



The use of pneumatic components is continuously growing in the car industry especially where they are coupled with electric components. This new valve type uses a traditional ISO valve with electric connector M12 placed in central position both for valves with single as well as double electric control.

TECHNICAL CHARACTERISTICS

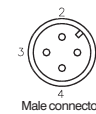
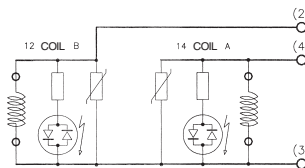
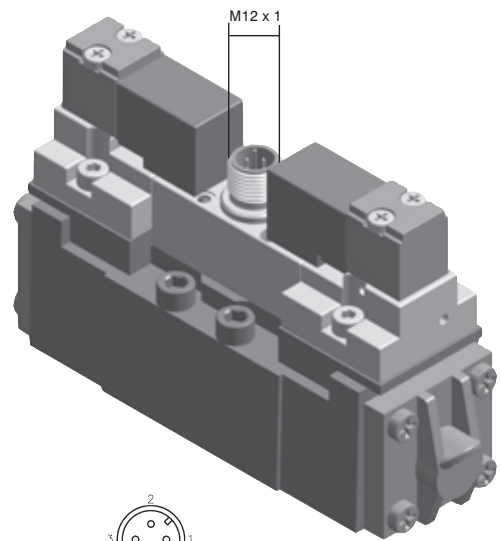
Two different internal switching systems: mixed and spool type
 Assembly on ISO sub-bases sizes 1/2/3.
 Body in acetalic resin internally, die-cast aluminium externally.
 Ambient temperature: -10°C ÷ +45°C.
 Fluid temperature: + 50°C max.
 Fluid: filtered air 50 µm dehumidified or not for mixed system;
 not dehumidified for spool system.
 Seals in nitrile rubber and vulkollan.
 Indirect electropneumatic control.
 Pneumo-mechanical spring return.



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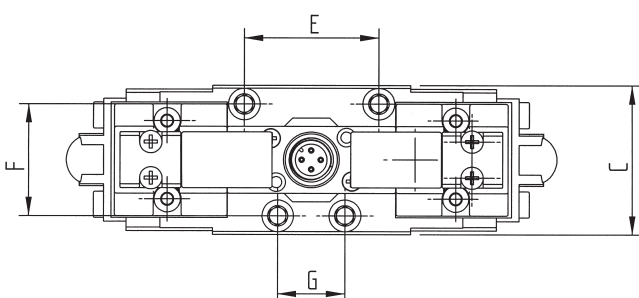
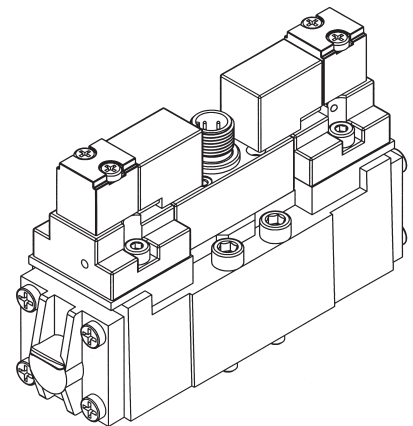
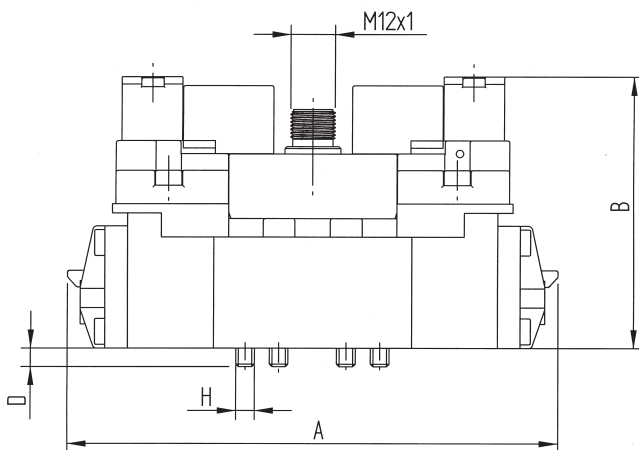
Electrical characteristics

Central electric connector M12 x 1.
 Protection degree IP 65.
 Supply tension 24 Vd.c.
 Rated power 2,5 W.
 Coils part number DD-...052** series (without faston).
 ED 100%.
 LED indicator.
 Upon request available other supply voltages max. 48 Vdc.



Overall dimensions

Single - 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	30	38	48
G	18	24	32
H	M5 x 35	M6 x 35	M8 x50

For lacking dimensions please refer to the corresponding ISO standard valves.

