

# SOLENOID ACTUATED VALVES SERIES ISO 5599/1 COMPACT








Series Compact is appear from classic ISO valves, but they are cheaper and offer higher flow capacity. Air pilot is used for valve actuating, so it is indirect actuated valve. Valves must be mounted on sub-bases with dimensions according to ISO standard. Coil can be turned so that it will serve the purpose. Valves can be use as standalone with individual base or they can be mounted on manifolds.

Valves series ISO 5599/1 Compact contains spool and sleeve assembly, which guarantee long lifetime of valve.

Series	ISO 1 Compact	ISO 2 Compact	ISO 3 Compact
Flow capacity [Nl/min]	1400	2800	4200
Working pressure [MPa]	0.1 to 1.0 , or 0.1 to 1.6 (for pilot type 190) (vacuum to 1.6 MPa when external air pilot supply type 190 is used)		
Pilot pressure range [MPa]	0.1 to 1.0 , or 0.1 to 1.6 (for pilot type 190)		
Power input for pilot type 189 [W, VA]	2.5W for DC voltage, 6VA inrush and 3.5VA hold for AC voltage		
Power input for pilot type 190 [W, VA]	3W for DC voltage, 9VA inrush and 4VA hold for AC voltage		
Response time energize / de-energize [ms]	15 / 35	20 / 35	20 / 90
Temperature range [°C]	ambient temperature -10 to +60		

## Order codes

NC23 BA4 00 18910 61

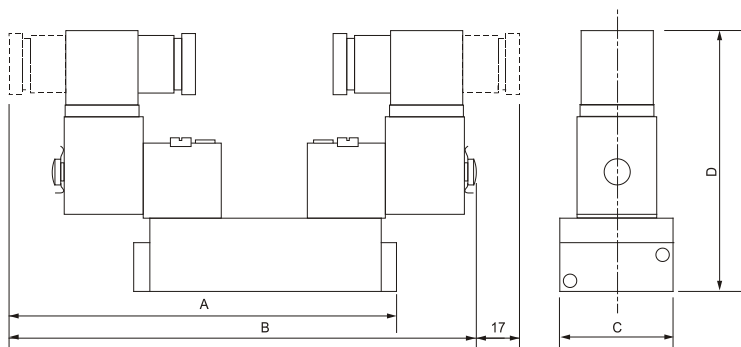
Size		Function		Pilot valve type		Voltage	
NC12	series ISO 1 Compact	BA4		18910	standard, type 189, with locking manual override, 0.1 to 1.0 MPa, connector type 22	60	12 V DC ± 10%
NC23	series ISO 2 Compact	BB4		19016	type 190, with locking manual override, 0.1 to 1.6 MPa, connector DIN 43650, form A type 30	61	24 V DC ± 10%
NC34	series ISO 3 Compact	BB5				40	230 V AC ± 10% 50 Hz
		BB6				30	110 V AC ± 10% 50 Hz
		BB7*				20	24 V AC ± 10% 50 Hz

\*) Not for series ISO 2 Compact

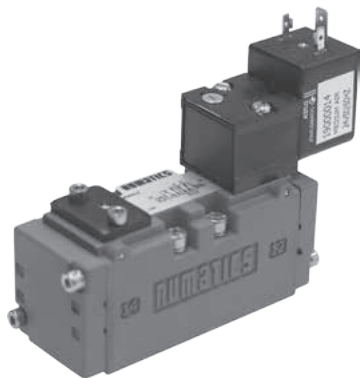
**i** For connectors for valves see page 5-34.

**i** For spare coils and pilots see page 5-19.

## Dimensions



Series	Function	A	B	C	D	Weight [kg]
ISO 1 Compact	BA	136	—	42	102	0.50
	BB	—	168	42	102	0.60
ISO 2 Compact	BA	149	—	50.8	104.6	0.70
	BB	—	169	50.8	104.6	0.80
ISO 3 Compact	BA	179	—	63.5	114	1.10
	BB	—	196.7	63.5	114	1.26



The most common type of air pilot solenoid actuated valve, which is designed for use with sub-bases. Coil of air pilot actuated valve can be turned so that it will serve the purpose. Valves can be used as standalone with individual base or they can be mounted on manifolds.


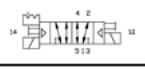
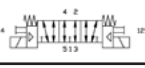
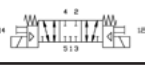

Valves series ISO 5599/1 contains spool and sleeve assembly, which guarantee long lifetime of valve.

