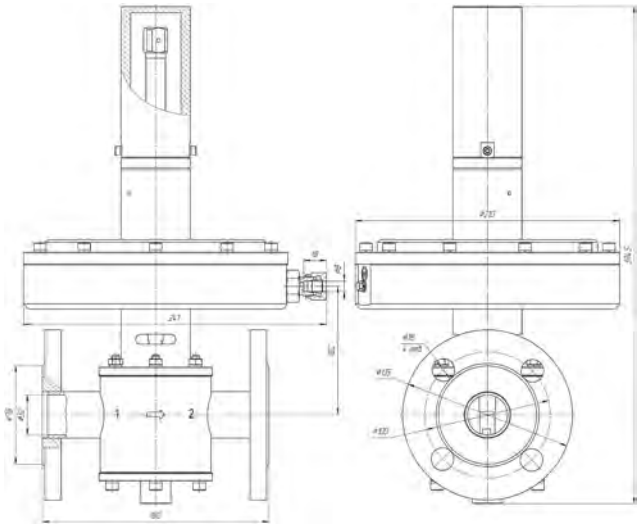
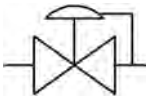
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 32/6.3/0.5/00/3/00





IP66 Ex

SPECIFICATION

	REDUT-D 32/6.3/0.5/00/3/00
Regulator type	downstream pressure regulator
Type of action	direct action
Nominal Diameter, DN, mm	32
Nominal Pressure, PN, MPa	0.63
Inlet Pressure, P_{INLET}, MPa	0.25...0.5
Outlet Pressure, P_{OUTLET}, MPa	0.03...0.05
Trim impermeability	class III
Position	normally open
Pressure retention accuracy, %	±20
Connection	flanges
Climatic category	NF2
Ambient temperature range, ºC	+5...+45
Medium temperature range, ºC	+5...+70
Medium	air
Dimensions, mm	240 x 180 x 405
Weight, kg	16.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

Final valve order code shall be specified when ordering.

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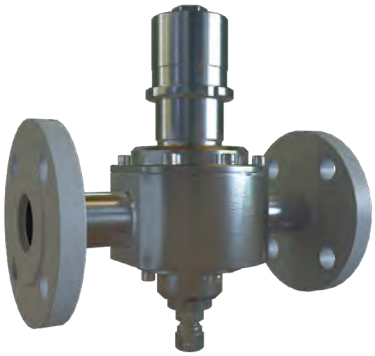
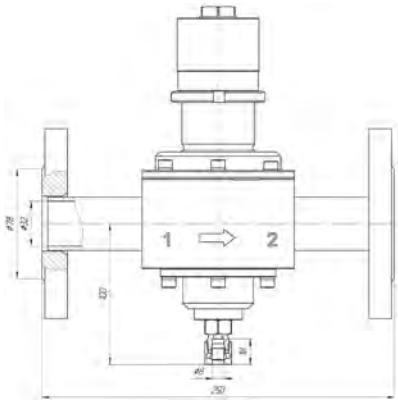
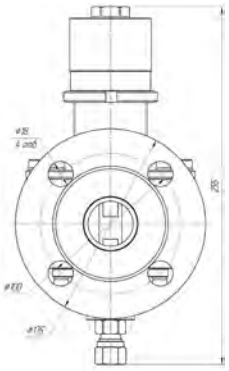
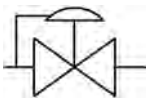
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 32/10/2/12/3/00









IP66 Ex

SPECIFICATION

	REDUT-D 32/10/2/12/3/00
Regulator type	upstream pressure regulator
Type of action	direct action
Nominal Diameter, DN, mm	32
Nominal Pressure, PN, MPa	1.0
Inlet Pressure, P_{INLET}, MPa	0.2...0.5
Outlet Pressure, P_{OUTLET}, MPa	0.1...0.3
Trim impermeability	class III
Position	normally closed
Pressure retention accuracy, %	±10
Connection	flanges
Climatic category	NF1
Ambient temperature range, ºC	+5...+40
Medium temperature range, ºC	+5...+85
Medium	mineral and synthetic oils
Dimensions, mm	250 x 135 x 255
Weight, kg	12
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

Final valve order code shall be specified when ordering.

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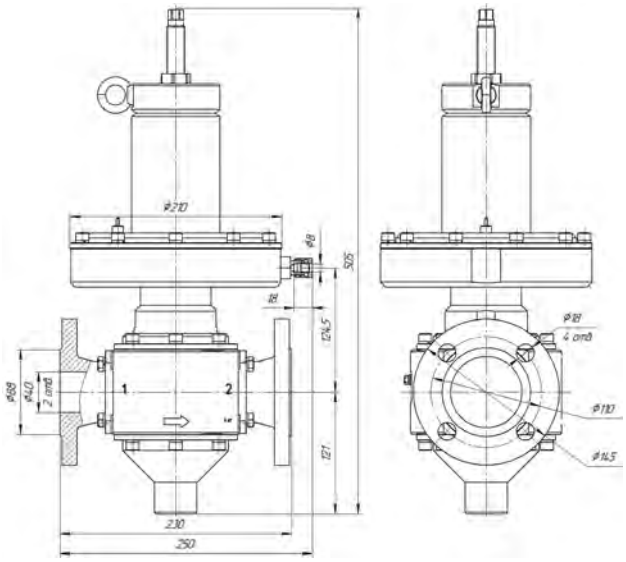
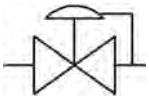
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 40/16/3/11/3/00





IP66 Ex

SPECIFICATION

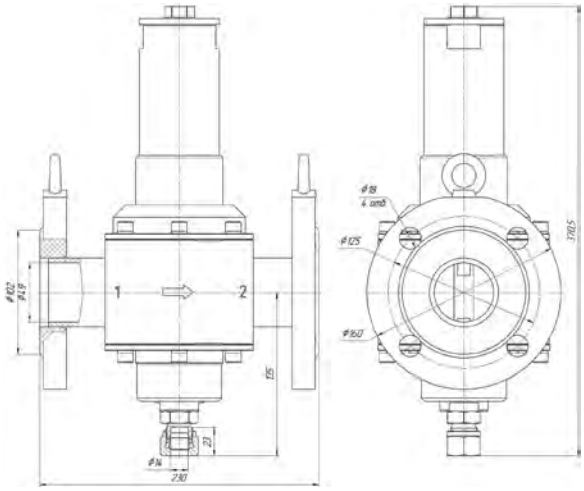
	REDUT-D 40/16/3/11/3/00
Regulator type	downstream pressure regulator
Type of action	direct action
Nominal Diameter, DN, mm	40
Nominal Pressure, PN, MPa	1.6
Inlet Pressure, P_{INLET}, MPa	0.1...1.6
Outlet Pressure, P_{OUTLET}, MPa	0.02...0.3
Trim impermeability	class IV
Position	normally open
Pressure retention accuracy, %	10
Connection	flanges
Climatic category	NF3.1
Ambient temperature range, ºC	+5...+50
Medium temperature range, ºC	+20...+100
Medium	mineral and synthetic oils
Dimensions, mm	250 x 210 x 505
Weight, kg	30
Body material upon State Standard GOST 5632-2014	(14H17N2) 14X17H2

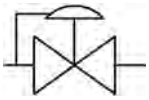
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 50/10/5/12/3/00, REDUT-D 50/16/6/12/3/00





IP66 Ex

SPECIFICATION

	REDUT-D 50/10/5/12/3/00	REDUT-D 50/16/6/12/3/00
Regulator type	downstream pressure regulator	
Type of action	direct action	
Nominal Diameter, DN, mm	50	
Nominal Pressure, PN, MPa	1.0	1.6
Inlet Pressure, P_{INLET}, MPa	0.6...0.9	0.1...1.6
Outlet Pressure, P_{OUTLET}, MPa	0.35...0.55	0.1...0.6
Trim impermeability	class III	
Position	normally closed	
Pressure retention accuracy, %	±10	
Connection	flanges	
Climatic category	NF4	NF3.1
Ambient temperature range, ºC	+1...+45	+5...+50
Medium temperature range, ºC	+5...+85	+20...+100
Medium	mineral and synthetic oils	
Dimensions, mm	230 x 160 x 370	
Weight, kg	18	
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)	

Final valve order code shall be specified when ordering.

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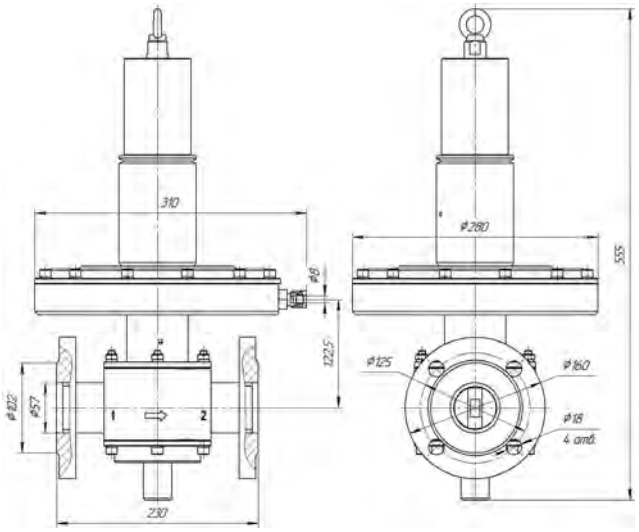
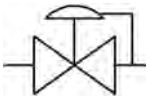
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 50/10/0.6/01/3/00





IP66 Ex

SPECIFICATION

	REDUT-D 50/10/0.6/01/3/00
Regulator type	downstream pressure regulator
Type of action	direct action
Nominal Diameter, DN, mm	50
Nominal Pressure, PN, MPa	1.0
Inlet Pressure, P_{INLET}, MPa	0.1...1.0
Outlet Pressure, P_{OUTLET}, MPa	0.02...0.06
Trim impermeability	class VI
Position	normally open
Pressure retention accuracy, %	±20
Connection	flanges
Climatic category	NF1
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-60...+120
Medium	air, nitrogen
Dimensions, mm	310 x 280 x 555
Weight, kg	33
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

Final valve order code shall be specified when ordering.

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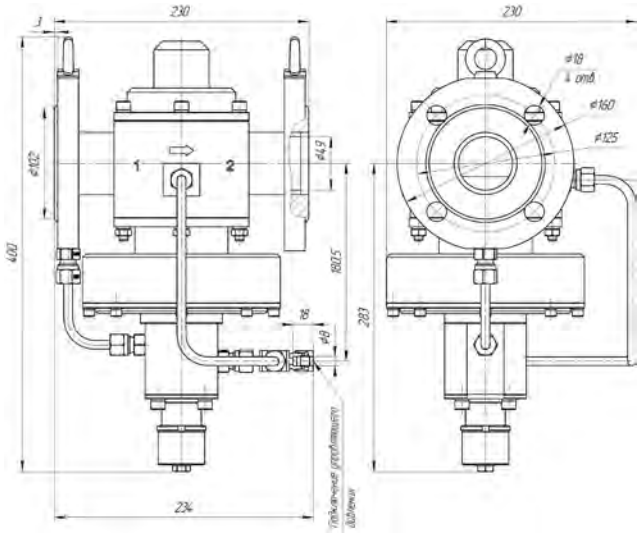
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 50/10/1.5/11/3/00, REDUT-D 50/16/2.5/11/3/00



IP66 Ex

SPECIFICATION

	REDUT-D 50/10/1.5/11/3/00	REDUT-D 50/16/2.5/11/3/00
Regulator type	downstream pressure regulator	
Type of action	pilot action	
Nominal Diameter, DN, mm	50	
Nominal Pressure, PN, MPa	1.0	1.6
Inlet Pressure, PINLET, MPa	0...1.0	0...1.6
Outlet Pressure, Poutlet, MPa	0.1...0.2	0.1...0.3
Differential pressure for regulator operation, ΔP, MPa	0.15	
Trim impermeability	class VI	
Position	normally closed	
Pressure retention accuracy, %	±10	
Connection	flanges	
Climatic category	F1	
Ambient temperature range, ºC	+5...+50	
Medium temperature range, ºC	+5...+70	+20...+100
Medium	mineral and sythetic oils	
Dimensions, mm	234 x 230 x 400	
Weight, kg	30	
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)	

Final valve order code shall be specified when ordering.

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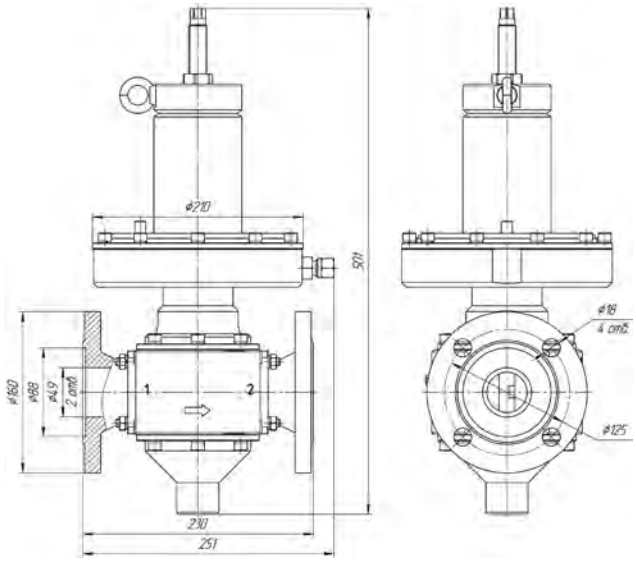
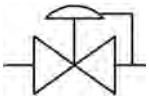
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 50/16/3/01/3/40





IP66 Ex

SPECIFICATION

	REDUT-D 50/16/3/01/3/40
Regulator type	downstream pressure regulator
Type of action	direct action
Nominal Diameter, DN, mm	50
Nominal Pressure, PN, MPa	1.6
Inlet Pressure, PINLET, MPa	0...1.6
Outlet Pressure, Poutlet, MPa	0.05...0.3
Trim impermeability	class IV
Position	normally open
Pressure retention accuracy, %	±10
Connection	flanges
Climatic category	F1
Ambient temperature range, ºC	-60...+50
Medium temperature range, ºC	-10...+80
Medium	non-aggressive natural gas upon STO Gazprom Standard
Dimensions, mm	251 x 210 x 501
Weight, kg	31
Body material upon State Standard GOST 5632-2014	(14H17N2) 14X17H2

Final valve order code shall be specified when ordering.

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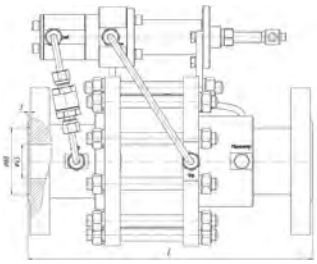
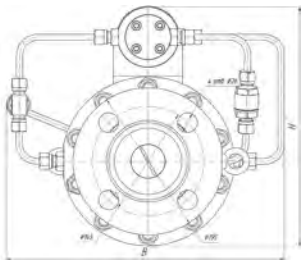
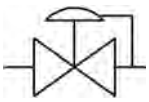
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 50/100/63/01/3/00, REDUT-D 50/160/63/01/3/00







IP66 Ex

SPECIFICATION

		REDUT-D 50/100/63/01/3/00	REDUT-D 50/160/63/01/3/00
Regulator type		downstream pressure regulator	
Type of action		pilot action	
Nominal Diameter, DN, mm		50	
Nominal Pressure, PN, MPa		10.0	16.0
Inlet Pressure, P_{INLET}, MPa		1.0...10.0	1.0...16.0
Outlet Pressure, P_{OUTLET}, MPa		0.5...6.3	
Differential pressure for regulator operation, ΔP, MPa		0.3	
Trim impermeability		class VI	
Position		normally closed	
Pressure retention accuracy, %	at constant flow rate	±3	
	at flow rate change from 10 to 90 %	±5	
	at the moment of full closing	±10	
Connection		flanges	
Climatic category		NF1	
Ambient temperature range, ºC		-60...+60	
Medium temperature range, ºC		-20...+70	
Medium		natural gas	
Dimensions, L x B x H, mm		370 x 365 x 320	370 x 395 x 335
Weight, kg		50	
Body material upon State Standard GOST 5632-2014		12H18N10T (12X18H10T)	

Final valve order code shall be specified when ordering.

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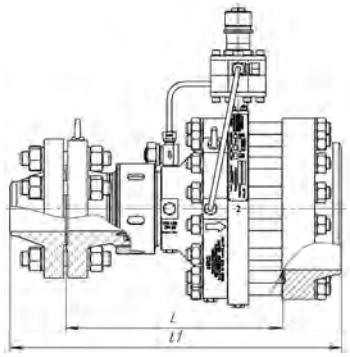
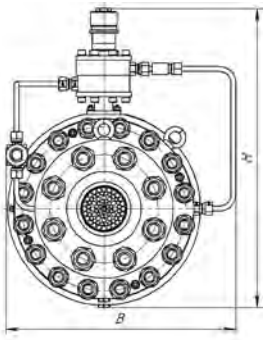
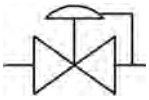
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 50/125/12/01/3/40, REDUT-D 80/125/12/01/3/40







IP66 Ex

SPECIFICATION

		REDUT-D 50/125/12/01/3/40	REDUT-D 80/125/12/01/3/40
Regulator type		downstream pressure regulator	
Type of action		pilot action	
Nominal Diameter, DN, mm		50	80
Nominal diameter, mm	of inlet flange / outlet flange	50 / 150	80 / 200
Nominal Pressure, PN, MPa		12.5	
Inlet Pressure, P_{INLET}, MPa		2.0...12.5	
Outlet Pressure, P_{OUTLET}, MPa		0.3...1.2	
Differential pressure for regulator operation, ΔP, MPa		0.15	
Trim impermeability		class IV-S1	
Position		normally closed	
Pressure retention accuracy, %	at constant flow rate	±2	
	at flow rate change from 10 to 90 %	±2	
	at the moment of full closing	±8	
Connection		flanges	
Climatic category		NF2	
Ambient temperature range, ºC		-60...+50	
Medium temperature range, ºC		-10...+80	
Medium		non-aggressive natural gas upon STO Gazprom Standard	
Dimensions, mm	L	294	360
	L1 x B x H	442 x 322.5 x 475	550 x 380 x 496
Weight, kg	with counter flanges / without counter flanges	33 / 52	65 / 109
Body material upon State Standard GOST 5632-2014		(14H17N2) 14X17H2	

Final valve order code shall be specified when ordering.

