

INLINE SPOOL VALVE Type 8020750.0900
Normally Closed (NC) ; G ¼ ; 3/2 Way

USE

Pneumatic valves, depending on the control signal, distribute air flows in the ways of the respective position. They are used in drive of pneumatic cylinders, manipulating tools, etc.

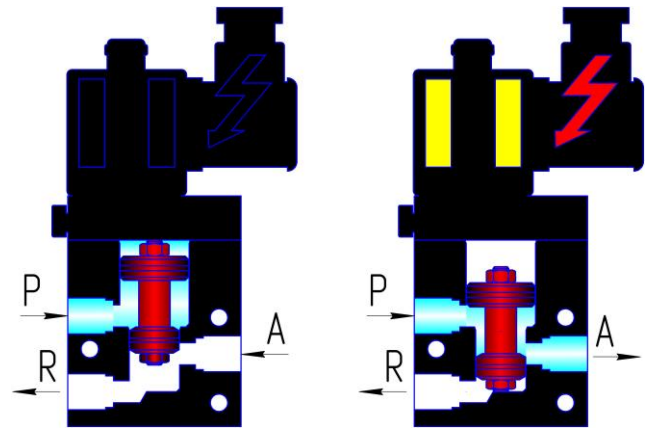


PRINCIPLE OF OPERATION

Pneumatic valves of this type are two-position, three-way with electric magnetic control. To maintain a position the signal can be short (pulse) or continuous operation.

In addition, the valves are equipped with a manual control.

Through the connecting holes A, R, and P fluid flow is distributed in either direction by controlling the piston by the electrical signal.

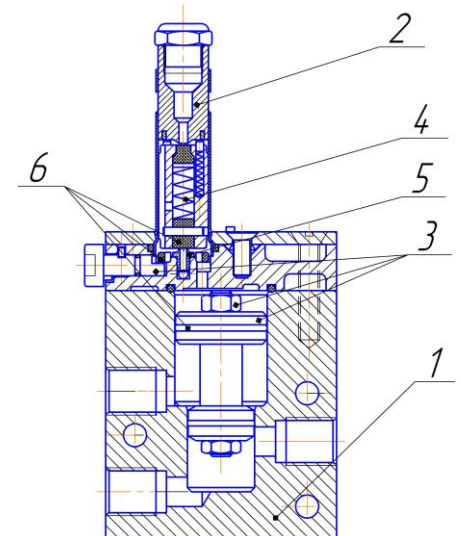


GENERAL FEATURES

Operating pressure (ΔP) from 1 to 10 Bar [1 bar = 100 kPa]	Time of switching 20 ms (Air DP = 10 Bar)
Maximum pressure 10 Bar	Operating fluid compressed air, filtered, lubricated or non-lubricated
Ambient temperature ($^{\circ}C$) From $-30^{\circ}C$ to $+60^{\circ}C$	Seals NBR (Nitrile Butadiene Rubber); Silicone

CONSTRUCTION

1. **Body material** - Aluminum alloy
2. **Control** - Stainless steel
3. **Internal details** - PA 6/30% glass filled; Stainless steel; Brass
4. **Spring** - Stainless steel
5. **Saddle** - Brass
6. **Seals** - NBR; Silicone



ELECTRIC FEATURES

Electric magnet conductor Copper	Type of connector DIN 43650-A
Coil insulation class F	Connector plug

Protection class IP 65	Standard voltages 12V, 24V, 48V, 110V, 220V DC/AC
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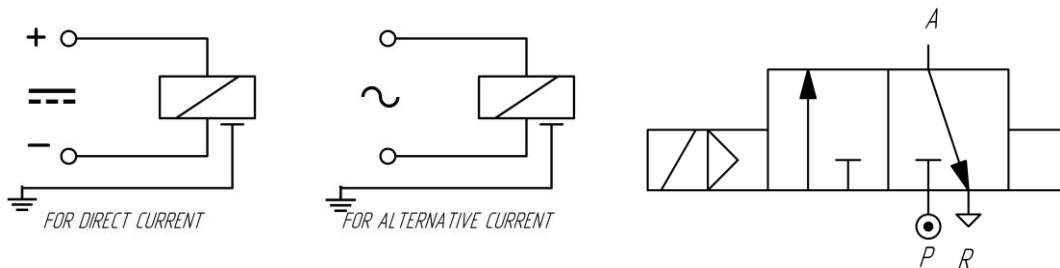
Specification for connection at degree of protection IP 65

Maximum current 16 A	System of fixing bolts
Installation With cable	Compliance with the standard DIN 43650-A, ISO 4400
Rated voltage 250 V	Outer conductor diameter from 6 to 9 mm
Structure of the batten terminals 2+PE	Conductor cross-section 1,5 mm ²

SPECIFICATION

Connecting dimensions (G)	Orifice (mm)	Flow Kv		Working pressure (bar)		Coil	Model
		(m ³ /h)	(l/min)	Min.	Max.		
		¼	6	1,2	20		

WIRING DIAGRAM TO ELECTRIC CIRCUIT AND FUNCTIONAL SCHEME (SYMBOL)



STRUCTURE OF THE PRODUCT AND COMPREHENSIVENESS OF DELIVERY

Pneumatic valves with electromagnetic control consist of two main modules - a control module shaped as a three-way valve and an executive module consisting of a housing and a piston fitted with sealing rings.

