



STANDARDIZED VALVES

2 Standardized valves

BE BE12	ISO 5599 valves	2.03
AE	Light series valves for ISO 5599/1 sub-base mounting	2.15
BD	ISO15407/2 (VDMA 24563) ISO 02 (18mm) - ISO 01 (26mm) valves	2.19
AC-N	NAMUR valves	2.37



BE/BE12

ISO 5599/1 Valves

- Compliance with ISO 5599/1 international standards
- Full range: 1 - 2 - 3 - 4 size
- Two different internal commutation system: mixed and spool, appreciated for decades thanks to their maximum reliability
- High capacity
- Short internal stroke
- No lubrication
- Electric connection M12 for 1 - 2 - 3 size
- Modular base
- Possibility of mounting different sizes on the same sub-base



TECHNICAL CHARACTERISTICS

Ambient temperature	-10 ÷ +50 °C
Fluid temperature	max +50 °C
Fluid	mixed system: not dehumidified filtered air 50 µm spool system: filtered air 50 µm, dehumidified or not
Commutation system	mixed system, spool system
Ways/Positions	5/2, 5/3
Pressure	10 bar max
Control	indirect electro - pneumatic, pneumatic
Return	mixed system: pneumomechanical spring spool system: mechanical spring

Connections	ISO 5599/1 interface			
	size 1	size 2	size 3	size 4
Nominal Ø (mm)	8	10	15	19
Nominal flow rate (NI/min)	1480	2300	4200	6600

CONSTRUCTIVE CHARACTERISTICS

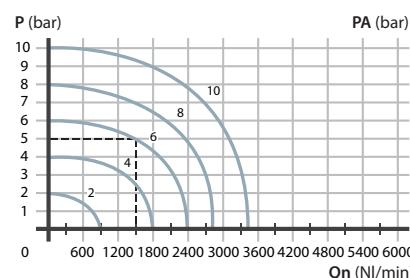
Valve body	acetalic resin
Cover	zamak - aluminium
Seals	mixed system: nitrile rubber and polyurethane spool system: nitrile rubber
Sub-base	zamak - aluminium
Actuators	technopolymer
Spool	aluminium

ELECTRIC CHARACTERISTICS

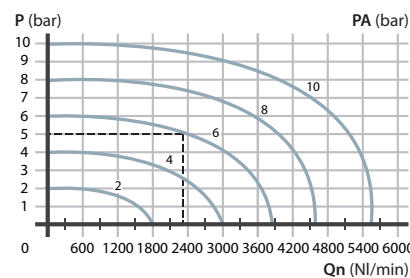
Electropilot	AA CNOMO (U1) series
Coil	U3 DC series
Power consumption	2,5 W (DC) - 5 VA (AC)
Voltage	12 V DC - 24 V DC - 24 V AC - 110 V AC - 230 V AC
Connector	AM 5111
Manual override	with two position screw (standard) with button with tool (upon request)