Symbol	Control (14)	Return (12)	Ways	Ø mm	Pressure bar	Capacity NI/min	Size System*	Time ms		Mass kg	Part number
								Energ. (14)	De-energ. (12)		
	electric	pneu-mechanic	5/2	8	2 ÷ 9	1480	M	18	29	0,45	BE12-3000
					1,8 ÷ 9		S	19	32	0,45	BE12-3700
				10	2,3 ÷ 9	2300	M	23	24	0,55	BE12-4000
					1 ÷ 9		S	23	28	0,55	BE12-4700
				15	2,5 ÷ 9	4200	M	35	78	0,90	BE12-5000
					2,2 ÷ 9		S	36	82	0,90	BE12-5700
	electric	electric	5/2	8	1 ÷ 9	1480	M	14	14	0,55	BE12-3020
					0,8 ÷ 9		S	15	15	0,55	BE12-3720
				10	1 ÷ 9	2300	M	16	16	0,80	BE12-4020
					1 ÷ 9		S	17	17	0,80	BE12-4720
				15	1 ÷ 9	4200	M	25	25	1,20	BE12-5020
					0,8 ÷ 9		S	29	29	1,20	BE12-5720
	electric control	open centres	5/3	8	2,3 ÷ 9	1480	1 S	15	22	0,55	BE12-3900
				10	2,5 ÷ 9	2300	2 S	17	26	0,80	BE12-4900
				15	2,5 ÷ 9	4200	3 S	29	55	1,20	BE12-5900
	electric control	pressurized centres	5/3	8	2 ÷ 9	1480	1 M	45	23	0,50	BE12-3205
				10	2,3 ÷ 9	2300	2 M	51	23	0,80	BE12-4205
				15	2,5 ÷ 9	4200	3 M	119	40	1,20	BE12-5205
	electric control	closed centres	5/3	8	2,3 ÷ 9	1480	1 S	15	22	0,50	BE12-3940
				10	2,5 ÷ 9	2300	2 S	17	26	0,80	BE12-4940
				15	2,5 ÷ 9	4200	3 S	29	55	1,20	BE12-5940

* System: M = Mixed S = Spool.

The part numbers of the valves do not include 24 Vd.c. coil

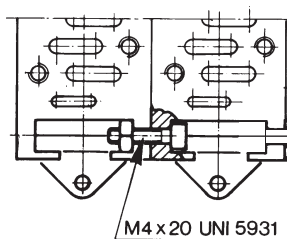


Type	Overall dimensions	Remarks	Connections	Material	Mass kg	Part number
Single sub-base - side connections						
		connections in line	G 1/8	zamak	0,250	BF-1060
			G 1/4	zamak	0,230	BF-1061

To be used when battery assembly is not possible

Single modular or manifold sub-base, dorsal connections, separate exhausts						
		dorsal connections	G 1/8	zamak	0,350	BF-1062
			G 1/4	zamak	0,330	BF-1063

Single assembly: close side ports(G 1/8 - G 1/4)
 Manifold assembly with common inlet: close dorsal connections n.1
 With incorporated screws and seal



Advantages

- The series of ISO 1 sub-bases has been produced taking into consideration existing problems.
- Determination of the base number when using them.
 - Quick assembly with special (incorporated) screw standard supplied.
 - Determination of functions for each battery (pressure differentiation, exhaust regulation) by adding or reducing the number of elements without restrictions.
 - Easy technical intervention

On request assembled and tested batteries are supplied according to drawings.

Closing plate for unused base (BF-1085) with screws and seals available



Type	Overall dimensions	Remarks	Connections	Material	Mass kg	Part number
Sub-base manifold universal system, dorsal and side connections, conveyed exhausts						
	<p>1 = Supply 2-4 = Consumptions 3-5 = Exhausts 12-14 = Pilot 12*-14* = Side pilot</p>	dorsal and side connections dorsal pneum. impulses	G 1/8	aluminium	0,280	BF-1071
			G 1/4	aluminium	0,275	BF-1072
		dorsal and side connections side pneum. impulses	G 1/8	aluminium	0,300	BF-1071S
			G 1/4	aluminium	0,295	BF-1072S

Dorsal and side connections possible. Close unused ports with caps. Screws (incorporated), seals and caps included.

