

PNEUMATIC CLOSING VALVE

UV40

APPLICATION

The UV40 pneumatically controlled closing valve is used as a control element that serves to separate and connect the self-standing parts of branched lubricating and hydraulic circuits that operate with both oil and grease. The valve is particularly suitable for central lubrication systems fitted with progressive distributors, where it increases the variability of functional modes of more complicated circuits with externally controlled separation and connection of branches that require different rates of lubrication.

DESCRIPTION

The basic component of the valve is a hydraulic two-position gate valve distributor. A return spring ensures that the gate-valve is kept in its rest position.

In the gate valve axis, the distributor body carries a pneumatic cylinder whose piston actuates on the gate valve against the strength of the return spring. The piston is not furnished with a specific seal. The perfect tightness and long service life are ensured with the piston edge made as an elastic lip blade.

The control air feed is closed and opened by means of an electro-pneumatic valve installed directly on the pneumatic cylinder. This is favourable for the speed of the hydraulic distributor gate valve operation. The electromagnet is fitted with an electrical connector with flat slide-on contacts for the connection of a three-contact connector socket (included in the delivery). The hole for the feed conductor is sealed with a gland bolt and a sealing ring P11/7.

The air inlet into the electromagnetic valve is fitted with a pipe union for a tube of 8 mm outer diameter.

OPERATION

In the rest position, the gate valve of the hydraulic distributor is held by the return spring in the position where the outlet 1 is separated from the inlet 2. When the electromagnet is energised, the inlet, for pressurised air to the pneumatic cylinder, opens. The piston moves and simultaneously pushes the gate valve of the hydraulic distributor to the position in which the intake 2 is connected to the outlet 1 and the operating medium (for instance the lubricating grease) passes through the distributor to the branch connected to the outlet 1. When the feed of the electrical current to the electromagnetic valve or the supply of air to the pneumatic cylinder stops, the piston returns, due to the action of the return valve of the hydraulic distributor gate valve, to its original position. The air from the compartment before the piston blows out to the atmosphere. Such a design prevents the distributor mechanism from becoming clogged with impurities contained in the supplied air.

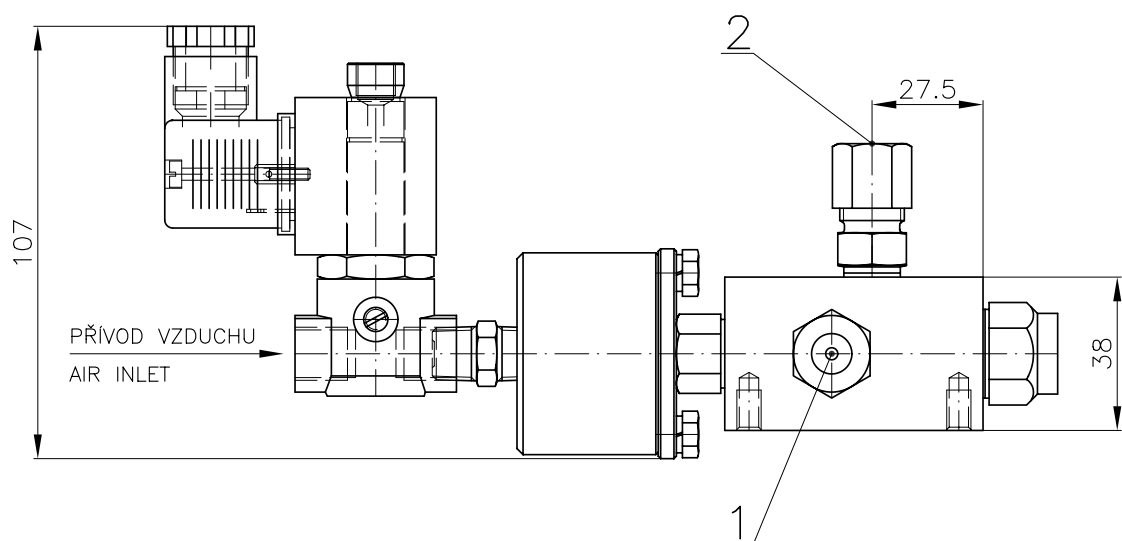
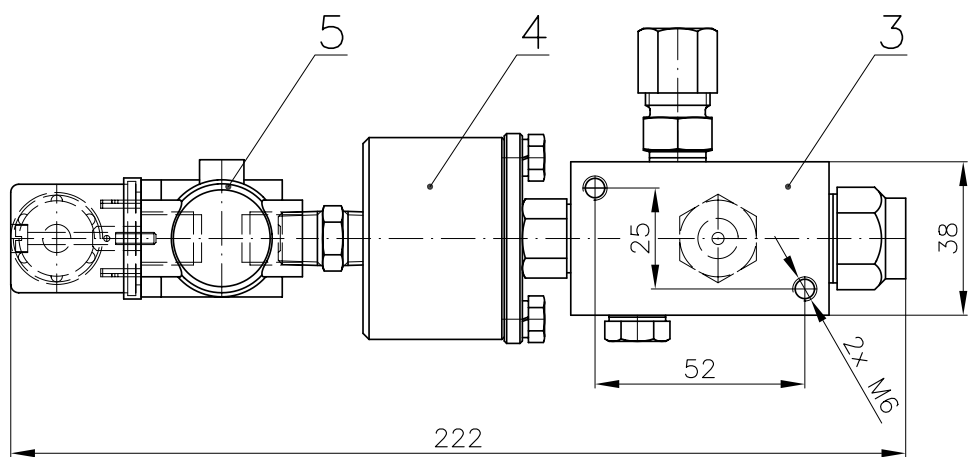
SERVICE AND MAINTENANCE

