

EXTERNAL VALVES

Electrical valves bankable: the alternative solution to reduce weight and size of the mini-units. The port of use A and B are threaded directly on the valve body



Electrical valves NG3 MICRO: the optimal solution for high performance with compact extra dimensions. Each valve requires a modular block to be mounted



Cartridge valves mounted in manifold blocks: the lightweight and economical solution

Why aren't NG6 (cetop 3) valves available?

The range of micro powerpack is designed to have weight, size and cost reduced. The directional valves NG6 (cetop3) are designed for flow rates 10 times higher than those micro powerpacks and, despite their enormous spread all over the world, are now supplanted directional valves with factors of small footprint, high performance and energy saving, as our MICRO NG3 valves that offer the best weight / size. Each valve is 31mm high, it can create, for example, a battery of valves 7 in just 217 mm. Using valves CETOP 3 the same size would double. MICRO NG3 valves are currently available with 12V or 24V DC coils.

Is it possible to manufacture special manifold blocks with special valves combinations for specific applications?

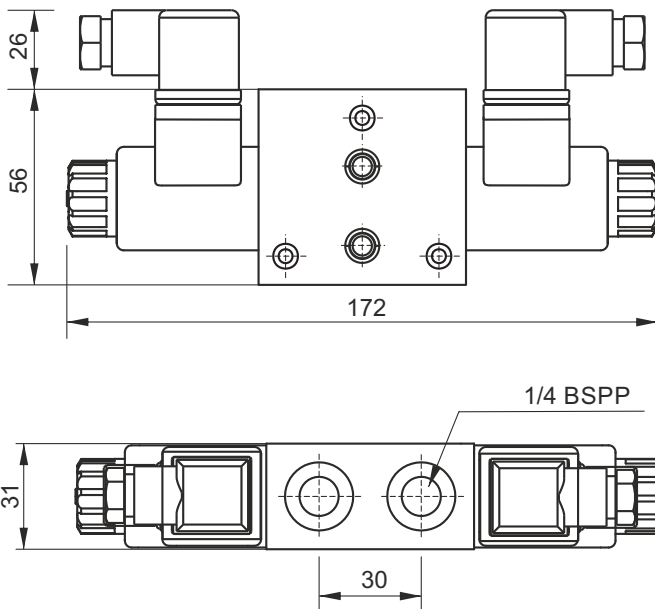
Certainly. In the case where the quantities justify the investment of design and implementation. Please consult our technical department.

Which coils and connectors do I select for the spool valves?

NG3 MICRO valves SD00* series are planned to be driven by DC coils only. Stackable valves SD01* series use DC or RAC M120 series coils. When choosing a RAC coil, a rectifying bridge connector must be chosen (KA132R***). A standard KA13200000 connector must be always used with DC coils.

SECTION G

STACKABLE DIRECTIONAL SOLENOID VALVES



Main features

Max pressure	250 bar
Max pressure on T port	210 bar static, 140 bar dynamic
Max flow	20 l/min
Weight	0,89 Kg (1 solenoid) 1,09 Kg (2 solenoid)
Fixing bolts	3 tie-rods TCEI M6. 6 Nm torque. 10.9 class steel or better
Coil insulation	Class H
Electric connection	DIN 43650-A / ISO 4400
Protection class	IP 65 / DIN 40050
Duty cycle	ED 100%
Voltage required	+/- 10% nominal voltage
Emergency	included as standard
Standards	EN50081-1 / EN50082-2 (89/336 CEE electromagnetic comp.) 73/23/CEE / 96/68/CEE (low voltage)
Operating temperature	-20°C +80°C

Spare part code

SD01	Stackable directional solenoid valve
A2	Spool and scheme: see side table
24DC	Supply voltage: see G050 table
-	Position type: - = intermediate C = top closed with P and T closed

Spool

Double solenoid

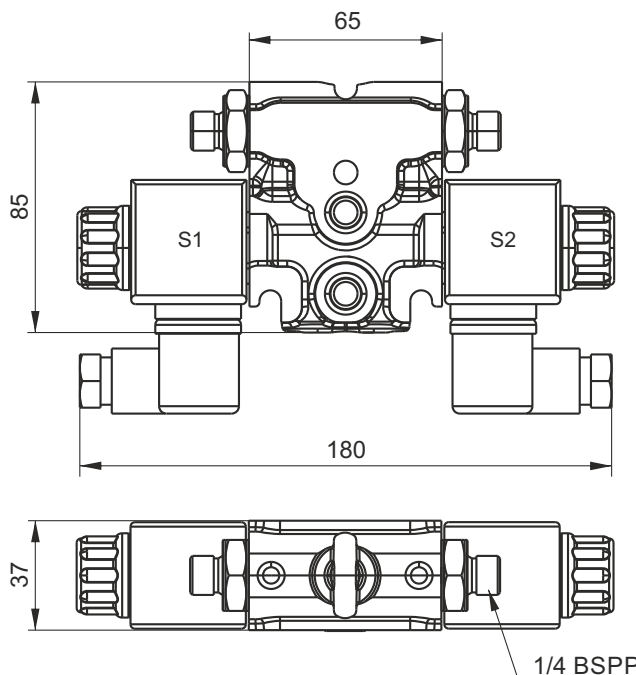
A2	
B2	
C2	
E2	

Single solenoid

A11C	
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STACKABLE MODULAR DIRECTIONAL SOLENOID VALVES WITH REAR PORTS



Options

Description	Spare part code
Closed plate, to be used as the last element	SD02TOP
Kit 3 tie-rods + nut M8 8.8 (x = number of elements)	SD020x