Inlet plate universal system

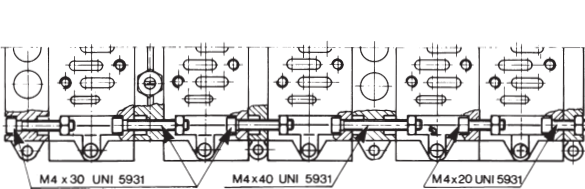
	<p>1 = Supply 3-5 = Exhausts</p>	connections in-line	G 3/8	zamak	0,355	BF-1064
		on top	G 3/8	zamak	0,355	BF-1065
		dorsal	G 3/8	zamak	0,355	BF-1066
		connections only in-line	G 3/8	aluminium	0,120	BF-1068

When battery exceeds 4 units, the mounting of 2 plates is recommended. Mixed version available upon request. Screws (incorporated) and seals included.

Diaphragm universal system

		-	-	zamak	0,090	BF-1070
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The diaphragm is designed to obtain the speed regulation of the cylinder by centralizing all controls at the front. For its insertion in the manifold assembly avail yourself of the special diaphragm and in both elements break the central blind hole. Connections G 1/8 for silencers. Screws (incorporated) and seals standard supplied.




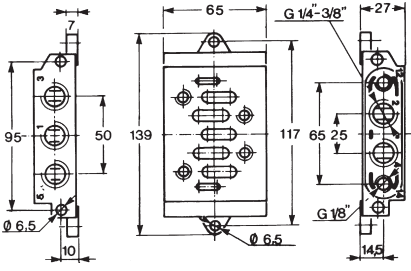

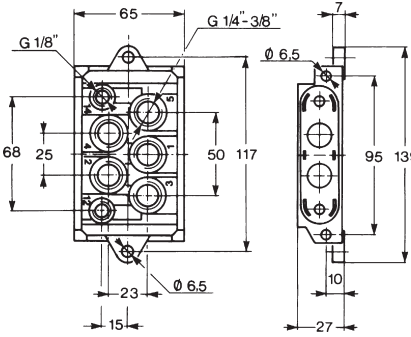
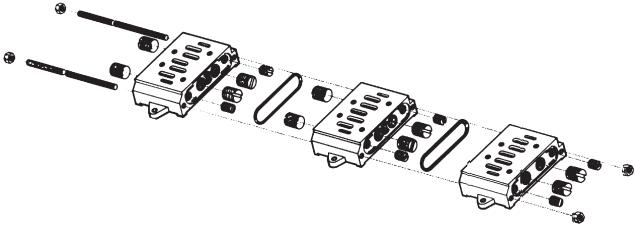
Advantages

The series of ISO 1 sub-bases has been produced taking into consideration existing problems.


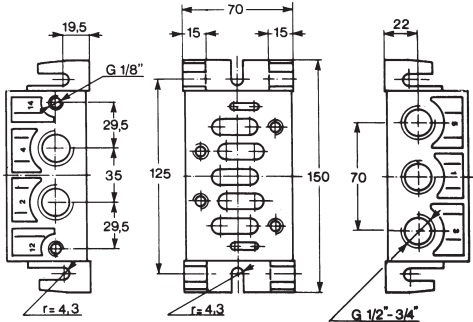

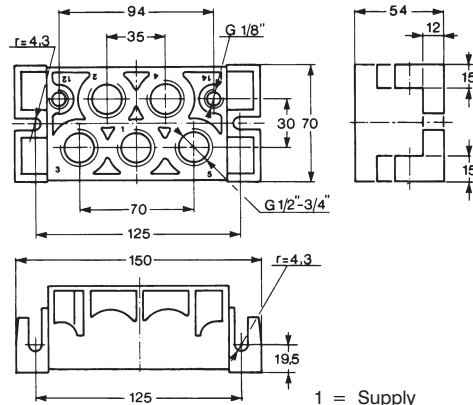
- Determination of the base number when using them.
- Quick assembly with special (incorporated) screw standard supplied.
- Determination of functions for each battery (pressure differentiation, exhaust regulation) by adding or reducing the number of elements without restrictions.
- Easy technical intervention

On request assembled and tested batteries are supplied according to drawings. Closing plate for unused base (BF-1085) with screws and seals available