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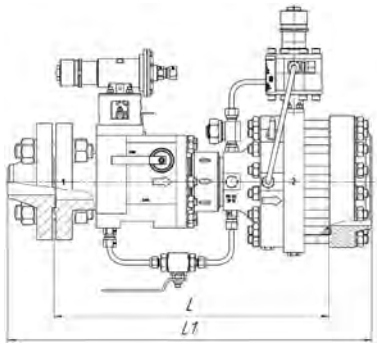
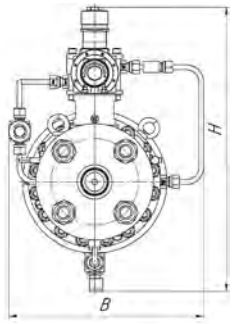
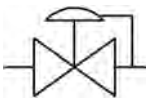
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 50/125/12/03/3/40, REDUT-D 80/125/12/03/3/40







IP66 Ex

SPECIFICATION

		REDUT-D 50/125/12/03/3/40	REDUT-D 80/125/12/03/3/40
Regulator type		downstream pressure regulator	
Type of action		pilot action	
Nominal Diameter, DN, mm		50	80
Nominal diameter, mm	inlet flange / outlet flange	50 / 150	80 / 200
Nominal Pressure, PN, MPa		12.5	
Inlet Pressure, PINLET, MPa		2.0...12.5	
Outlet Pressure, POUTLET, MPa		0.3...1.2	
Differential pressure for regulator operation, ΔP, MPa		0.15	
Trim impermeability		class IV-S1	
Position		normally closed	
Pressure retention accuracy, %	at constant flow rate	2	
	at flow rate change from 10 to 90 %	2	
	at the moment of full closing	8	
Connection		flanges	
Climatic category		NF2	
Ambient temperature range, ºC		-60...+50	
Medium temperature range, ºC		-10...+80	
Medium		non-aggressive natural gas upon STO Gazprom Standard	
Dimensions, mm	L	294	360
	L1 x B x H	442 x 322.5 x 475	550 x 380 x 496
Weight, kg	with counter flanges	33	65
	without counter flanges	52	109
Body material upon State Standard GOST 5632-2014		(14H17N2) 14X17H2	

PROTECTION DEVICE SPECIFICATION

Set point pressure range Ps, Mpa (kgf/cm2)	0.3...1.5 (3.0...15.0)
Set point pressure, Ps, Mpa (kg/cm2)	POUTLET + 15%
Accuracy, %	10
Trim impermeability	normally open
Trim position	class VI

Final valve order code shall be specified when ordering.

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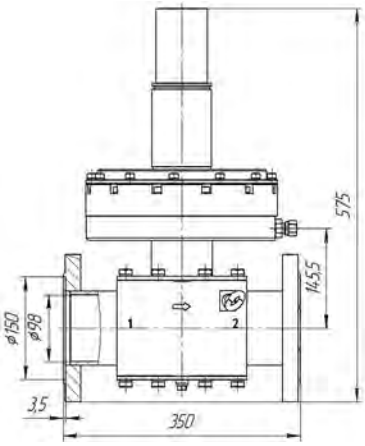
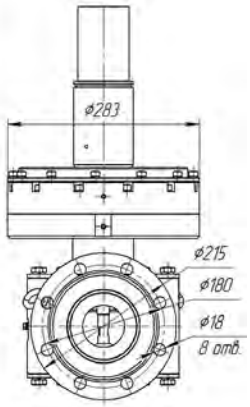
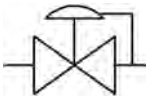
EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 100/10/0.4/01/3/00







IP66 Ex

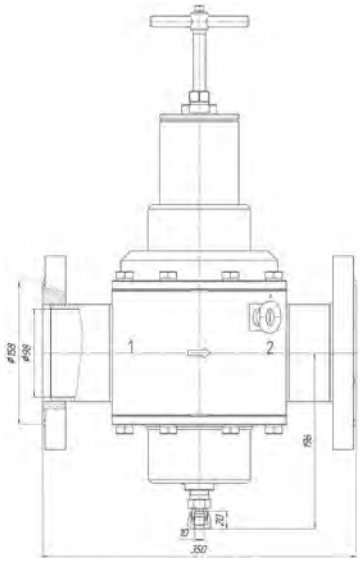
SPECIFICATION

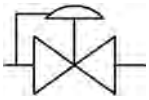
	REDUT-D 100/10/0.4/01/3/00
Regulator type	downstream pressure regulator
Type of action	direct action
Nominal Diameter, DN, mm	100
Nominal Pressure, PN, MPa	1.0
Inlet Pressure, P_{INLET}, MPa	0...1.0
Outlet Pressure, P_{OUTLET}, MPa	0.01...0.04
Trim impermeability	class VI
Position	normally open
Outlet pressure retention accuracy at inlet pressure change ±2 MPa, MPa	±15
Connection	flanges
Climatic category	NF3
Ambient temperature range, ºC	+5...+50
Medium temperature range, ºC	+5...+70
Medium	air, nitrogen
Dimensions, mm	350 x 283 x 575
Weight, kg	68
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

Final valve order code shall be specified when ordering.

EXPLOSION PROOF PRESSURE REGULATORS

REDUT-D 100/10/2/12/3/00





IP66 Ex

SPECIFICATION

	REDUT-D 100/10/2/12/3/00
Regulator type	downstream pressure regulator
Type of action	direct action
Nominal Diameter, DN, mm	100
Nominal Pressure, PN, MPa	1.0
Inlet Pressure, P_{INLET}, MPa	0.2...0.6
Outlet Pressure, Poutlet, MPa	0.1...0.3
Trim impermeability	class III
Position	normally closed
Pressure retention accuracy, %	±10
Connection	flanges
Climatic category	NF1
Ambient temperature range, ºC	+5...+85
Medium temperature range, ºC	+5...+50
Medium	turbine oil
Dimensions, mm	350 x 235 x 570
Weight, kg	48
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

Final valve order code shall be specified when ordering.

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PROK

Explosion proof safety valves

EXPLOSION PROOF SAFETY VALVES

DESIGNATION:

PROK safety valve is designed for automatic protection of the equipment and pipeline systems by dropping the excessive pressure when the pressure exceeds the set point pressure and by stopping the pressure relieving when the valve closing pressure or operation pressure is achieved either in automatic or manual operation mode.

Safety valves are intended to be used in explosion hazardous area inside and outside facilities except for the underground mines, shafts and its related facilities according to the State Standard GOST 31441.1.

Safety valves are classified as non-electric equipment.

Safety valves are to be used in the pneumatic and hydraulic systems inside and outside the facilities, under the shelter.

SAFETY VALVE PARAMETERS:

Ps – Set point pressure. It is a maximum pressure before the safety valve when the valve is closed and required trim leakproofness is provided. Unit of measure is kgf/cm².

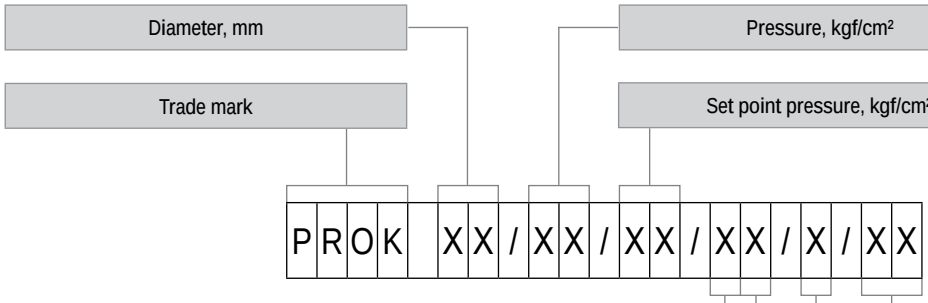
Ps shall be no more than:

- (Ps+0.5) – at set point pressure from 0.5 to 3.0 kgf/cm²;
- 1.15Ps – at set point pressure from 3.0 to 60.0 kgf/cm²;
- 1.1Ps – at set point pressure over 60.0 kgf/cm².

Pc – Closing Pressure. It is a pressure before the valve occurring when the safety valve actuates, and the valve orifice closes. Unit of measure is kgf/cm². Pc shall be no less than 0.8 Ps.

Above mentioned parameters may differ depending on the agreement with the Customer.

ORDER CODE:



Medium:	
0	air, nitrogene, carbone dioxide, inert gases, gaseous hydro-carbones (propane, butane, methane and its mixtures)
1	water, diesel fuel, synthetic and mineral oils with viscosity no higher than 100 cSt
2	petrolium
3	oil fuel (mazout) upon State Standard GOST 10585
4	hot water, saturated steam
5	liquified hydrocarbones (propane-butane mixture)
6	spirits (alcohol), non-carbonated alcohol containg liquids
7	chemically active medium (natural gas odorant)
8	crude oil, dirty liquid fluids
9	uncleaned gaseous hydrocarbons

Additional modifier:
consists of several digits and signs

Connection:	
0	gland
1	female thread
2	male thread
3	flange
4	butt joint
5	special connection
6	claw connection
7	welding
8	clamping connection

Types of Optional Modules:	
0	supplied without optional modules
1	special configuration with additional modules

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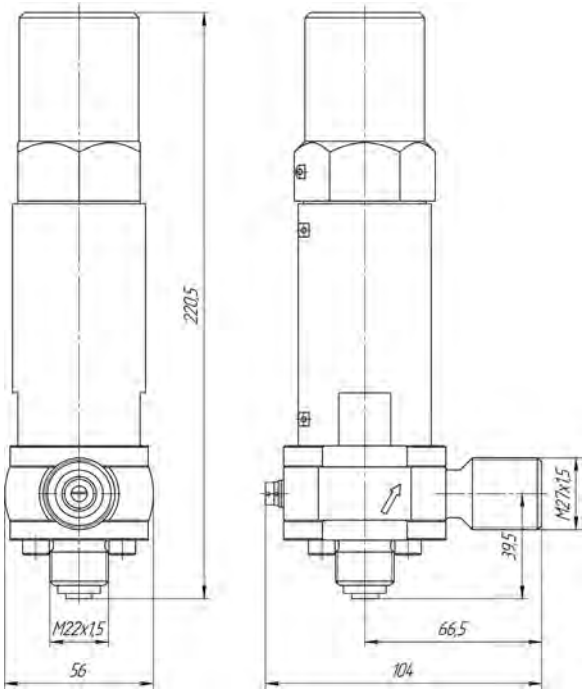
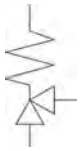
EXPLOSION PROOF SAFETY VALVES

PROK 05/250/250/00/2/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm		05/10
Pressure, PN, MPa		25.0
Orifice size, mm		5
Set point pressure range, MPa		17.0...25.0
Set point pressure		Psp (to be agreed with the Client)
Relieving pressure, Pr (no more)		1.1Psp
Closing pressure, Pc (no less)		0.8Psp
Male thread	inlet pipe DN5	M22x1.5
	outlet pipe DN10	M27x1.5
Trim impermeability upon State Standard GOST 9544-2015		class A
Climatic category upon State Standard GOST 15150-69		N, F, NF
Ambient temperature range, ºC		-40...+50
Medium temperature range, ºC		-40...+50
Weight, kg (no more)		3.2
Flow rate for gaseous medium, α_1 (no less)		0.7
Body material upon State Standard GOST 5632-2014		14H17N2 (14X17H2)

OPTIONAL MODULES

- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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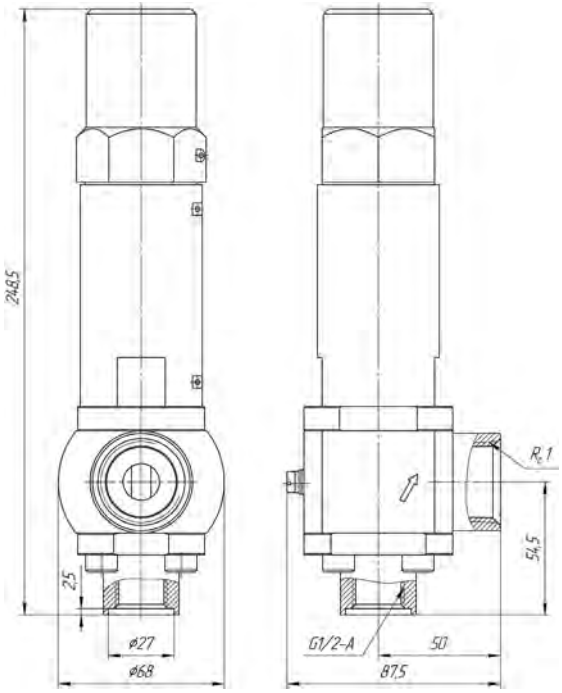
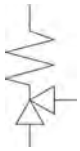
EXPLOSION PROOF SAFETY VALVES

PROK 05/320/255/00/1/09





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm		05/10
Pressure, PN, MPa		32.0
Orifice size, mm		5
Set point pressure range, MPa		17.0...25.5
Set point pressure		Psp (to be agreed with the Client)
Relieving pressure, Pr (no more)		1.1Psp
Closing pressure, Pc (no less)		0.8Psp
Female thread	inlet pipe DN5	G1/2-A upon State Standard GOST 6357-81
	outlet pipe DN10	Rc 1 upon State Standard GOST 6211-81
Trim impermeability upon State Standard GOST 9544-2015		class A
Climatic category upon State Standard GOST 15150-69		N, F, NF
Ambient temperature range, ºC		-40...+50
Medium temperature range, ºC		-40...+50
Weight, kg (no more)		4
Flow rate for gaseous medium, α_1 (no less)		0.8
Body material upon State Standard GOST 5632-2014		14H17N2 (14X17H2)

OPTIONAL MODULES

- supplied without manual override.

MEDIUM

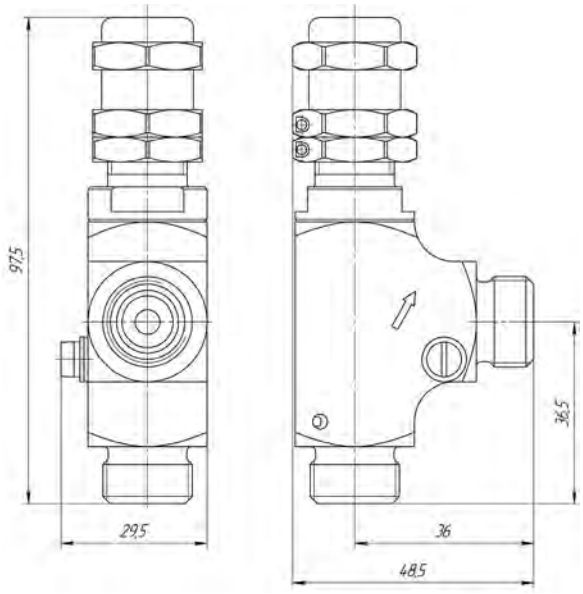
- gaseous medium.

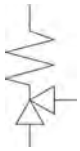
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF SAFETY VALVES

PROK 05/400/400/00/2/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	05/05
Pressure, PN, MPa	40.0
Orifice size, mm	3.3
Set point pressure range, MPa	1.5...40.0
Set point pressure	Psp (to be agreed with the Client)
Relieving pressure, Pr (no more)	1.1Psp
Closing pressure, Pc (no less)	0.8Psp
Pipe connection upon State Standard GOST 24072-80	male thread
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-10...+60
Medium temperature range, ºC	-10...+150
Weight, kg (no more)	0.45
Flow rate for gaseous medium, α_1 (no less)	0.8
Body material upon State Standard GOST 5632-2014	14H17N2 (14X17H2)

OPTIONAL MODULES

- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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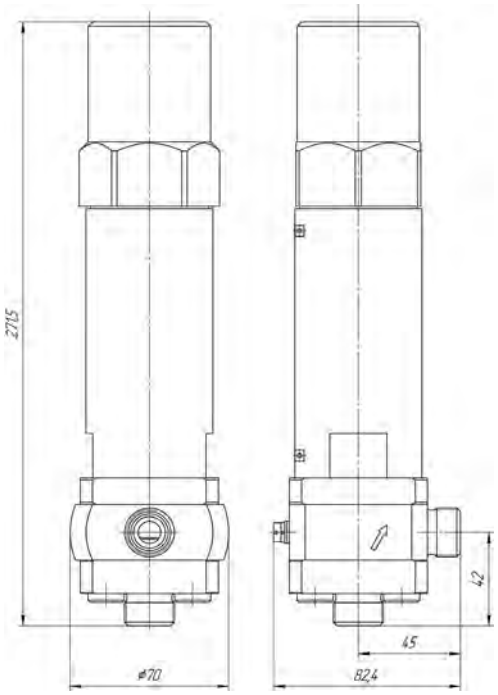
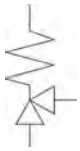
EXPLOSION PROOF SAFETY VALVES

PROK 10/320/320/00/2/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	10/10
Pressure, PN, MPa	32.0
Orifice size, mm	10
Set point pressure range, MPa	12.0...32.0
Set point pressure	Psp (to be agreed with the Client)
Relieving pressure, Pr (no more)	1.03 Psp
Closing pressure, Pc (no less)	0.9 Psp
Pipe connection upon State Standard GOST 24072-80	male thread
Trim impermeability upon State Standard GOST 9544-2015	class C
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-40...+60
Medium temperature range, ºC	-40...+60
Weight, kg (no more)	5
Flow rate for gaseous medium, α_1 (no less)	0.7
Body material upon State Standard GOST 5632-2014	14H17N2 (14X17H2)

OPTIONAL MODULES

- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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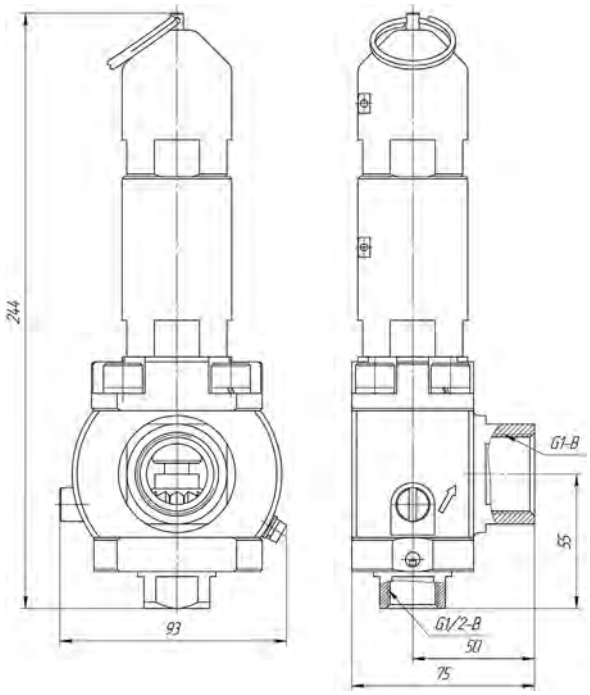
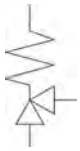
EXPLOSION PROOF SAFETY VALVES

PROK 15/25/25/01/1/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm		15/25
Pressure, PN, MPa		2.5
Orifice size, mm		1) 10; 2) 12
Set point pressure range, MPa		1) 0.2...0.4; 0.6...1.2; 1.2...2.5 2) 0.08...0.2; 0.4...0.6
Set point pressure		Psp (to be agreed with the Client)*
Relieving pressure (no more)		Pr*
Closing pressure (no less)		Pc*
Female thread	inlet pipe DN15	G1/2-B upon State Standard GOST 6357-81
	outlet pipe DN25	G1-B upon State Standard GOST 6357-81
Trim impermeability upon State Standard GOST 9544-2015		class A
Climatic category upon State Standard GOST 15150-69		N, F, NF
Ambient temperature range, ºC		-60...+60**
Medium temperature range, ºC		-40...+85**
Weight, kg (no more)		3.85
Flow rate for gaseous medium, α_1 (no less)		0.8
Flow rate for liquid medium, α_2 (no less)		0.5
Body material upon State Standard GOST 5632-2014		12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium;
- liquid medium.