Flow rate characteristics

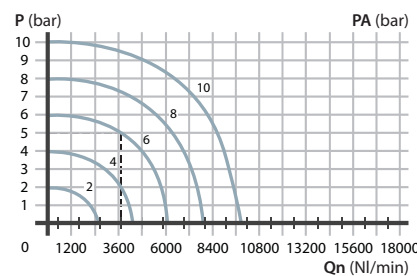
>> ISO 1



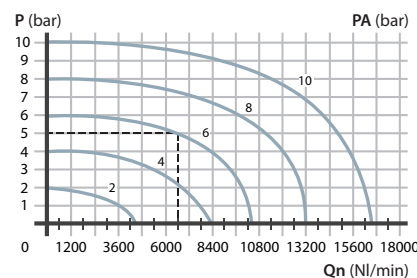
>> ISO 2



>> ISO 3



>> ISO 4



P = Working pressure
PA = Supply pressure
Qn = Nominal flow rate

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Standardized valves

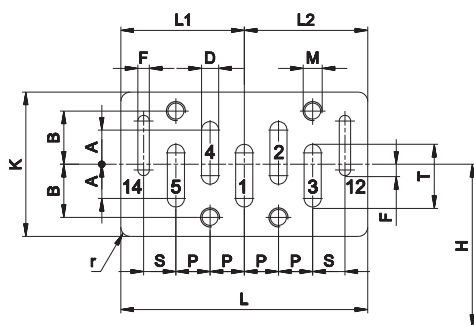
BE
BE12

ISO 5599/1 Standard



ISO 5599/1 Standard

The ISO standard for pneumatic valves is accepted by industry and by the majority of major pneumatic valve manufactures throughout the world. The choice of valves according to ISO standard means to be at the technical forefront and to guarantee the user the interchangeability of both the valve body and the electromagnetic part

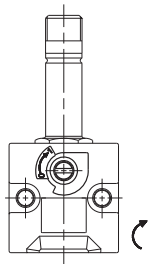


	A	B	D	F	H	K	L	L1	L2	M	P	r	S	T
ISO 1	9	14	4,5	3	43	38	65	32,5	32,5	M5	9	2,5	8,5	16,5
ISO 2	10	19	7	3	56	50	81	40,5	40,5	M6	12	3	10	22
ISO 3	11,5	24	10	4	71	64	106	53	53	M8	16	4	13	29
ISO 4	14,5	29	13	4	82	74	142	77,5	64,5	M8	20	4	15,5	36,5

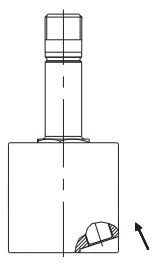
Standard manual overrides

Functioning	Suitable for valve	Symbol/Part no.
1 = with 2 position screw	BE	⊖
2 = with button with tool	BE	→
3 = with embedded button, 1 position	BE12	→

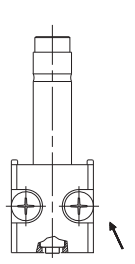
Special versions available (upon request): with 1 - 2 position button, with 1 position frontal button, with 1 position button



1



2

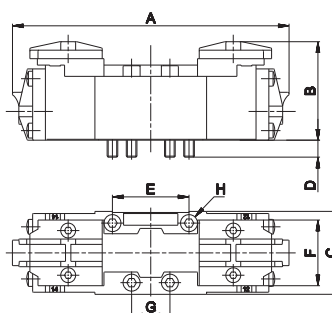


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BE ISO 5599/1 Valves



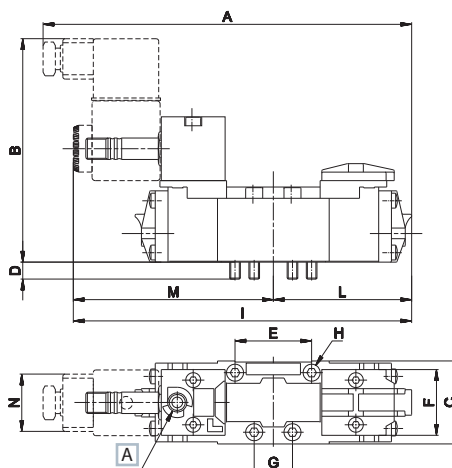
Single/double **pneumatic impulse**



	ISO 1	ISO 2	ISO 3	ISO 4
A	128	145	191	222
B	47	47	63	63
C	39	52	64	74
D	5	5	10	10
E	36	48	64	80
F	28	38	48	58
G	18	24	32	40
H	M5x38	M6x35	M8x50	M8x50