Main features

Max pressure	250 bar
Max pressure on T port	50 bar
Max flow	25 l/min
Weight	1,67 Kg (1 solenoid) 1,37 Kg (2 solenoid)
Internal leakage	0,02 l/min at 200bar
Fixing bolts	3 tie-rods TCEI M8. 15 Nm torque. 8.8 class steel or better
Coil insulation	Class H
Electric connection	DIN 43650-A / ISO 4400
Protection class	IP 65 / DIN 40050
Duty cycle	ED 100%
Voltage required	+/- 10% nominal voltage
Emergency	included as standard
Standards	EN50081-1 / EN50082-2 (89/336 CEE electromagnetic comp.) 73/23/CEE / 96/68/CEE (low voltage)
Operating temperature	-20°C +80°C

Spare part code

SD02	Stackable modular directional solenoid valve
E2	Spool and scheme: see side table
RP	Options: - = free outputs RP = outputs with piloted check valves (only spool E2 and C2)
24DC	Supply voltage: see G050 table

Spool

Double solenoid

A2	
B2	
C2	
E2	

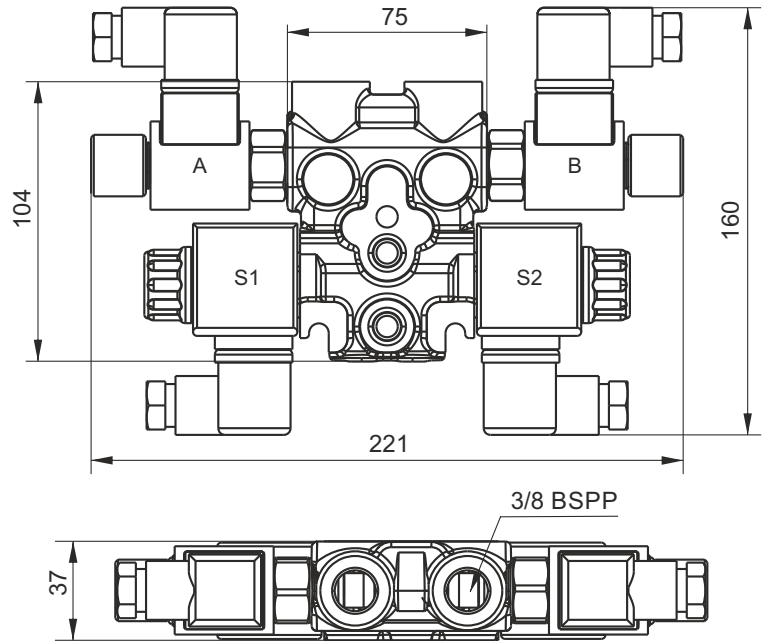
Single solenoid

A11CHF	
Opzione RP	
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SECTION G

STACKABLE SOLENOID VALVES WITH 3/4-16UNF CAVITY FOR ADDITIONAL VALVES



Options

Description	Spare part code
Closed plate, to be used as the last element	SD02TOP
Kit 3 tie-rods + nut M8 8.8 (x = number of elements)	SD020x

Main features

Max pressure	250 bar
Max pressure on T port	50 bar
Max flow	25 l/min
Weight	2,38 Kg (1 solenoid) 2,08 Kg (2 solenoid)
Internal leakage	0,02 l/min at 200bar
Fixing bolts	3 tie-rods TCEI M8. 15 Nm torque. 8.8 class steel or better
Coil insulation	Class H
Electric connection	DIN 43650-A / ISO 4400
Protection class	IP 65 / DIN 40050
Duty cycle	ED 100%
Voltage required	+/- 10% nominal voltage
Emergency	included as standard
Standards	EN50081-1 / EN50082-2 (89/336 CEE electromagnetic comp.) 73/23/CEE / 96/68/CEE (low voltage)
Operating temperature	-20°C +80°C

Spare part code

- SD02** — Stackable modular directional solenoid valve + cavity 3/4-16UNF for additional valves
- E2** — Spool and scheme: see side table
- TP** — Version: TP = parallel ports with 3/4-16 UNF cavity
- 24DC** — Supply voltage: see G050 table
- AR24DC** — Cavity A: X = open cavity, L = closed plug, ARxx = valve 2/2 NC (xx = voltage), S = check flow bidirectional valve
- AR24DC** — Cavity B: X = open cavity, L = closed plug, ARxx = valve 2/2 NC (xx = voltage), S = check flow bidirectional valve

