

5/2 and 5/3 Directional Control Valves ISO Sizes 1, 2, 3 and 4

Nominal sizes 7, 10, 15 and 21, with interface to DIN ISO 5599

Pneumatically actuated

Soft seal spool valve

Flanged design

Operating pressure: 16 bar max. (see parameters)



Catalog Register
P8

Publication 7503097.06.11.95



Description

Directional control valves for filtered, lubricated¹⁾ or non-lubricated air

Flow direction: Optional
Temperature range: -10 to +60 °C

Features

- LABS-free²⁾
- Non-overlapping
- Maintenance-free
- Different functions
- High sealing properties



ISO size 1

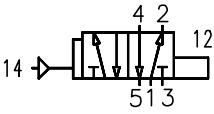
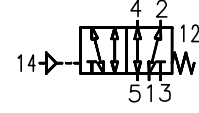
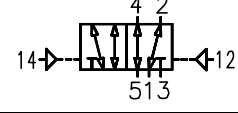
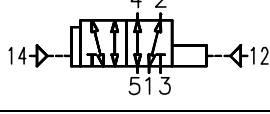
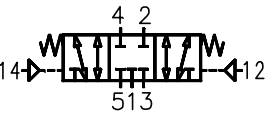
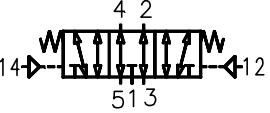
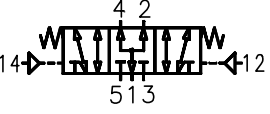


ISO sizes 2, 3 and 4

¹⁾ Oil recommendation: Shell Hydrol DO 32, ESSO Febis K 32 (as of July 1992) or comparable oils with DVI values < 8 (DIN 53521) and ISO viscosity class 32-46 (DIN 51519).

²⁾ Valve does not contain any surface-active agents which could cause a reaction in paintwork applications.

Parameters

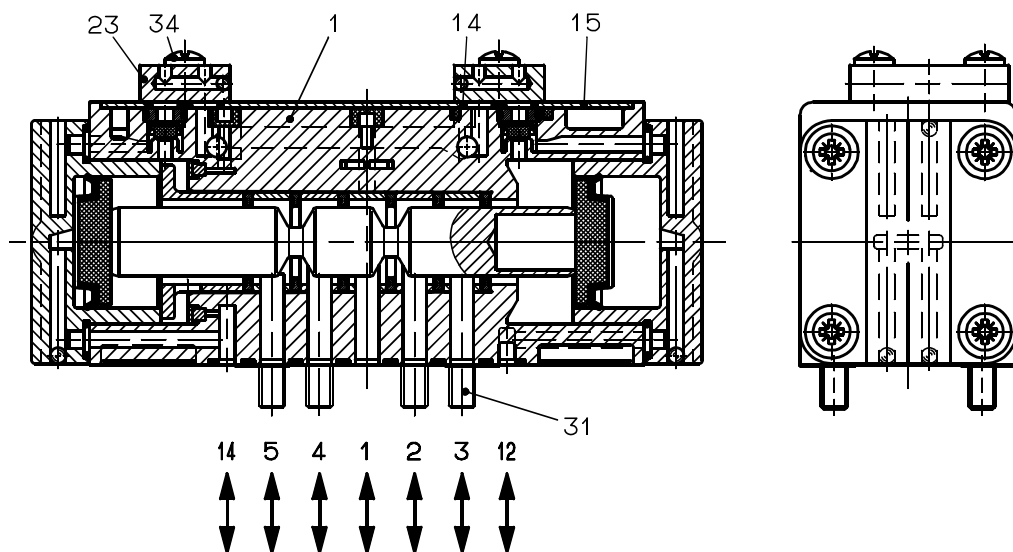
Symbols	ISO size	Nominal size	Operating pressure [bar]		Control pressure [bar]		Flow rate ¹⁾ Q _N [l/min]	Weight [kg]	Dimensional drawing No.	Cat. No.
			min.	max.	min.	max.				
	1	7	2	12	2.0	12	1300	0.34	01	2391100
	1	7	-1	12	2.5	12	1300	0.34	01	2391200
	2	10	-1	16	3.0	16	1700	0.7	01	2542400
	3	15	-1	16	3.0	16	3200	1.0	01	2543400
	4	21	-1	16	2.0	16	5450	1.3	01	2544400
	1	7	-1	12	2.5	12	1300	0.34	01	2391500
	2	10	-1	16	2.0	16	1700	0.7	01	2542100
	3	15	-1	16	2.0	16	3200	1.0	01	2543100
	4	21	-1	16	2.0	16	5450	1.3	01	2544100
	1	7	-1	12	2.5	12	1300	0.34	01	2391900
	2	10	-1	16	3.5	16	1700	0.7	01	2542300
	3	15	-1	16	2.5	16	3200	1.0	01	2543300
	4	21	-1	16	2.5	16	5450	1.3	01	2544300
	1	7	-1	12	2.5	12	1200	0.44	02	2391600
	2	10	-1	16	3.0	16	1700	0.7	01	2542600
	3	15	-1	16	2.5	16	3200	1.0	01	2543600
	4	21	-1	16	2.5	16	5450	1.3	01	2544600
	1	7	-1	12	2.5	12	1200	0.44	02	2391700
	2	10	-1	16	4.0	16	1700	0.7	01	2542800
	3	15	-1	16	4.0	16	3200	1.0	01	2543800
	4	21	-1	16	4.0	16	5450	1.3	01	2544800
	1	7	-1	12	2.5	12	1200	0.44	02	2391800
	2	10	-1	16	3.0	16	1700	0.7	01	2542700
	3	15	-1	16	3.0	16	3200	1.0	01	2543700
	4	21	-1	16	2.5	16	5450	1.3	01	2544700