	Symbol	Control	Return	Pressure		Times (ms)		Size	Weight	Part no.
				bar		En.	De-en.			
MIXED SYSTEM										
5/2		pneumatic amplified	pneumomechanical spring	2÷10		9	18	1	0,30	BE-3100
				2,3÷10		11	14	2	0,40	BE-4100
				2,5÷10		19	49	3	0,65	BE-5100
				3÷10		23	46	4	0,87	BE-6100
5/2		pneumatic amplified	pneumatic amplified	1÷10		5	5	1	0,30	BE-3150
				1÷10		6	6	2	0,40	BE-4150
				1÷10		10	10	3	0,65	BE-5150
				1,3÷10		12	12	4	0,87	BE-6150
5/2		pneumatic amplified	pneumatic not amplified	2÷10		5	16	1	0,30	BE-3170
				2÷10		6	13	2	0,40	BE-4170
				2,2÷10		10	35	3	0,65	BE-5170
				2,2÷10		12	32	4	0,87	BE-6170
SPOOL SYSTEM										
5/2		pneumatic amplified	pneumomechanical spring	1,8÷10		11	22	1	0,30	BE-3800
				2÷10		13	19	2	0,40	BE-4800
				2,2÷10		21	52	3	0,65	BE-5800
				2,8÷10		24	29	4	0,87	BE-6800
5/2		pneumatic amplified	pneumatic amplified	0,8÷10		6	6	1	0,30	BE-3850
				1÷10		7	7	2	0,40	BE-4850
				1÷10		12	12	3	0,65	BE-5850
				1÷10		14	14	4	0,87	BE-6850
5/2		pneumatic amplified	pneumatic not amplified	1,5÷10		6	15	1	0,30	BE-3870
				1,8÷10		7	14	2	0,40	BE-4870
				2÷10		12	38	3	0,65	BE-5870
				2÷10		14	31	4	0,87	BE-6870

Single **electric impulse**



	ISO 1	ISO 2	ISO 3	ISO 4
A	169,5	195,5	219	253
B	105	105	118	118
C	39	52	64	74
D	5	5	10	10
E	36	48	64	80
F	28	38	48	58
G	18	24	32	40
H	M5x38	M6x35	M8x50	M8x50
I	159,5	176	208,5	235
L	64	72,5	95,5	111
M	95,5	103,5	113	124
N	30	30	30	30

A Manual override

	Symbol	Control	Return	Pressure		Times (ms)		Size	Weight	Part no.
				bar		En.	De-en.			
MIXED SYSTEM										
5/2		electric amplified	pneumomechanical spring	2÷10		20	32	1	0,45	BE-3000
				2,3÷10		24	25	2	0,55	BE-4000
				2,5÷10		32	71	3	0,90	BE-5000
				3÷10		38	62	4	1,12	BE-6000
5/2		electric amplified	pneumatic amplified	1÷10		16	6	1	0,45	BE-3060
				1÷10		17	7	2	0,80	BE-4060
				1÷10		23	15	3	1,30	BE-5060
				1,3÷10		25	16	4	1,37	BE-6060
SPOOL SYSTEM										
5/2		electric amplified	pneumomechanical spring	2÷10		21	35	1	0,45	BE-3700
				2,2÷10		24	30	2	0,55	BE-4700
				2,3÷10		33	74	3	0,90	BE-5700
				2,8÷10		39	68	4	1,12	BE-6700
5/2		electric amplified	pneumatic amplified	1÷10		17	8	1	0,45	BE-3760
				1÷10		18	9	2	0,80	BE-4760
				1÷10		26	17	3	1,30	BE-5760
				1,3÷10		27	18	4	1,37	BE-6760

For manual version with button, add "U" to the end of the part number
Electrovalves are supplied without coil, connector and locking ring