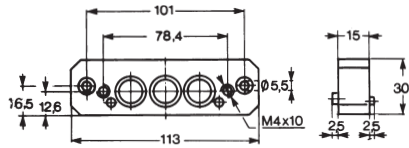

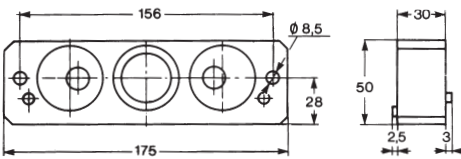

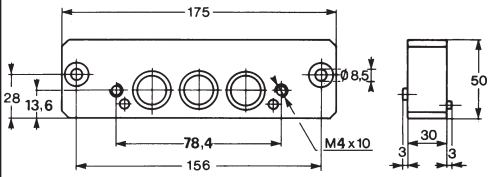

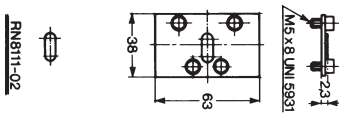

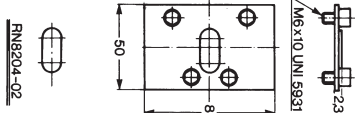

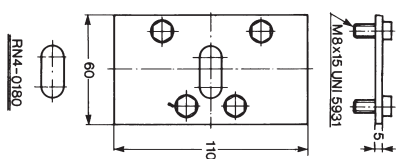
Type	Overall dimensions	Remarks	Connections	Material	Mass kg	Part number
Single sub-base side connections						
	 <p>1 = Pressure 3-5 = Exhausts</p> <p>2-4 = Consumptions 12-14 = Pilot</p>	connections in-line	G 1/4	zamak	0,640	BF-1150
			G 3/8	zamak	0,650	BF-1151
To be used when battery assembly is not possible						
Single sub-base dorsal connections						
	 <p>1 = Supply 3-5 = Exhausts</p> <p>2-4 = Consumptions 12-14 = Pilot</p>	dorsal connections	G 1/4	zamak	0,640	BF-1152
			G 3/8	zamak	0,650	BF-1153
To be used when battery assembly is not possible						
Sub-base battery with dorsal connections and exhaust regulator						
			<p>The single sub-base with dorsal connections allows battery assembly with insertion of an exhaust regulator. Generally, this sub-base version is delivered pre-assembled and pre-tested only upon specific request and following the customer drawing. This kind of battery has a conveyed entrance, dorsal connections and separate exhausts. Exhaust regulators, the assembly kit with tie-rods, seals and plugs must be ordered separately for battery assembly.</p>			
<p>Closing plate for unused base (BF-1175) with screws and seals available</p>						



Type	Overall dimensions	Remarks	Connections	Material	Mass kg	Part number
Single sub-base side connections						
	 <p>1 = Supply 3-5 = Exhausts 2-4 = Consumptions 12-14 = Pilots</p>	connections in-line	G 1/2	aluminium	0,740	BF-3060
			G 3/4	aluminium	0,740	BF-3061
To be used when battery assembly is not possible						
Single sub-base dorsal connections						
	 <p>1 = Supply 2-4 = Consumptions 3-5 = Exhausts 12-14 = Pilots</p>	dorsal connections	G 1/2	aluminium	0,720	BF-3062
			G 3/4	aluminium	0,720	BF-3063
To be used when battery assembly is not possible						

Type	Overall dimensions	Remarks	Connections	Material	Mass kg	Part number
Single sub-base side connections						
	<p>1 = Supply 2-4 = Consumptions 3-5 = Exhausts 12-14 = Pilots</p>	connections in-line	G 3/4	aluminium	1,280	BF-4060
			G 1	aluminium	1,280	BF-4061
Single sub-base dorsal connections						
	<p>1 = Supply 2-4 = Consumptions 3-5 = Exhausts 12-14 = Pilots</p>	dorsal connections	G 3/4	aluminium	1,240	BF-4062
			G 1	aluminium	1,240	BF-4063



Type	Overall dimensions	Remarks	Material	Mass kg	Part number
Connecting interface for universal sub-bases size 1 and 2					
		-	aluminium	0,110	BF-1190
It allows the use of size 1 and 2 valves in one battery with conveyed pressure and exhausts (on request: pressure and/or exhausts separated)					
Connecting interface for universal sub-bases size 2 and 3					
		-	aluminium	0,570	BF-3190
It allows the use of size 2 and 3 valves in one battery with conveyed pressure and exhausts (on request: pressure and/or exhausts separated)					
Connecting interface for universal sub-bases size 1 to 3					
		-	aluminium	0,570	BF-3191
It allows the use of size 1 to 3 valves in one battery with conveyed pressure and exhausts (on request: pressure and/or exhausts separated)					
Closing plate for sub-bases size 1-2-3					
		ISO 1 (for all sub-base models)	steel	0,030	BF-1085
		ISO 2 (for all sub-base models)	steel	0,050	BF-1175
		ISO 3 (for all sub-base models)	aluminium	0,080	BF-3175
It allows "at design stage" to fix the number of bases leaving some of them temporarily free for future new applications. Screws (incorporated) and seals included.					

Valves