¹⁾ Q_N at 6 bar; Δp = 1 bar

Sectional drawing

5/2 directional control valve
Cat. No. 2391500

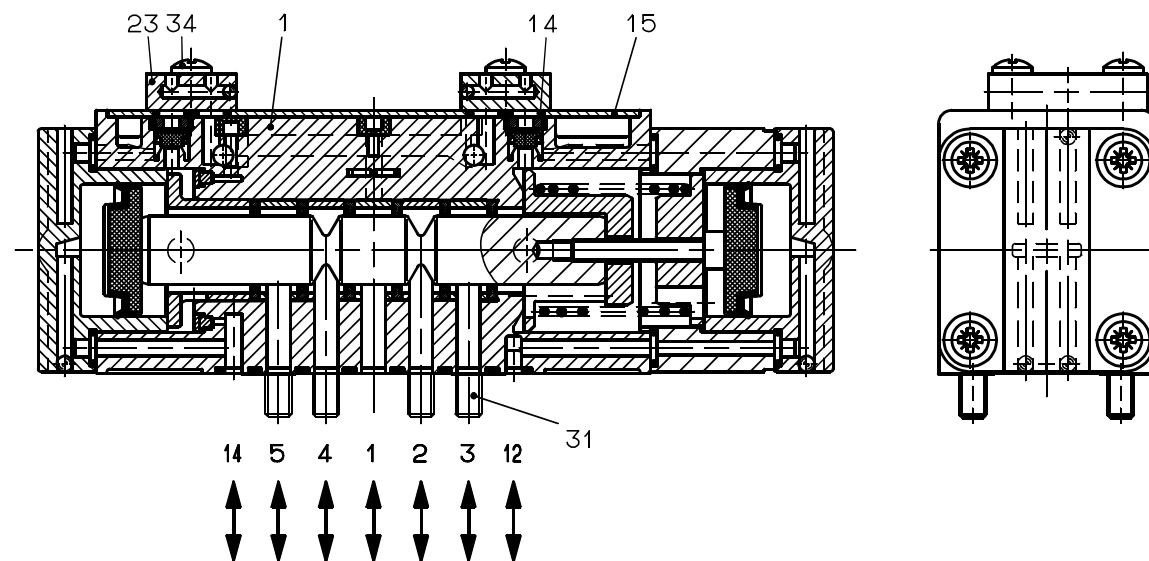
- 1 Body assly.
- 14 O-ring
- 15 Cover
- 23 Plate assly.
- 31 Socket head screw
- 34 Screw