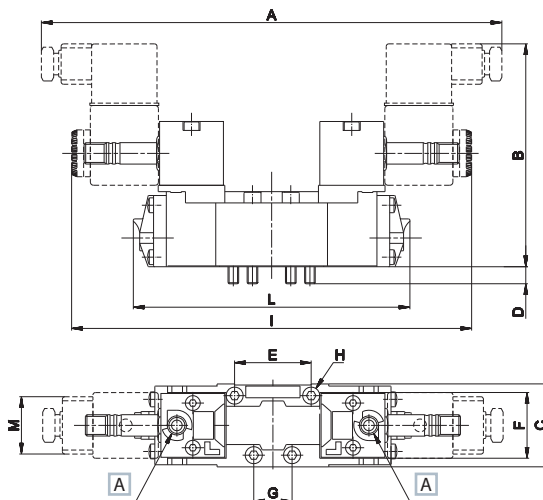
Standardized valves

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BE ISO 5599/1 Valves



Double electric impulse



	ISO 1	ISO 2	ISO 3	ISO 4
A	211	226	247	268
B	105	105	118	118
C	39	52	64	74
D	5	5	10	10
E	36	48	64	80
F	28	38	48	58
G	18	24	32	40
H	M5x38	M6x35	M8x50	M8x50
I	191	207	226	248
L	128	145	191	222
M	30	30	30	30

A Manual override

Symbol	Control	Return	Pressure bar	Times (ms)		Size	Weight Kg	Part no.	
				En.	De-en.				
MIXED SYSTEM									
5/2		electric amplified	electric amplified	1÷10	16	16	1	0,55	BE-3020
				1÷10	17	17	2	0,80	BE-4020
				1÷10	23	23	3	1,20	BE-5020
				1,3÷10	25	25	4	1,37	BE-6020
5/2		electric amplified	electric non amplified	2÷10	16	34	1	0,55	BE-3030
				2÷10	17	29	2	0,80	BE-4030
				2,2÷10	23	54	3	1,20	BE-5030
				2,2÷10	25	45	4	1,37	BE-6030
5/3 o.c.		electric amplified	electric amplified	3÷10	50	26	1	0,55	BE-3200
				3÷10	54	24	2	0,80	BE-4200
				3÷10	108	36	3	1,20	BE-5200
				3÷10	115	115	4	1,37	BE-6200
5/3 p.c.		electric amplified	electric amplified	2÷10	50	26	1	0,50	BE-3205
				2,3÷10	54	24	2	0,80	BE-4205
				2,5÷10	108	36	3	1,20	BE-5205
				3÷10	115	115	4	1,37	BE-6205
SPOOL SYSTEM									
5/2		electric amplified	electric amplified	1÷10	17	17	1	0,55	BE-3720
				1÷10	18	18	2	0,80	BE-4720
				1÷10	26	26	3	1,20	BE-5720
				1÷10	27	27	4	1,37	BE-6720
5/2		electric amplified	electric non amplified	1,8÷10	17	28	1	0,55	BE-3730
				1,8÷10	18	25	2	0,80	BE-4730
				2÷10	26	46	3	1,20	BE-5730
				2÷10	27	42	4	1,37	BE-6730
5/3 o.c.		electric amplified	electric amplified	2,3÷10	17	25	1	0,55	BE-3900
				2,5÷10	18	27	2	0,80	BE-4900
				2,5÷10	26	50	3	1,20	BE-5900
				2,5÷10	30	47	4	1,37	BE-6900
5/3 c.c.		electric amplified	electric amplified	2,3÷10	17	25	1	0,55	BE-3940
				2,5÷10	18	27	2	0,80	BE-4940
				2,5÷10	26	50	3	1,20	BE-5940
				2,5÷10	30	47	4	1,37	BE-6940

o.c. = open centres c.c. = closed centres p.c. = pressurized centres

For manual version with button, add "U" to the end of the part number

Electrovalves are supplied without coil, connector and locking ring

BE12 ISO 5599/1 Valves with M12 male connector



The use of pneumatic component in the automotive field, coupled with electric components, led to the development of a traditional ISO valve with electric connector M12 placed in central position, for both valves with single as well as double electric control.