Final valve order code shall be specified when ordering.

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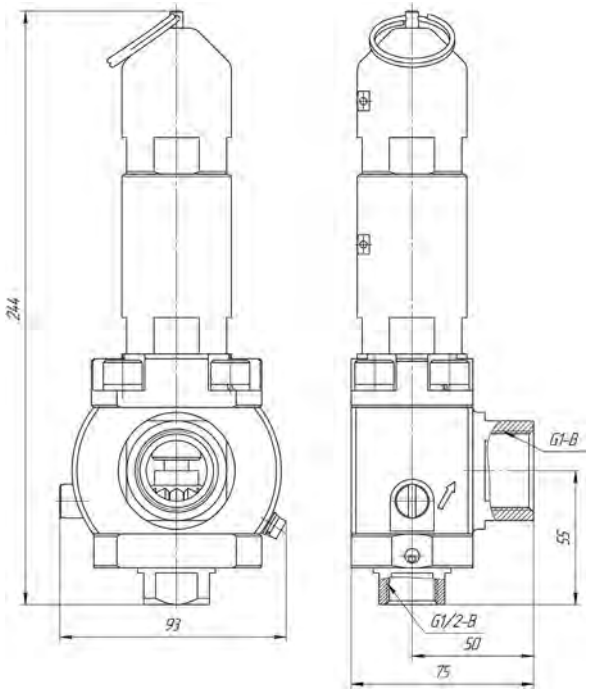
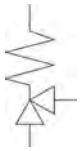
EXPLOSION PROOF SAFETY VALVES

PROK 15/40/12/01/1/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm		15/25
Pressure, PN, MPa		4.0
Orifice size, mm		10
Set point pressure range, MPa		0.6...1.2
Set point pressure		Psp (to be agreed with the Client)*
Relieving pressure (no more)		Pr*
Closing pressure (no less)		Pc*
Female thread	inlet pipe DN15	G1/2-B upon State Standard GOST 6357-81
	outlet pipe DN25	G1-B upon State Standard GOST 6357-81
Trim impermeability upon State Standard GOST 9544-2015		class A
Climatic category upon State Standard GOST 15150-69		N, F, NF
Ambient temperature range, ºC		-60...+40
Medium temperature range, ºC		-40...+60
Weight, kg (no more)		3.85
Flow rate for gaseous medium, α_1 (no less)		0.8
Flow rate for liquid medium, α_2 (no less)		0.5
Body material upon State Standard GOST 5632-2014		12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium;
- liquid medium.

Final valve order code shall be specified when ordering.

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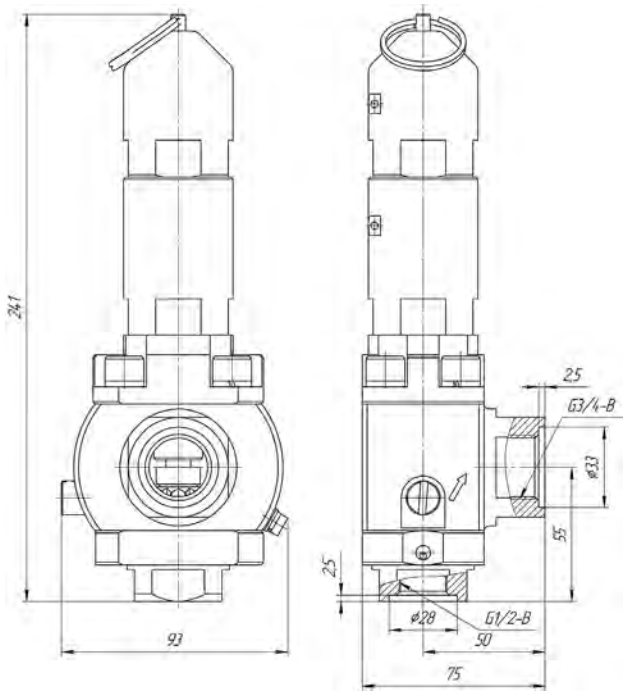
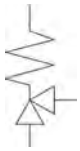
EXPLOSION PROOF SAFETY VALVES

PROK 15/63/63/01/1/01





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm		15/20
Pressure, PN, MPa		6.3
Orifice size, mm		10
Set point pressure range, MPa		0.6...6.3
Set point pressure		Psp (to be agreed with the Client)*
Relieving pressure (no more)		Pr*
Closing pressure (no less)		Pc*
Female thread	inlet pipe DN15	G1/2-B upon State Standard GOST 6357-81
	outlet pipe DN25	G3/4-B upon State Standard GOST 6357-81
Trim impermeability upon State Standard GOST 9544-2015		class A
Climatic category upon State Standard GOST 15150-69		N, F, NF
Ambient temperature range, ºC		-60...+40
Medium temperature range, ºC		-40...+60
Weight, kg (no more)		3.85
Flow rate for gaseous medium, α_1 (no less)		0.8
Flow rate for liquid medium, α_2 (no less)		0.5
Body material upon State Standard GOST 5632-2014		12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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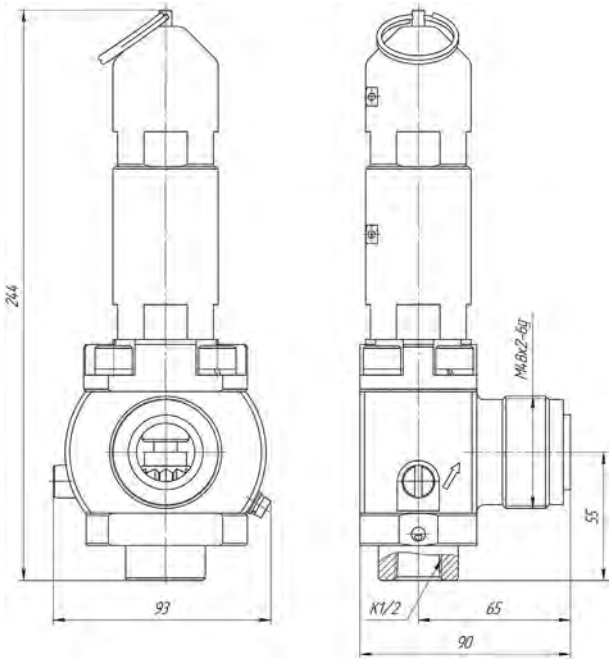
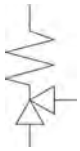
EXPLOSION PROOF SAFETY VALVES

PROK 15/125/125/01/1/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm		15/25
Pressure, PN, MPa		12.5
Orifice size, mm		10
Set point pressure range, MPa		0.2...0.4; 0,6...2.8; 3.8...7.9; 8.0...12.5**
Set point pressure		Psp (to be agreed with the Client)*
Relieving pressure (no more)		Pr*
Closing pressure (no less)		Pc*
Pipe connection	inlet pipe DN15	female thread, K1/2 upon State Standard GOST 6111-52
	outlet pipe DN25	male thread, M48 x 2-6g
Trim impermeability upon State Standard GOST 9544-2015		class A
Climatic category upon State Standard GOST 15150-69		N, F, NF
Ambient temperature range, ºC		-40...+60
Medium temperature range, ºC		-40...+85**
Weight, kg (no more)		4.2
Flow rate for gaseous medium, α_1 (no less)		0.8
Body material upon State Standard GOST 5632-2014		12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium;
- liquid medium.

Final valve order code shall be specified when ordering.

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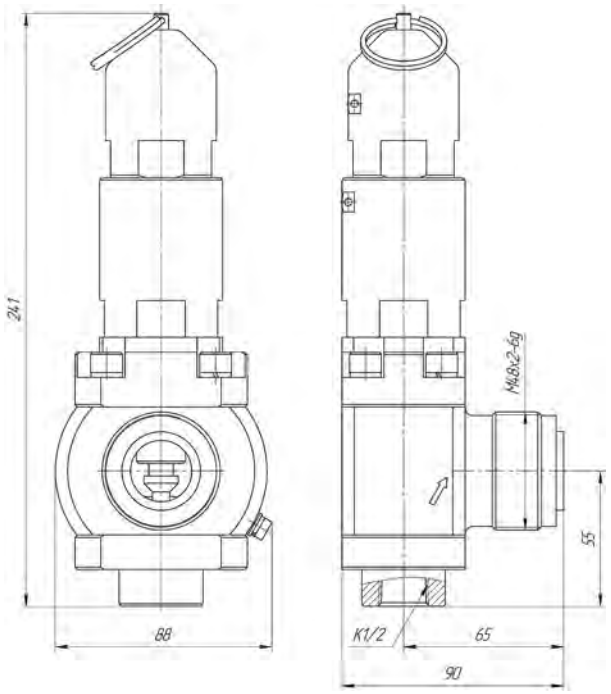
EXPLOSION PROOF SAFETY VALVES

PROK 15/160/160/01/1/00



IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm		15/25
Pressure, PN, MPa		16.0
Orifice size, mm		5
Set point pressure range, MPa		10.0...16.0
Set point pressure		Psp (to be agreed with the Client)*
Relieving pressure (no more)		Pr*
Closing pressure (no less)		Pc*
Pipe connection	inlet pipe DN15	female thread, K1/2 upon State Standard GOST 6111-52
	outlet pipe DN25	male thread, M48 x 2-6g
Trim impermeability upon State Standard GOST 9544-2015		class A
Climatic category upon State Standard GOST 15150-69		N, F, NF
Ambient temperature range, ºC		-40...+40
Medium temperature range, ºC		-40...+60
Weight, kg (no more)		4.2
Flow rate for gaseous medium, α_1 (no less)		0.8
Body material upon State Standard GOST 5632-2014		12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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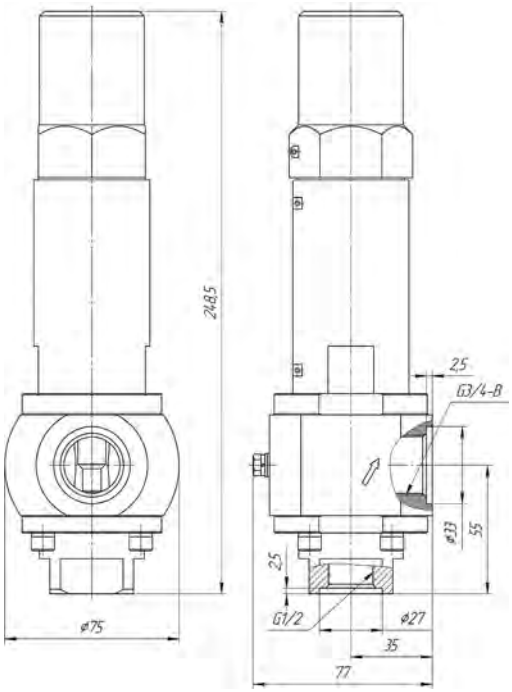
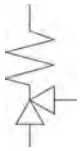
EXPLOSION PROOF SAFETY VALVES

PROK 15/250/250/00/1/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm		15/20
Pressure, PN, MPa		25.0
Orifice size, mm		5
Set point pressure range, MPa		8.0...25.0
Set point pressure		Psp (to be agreed with the Client)*
Relieving pressure (no more)		Pr*
Closing pressure (no less)		Pc*
Female thread	inlet pipe DN15	G1/2-B upon State Standard GOST 6357-81
	outlet pipe DN25	G3/4-B upon State Standard GOST 6357-81
Trim impermeability upon State Standard GOST 9544-2015		class A
Climatic category upon State Standard GOST 15150-69		N, F, NF
Ambient temperature range, ºC		-60...+40
Medium temperature range, ºC		-40...+60
Weight, kg (no more)		4.2
Flow rate for gaseous medium, α_1 (no less)		0.8
Body material upon State Standard GOST 5632-2014		12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.

OPTIONAL MODULES

- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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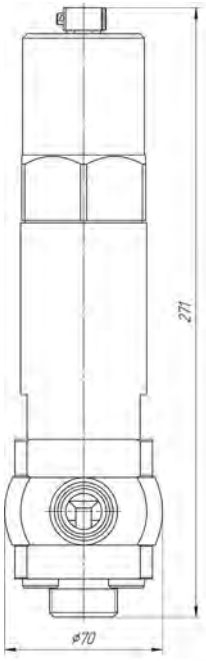
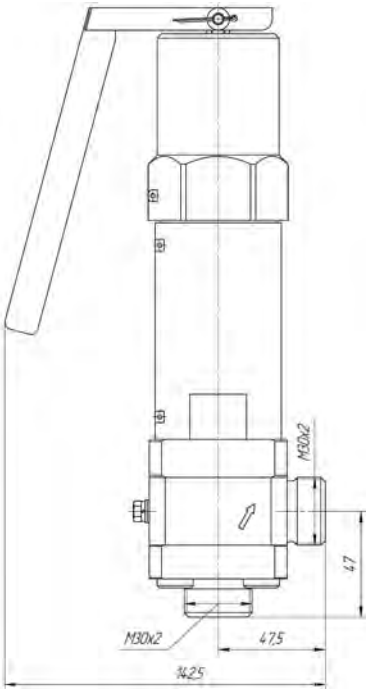
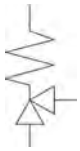
EXPLOSION PROOF SAFETY VALVES

PROK 15/320/255/01/2/00







IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	15/15
Pressure, PN, MPa	32.0
Orifice size, mm	5
Set point pressure range, MPa	6.0...10.0; 17.0...25.5
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr=1.23 Psp
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	male thread
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+40
Medium temperature range, ºC	-40...+60
Weight, kg (no more)	5.3
Flow rate for gaseous medium, α_1 (no less)	0.8
Body material upon State Standard GOST 5632-2014	(14H17N2) 14X17H2

* Refer to the general parameters for safety valves.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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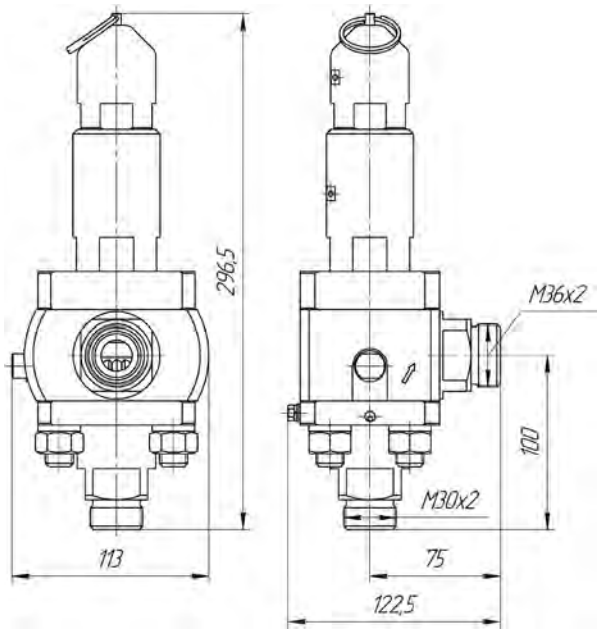
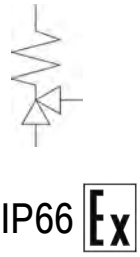
EXPLOSION PROOF SAFETY VALVES

PROK 15/400/35/01/2/40





SPECIFICATION

Diameter, DN inlet/DN outlet, mm		15/20
Pressure, PN, MPa		40.0
Orifice size, mm		10
Set point pressure range, MPa		2.8...3.5
Set point pressure		Psp (to be agreed with the Client)*
Relieving pressure (no more)		Pr*
Closing pressure (no less)		Pc*
Male thread	inlet pipe DN15	3-20
	outlet pipe DN20	3-25
Trim impermeability upon State Standard GOST 9544-2015		class A
Climatic category upon State Standard GOST 15150-69		N, F, NF
Ambient temperature range, ºC		-40...+80
Medium temperature range, ºC		-60...+50
Weight, kg (no more)		8.5
Flow rate for gaseous medium, α_1 (no less)		0.8
Body material upon State Standard GOST 5632-2014		(14H17N2) 14X17H2

* Refer to the general parameters for safety valves.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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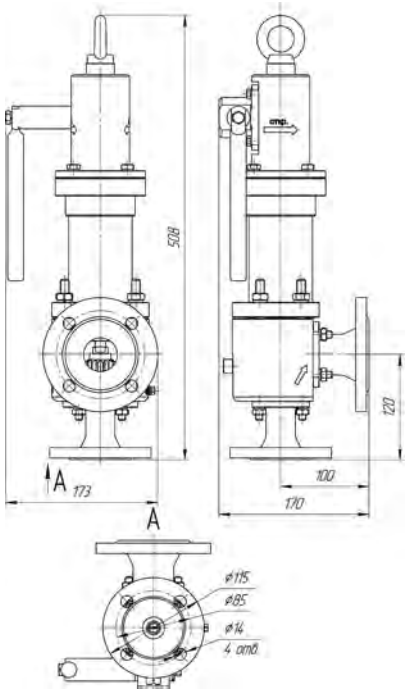
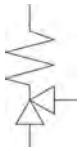
EXPLOSION PROOF SAFETY VALVES

PROK 25/16/16/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	25/40
Input pressure, PN inlet, MPa	1.6
Output pressure, PN outlet, MPa	0.6
Orifice size, mm	16
Set point pressure range, MPa	0.05...1.6
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60**
Medium temperature range, ºC	-40...+80**
Weight, kg (no more)	18
Flow rate for gaseous medium, α_1 (no less)	0.8
Flow rate for liquid medium, α_2 (no less)	0.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

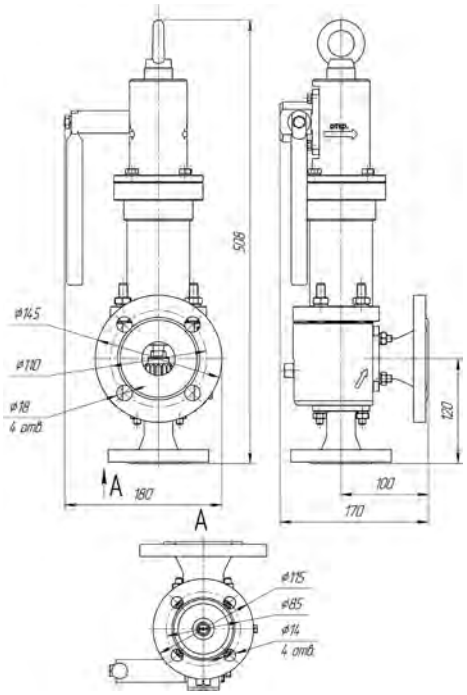
- gaseous medium;
- liquid medium.

Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF SAFETY VALVES

PROK 25/40/40/01/3/00



IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	25/40
Input pressure, PN inlet, MPa	4.0
Output pressure, PN outlet, MPa	1.6
Orifice size, mm	16
Set point pressure range, MPa	0.2...4.0
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60**
Medium temperature range, ºC	-40...+80**
Weight, kg (no more)	19
Flow rate for gaseous medium, α_1 (no less)	0.8
Flow rate for liquid medium, α_2 (no less)	0.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium;
- liquid medium.

Final valve order code shall be specified when ordering.

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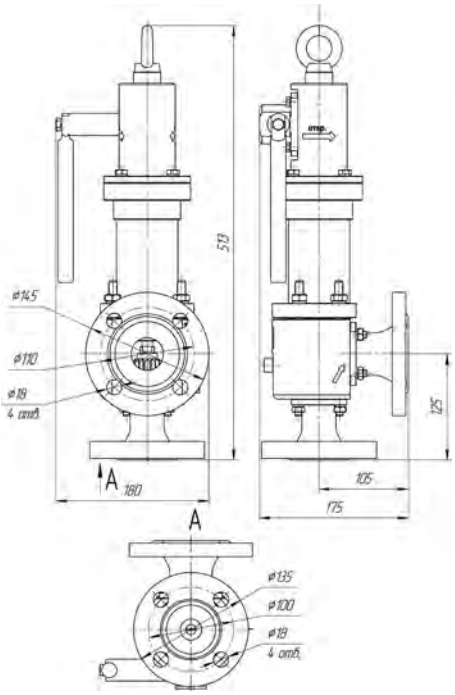
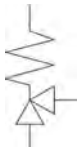
EXPLOSION PROOF SAFETY VALVES

PROK 25/63/63/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	25/40
Input pressure, PN inlet, MPa	6.3
Output pressure, PN outlet, MPa	2.5
Orifice size, mm	12
Set point pressure range, MPa	0.8...6.3
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60**
Medium temperature range, ºC	-40...+80**
Weight, kg (no more)	20
Flow rate for gaseous medium, α_1 (no less)	0.8
Flow rate for liquid medium, α_2 (no less)	0.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium;
- liquid medium.

Final valve order code shall be specified when ordering.

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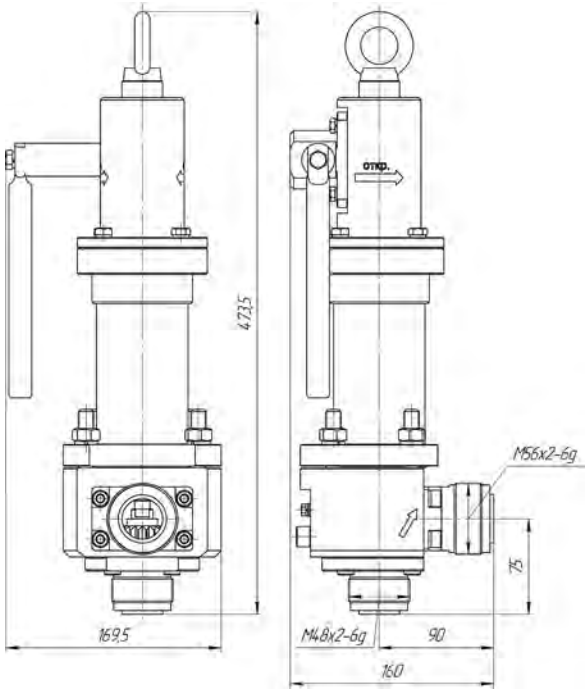
EXPLOSION PROOF SAFETY VALVES

PROK 25/100/100/01/2/00



IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm		25/32
Pressure, PN, MPa		10.0
Orifice size, mm		12
Set point pressure range, MPa		0.2...10.0
Set point pressure		Psp (to be agreed with the Client)*
Relieving pressure (no more)		Pr*
Closing pressure (no less)		Pc*
Male thread	inlet pipe DN15	M48x2 - 6g
	outlet pipe DN20	M56x2 - 6g
Trim impermeability upon State Standard GOST 9544-2015		class A
Climatic category upon State Standard GOST 15150-69		N, F, NF
Ambient temperature range, ºC		-60...+60
Medium temperature range, ºC		-40...+80
Weight, kg (no more)		17
Flow rate for gaseous medium, α_1 (no less)		0.8
Body material upon State Standard GOST 5632-2014		12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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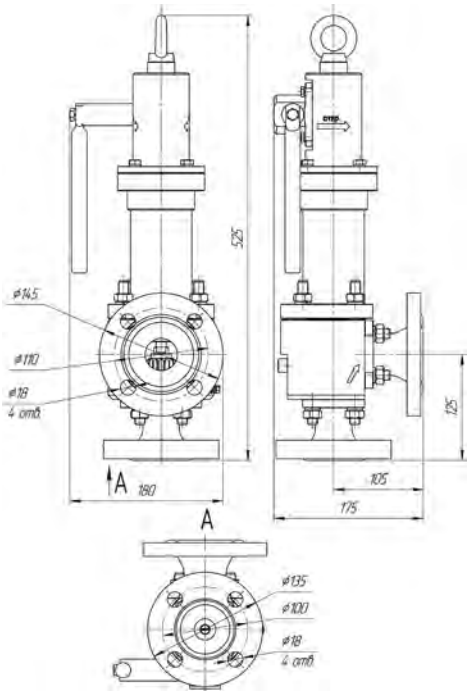
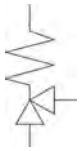
EXPLOSION PROOF SAFETY VALVES

PROK 25/100/100/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	25/40
Input pressure, PN inlet, MPa	10.0
Output pressure, PN outlet, MPa	4.0
Orifice size, mm	12
Set point pressure range, MPa	0.4...10.0
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+80
Weight, kg (no more)	24
Flow rate for gaseous medium, α_1 (no less)	0.8
Flow rate for liquid medium, α_2 (no less)	0.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium;
- liquid medium.

Final valve order code shall be specified when ordering.

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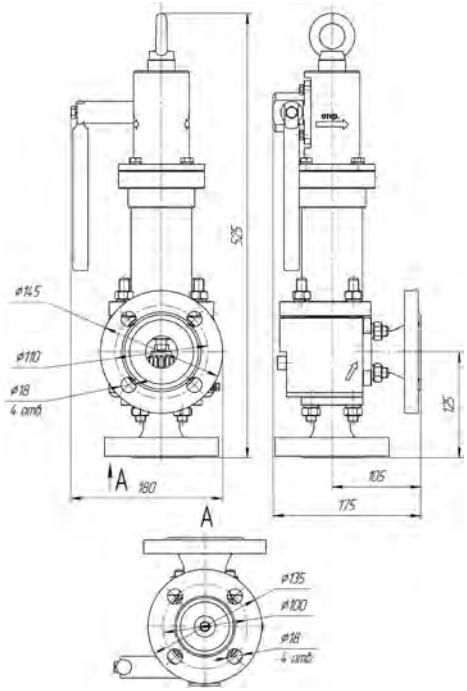
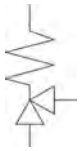
EXPLOSION PROOF SAFETY VALVES

PROK 25/160/160/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	25/40
Input pressure, PN inlet, MPa	16.0
Output pressure, PN outlet, MPa	6.3
Orifice size, mm	12
Set point pressure range, MPa	0.4...16.0
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-40...+40
Medium temperature range, ºC	-40...+60
Weight, kg (no more)	24
Flow rate for gaseous medium, α_1 (no less)	0.8
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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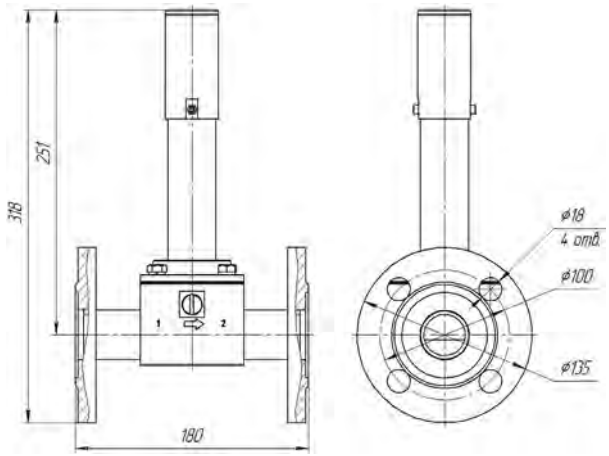
EXPLOSION PROOF SAFETY VALVES

PROK 32/10/4/10/3/00



IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	32/32
Pressure, PN, MPa	1
Orifice size, mm	25
Set point pressure range, MPa	0.04...0.4
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class B
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	+15...+60
Medium temperature range, ºC	+15...+150
Weight, kg (no more)	9
Flow rate for gaseous medium, α_2 (no less)	0.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

•supplied without manual override.

MEDIUM

• mineral and synthetic oil.

Final valve order code shall be specified when ordering.

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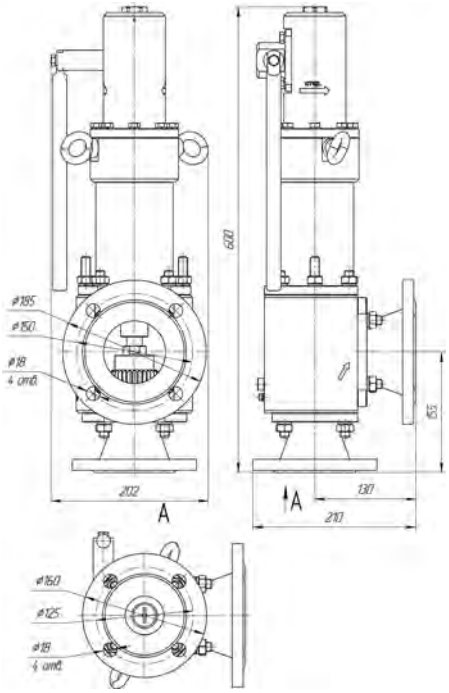
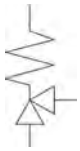
EXPLOSION PROOF SAFETY VALVES

PROK 50/16/16/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	50/80
Input pressure, PN inlet, MPa	1.6
Output pressure, PN outlet, MPa	0.6
Orifice size, mm	33
Set point pressure range, MPa	0.12...1.6
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+80
Weight, kg (no more)	41
Flow rate for gaseous medium, α_1 (no less)	0.8
Flow rate for liquid medium, α_2 (no less)	0.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

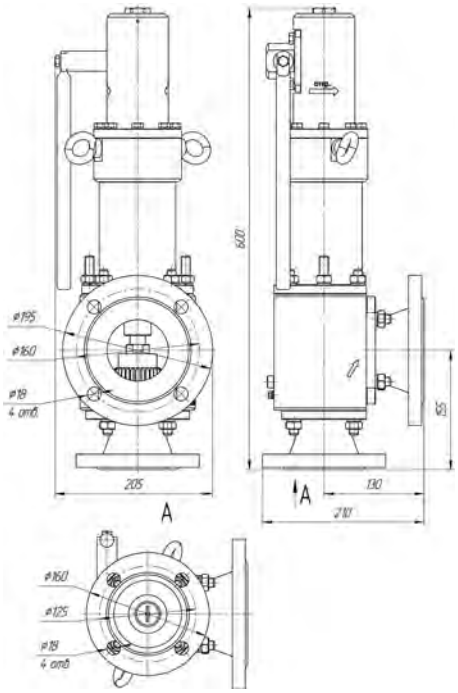
- gaseous medium;
- liquid medium.

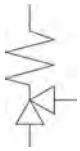
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF SAFETY VALVES

PROK 50/40/40/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	50/80
Input pressure, PN inlet, MPa	4.0
Output pressure, PN outlet, MPa	1.6
Orifice size, mm	33
Set point pressure range, MPa	2.0...4.0
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+80
Weight, kg (no more)	42
Flow rate for gaseous medium, α_1 (no less)	0.8
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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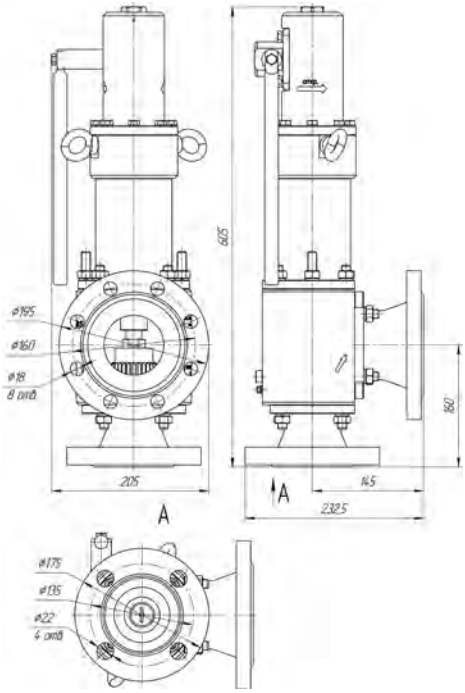
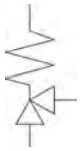
EXPLOSION PROOF SAFETY VALVES

PROK 50/63/63/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	50/80
Input pressure, PN inlet, MPa	6.3
Output pressure, PN outlet, MPa	2.5
Orifice size, mm	33
Set point pressure range, MPa	0.25...6.3
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+80**
Weight, kg (no more)	44
Flow rate for gaseous medium, α_1 (no less)	0.8
Flow rate for liquid medium, α_2 (no less)	0.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium;
- liquid medium.

Final valve order code shall be specified when ordering.

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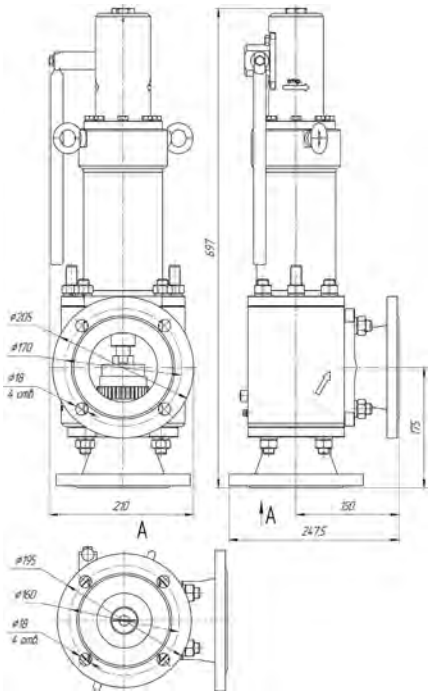
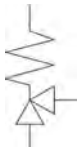
EXPLOSION PROOF SAFETY VALVES

PROK 80/16/16/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	80/100
Input pressure, PN inlet, MPa	1.6
Output pressure, PN outlet, MPa	0.6
Orifice size, mm	40
Set point pressure range, MPa	0.3...1.6
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+80
Weight, kg (no more)	62
Flow rate for gaseous medium, α_1 (no less)	0.8
Flow rate for liquid medium, α_2 (no less)	0.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium;
- liquid medium.

Final valve order code shall be specified when ordering.