Sectional drawing

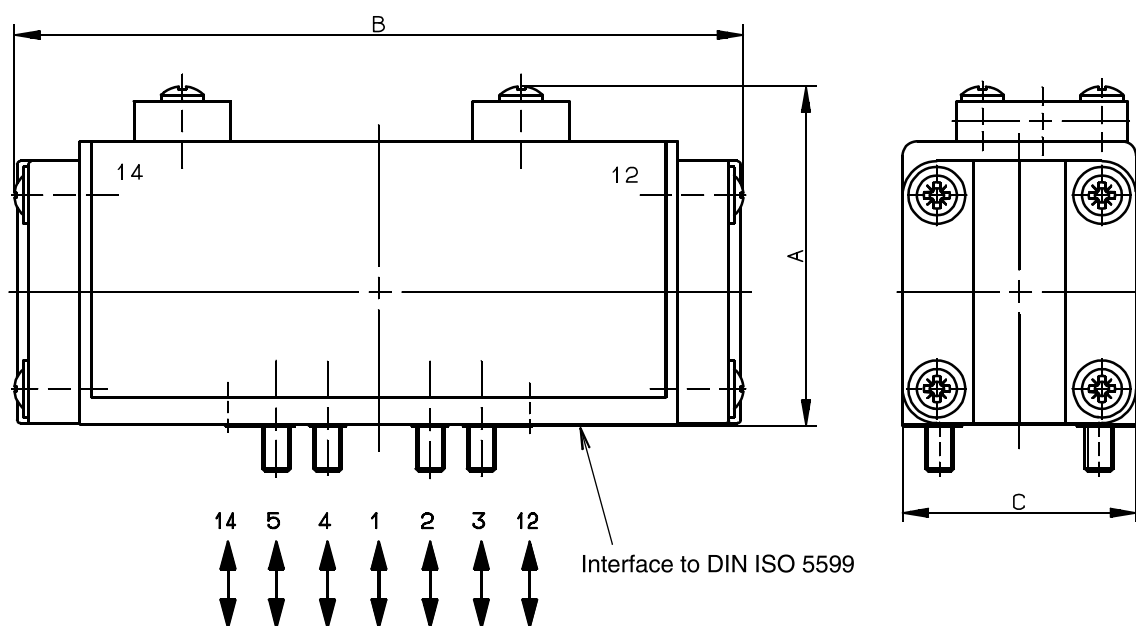
5/3 directional control valve
Cat. No. 2391600

- 1 Body assly.
- 14 O-ring
- 15 Cover
- 23 Plate assly.
- 31 Socket head screw
- 34 Screw

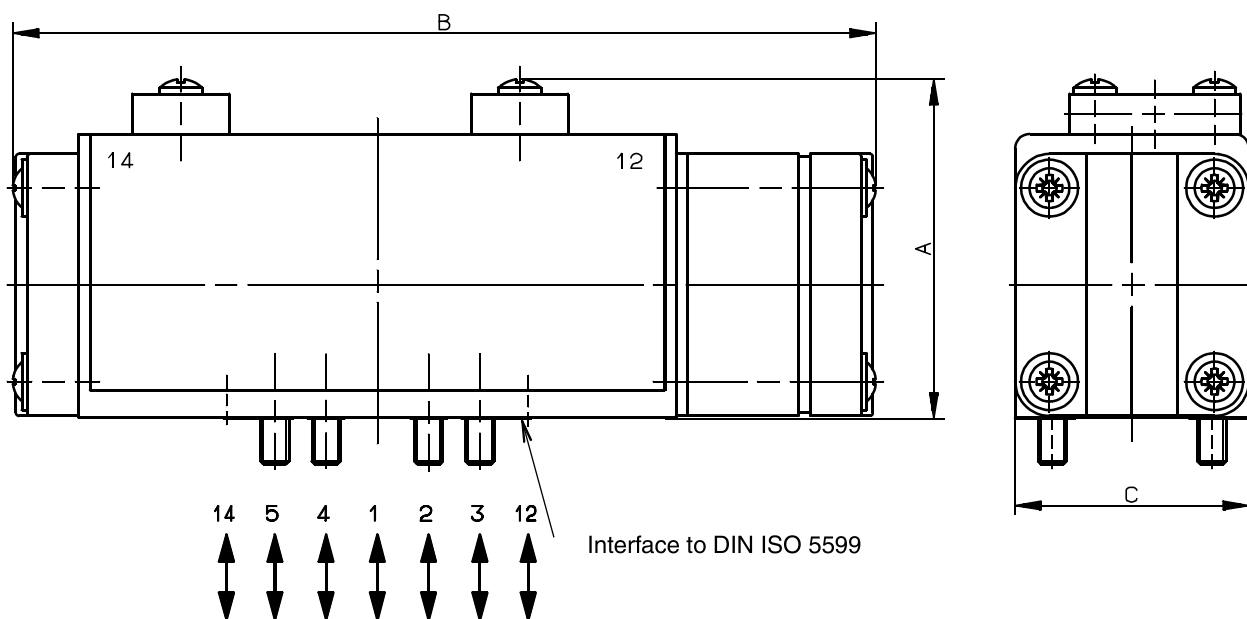


Dimensional drawings [mm]

01



02



Dimensional table [mm]