Series	ISO 1	ISO 2	ISO 3
Flow capacity [Nl/min]	1400	2800	4200
Working pressure [MPa]	0.1 to 1.0 , or 0.1 to 1.6 (for pilot type 190) (vacuum to 1.6 MPa when external air pilot supply type 190 is used)		
Pilot pressure range [MPa]	0.1 to 1.0 , or 0.1 to 1.6 (for pilot type 190)		
Power input for pilot type 189 [W, VA]	2.5W for DC voltage, 6VA inrush and 3.5VA hold for AC voltage		
Power input for pilot type 190 [W, VA]	3W for DC voltage, 9VA inrush and 4VA hold for AC voltage		
Response time energize / de-energize [ms]	15 / 35	20 / 35	20 / 90
Temperature range [°C]	ambient temperature -10 to +60		

### Order codes

**NI23 BA4 00 18910 61**

Size	
NI12	series ISO 1
NI23	series ISO 2
NI34	series ISO 3

Function	
BA4	
BB4	
BB5	
BB6	
BB7*	

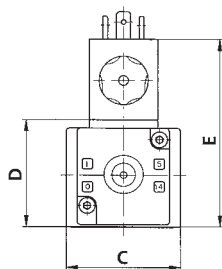
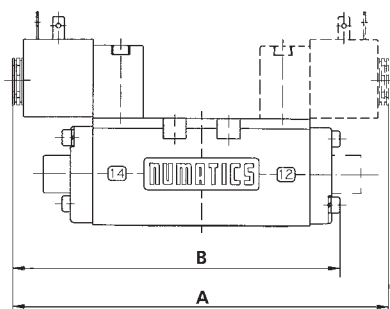
\*) Not for series ISO 2

Pilot valve type	
18910	standard, type 189, with locking manual override, 0.1 to 1.0 MPa, connector type 22
19016	type 190, with locking manual override, 0.1 to 1.6 MPa, connector DIN 43650, form A type 30

Voltage	
60	12 V DC ± 10%
61	24 V DC ± 10%
40	230 V AC ± 10% 50 Hz
30	110 V AC ± 10% 50 Hz
20	24 V AC ± 10% 50 Hz

**i** For connectors for valves see page 5-34.

### Dimensions



Series	Function	A	B	C	D	E	Weight [kg]
ISO 1	BA/BW	—	143	42	48	83	0.70
ISO 1	BB	172	—	42	48	83	0.80
ISO 2	BA/BW	—	155	50	48	83	0.80
ISO 2	BB	183	—	50	48	83	1.00
ISO 3	BA/BW	—	180	63.5	60.5	97	1.60
ISO 3	BB	197	—	63.5	60.5	97	1.70

**Coils for valve series ISO 5599/1 Compact and ISO 5599/1**

Coils for pilot valves type 189,  
 for connector type 22

Order codes	Voltage
N43004149	12V DC ± 10%
N43004166	24V DC ± 10%
N43004167	48V DC ± 10%
N43004168	110V DC ± 10%
N43004416	24V 50-60Hz ± 10%
N43004417	48V 50-60Hz ± 10%
N43004419	115V 50-60Hz ± 10%
N43004422	230V 50-60Hz ± 10%
N43004423	240V 50-60Hz ± 10%



Coils for pilot valves type 190,  
 for connector DIN 43650, form A, type 30

Order codes	Voltage
N43004469	12V DC ± 10%
	24V 50Hz ± 10%
N43004473	24V DC ± 10%
	48V 50Hz ± 10%
N43004471	48V DC ± 10%
	115V 50Hz ± 10%
N43004472	110V DC ± 10%
	230V 50Hz ± 10%