The delivery of the product does not include additional coupling elements, spare seals, fittings, etc. The valves with electric magnetic control are completed with electromagnet 0900.

ORDER OF INSTALLATION AND PREPARATION FOR WORK

Valves are delivered fully finished and their putting into operation requires no special operations and adjustments. The preparation consists in unpacking the device, cleaning the sealing surfaces and delivering the necessary connectors.

Valves can be mounted in any position in space. The place of installation should not be subjected to impact loading.

Pneumatic power supply network must be equipped with units for cleaning and oiling the air that has to meet the requirements:

- ✓ Oil steam in the amount of not more than 16 mg/m³
- ✓ Solid bodies are allowed with dimensions not more than 80µm in quantity not more than 4 mg/m³
- ✓ Only traces of steams of acids and alcalis are allowed.

The power supply of the the electromagnet is made with a three-core cable with the appropriate section in accordance with the technical safety regulations. The diameter of the outer sheath of the cable must comply with the rubber seal of the electrical connector by cutting, for which a possibility is provided.

In the company manufacturer each valve is subjected to proof test equal to 150% of the maximum operating pressure. However, when starting the installation, you need to make a test with the same testing supply pressure, during which the operating staff should stand at a safe distance.

The valves do not require special care. It is only necessary to control the filtering and the air oiling.

The valves have mounting holes worked in the housing.

The pipes connection (G) is made with standard thread in accordance with ISO 228/1 and ISO 7/1.

Another connection - upon request.

Installation and operation instructions are enclosed to each valve.

GENERAL INSTRUCTIONS

Pneumatic valves are used for distribution of compressed air flows through the occupation of positions depending on the value of the control signal.

They are designed for assembly of pneumatic cylinders, engines, working or handling equipment, etc.. Other pneumatic executive mechanisms can be controlled too, depending on the concrete case.

✓ On the label of each valve the following is indicated:

- Type of the device
- Maximum operating pressure
- Functional scheme (symbol)

✓ On the label of the electromagnet the following is indicated:

- Rated voltage and type of current
- Electric power
- Time on
- Protection class

INSTRUCTIONS FOR LABOUR PROTECTION REQUIREMENTS

The products are safe and have no external moving parts. The housing of the valve is designed for strength according to the operating pressure.

The basic rules for safe handling of electrical equipment below 1000 V are effective. When performing assembly, dismantling or other work, it is necessary to ensure the power turning off in advance.

With regard to the pneumatic part, pay attention to the density of the pipes connection at the input P and outputs A and B. In addition, it is recommended to mount silencers on the the sides R and S (can be purchased additionally by the company manufacturer or upon request the valve can be equipped with them).

MARKING AND LABELLING

Each denomination of the products is in accordance with the legislation of EU and the Republic of Bulgaria. They are in compliance with the following standards:

2006/95/EU - The European Union Directive 2006/95/EC of 12 December 2006 on the harmonization of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits.

METHOD OF CONTROL

The method of control is implemented as it is described in the company's standard of the manufacturer. Each pneumatic valve passes a 100% control, a test for pressure stability, hermeticity and operating voltage.

POSSIBLE MALFUNCTIONS AND THEIR ELIMINATION

Malfunction	Cause	Way of elimination
✓ The density of the valve is disturbed	Worn out or damaged sealing rings	Replace them with new sealing rings
✓ The valve does not operate (does not open or does not close)	Damaged electric magnet	Replace it with a new electric magnet
	The pressure of the supplying air is under the lower limit 0,1 MPa)	Increase the pressure
	Clogged connecting passages in the housing and the control module	Clean them attentively
	Crushed shell of the control module and blocked anchor	Replace them

RULES FOR STORAGE AND TRANSPORT

The storage of the valves shall be in closed rooms at a temperature from minus 10⁰C to plus 30⁰C and a relative humidity up to 80%. You should put stoppers on the connection holes to not hurt the sealing surfaces.

The transportation of the packaged goods can be made with all kinds of vehicles subject to the conditions of the environment - air temperature from minus 10⁰C to plus 50⁰ C.

WARRANTY OBLIGATIONS AND INFORMATION ON CLAIMS

The warranty period of the pneumatic valves is 12 (twelve) months from the date of putting into operation, but not more than fifteen (15) months from the date of shipment by the company manufacturer if in this period the consumer has found some damage or non-compliance with the company standard FS-EMB-001-08. The warranty consists of replacement or repair at the expense of the manufacturer.

To obtain the right to claim it is necessary the following conditions to be present:

- The rules of transport and storage to be observed (the company manufacturer shall not be responsible for the transportation of the goods when they are send by courier. The client shall be responsible to chose and asses the conditions of delivery)
- The rules for preparations for work, order of work and technical service to be observed
- Unauthorized persons to not attempt to remove the defects
- To present the product passport, the warranty card and the invoice

PRODUCT DIMENSIONS IN MILLIMETERS