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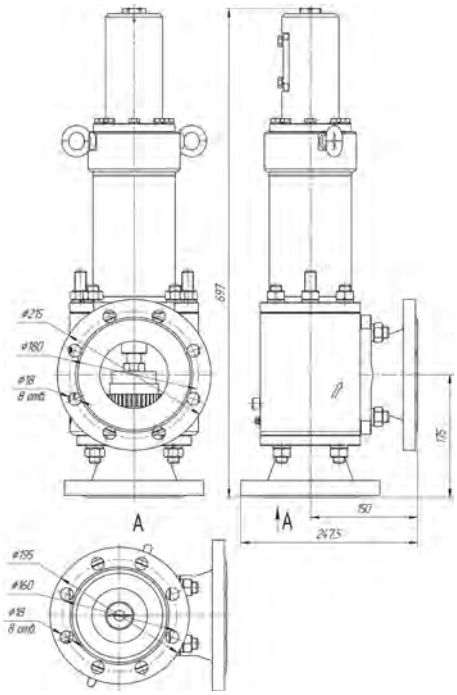
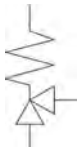
EXPLOSION PROOF SAFETY VALVES

PROK 80/25/25/00/3/05





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	80/100
Input pressure, PN inlet, MPa	2.5
Output pressure, PN outlet, MPa	1.6
Orifice size, mm	40
Set point pressure range, MPa	2.0...2.5
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-20...+120
Weight, kg (no more)	62
Flow rate for gaseous medium, α_1 (no less)	0.8
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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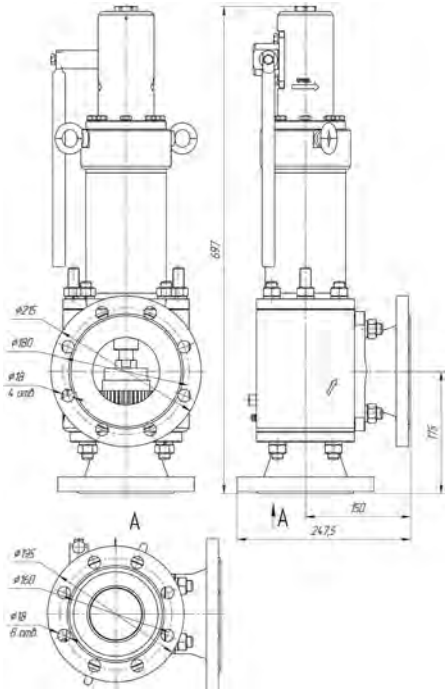
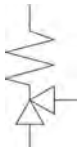
EXPLOSION PROOF SAFETY VALVES

PROK 80/40/40/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	80/100
Input pressure, PN inlet, MPa	4.0
Output pressure, PN outlet, MPa	1.6
Orifice size, mm	40
Set point pressure range, MPa	0.35...4.0
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+80
Weight, kg (no more)	64
Flow rate for gaseous medium, α_1 (no less)	0.8
Flow rate for liquid medium, α_2 (no less)	0.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

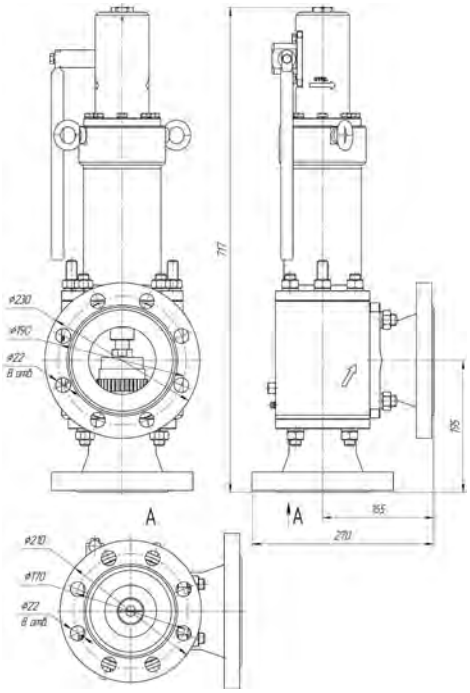
- gaseous medium;
- liquid medium.

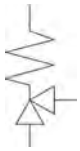
Final valve order code shall be specified when ordering.

75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF SAFETY VALVES

PROK 80/63/63/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	80/100
Input pressure, PN inlet, MPa	6.3
Output pressure, PN outlet, MPa	2.5
Orifice size, mm	40
Set point pressure range, MPa	2.5...6.3
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+80
Weight, kg (no more)	72
Flow rate for gaseous medium, α_1 (no less)	0.8
Flow rate for liquid medium, α_2 (no less)	0.5
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium;
- liquid medium.

Final valve order code shall be specified when ordering.

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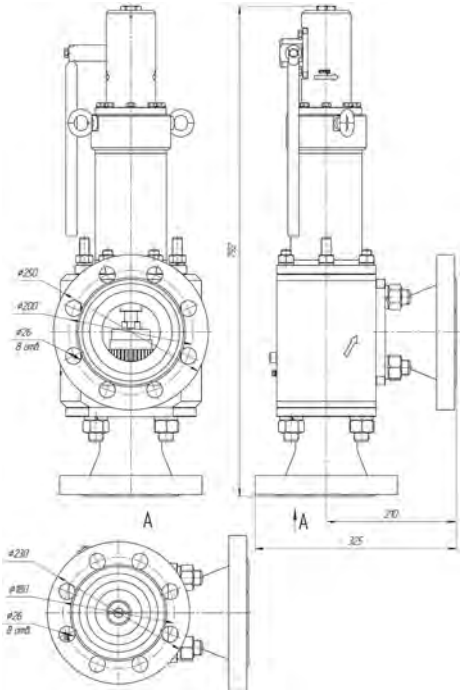
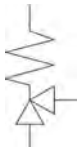
EXPLOSION PROOF SAFETY VALVES

PROK 80/100/63/01/3/04





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	80/100
Input pressure, PN inlet, MPa	10.0
Output pressure, PN outlet, MPa	6.3
Orifice size, mm	40
Set point pressure range, MPa	5.0...6.3
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+80
Weight, kg (no more)	110
Flow rate for gaseous medium, α_1 (no less)	0.8
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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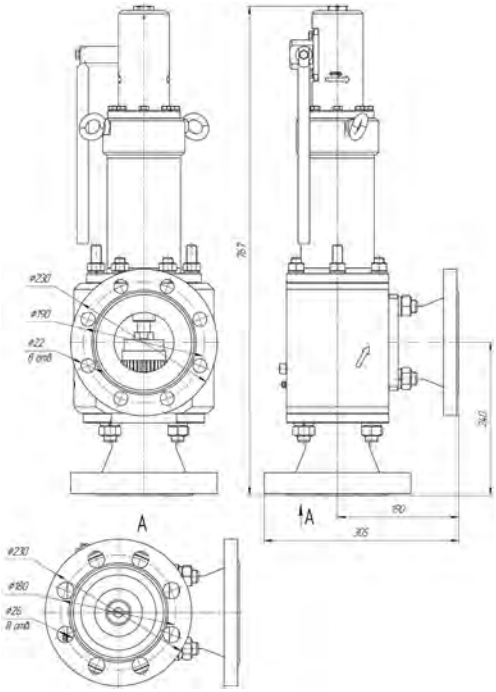
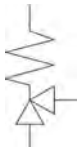
EXPLOSION PROOF SAFETY VALVES

PROK 80/160/63/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	80/100
Input pressure, PN inlet, MPa	16.0
Output pressure, PN outlet, MPa	4.0
Orifice size, mm	40
Set point pressure range, MPa	5.0...6.3
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+80
Weight, kg (no more)	100
Flow rate for gaseous medium, α_1 (no less)	0.8
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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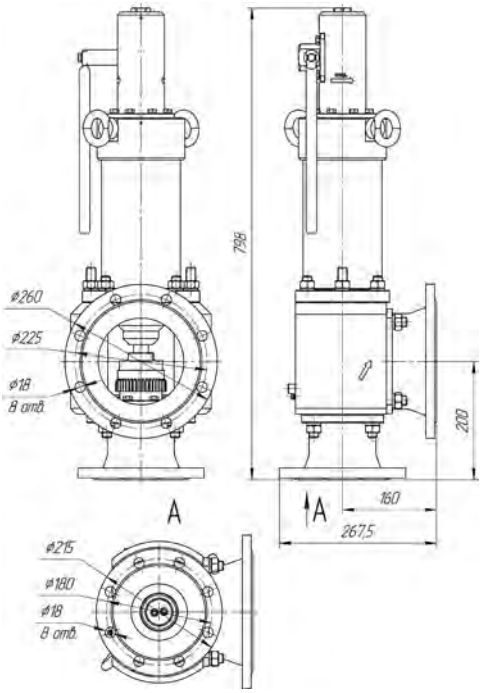
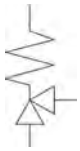
EXPLOSION PROOF SAFETY VALVES

PROK 100/16/16/01/3/00





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	100/150
Input pressure, PN inlet, MPa	1.6
Output pressure, PN outlet, MPa	0.6
Orifice size, mm	48
Set point pressure range, MPa	0.45...1.6
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-40...+80
Weight, kg (no more)	90.5
Flow rate for gaseous medium, α_1 (no less)	0.8
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.

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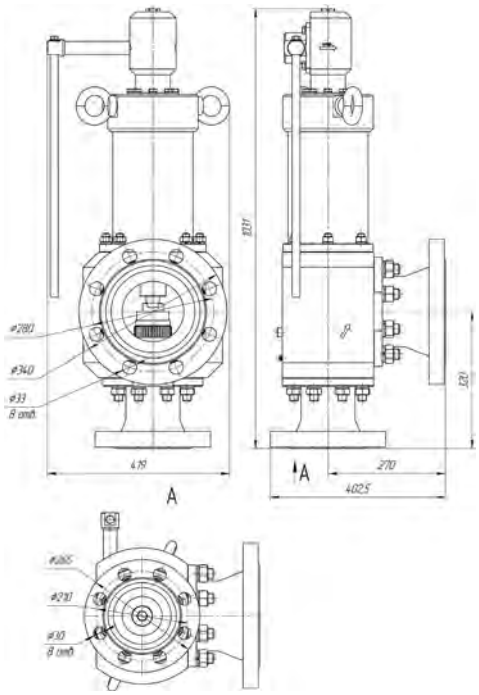
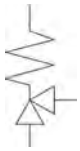
EXPLOSION PROOF SAFETY VALVES

PROK 100/100/40/01/3/01





IP66 Ex

SPECIFICATION

Diameter, DN inlet/DN outlet, mm	100/150
Input pressure, PN inlet, MPa	10.0
Output pressure, PN outlet, MPa	6.3
Orifice size, mm	48
Set point pressure range, MPa	0.8...1.6; 2.6...4.0
Set point pressure	Psp (to be agreed with the Client)*
Relieving pressure (no more)	Pr*
Closing pressure (no less)	Pc*
Pipe connection upon State Standard GOST 24072-80	flanges**
Trim impermeability upon State Standard GOST 9544-2015	class A
Climatic category upon State Standard GOST 15150-69	N, F, NF
Ambient temperature range, ºC	-60...+60
Medium temperature range, ºC	-50...+80
Weight, kg (no more)	253
Flow rate for gaseous medium, α_1 (no less)	0.8
Body material upon State Standard GOST 5632-2014	12H18N10T (12X18H10T)

* Refer to the general parameters for safety valves.
** To be specified when ordering.

OPTIONAL MODULES

- supplied with manual override;
- supplied without manual override.

MEDIUM

- gaseous medium.

Final valve order code shall be specified when ordering.
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IPK

Explosion proof impulse safety valves

EXPLOSION PROOF IMPULSE SAFETY VALVES

DESIGNATION:

IPK impulse safety valve is designed for automatic protection of the equipment and pipeline systems by dropping the excessive pressure when the pressure exceeds the set point pressure or by stopping the pressure relieving when the valve closing pressure or operation pressure is achieved either in automatic or manual operation mode.

Impulse safety valves are intended to be used in explosion hazardous areas except for the underground mines according to the State Standard GOST 31441.1.

Impulse safety valve is applied in the pneumatic and hydraulic systems inside and outside the facilities, under the shelter.

PARAMETERS:

Impulse safety valve with solenoid is equipped with explosion proof solenoid drives EV certified in proper way and has an explosion category “Explosion proof” and explosion protection type “Explosion Proof Enclosure”.

Impulse safety valve parameters:

Ps – Set point pressure. Maximum pressure before impulse safety valve when valve is closed and required trim leakproofness is provided. Unit of measure is kgf/cm².

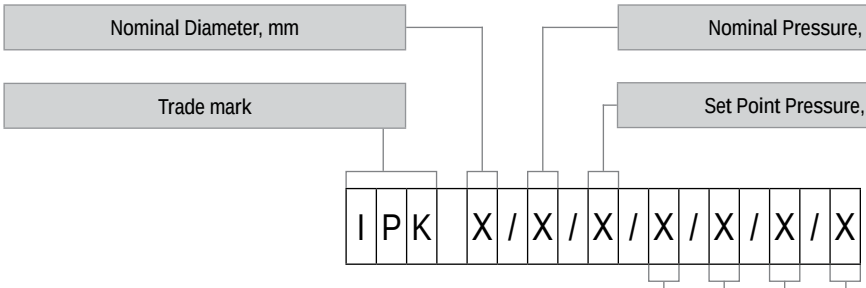
Ps shall be no more than:

- (Ps+0.5) – at set point pressure from 0.5 to 3.0 kgf/cm²;
- 1.15Ps – at set point pressure from 3.0 to 60.0 kgf/cm²;
- 1.1Ps – at set point pressure over 60.0 kgf/cm².

Pc – Closing Pressure. It is a pressure before valve occurring when the valve actuates, and the valve orifice closes. Unit of measure is kgf/cm². Pc shall be no less than 0.8 Ps.

Above mentioned parameters may differ depending on the agreement with the Customer.

ORDER CODE:



Medium:	
0	air, nitrogene, carbone dioxide, inert gases, gaseous hydro-carbones (propane, butane, methane and its mixtures)
1	water, diesel fuel, synthetic and mineral oils with viscosity no higher than 200 cSt
2	petrolium
3	oil fuel (mazout) upon State Standard GOST 10585
4	hot water, saturated steam
5	liquified hydrocarbones (propane-butane mixture)
6	spirits (alcohol), non-carbonated alcohol containg liquids
7	chemically active medium (natural gas odorant)
8	crude oil, dirty liquid fluids
9	uncleaned gaseous hydrocarbons

Additional modifiers:
additional modifiers may contain several digits

Connection:	
0	gland
1	female thread
2	male thread
3	flange
4	butt joint
5	special connection
6	claw connection
7	welding
8	clamping connection

Types of Optional Modules:	
0	supplied without optional modules
1	manual Override
2	solenoid
3	special configuration with additional modules

Note - X may consist of several digits or signs.

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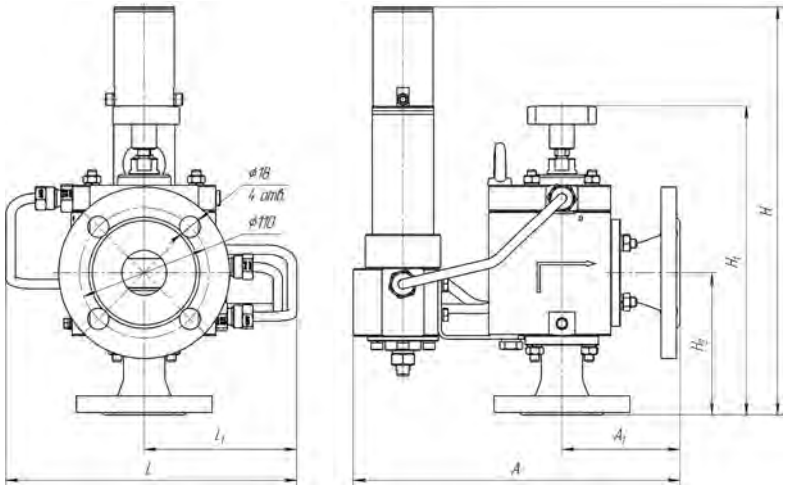
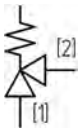
EXPLOSION PROOF IMPULSE SAFETY VALVES

IPK 25/40/6...40/0/1/3/00, IPK 25/40/6...40/0/1/3/05





IP66 Ex

SPECIFICATION

	IPK 25/40/6...40/0/1/3/00	IPK 25/40/6...40/0/1/3/05
Nominal Diameter, DNinlet/DNoutlet, mm	25/40	25/40
Nominal Pressure, PNinlet/PNoutlet, MPa	40/16	40/16
Connection	flanges	
Trim impermeability	class A	
Climatic category*	NF1	
Ambient temperature range, ºC	-60...+50	-60...+50
Medium temperature range, ºC	-60...+60	-60...+180
Body material upon State Standard GOST 5632-2014*	12H18N10T (12X18H10T), 14H17N2 (14X17H2)	
Dc, mm	25	25
L, mm	250	290
L1, mm	130	170
H, mm	345	345
H1, mm	262	262
H2, mm	120	120
A, mm	277	277
A1, mm	100	100
Weight, kg	19	19

* Upon an agreement with the Client IPK impulse safety valves may be manufactured with another technical characteristics.

Final valve order code shall be specified when ordering.

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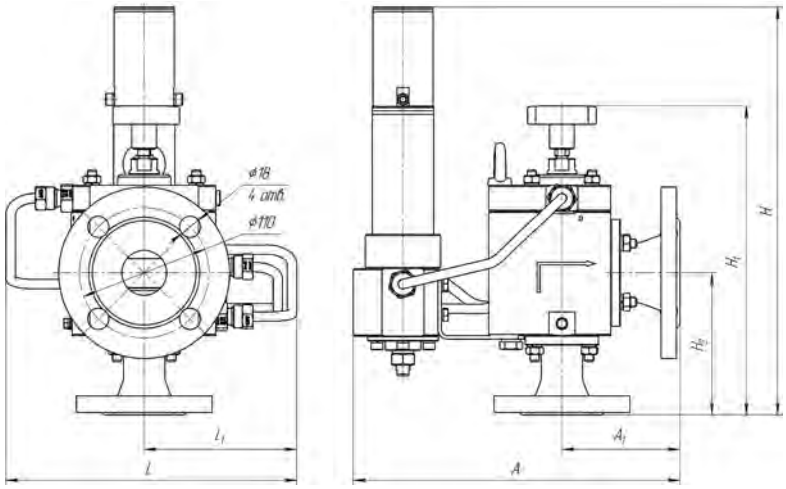
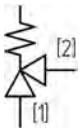
EXPLOSION PROOF IMPULSE SAFETY VALVES

IPK 50/40/6...40/0/1/3/00, IPK 50/40/6...40/0/1/3/05





IP66 Ex

SPECIFICATION

	IPK 50/40/6...40/0/1/3/00	IPK 50/40/6...40/0/1/3/05
Nominal Diameter, DNinlet/DNoutlet, mm	50/80	50/80
Nominal Pressure, PNinlet/PNoutlet, MPa	40/16	40/16
Connection	flanges	
Trim impermeability	class A	
Climatic category*	NF1	
Ambient temperature range, ºC	-60...+50	-60...+50
Medium temperature range, ºC	-60...+60	-60...+180
Body material upon State Standard GOST 5632-2014*	12H18N10T (12X18H10T), 14H17N2 (14X17H2)	
Dc, mm	48	48
L, mm	285	325
L1, mm	150	190
H, mm	360	360
H1, mm	314	314
H2, mm	155	155
A, mm	330	330
A1, mm	130	130
Weight, kg	35	35

* Upon an agreement with the Client IPK impulse safety valves may be manufactured with another technical characteristics.

Final valve order code shall be specified when ordering.

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BPK

Explosion proof safety valves block

EXPLOSION PROOF SAFETY VALVES BLOCKS

DESIGNATION:

Safety valve block is a switching device designed for medium distribution in pipeline systems.

Safety valve blocks are applied in explosive gas zones inside and outside the facilities except for the underground mines, shafts and its related facilities according to the State Standard GOST 31441.1.

Safety valve blocks are intended to be applied in the pneumatic and hydraulic systems inside and outside the facilities, under the shelter.