ISO size	Cat. No.	Dimensional drawing	A	B	C
1	2391100 / 2391200 / 2391500 / 2391900 2391600 / 2391700 / 2391800	01	60	128	41
		02	60	152	41
2	2542100 / 2542300 / 2542400 2542600 / 2542700 / 2542800	01	65	146	52
3	2543100 / 2543300 / 2543400 2543600 / 2543700 / 2543800	01	71	182	64
4	2544100 / 2544300 / 2544400 2544600 / 2544700 / 2544800	01	81	190	74

Subplate, Form A

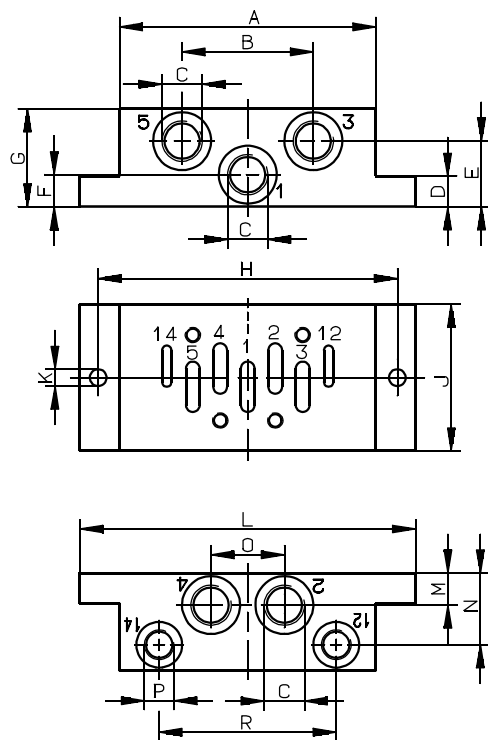
ISO size 1, 2, 3 and 4

Lateral porting

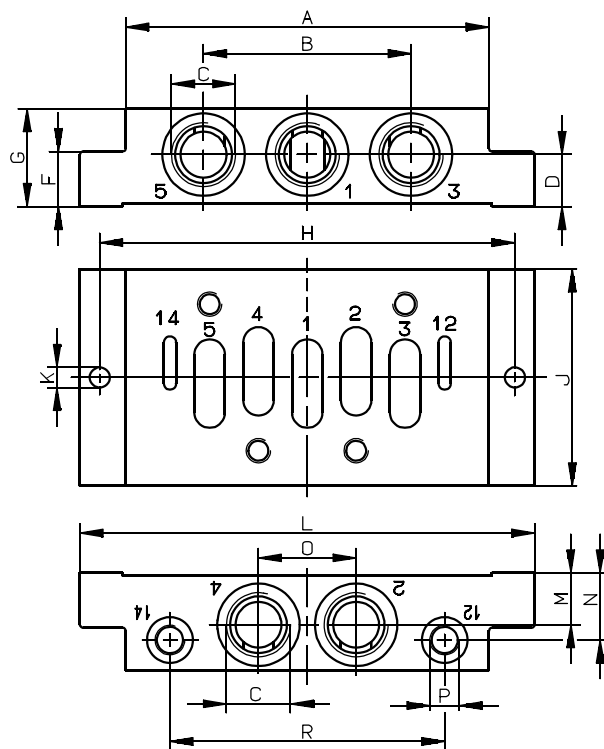
Design corresponds to VDMA 24345

Dimensional drawings [mm]

01



02



Dimensional table [mm]

ISO size	Cat. No.	Dimensional drawing	A	B	C	D	E	F	G	H
1	2538115	01	84	43	G 1/4	10	21.5	10.5	32	98
2	2538215	01	95	56	G 3/8	14	26.0	13.0	40	112
3	2538315	02	119	68	G 1/2	17	—	18.0	32	136
4	2538415	02	148	90	G 3/4	22	—	19.0	42	170

ISO size	Cat. No.	Dimensional drawing	J	K	L	M	N	O	P	R
1	2538115	01	48	5.5	110	10.5	23.5	24	G 1/8	58
2	2538215	01	57	6.6	124	14.0	30.0	30	G 1/8	74
3	2538315	02	71	6.6	149	17.0	22.0	32	G 1/8	90
4	2538415	02	85	9.0	186	22.0	30.0	42	G 1/8	111

Further information on ISO-type directional control valves

Model	Actuation	ISO size	Nominal size	Register	Publication
5/2 and 5/3 directional control valves	Pneumatic	1, 2, 3 and 4	7, 10, 15 and 21	8	7503097
5/2 and 5/3 directional control valves	Electromagnetic	1, 2, 3 and 4	7, 10, 15 and 21	11	7503043

Further information on accessories for ISO-type directional control valves

Type	ISO size	Nominal size	Register	Publication
Manifold bases and accessories	1	7	13	7501636
	2	10		
	3	15		
	4	21		