The valve may be installed in any position. The body of the hydraulic distributor is provided with two 10-mm deep threaded holes M6. A 10 mm thick spacing plate with corresponding holes (the plate being included in the delivery) is put under the valve body. The body of the pneumatic cylinder can be turned around the longitudinal axis with respect to the distributor as well as the body of the electromagnet, with respect to the pneumatic cylinder, and fixed in the selected position. The cover of the connector socket can be turned through 90-steps with respect to the electromagnet body.

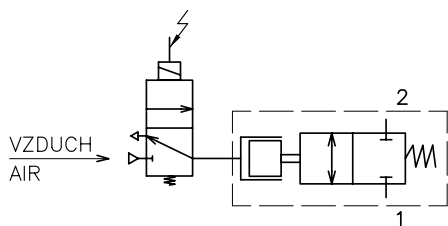
The valve does not require any maintenance. For its reliable operation, it is necessary that the hydraulic or lubricating medium (grease, oil) be free of impurities that may cause the sticking of the closing gate valve.

TECHNICAL DATA

Maximum working pressure		300 bar
Working pressure		250 bar (air pressure 6 bar) 200 bar (air pressure 4 bar)
Maximum lubricant flow	grease	0.5 dm ³ /min.
	oil	8 dm ³ /min.
Nominal voltage		24V DC, 24V - 115V - 230V AC - 50Hz
Supply air pipe union		G 3/8", for tube outside dia. 8 mm
Inlet pipe union		M10x1, for tube outside dia. 10 mm
Outlet pipe union		M10x1, for tube outside dia. 10 mm
Temperature of working environment		-25 to 60°C
Lubricant	grease	max. NLGI-2
	oil	min. 50 mm ² /sec.
Weight		1.7 kg



HYDRAULICKÉ SCHEMA / HYDRAULIC CIRCUIT



Poz.	Název	Name
1	Vývod maziva	Lubricant outlet
2	Přívod maziva	Lubricant inlet
3	Těleso rozvaděče	Distributor body
4	Pneumatický válec	Pneumatic cylinder
5	Pneumatický ventil	Pneumatic valve

Název/Name	PNEUMATICKÝ UZAVÍRACÍ VENTIL / PNEUMATIC CLOSING VALVE	Tribotec s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 212 328
Typ/Type	UV 40	
Kód/Code	9 11 0209	