VARIETIES:

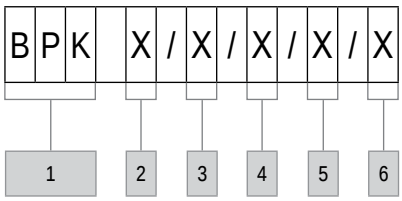
Safety valve block is a switching device equipped with a control wheel. Depending on the design switching device might be equipped with safety valves PROK or impulse safety valves IPK (hereinafter PROK/IPK). In the Safety Valve Block PROK/IPK inlet pipes are connected to the outlet pipes of switching device. Safety Valve Block with PROK/IPK valves can be equipped with auxiliary switching device by connecting its input pipes to the output pipes of PROK/IPK valves. In this case both switching devices are kinematically connected by chain drive to synchronize the operation.

Safety valve blocks equipped with one switching device are designed to distribute the medium.

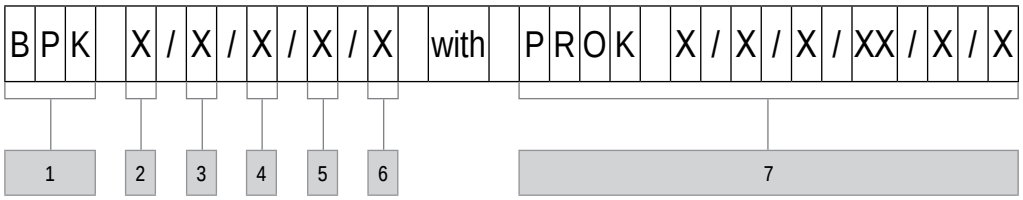
Safety valve blocks equipped with one switching device and two valves PROK/IPK are designed to distribute the medium and to drop the excessive pressure in the system.

Safety valve blocks equipped with two switching devices and two valves PROK/IPK are designed to distribute the medium, drop the excessive pressure in the system and to block reserve PROK/IPK valve without process shutdown.

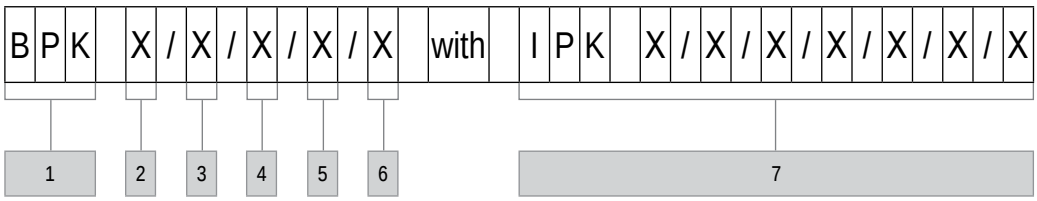
ORDER CODE:



Order Code for BPK equipped with safety valves PROK:



Order Code for BPK equipped with impulse safety valves IPK:



1	trade Mark (BPK block)
2	nominal diameter of inlet flange DN, mm
3	nominal pressure NP, kgf/cm²
4	medium
5	flywheel location in relation to valve backside PROK/IPK (1 – left, 2 - right)
6	model modifier
7	order code (marking designation) is presented in technical conditions TU 3742-013-53711114-2014, TU 3742-012-53711114-2013 for PROK safety valve, TU 28.14.11—016-53711114-2016 for IPK impulse safety valve.

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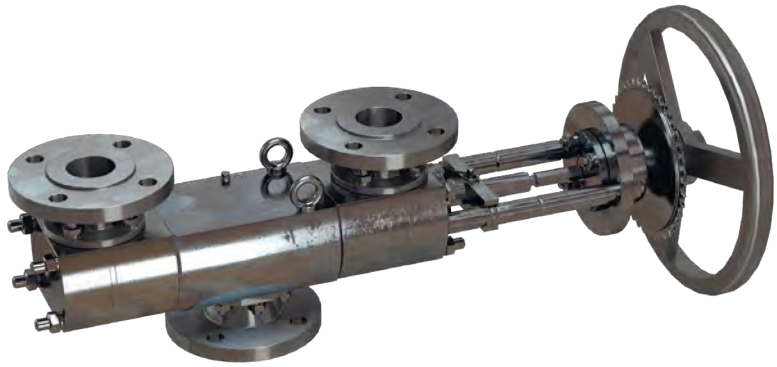
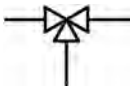
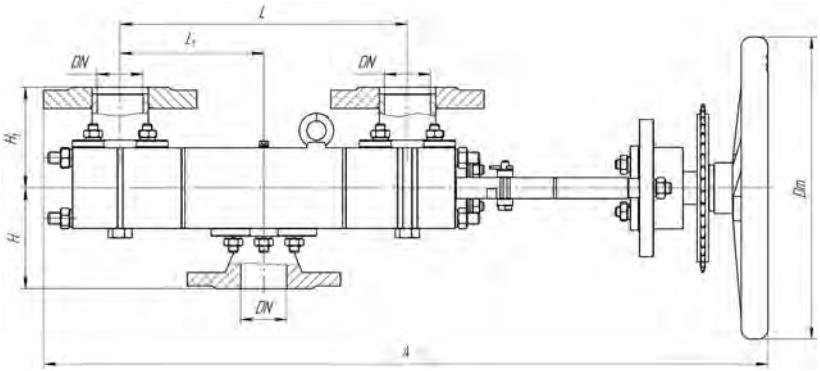
Switching device BPK without safety valves PROK





IP66 Ex



SPECIFICATION

	BPK 25/16	BPK 25/40	BPK 25/63	BPK 25/100	BPK 25/160	BPK 50/16	BPK 50/40	BPK 50/63	BPK 50/100	BPK 50/160	BPK 80/16	BPK 80/40	BPK 80/63	BPK 80/100	BPK 80/160	BPK 100/16	BPK 100/40
Nominal Diameter, DN, mm	25	25	25	25	25	50	50	50	50	50	80	80	80	80	80	100	100
Nominal Pressure, PN, MPa	16	40	63	100	160	16	40	63	100	160	16	40	63	100	160	16	40
Connection	flanges																
Trim impermeability	class A																
Climatic category	NF1																
Ambient temperature range, ºC	-40...+60																
Medium temperature range, ºC	-40...+60																
Body material upon State Standard GOST 5632-2014*	12H18N10T (12X18H10T), 14H17N2 (14X17H2)																
H, mm	95		120		105		180		150		200		170				
H1, mm	95		120		105		180		150		200		160				
L, mm	260		260		300		300		380		380		480				
L1, mm	130		130		150		150		190		190		240				
A, mm	663		659		752		752		932		932		1083				
Dm, mm	250		315		315		315		315		315		315				
Weight, kg	27		51		46		105		87		178		148				

* Upon an agreement with the Customer BPK block may be manufactured with another technical characteristics.

Final valve order code shall be specified when ordering.

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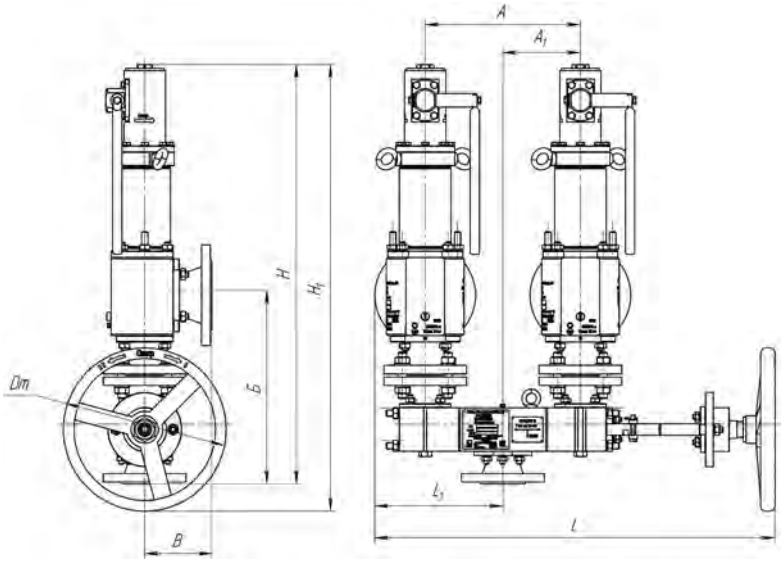
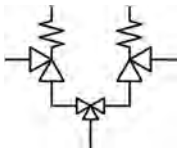
EXPLOSION PROOF SAFETY VALVES BLOCKS

Block BPK with safety valves PROK without outlet switching device





IP66 Ex

SPECIFICATION

	BPK 25/16/x/x/xx1 with PROK 25/16	BPK 25/40/x/x/xx1 with PROK 25/40	BPK 25/63/x/x/xx1 with PROK 25/63	BPK 25/100/x/x/xx1 with PROK 25/100	BPK 25/160/x/x/xx1 with PROK 25/160	BPK 50/16/x/x/xx1 with PROK 50/16	BPK 50/40/x/x/xx1 with PROK 50/40	BPK 50/63/x/x/xx1 with PROK 50/63	BPK 50/100/x/x/xx1 with PROK 50/100	BPK 50/160/x/x/xx1 with PROK 50/160	BPK 80/16/x/x/xx1 with PROK 80/16	BPK 80/40/x/x/xx1 with PROK 80/40	BPK 80/63/x/x/xx1 with PROK 80/63	BPK 80/100/x/x/xx1 with PROK 80/100	BPK 80/160/x/x/xx1 with PROK 80/160	BPK 100/16/x/x/xx1 with PROK 100/16	BPK 100/40/x/x/xx1 with PROK 100/40
Nominal Diameter, DNinlet/DNoutlet, mm	25/40	25/40	25/40	25/40	25/40	50/80	50/80	50/80	50/80	50/80	80/100	80/100	80/100	80/100	80/100	100/150	100/150
Nominal Pressure, PNinlet/PNoutlet, MPa	16/6	40/16	63/25	100/40	160/40	16/6	40/16	63/25	100/40	160/40	16/6	40/16	63/25	100/40	160/40	16/6	4016
Connection	flanges																
Trim impermeability	class A																
Climatic category	NF1																
Ambient temperature range, ºC	-40...+60																
Medium temperature range, ºC	-40...+60																
Body material	12H18N10T (12X18H10T), 14H17N2 (14X17H2) (upon State Standard GOST 5632-2014*)																
H, mm	700		770		790		975		1000		1130					1120	
H1, mm	730		802		745		955		1008		1088					1113	
L, mm	713		712		790		790		935		935					1053	
L1, mm	238		238		255		255		305		305					380	
A, mm	260		260		300		300		380		380					480	
A1, mm	130		130		150		150		190		190					240	
Б, mm	310		365		365		520		475		595					530	
B, mm	100		105		130		145		150		165					160	
Dm, mm	250		315		315		315		315		315					315	
Weight, kg	62		100		130		215		200		380					290	

* Upon an agreement with the Customer BPK may be manufactured with another technical characteristics.

Final valve order code shall be specified when ordering.

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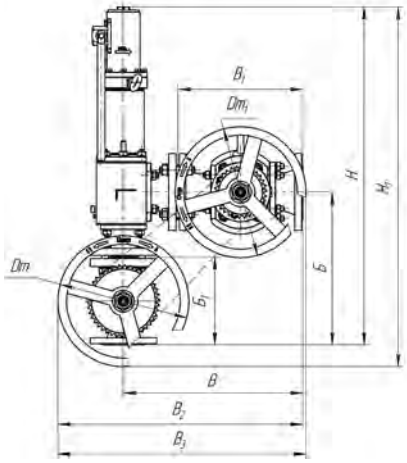
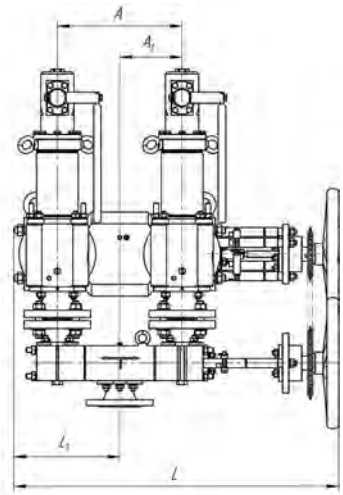
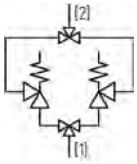
Block BPK with safety valves PROK







IP66 Ex

SPECIFICATION

	BPK 25/16 with PROK 25/16	BPK 25/40 with PROK 25/40	BPK 25/63 with PROK 25/63	BPK 25/100 with PROK 25/100	BPK 25/160 with PROK 25/160	BPK 50/16 with PROK 50/16	BPK 50/40 with PROK 50/40	BPK 50/63 with PROK 50/63	BPK 50/100 with PROK 50/100	BPK 50/160 with PROK 50/160	BPK 80/16 with PROK 80/16	BPK 80/40 with PROK 80/40	BPK 80/63 with PROK 80/63	BPK 80/100 with PROK 80/100	BPK 80/160 with PROK 80/160	BPK 100/16 with PROK 100/16	BPK 100/40 with PROK 100/40
Nominal Diameter, DNinlet/DNoutlet, mm	25/40	25/40	25/40	25/40	25/40	50/80	50/80	50/80	50/80	50/80	80/100	80/100	80/100	80/100	80/100	100/150	100/150
Nominal Pressure, PNinlet/PNoutlet, MPa	16/6	40/16	63/25	100/40	160/40	16/6	40/16	63/25	100/40	160/40	16/6	40/16	63/25	100/40	160/40	16/6	4016
Connection	flanges																
Trim impermeability	class A																
Climatic category*	NF1																
Ambient temperature range, °C*	-40...+60																
Medium temperature range, °C*	-40...+60																
Body material*	12H18N10T (12X18H10T), 14H17N2 (14X17H2) (upon State Standard GOST 5632-2014*)																
H, mm	700		770		790		975		1000		1130					1120	
H1, mm	730		802		745		955		1008		1088					1113	
L, mm	713		712		790		790		935		935					1053	
L1, mm	238		238		255		255		305		305					380	
A, mm	260		260		300		300		380		380					480	
A1, mm	130		130		150		150		190		190					240	
Б, mm	310		365		365		520		475		595					530	
Б1, mm	190		240		210		360		300		400					330	
B, mm	450		400		430		445		480		495					600	
B1, mm	210		210		300		300		330		330					440	
B2, mm	575		605		590		603		638		653					758	
B3, mm	594		625		600		610		630		645					695	
Dm, mm	250		315		315		315		315		315					315	
Dm1, mm	250		250		315		315		315		315					315	
Weight, kg	115		160		220		300		380		460					700	

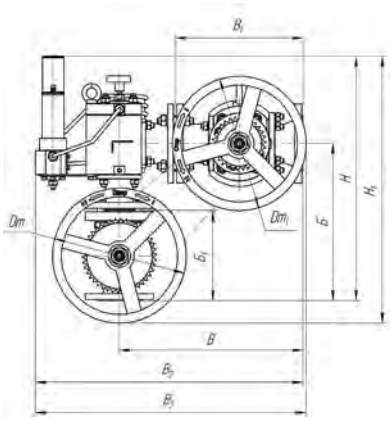
* Upon an agreement with the Customer BPK may be manufactured with another technical characteristics.

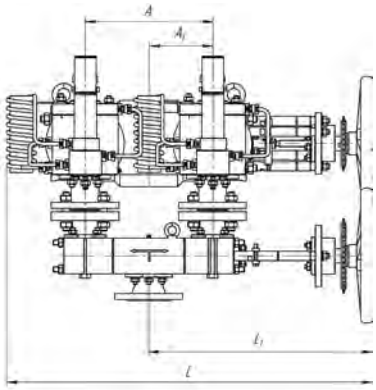
Final valve order code shall be specified when ordering.

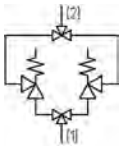
75 Prospekt Pobedy, Penza 440060, Russia, tel./fax: (8412) 95-04-15; 202-303, e-mail: marketing@solenoid.ru, www.takevalve.com

EXPLOSION PROOF SAFETY VALVES BLOCKS

Block BPK with impulse safety valves IPK







IP66 Ex

SPECIFICATION

	BPK 25/40 with IPK 25/40/6...40/0/1/3/00	BPK 25/40 with IPK 25/40/6...40/0/1/3/05	BPK 50/40 with IPK 50/40/6...40/0/1/3/00	BPK 50/40 with IPK 50/40/6...40/0/1/3/05
Nominal Diameter, DNinlet/DNoutlet, mm	25/50	25/50	50/80	50/80
Nominal Pressure, PNinlet/PNoutlet, MPa	40/16	40/16	40/16	40/16
Connection	flanges			
Trim impermeability	class A			
Climatic category*	NF1			
Ambient temperature range, ºC	-40...+50	-40...+50	-40...+50	-40...+50
Medium temperature range, ºC	-40...+60	-40...+180	-40...+60	-40...+180
Body material*	12H18N10T (12X18H10T), 14H17N2 (14X17H2) (upon State Standard GOST 5632-2014*)			
H, mm	535		572	
H1, mm	565		624	
L, mm	723	475	810	865
L1, mm	476		527	
A, mm	260		300	
A1, mm	130		150	
Б, mm	310		365	
Б1, mm	190		210	
B, mm	395		430	
B1, mm	210		300	
B2, mm	572		630	
B3, mm	603		638	
Dm, mm	250		315	
Dm1, mm	250		315	
Weight, kg	110		190	

Final valve order code shall be specified when ordering.

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Solenoid Drives

EXPLOSION PROOF SOLENOID DRIVES

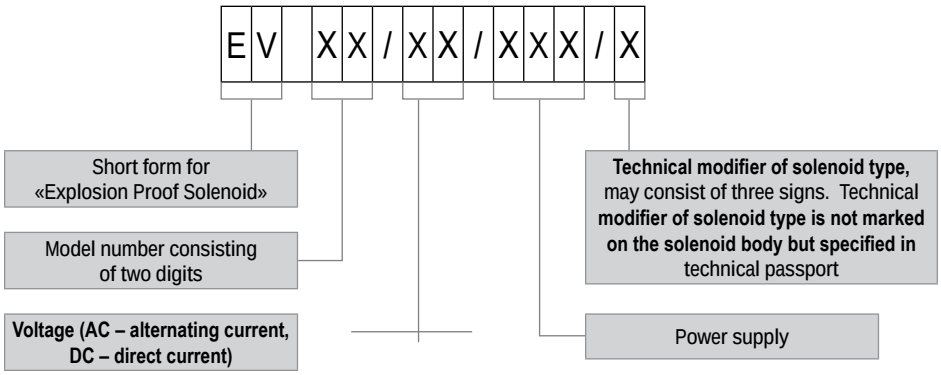
DESIGNATION:

Explosion proof solenoid drive is intended to be used as solenoid drive of pipeline valve.