Spool

Double solenoid

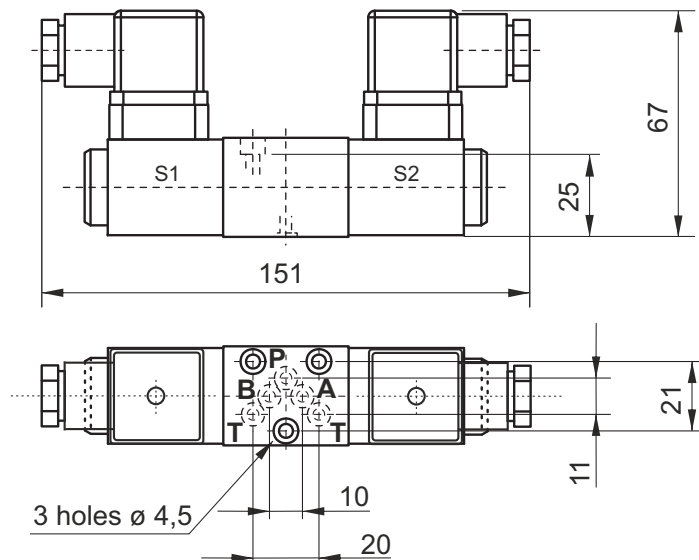
A2	
B2	
C2	
E2	

Single solenoid

A11C	
Cavity option	
Code	



NG3 MICRO DIRECTIONAL SOLENOID VALVES



Main features

Max pressure	315 bar
Max pressure on T port	100 bar
Max flow	15 l/min
Weight	0,7 kg (2 solenoid) 0,55 kg (1 solenoid)
Internal leakage	< 0,01 l/min at 200bar
Fixing bolts	3 TCEI M4x30. 2,8Nm torque 10.9 class steel or better
Coil insulation	Class H
Electric connection	DIN 43650-A / ISO 4400
Protection class	IP 65 / DIN 40050
Duty cycle	ED 100%
Voltage required	+/- 10% nominal voltage
Emergency	included as standard
Standards	EN50081-1 / EN50082-2 (89/336 CEE electromagnetic comp.) 73/23/CEE / 96/68/CEE (low voltage)

Spare part code

SD00	NG3 micro directional solenoid valve
A2	Spool and scheme: see side table
24DC	Supply voltage: see G050 table
-	Options: - = std

Spool

Double solenoid

A2	
B2	
C2	
E2	

Single solenoid

A11C	
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SECTION G

COIL FOR EXTERNAL VALVES



Supply voltage [V]	Assembly code	Coil type	Spare part code	Spare connector code	Holding power [W]	Duty charge ED [%]	Prot. class	Weight [g]	Suitable for valve series
12DC	12DC_M100	DC	M10040001	KA132000B1	16W	100	H	121	SD00
24DC	24DC_M100	DC	M10040002	KA132000B1	16W	100	H	121	SD00
24AC	24RAC_M100	RC - needs external rectifying connector	M10040002	KA132R11B1	16W	100	H	121	SD00
12DC	12DC_M120	DC	M12040001	KA132000B1	22W	100	H	134	SD01
24DC	24DC_M120	DC	M12040002	KA132000B1	22W	100	H	134	SD01
24AC	24RAC_M120	RC - needs external rectifying connector	M12040002	KA132R11B1	22W	100	H	134	SD01
230AC	220RAC_M120	RC - needs external rectifying connector	M12040005	KA132R13B1	22W	100	H	134	SD01
12DC	12DC_M630	DC	M6306012	KA132000B1	18W	100	H	130	SD02
24DC	24DC_M630	DC	M6306024	KA132000B1	18W	100	H	130	SD02
24AC	24AC_M631	RC with integrated rectifying bridge	M6316024	KA132000B1	18W	100	H	130	SD02
115AC	115AC_M631	RC with integrated rectifying bridge	M6316115	KA132000B1	18W	100	H	130	SD02
230AC	230AC_M631	RC with integrated rectifying bridge	M6316230	KA132000B1	18W	100	H	130	SD02
12DC	12DC_M160	DC	M16040001	KA132000B1	26W	100	H	190	SD02*HF
24DC	24DC_M160	DC	M16040002	KA132000B1	26W	100	H	190	SD02*HF
24AC	24AC_M160	RC - needs external rectifying connector	M16040002	KA132R11B1	26W	100	H	190	SD02*HF
115AC	115AC_M160	RC - needs external rectifying connector	M16040004	KA132R12B1	26W	100	H	190	SD02*HF
230AC	230AC_M160	RC - needs external rectifying connector	M16040005	KA132R13B1	26W	100	H	190	SD02*HF

Other voltages and electric connectors types (Amp Junior, flying leads,...) available on request.
 Inrush power consumption can be up to 3,5 times higher than the holding one.
 Standard electric connector: DIN 43650-A / ISO 4400. Coil protection class: IP65.