Single/double electric impulse

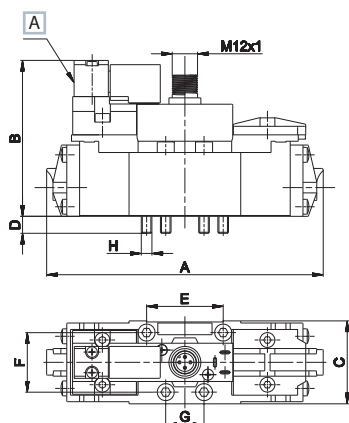


	Symbol	Control	Return	Pressure bar	Times (ms)		Size	Weight Kg	Part no.
					En.	De-en.			
SINGLE IMPULSE - MIXED SYSTEM									
5/2		electric amplified	pneumomechanical spring	2÷9	18	29	1	0,45	BE12-3000
				2,3÷9	23	24	2	0,55	BE12-4000
				2,5÷9	35	78	3	0,90	BE12-5000
SINGLE IMPULSE - SPOOL SYSTEM									
5/2		electric amplified	pneumomechanical spring	2÷9	19	32	1	0,45	BE12-3700
				2,2÷9	23	28	2	0,55	BE12-4700
				2,3÷9	36	82	3	0,90	BE12-5700
DOUBLE IMPULSE - MIXED SYSTEM									
5/2		electric amplified	electric amplified	1÷9	14	14	1	0,55	BE12-3020
				1÷9	16	16	2	0,80	BE12-4020
				1÷9	25	25	3	1,20	BE12-5020
5/3 p.c.		electric amplified	electric amplified	2÷9	45	23	1	0,50	BE12-3205
				2,3÷9	51	23	2	0,80	BE12-4205
				2,5÷9	119	40	3	1,20	BE12-5205
DOUBLE IMPULSE - SPOOL SYSTEM									
5/2		electric amplified	electric amplified	1÷9	15	15	1	0,55	BE12-3720
				1÷9	17	17	2	0,80	BE12-4720
				1÷9	29	29	3	1,20	BE12-5720
5/3 o.c.		electric amplified	electric amplified	2,3÷9	15	22	1	0,55	BE12-3900
				2,5÷9	17	26	2	0,80	BE12-4900
				2,5÷9	29	55	3	1,20	BE12-5900
5/3 c.c.		electric amplified	electric amplified	2,3÷9	15	22	1	0,55	BE12-3940
				2,5÷9	17	26	2	0,80	BE12-4940
				2,5÷9	29	55	3	1,20	BE12-5940

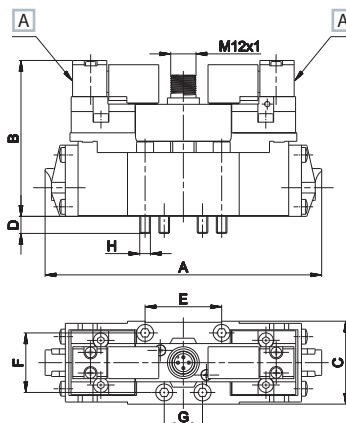
c.a. = centri aperti c.c. = centri chiusi c.p. = centri in pressione

Valves are supplied with 24 V DC coil

Single electric impulse



Double electric impulse



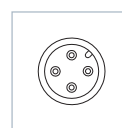
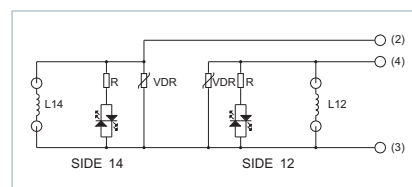
	ISO 1	ISO 2	ISO 3
A	128	145	191
B	73	73	90
C	39	52	64
D	5	5	10
E	36	48	64
F	28	38	48
G	18	24	32
H	M5x38	M6x35	M8x50

Manual override

ELECTRIC FEATURES

- Central electric connector M12x1
- IP 65 protection degree
- 24 V DC voltage
- 2,5 W nominal power
- DD-052** series coil (without faston)
- ED 100%
- LED indicator

Available upon request other voltages
max 48 V DC



Standardized valves

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