OPERATION:

When solenoid is powered the magnetic field occurs and shifts the armature and connected device. Due to magnetic forces the aramture moves towards the stack and fulfills an effective work. When the solenoid is de-energized the armature returns back to its initial position by spring connected with solenoid.

ORDER CODE:



GENERAL PURPOSE SOLENOID DRIVES

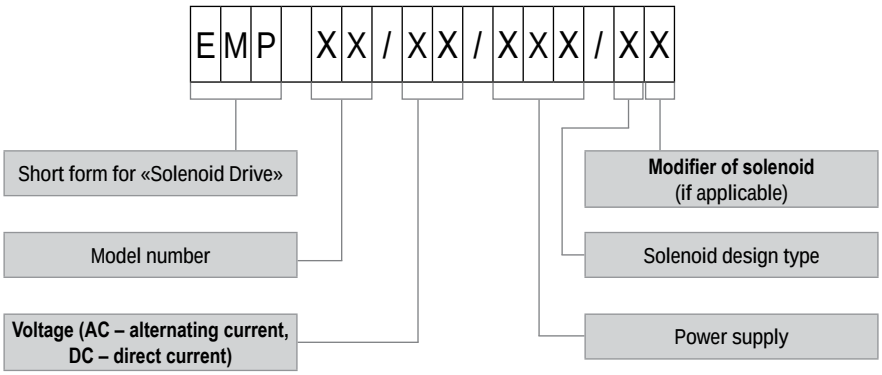
DESIGNATION:

General purpose solenoid drive is designed to conjugate components and devices (to open or block the working medium flow channel, to shift the details, etc.)

OPERATION:

When solenoid is powered the magnetic field occurs and shifts the armature and connected device. Due to magnetic forces the aramture moves towards the stack and fulfills an effective work. When the solenoid is de-energized the armature returns back to its initial position by spring connected to solenoid.

ORDER CODE:



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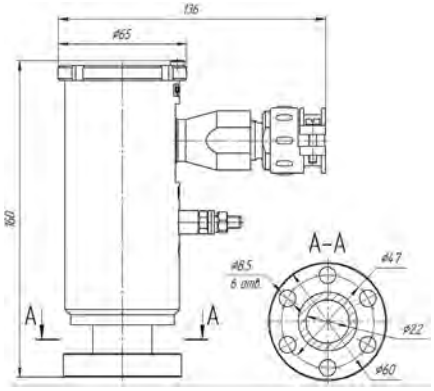
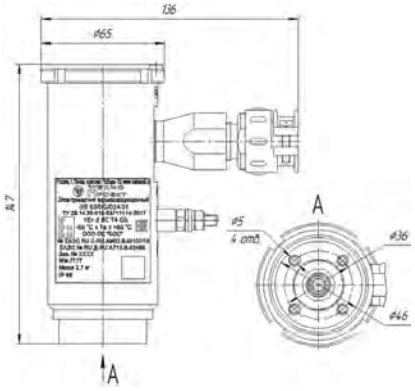
EXPLOSION PROOF SOLENOID DRIVES

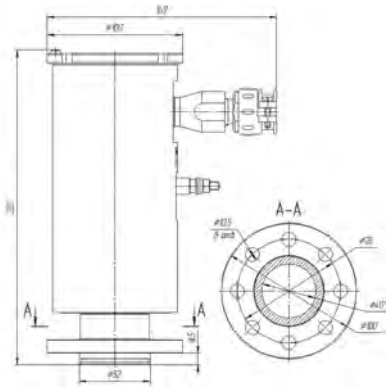
EV 05, EV 06



EV 05
Pulling



EV 05
Pushing



EV 06
Pulling

SPECIFICATION

IP66 Ex

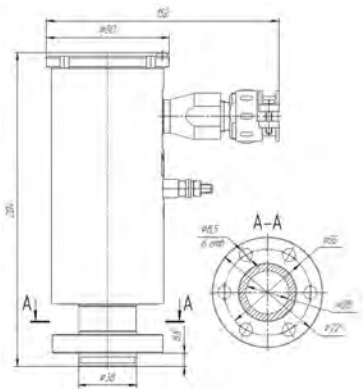
Parameters	EV 05	EV 05	EV 06
Solenoid type	Pulling	Pushing	Pulling
Voltage	DC 24 AC 230	DC 24 AC 230	DC 24 AC 230
Solenoid winding current consumption, A (no more)*	1 (at DC 24) 0.3 (at AC 230)	1 (at DC 24) 0.3 (at AC 230)	16 (at DC 24) 2.6 (at AC 230)
Number of cable glands	1	1	2
Explosion protection	1Ex d IIC T4 Gb 1Ex d IIB T4 Gb	1Ex d IIC T4 Gb 1Ex d IIB T4 Gb	1Ex d IIC T4 Gb 1Ex d IIB T4 Gb
Working medium	**	**	**
Operating pressure, MPa*	50	6.3	10
Armature stroke, mm*	4	2	16
Drive motive force, H (no less)*	40	60	200
Ambient temperature range, °C	-60 ... +60	-60 ... +60	-60 ... +60
Dimensions, mm (no more)	160 x 136 x 65	147 x 136 x 65	232 x 169 x 169
Weight, kg (no more)	3	3	10

* Upon the reconciliation with the Customer the parameters can be changed depending on the solenoid operation peculiarities.
** The standard type of solenoid is design for gas liquid mixture (air, gas, water). Upon the reconciliation with the Customer the solenoid drive can be designed for other working medium.

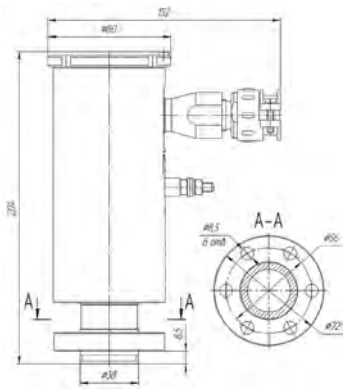
Final valve order code shall be specified when ordering.

EXPLOSION PROOF SOLENOID DRIVES

EV 07



EV 07
Pulling



EV 07
Pushing

SPECIFICATION

IP66 Ex

Parameters	EV 07	EV 07
Solenoid type	Pulling	Pushing
Voltage	DC 24 AC 230	DC 24 AC 230
Solenoid winding current consumption, A (no more)*	10 (at DC 24) 2.6 (at AC 230)	10 (at DC 24) 2.6 (at AC 230)
Number of cable glands	2	2
Explosion protection	1Ex d IIC T4 Gb 1Ex d IIB T4 Gb	1Ex d IIC T4 Gb 1Ex d IIB T4 Gb
Working medium	**	**
Operating pressure, MPa*	25	35
Armature stroke, mm*	14	6
Drive motive force, H (no less)*	80	120
Ambient temperature range, ºC	-60 ... +60	-60 ... +60
Dimensions, mm (no more)	204 x 152 x 152	204 x 152 x 152
Weight, kg (no more)	6	6

* Upon the reconciliation with the Customer the parameters can be changed depending on the solenoid operation peculiarities.
** The standard type of solenoid is design for gas liquid mixture (air, gas, water). Upon the reconciliation with the Customer the solenoid drive can be designed for other working medium.

Final valve order code shall be specified when ordering.

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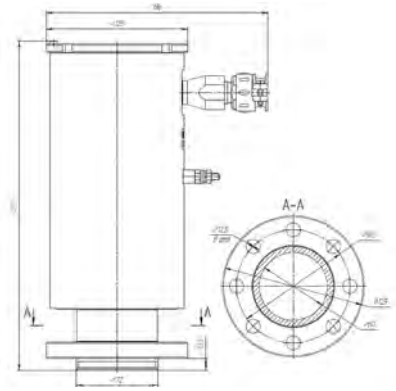
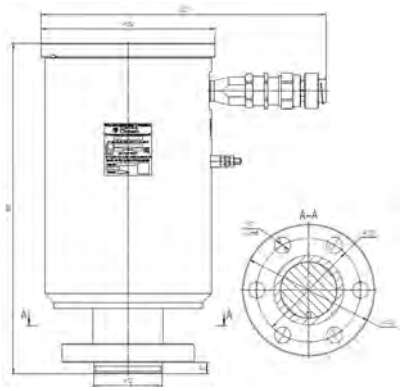
EXPLOSION PROOF SOLENOID DRIVES

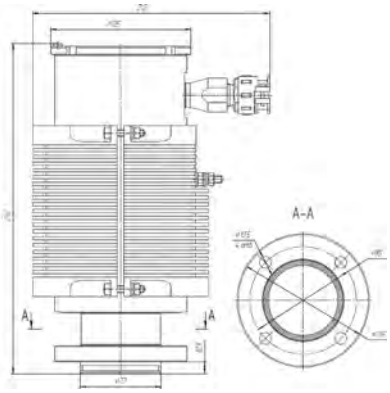
EV 11



EV 11
Pulling



EV 11 (L)
Pulling



EV 11
Pushing

SPECIFICATION

IP66 Ex

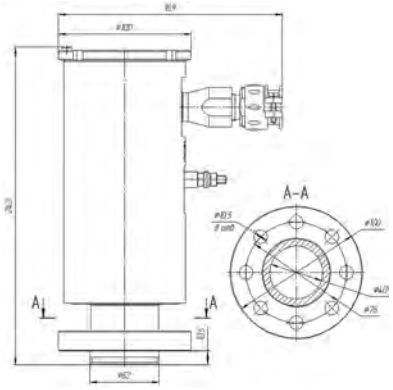
Parameters	EV 11	EV 11 (L)	EV 11
Solenoid type	Pulling	Pulling	Pushing
Voltage	DC 24 AC 230	AC 230	AC 230
Solenoid winding current consumption, A (no more)*	16 (at DC 24) 2.6 (at AC 230)	4.2	1.6
Number of cable glands	2	2	2
Explosion protection	1Ex d IIC T3 Gb 1Ex d IIB T3 Gb	1Ex d IIB T3 Gb	1Ex d IIC T3 Gb 1Ex d IIB T3 Gb
Working medium	**	**	**
Operating pressure, MPa*	16	25	1
Armature stroke, mm*	40	40	20
Drive motive force, H (no less)*	300	600	350
Ambient temperature range, °C	-60 ... +60	-60 ... +45	-60 ... +70
Dimensions, mm (no more)	292 x 196 x 196	351 x 302 x 302	292 x 212 x 212
Weight, kg (no more)	18	46	20

* Upon the reconciliation with the Customer the parameters can be changed depending on the solenoid operation peculiarities.
** The standard type of solenoid is design for gas liquid mixture (air, gas, water). Upon the reconciliation with the Customer the solenoid drive can be designed for other working medium.

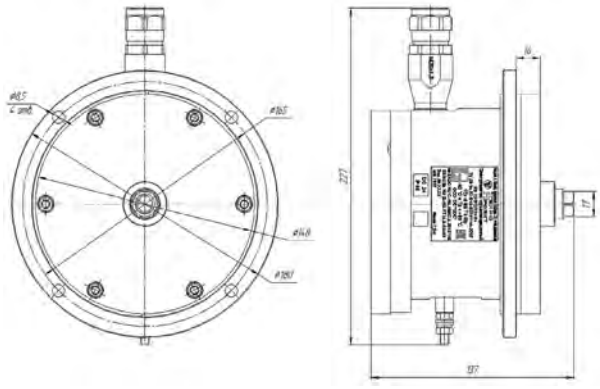
Final valve order code shall be specified when ordering.

EXPLOSION PROOF SOLENOID DRIVES

EV 12, EV 13



EV 12
Pulling



EV 13
Pulling

SPECIFICATION

IP66 Ex

Parameters	EV 12	EV 13
Solenoid type	Pulling	Pulling
Voltage	DC 24 AC 230	DC 24
Solenoid winding current consumption, A (no more)*	16 (at DC 24) 2.6 (at AC 230)	16
Number of cable glands	2	1
Explosion protection	1Ex d IIC T4 Gb 1Ex d IIB T4 Gb	1Ex d IIB T4 Gb
Working medium	**	-
Operating pressure, MPa*	16	-
Armature stroke, mm*	16	5
Drive motive force, H (no less)*	240	300
Ambient temperature range, °C	-60 ... +60	-40 ... +60
Dimensions, mm (no more)	240 x 169 x 169	327 x 180 x 137
Weight, kg (no more)	10	7.2

* Upon the reconciliation with the Customer the parameters can be changed depending on the solenoid operation peculiarities.
** The standard type of solenoid is design for gas liquid mixture (air, gas, water). Upon the reconciliation with the Customer the solenoid drive can be designed for other working medium.

Final valve order code shall be specified when ordering.

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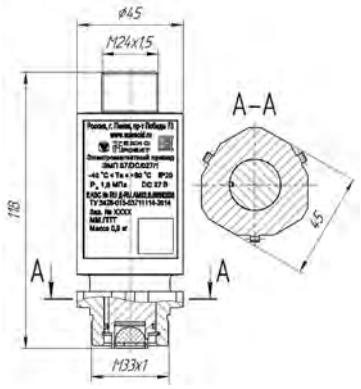
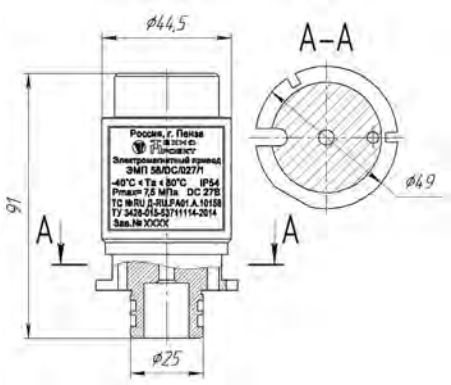
GENERAL PURPOSE SOLENOID DRIVES

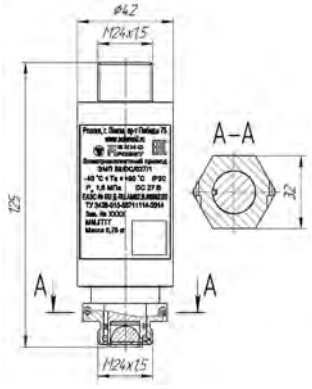
EMP 57/DC/027/1, EMP 58/DC/027/1, EMP 59/DC/027/1



EMP 57/DC/027/1
Pulling



EMP 58/DC/027/1
Pushing



EMP 59/DC/027/1
Pulling

SPECIFICATION

IP66

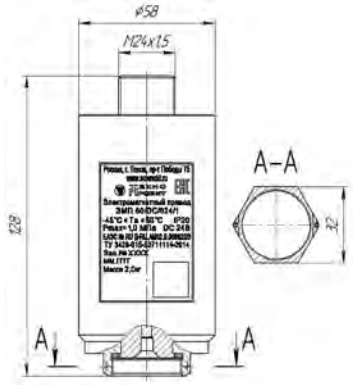
Parameters	EMP 57/DC/027/1	EMP 58/DC/027/1	EMP 59/DC/027/1
Working medium	*	*	*
Operating pressure of solenoid drive, MPa	1.6	7.5	1.6
Voltage, V	27±10% DC	27±10% DC	27±10% DC
Nominal drive motive force, H (no less)	100	70	48
Solenoid winding current consumption, A (no more)	2	1.3	1
Solenoid type	Pulling	Pushing	Pulling
Armature stroke, mm	1	1.5	1
Ambient temperature range, °C	-40 ... +80	-40 ... +80	-40 ... +80
Dimensions, mm (no more)	117 x 49 x 49	91 x 49 x 49	124 x 42 x 42
Weight, kg (no more)	0.9	0.75	0.75

* fuel gas upon the State Standard GOST 5542-2014.
** diesel fuel Л-05-061 upon the State Standard GOST 305-2013 and tubine oil upon the State Standard GOST 10289-79.

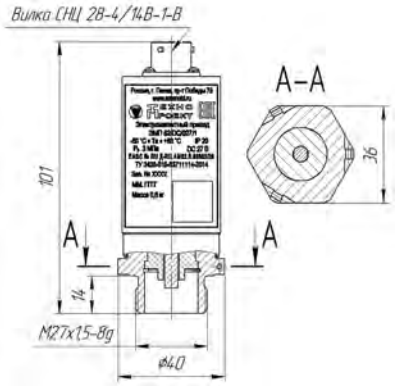
Final valve order code shall be specified when ordering.

GENERAL PURPOSE SOLENOID DRIVES

EMP 60/DC/024/1, EMP 62/DC/027/1



EMP 60/DC/024/1
Pushing



EMP 62/DC/027/1
Pushing

SPECIFICATION

IP66

Parameters	EMP 60/DC/024/1	EMP 62/DC/027/1
Working medium	**	***
Operating pressure of solenoid drive, MPa	1	3
Voltage, V	24 $^{+10\%}_{-17\%}$ DC	27±10% DC
Nominal drive motive force, H (no less)	38	24
Solenoid winding current consumption, A (no more)	0.9	1.2
Solenoid type	Pushing	Pushing
Armature stroke, mm	3	3
Ambient temperature range, °C	-45 ... +50	-60 ... +60
Dimensions, mm (no more)	128 x 58 x 58	101 x 40 x 40
Weight, kg (no more)	1.9	0.6

** diesel fuel Л-05-061 upon the State Standard GOST 305-2013 and tubine oil upon the State Standard GOST 10289-79.
*** oil ТП-22 upon the State Standard GOST 9972-74, МК-8П upon the State Standard GOST 6457-66, МС-8П ОСТ 38.01163-78, ИПМ-10 ТУ 38.1011299-2006.

Final valve order code shall be specified when ordering.