**Pilot valves for valve series ISO 5599/1 Compact and ISO 5599/1**

Pilot valve type 189

Order code	Working pressure [MPa]
N18990001	0.1 to 1.0

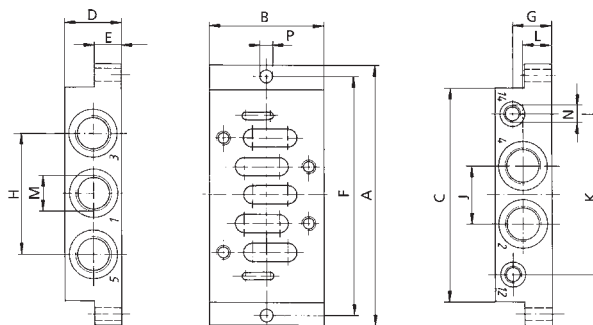


Pilot valve type 190

Order code	Working pressure [MPa]
N19069019	0.1 to 1.6

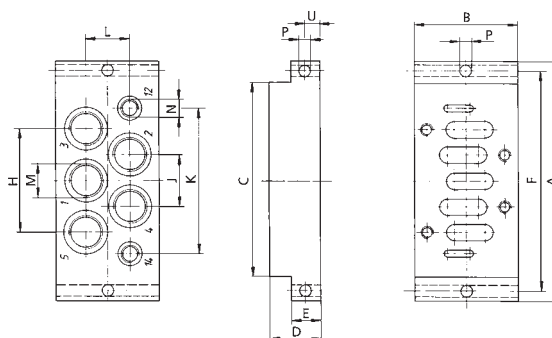


**Individual base VDMA 24345, form A, with side ports**

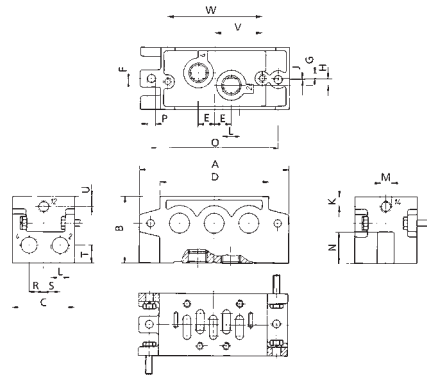


Order codes	Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Weight [kg]
N103-544	ISO 1	110	48	84	36	10	98	26	50	26	60	13.5	G1/4"	G1/8"	5.5	0.20
N103-549	ISO 2	124	57	95	41	13	112	30	56	30	74	15	G3/8"	G1/8"	6.6	0.30
N103-545	ISO 3	149	71	119	32	18	136	22	68	32	90	17	G1/2"	G1/8"	6.6	0.40

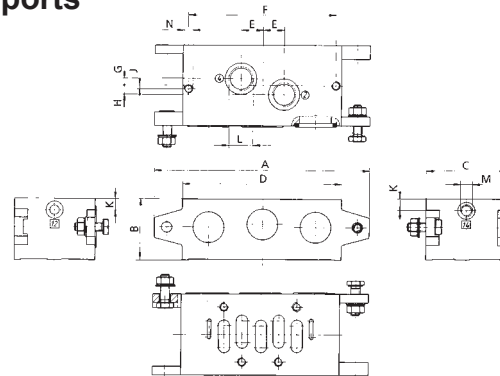
**Individual base VDMA 24345, form B, with bottom ports**



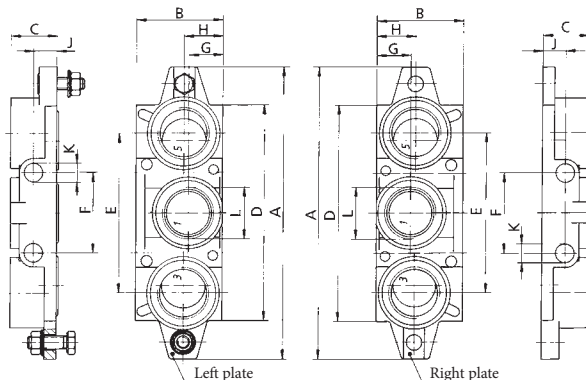
Order codes	Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Weight [kg]
N103-542	ISO 1	110	46	84	16	10	98	5	40	20	57	17.6	G1/4"	G1/8"	5.5	0.19
N103-557	ISO 2	124	56	95	35	10	112	6.5	58	29	75	26	G3/8"	G1/8"	5.5	0.32

**Manifold block with side and bottom ports**


Order codes	Size	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U	V	W	Weight [kg]
N239-241	ISO 1	110	50	43	84	13	3	1.5	7.5	1.2	10	G1/4"	G1/8"	23	95	5.4	9.5	12	13	10	35.5	71	0.40
N239-245	ISO 2	135	60	56	98.5	15	3	5	6	1	9	G3/8"	G1/8"	28	115	6.6	13	15	16	9	43	86	0.60
N239-249	ISO 3	190	66	71	140	19	3	6	8	1.3	9.5	G1/2"	G1/8"	32	168	8.6	16.5	19	18	9.5	65	130	1.20

**Manifold block VDMA 24345, form C, with bottom ports**


Order codes	Size	A	B	C	D	E	F	G	H	J	K	L	M	N	Weight [kg]
N239-239	ISO 1	109	46	43	85	13	71	1.5	7.5	3	10	G1/4"	G1/8"	M5	0.30
N239-243	ISO 2	135	47	56	98.5	15	86	5	5	3	9	G3/8"	G1/8"	M6	0.40
N239-247	ISO 3	190	56	71	140	19	130	6	8	3	10	G1/2"	G1/8"	M8	0.80

**End plate kit VDMA 24345, form D for manifold blocks**


Order codes	Size	A	B	C	D	E	F	G	H	J	K	L	Weight [kg]
N239-257	ISO 1	109	46	22	85	56	28	22	25	10.5	7	G3/8"	0.30
N239-255	ISO 2	135	47	26	98.5	68	35	24	25	12.5	9	G1/2"	0.40
N239-259	ISO 3	190	56	32	140	104	52	22	25	12.5	12	G1"	0.70