Series 376
Dim. G 1/2, G 3/4, G 1
Quick exhaust valves
3-port, 2-position poppet valves

Technical data

Working medium	Air
Max. working pressure	1 MPa (10 bar)
Temperature range	−20°C to +70°C

Application area: Mainly used for the rapid evacuation of pneumatic cylinders when the piston speed needs to be increased beyond the normal capacity of the main valve.

Technical information

Function: This is illustrated in the flow path figure. The connected pressure in the inlet port opens the valve to flow from ports 1 to 2. When the inlet pressure is reduced below the output pressure, the path between ports 1 and 2 closes and the path between ports 2 and 3 opens instead, giving rapid evacuation of the chamber connected to port 2.

To ensure functional efficiency, the pressure reduction in port 1 must be distinct while the exhaust flow in port 3 can be throttled if necessary.
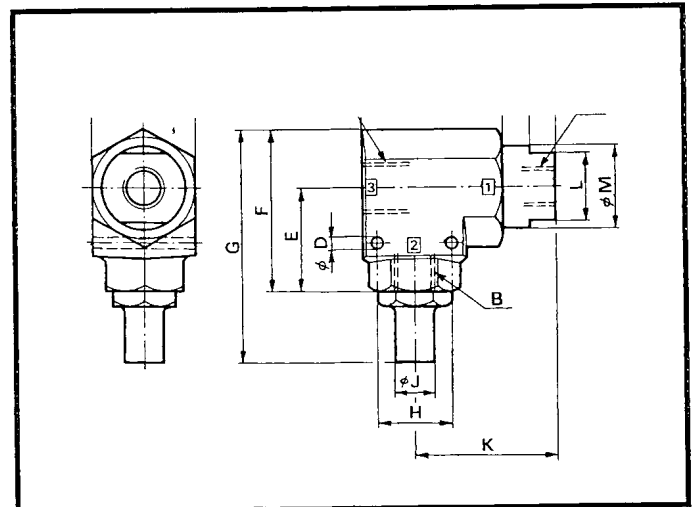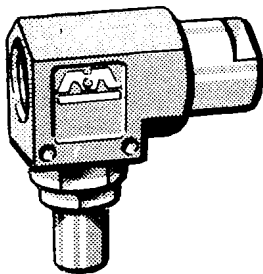
All flow data refers to a pressure of 0.63 MPa (6.3 bar).

Connections: The inlet and exhaust ports are placed opposite one another at the end of the valve body. The outlet port is located in a face at right angles to these ports and is fitted with a RAN type stem connector.

Specification of materials

Valve body	aluminium alloy
Valve cone	aluminium alloy and vulcanized seal
All seals	oil-resistant rubber

Installation: The valves can be fitted directly into the connector nipple of a cylinder port with the aid of the stem connector or they can be secured with screws passing through two holes in the valve body.

Ordering no.	Symbol	Dimensions Ports																Weight
		1 A	2 B	3 C	D	E	F	G	H	J	K	L	M	N	P	S	T	kg
376-002-000		G 3/8	G 1/2	G 1/2	5.5	42	66	99	30	16	65	28	34	11	86	55	42	0.4
376-004-000		G 1/2	G 3/4	G 3/4	6.5	47	74	110	36	22	82	33	39	12	106	68	47	0.5
376-005-000		G 3/4	G 1	G 1	8.5	57	92	137	46	28	100	42	51	15	131	88	62	1.0

Flow data

Maximum flow Q at 6.3 bar

Valve	Dim.	Port 1-2 [Nl/s]	C-value	Port 2-3 [Nl/s]	C-value
376/2	G 1/2	67.6	9.3	136.5	18.7
376/4	G 3/4	108.0	14.8	262.8	36.0
376/5	G 1	174.0	23.8	427.0	58.5

The C-value gives the maximum flow (Q) of the valve at various inlet pressures (P_{in}) as per the formula:

$$Q = C (P_{in} + 1).$$

Flow paths