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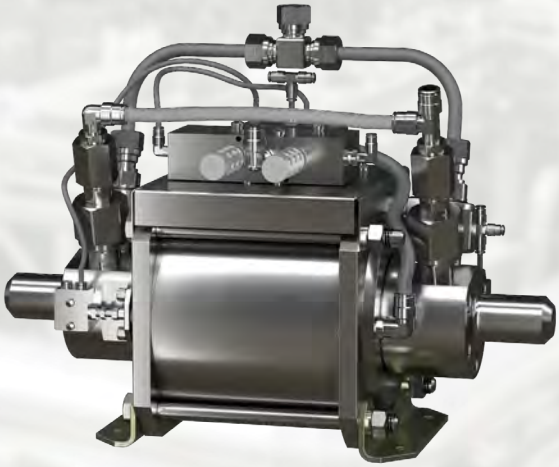
Pneumatic Equipment



DKP PNEUMATIC BOTTOM VALVE

DESIGNATION:

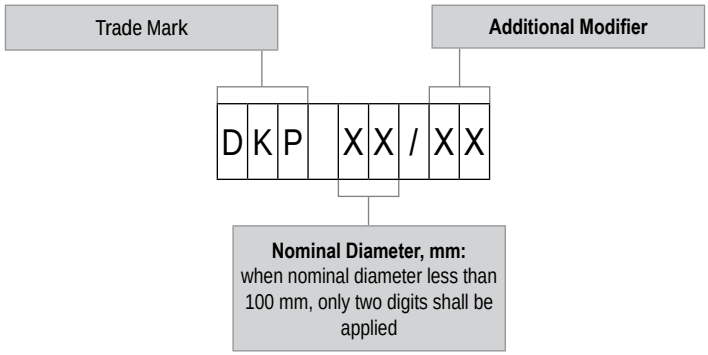
DKP pneumatic bottom valve is installed in the lower part of tank designed for keeping and transportation of water and other non-aggressive liquids including light oil products (petroleum, kerosine oil, diesel fuel, aviation fuel) with water or anticrystallization impurities (PVZh-liquids) of “I”, “IM” type (0.3%), and is applied as distantly controlled blocking valve for loading and uploading works.

OPERATION:

Valve seat is fully opened by pneumatic drive with compressed air no rougher than Contamination Class 10 upon the State Standard GOST 17433 at pressure 0.2...0.8 MPa.

DKP pneumatic bottom valve is normally closed.

ORDER CODE:



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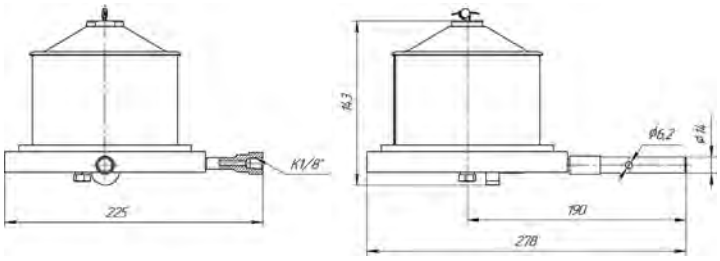
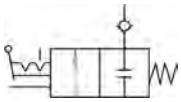
DKP PNEUMATIC BOTTOM VALVE

DKP-90/01 with manual override





IP66

SPECIFICATION

Nominal Diameter, DN, mm		80±5%
Nominal Diameter when operated with manual override, DN, mm		56±5%
Nominal Presure, PN, MPa	in cavity	0...0.6
	in cavity	0...0.05
	in actuation medium	0.2...0.8
Connection	to the tank	flanges K ⅛"
	to the actuation pneumatic system	
Valve position		normally closed
Trim impermeability at 0...0.6 Mpa (State Standard GOST P 54808-2011)		class A
Climatic category		NF2
Ambient temperature range, ºC		-40...+45
Medium temperature range, ºC		up to +80
Dimensions, mm (no more)		225 x 278 x 143
Weight, kg (no more)		3.6

OPTIONAL MODULES

- mannual override

POSSIBLE VARIETIES

- DKP-90/02
  Medium: food liquids

MEDIUM

STANDART VALVE MODEL:

- light oil products (petrolium, kerosine oil, diesel fuel, aviation fuel upon State Standard GOST 10227) with water impurities, non-chemical impurities and anticrystallization liquids (PVZh-liquids) of «I» type, «IM» (up to 0.3% of volume).

Final valve order code shall be specified when ordering.

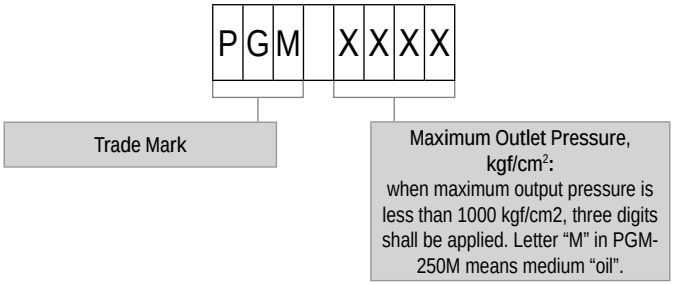
PNEUMATIC-HYDRAULIC BOOSTER

DESIGNATION:

Pneumatic-hydraulic booster is designed for high pressurization of liquids and used as double-plunger hydraulic pump with pneumatic drive.

Pneumatic-hydraulic booster is intended to be used in oil procissing and petrochemical industry and other industries, inside of the heated nonhazardous facilities exept for explosion hazardous areas.

ORDER CODE:



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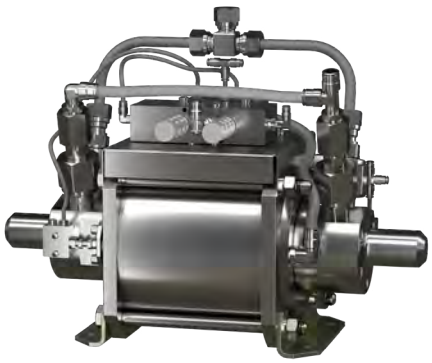
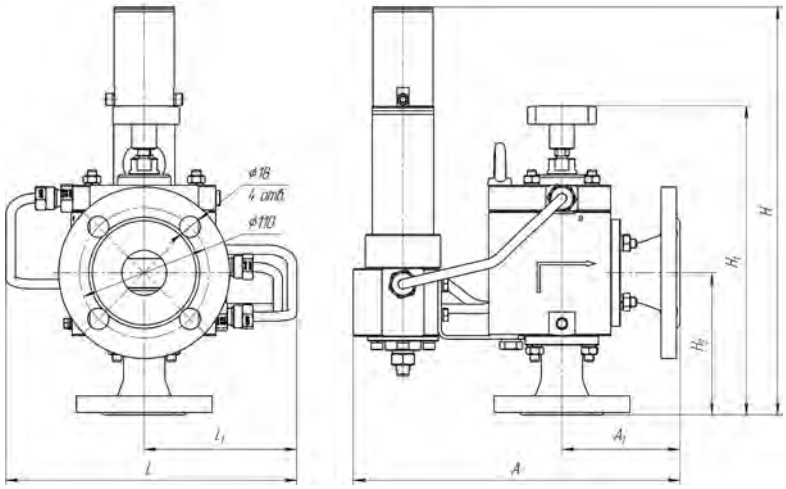
PNEUMATIC-HYDRAULIC BOOSTER

PGM-250, PGM-450, PGM-750, PGM-1100





SPECIFICATION

	PGM-250	PGM-450	PGM-750	PGM-1100
Inlet Pressure of water/oil, MPa	0.1...0.2			
Outlet Pressure of water/oil, MPa	1.0...25.0	2.0...45.0	3.0...75.0	5.0...110.0
Input air, MPa	0.6			
Pressure increase level	42	75	125	183
Capasity for double stroke, cm³	78.4	41	25	17.6
Air flow rate for double stroke, cm³	4000			
Max number of double strokes per minute	60			
Number of operating strokes	120			
Medium	water, oil			
Dimensions, mm	481.5 x 225 x 430			
Weight, kg	50			

ADVANTAGES:

- downstream pressure up to 1100 kgf/cm³;
- higher efficiency in comparison with high pressure pump;
- stepless control of downstream pressure;
- low air flow rate;
- automatic set pressure control;
- easy in operation and maintenance.

Final valve order code shall be specified when ordering.

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DATA SHEET FOR SOLENOID VALVE

Project designer	
Address	
Phone number/Fax	
E-mail	
Contact person	

Specifications

Type of action (NC or NO)		
Nominal diameter DN, mm		
Nominal pressure PN, MPa		
Medium	Composition	
	Purity grade	
	Viscosity	
	Temperature, ºC	
	Medium flowrate	
	Inlet pressure min/max, MPa	
	Outlet pressure min/max, MPa	
Differential pressure at closed/open valve, MPa		
Direction of medium flow (one-way, two-way)		
Occurrence of pressure pulsations, hydroshocks, residual outlet pressure		
Nominal diameter of outlet and inlet pipes, mm		
Ambient temperature, ºC		
Protection IP		
Explosion protection		
Trim impermeability (Class A, B,C)		
Valve power supply	Current type (AC, DC)	
	Voltage, Volt	
	Power mains pecularities (Voltage surges)	
	Current constraints (Power)	
Timing specifications	Opening / closing time of valve, s	
	Time period of solenoid under voltage, s	
	Actuation frequency	
Control scheme	Force stress commutation	
	Logical signaling under constant power supply	
	Other	
Options	Valve position indicator requirements	
	Manual override	
	Valve position lock	
	Counter flanges	
	Other	
Connection and overall dimensions	Connection type	
	Flange configuration	
	Installation length, mm	
	Max overall height, mm	
	Max overall dimensions, mm	
Name of equipment, the place/system of valve installation, special requirements of valve operation and maintenance		
Valve applied before, replacement reason		
Valve functions		
Number of inlets and outlets		
Valve location		
Climatic category		
Requirements to valve materials		
Requirements to valve marking		

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DATA SHEET FOR CHECK VALVE

Project developer	
Address	
Phone number/Fax	
E-mail	
Contact person	

Specifications

Nominal diameter DN, mm		
Nominal pressure PN, MPa		
Minimum relieving pressure P_{min}, MPa		
Medium flow rate		Q_{min}_____m^3/h; Q_{max}_____m^3/h
Medium	Composition	
	Purity grade	
	Viscosity	
	Temperature, ºC	min_____ºC, max_____ºC
Climatic category upon State Standard GOST 15150-69		_____at temperature: min_____ºC, max_____ºC
IP Protection		
Explosion protection		
Trim impermeability upon State Standard GOST R 54808-2011		
Requirements to materials		
Connection and overall dimensions	Connection type	
	Flange configuration	
	Installation length, mm	
	Overall height, mm	
	Overall dimensions, mm	
Installation position		level_____; vertical_____; vertical with up feed_____; vertical with down feed_____; any_____.
Counterparts to be deliveried		
Name of equipment, location, special requirements to equipment operation and maintenance		
Required quantity		
Conventional annual required quantity		
Delivery terms		
Additional requirements:		

DATA SHEET FOR SIGHT GLASS

Project developer	
Address	
Phone number/Fax	
E-mail	
Contact person	

Specifications

Nominal diameter DN, mm		
Nominal pressure PN, MPa		
Medium	Composition	
	Temperature, ºC	min_____ºC, max_____ºC
Climatic category upon State Standard GOST 15150-69		_____at temperature: min_____ºC, max_____ºC
Explosion protection		
Requirements to materials		
Connection and overall dimensions	Connection type	
	Flange configuration	
	Installation length, mm	
	Overall height, mm	
	Overall dimensions, mm	
Installation position		level_____; vertical_____; vertical with up feed_____; vertical with down feed_____; any_____.
Counterparts to be deliveried		
Name of equipment, location, special requirements to equipment operation and maintenance		
Required quantity		
Conventional annual required quantity		
Delivery terms		
Additional requirements:		

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DATA SHEET FOR PRESSURE REGULATOR

Project developer	
Address	
Phone number/Fax	
E-mail	
Contact person	

Specifications

Nominal diameter DN, mm		
Nominal pressure PN, MPa		
Inlet pressure range, P_{inlet}, MPa		min_____ max_____
Output pressure range, P_{outlet} ,MPa		min_____ max_____
Output pressure retention accuracy, %		
Flow rate K_V (at differential pressure 0.1 MPa), m³/h, no less		
Medium	Composition	
	Purity grade	
	Viscosity	
	Temperature, °C	min_____°C, max_____°C
Climatic category upon State Standard GOST 15150-69		_____at temperature: min_____°C, max_____°C
Protection IP		
Explosion protection		
Trim impermeability upon State Standard GOST P 54808-2011		
Valve materials requirements		
Connection and overall dimensions	Connection	
	Flange configuration	
	Installation length, mm	
	Overall height, mm	
	Overall dimensions, mm	
Installation position		level_____; vertical_____; any_____..
Mating parts to be deliveried		
Name of equipment, valve location, special requirements to equipment operation and maintenance		
Required quantity		
Conventional annual required quantity		
Delivery terms		
Additional requirements:		

DATA SHEET FOR SAFETY VALVE

Project developer	
Address	
Phone number/Fax	
E-mail	
Contact person	

Specifications

<table>
<tr><td colspan="2" rowspan="2">Climatic category</td><td rowspan="2"></td><td rowspan="6">Connection and overall dimensions</td><td>Connection type</td><td></td></tr>
<tr><td>Flange configuration</td><td></td></tr>
<tr><td colspan="2">Nominal diameter DN_{inlet}, mm/ DN_{outlet}, mm</td><td></td><td>Counter flanges</td><td></td></tr>
<tr><td colspan="2">Valve body configuration (angle or straightway valve)</td><td></td><td>Installation length, mm</td><td></td></tr>
<tr><td rowspan="6">Medium</td><td>Composition</td><td></td><td>Maximum height, mm</td><td></td></tr>
<tr><td>Purity grade</td><td></td><td>Maximum dimensions, mm</td><td></td></tr>
<tr><td>Viscosity</td><td></td><td colspan="2">Inlet and outlet pipe nominal diameter, mm</td><td></td></tr>
<tr><td>Temperature min/max , °C</td><td></td><td colspan="2">Ambient temperature, °C</td><td></td></tr>
<tr><td>Flow rate</td><td></td><td colspan="2">Trim impermeability (Class A, B,C)</td><td></td></tr>
<tr><td>Inlet pressure min/max, MPa</td><td></td><td colspan="2">Name of equipment, valve location, special requirements to equipment operation and maintenance</td><td></td></tr>
<tr><td>Outlet pressure min/max, MPa</td><td></td><td colspan="2">Valve applied before, replacement reason</td><td></td></tr>
<tr><td colspan="2">Nominal pressure PN, MPa</td><td></td><td colspan="2">Valve application</td><td></td></tr>
<tr><td colspan="2">Set point pressure Ps, or pressure setting range, MPa</td><td></td><td colspan="2">Requirements to materials</td><td></td></tr>
<tr><td colspan="2">Relieving pressure Pr, MPa</td><td></td><td colspan="2">Required quantity</td><td></td></tr>
<tr><td colspan="2">Closing pressure Pc, MPa</td><td></td><td colspan="2">Conventional annual quantity</td><td></td></tr>
<tr><td colspan="2">Optional module for forced opening (no or manual)</td><td></td><td colspan="2">Required delivery terms</td><td></td></tr>
<tr><td colspan="6">Additional requirements:</td></tr>
</table>

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DATA SHEET FOR IMPULSE SAFETY VALVE

Project developer	
Address	
Phone number/Fax	
E-mail	
Contact person	

Specifications

<table>
<tr><td colspan="3">Climatic category</td><td></td><td rowspan="5">Connection and overall dimensions</td><td>Connection type</td><td></td></tr>
<tr><td colspan="3">Nominal diameter DN inlet, mm/ DN outlet, mm</td><td></td><td>Flange configuration</td><td></td></tr>
<tr><td colspan="3">Valve body configuration (angle or straightway valve)</td><td></td><td>Counter flanges</td><td></td></tr>
<tr><td rowspan="8">Medium</td><td colspan="2">Composition</td><td></td><td>Installation length, mm</td><td></td></tr>
<tr><td colspan="2">Purity grade</td><td></td><td>Maximum height, mm</td><td></td></tr>
<tr><td colspan="2">Viscosity</td><td></td><td colspan="2">Maximum dimensions, mm</td><td></td></tr>
<tr><td colspan="2">Temperature min/max , ºC</td><td></td><td colspan="2">Inlet and outlet pipe nominal diameter, mm</td><td></td></tr>
<tr><td colspan="2">Flow rate, kg/h</td><td></td><td colspan="2">Ambient temperature, ºC</td><td></td></tr>
<tr><td colspan="2">Inlet pressure min/max, MPa</td><td></td><td colspan="2">Trim impermeability (Class A, B,C)</td><td></td></tr>
<tr><td colspan="2">Outlet pressure min/max, MPa</td><td></td><td colspan="2">Name of equipment, valve location, special requirements to equipment operation and maintenance</td><td></td></tr>
<tr><td colspan="3">Nominal pressure PN, MPa</td><td></td><td colspan="2">Valve application</td><td></td></tr>
<tr><td colspan="3">Set point pressure Ps, or pressure setting range, MPa</td><td></td><td colspan="2">Requirements to materials</td><td></td></tr>
<tr><td colspan="3">Relieving pressure Pr, MPa</td><td></td><td colspan="2">Required quantity</td><td></td></tr>
<tr><td colspan="3">Closing pressure Pc, MPa</td><td></td><td colspan="2">Conventional annual quantity</td><td></td></tr>
<tr><td rowspan="3">Optional module for forced opening (no or manual)</td><td colspan="2">Annual</td><td></td><td colspan="2" rowspan="3">Required delivery terms</td><td rowspan="3"></td></tr>
<tr><td rowspan="2">Solenoid</td><td>Voltage, V</td><td></td></tr>
<tr><td>Position Indicator</td><td></td></tr>
<tr><td colspan="7">Additional requirements:</td></tr>
</table>

DATA SHEET FOR SAFETY VALVES BLOCK

Project developer	
Address	
Phone number/Fax	
E-mail	
Contact person	

Specifications

Input switching device		Output switching device	
Nominal diameter DN, mm		Nominal diameter DN, mm	
Nominal pressure PN, MPa		Nominal pressure PN, MPa	
Inlet flange configuration		Outlet flange configuration	
Safety valve			
Set point pressure Ps, or setting pressure range of safety valves, MPa		Closing pressure Pc, MPa	
Relieving pressure Pr, MPa		Auxiliary drive for forced opening operation (no or manual)	
Medium			
Composition		Viscosity	
Purity grade		Temperature min/max, °C	
Safety valve block dimensions			
Installation length, mm		Max overall sizes, mm	
Max overall height, mm		Counter flanges	
Additional information			
Flywheel location towards safety valve backside - right/left		Trim impermeability (Class A, B,C)	
Nominal diameter of inlet and outlet pipes, mm		Safety Valve Block applied before, replacement reason	
Ambient temperature, °C		Requirements to materials	
Name of equipment, valve location, special requirements of equipment operation and maintenance		Climatic category	
Current one-time required quantity		Conventional annual quantity required	
Required delivery terms			
Additional requirements:			

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NOTES

NOTES

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NOTES

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e-mail: kitaev@solenoid.ru