Compact Solenoid Valve - General Purpose

Type 6013

Sub-base Connection

2/2-Way; Sub-base Connection; PN up to 25 bar

Advantages/Benefits

- **Coil can easily be changed with valve in place**
- **Coil lockable in 4 x 90° positions or freely movable in between, as required**
- **Medium is only in contact with the valve internals and the body**
- **High-quality seal material FKM as standard**

Design/Function

The 6013 valves are based on a modular concept comprising three basic elements: Valve body, push-over coil and standard cable plug. The valve assembly consists of a body to which the armature guide tube containing the plunger, seals and springs is attached.
The coil is pushed over the guide tube and thus isolated from the medium.
The medium is only in contact with the valve internals and body.

A wide selection of pipe and orifice sizes is offered. The valve body material is brass. All valves have high quality FKM seals as standard.

To simplify ordering, a wide selection of standard combinations of valve body, push over coil and standard cable plug can be ordered with one order number.

Cable plug options of Type 2508 are available to suit special electrical application requirements.

– The modular concept provides flexibility to meet application requirements.

– The valves are interchangeable with Type 212.

Applications

Fluids
Neutral gases and liquids, e.g. compressed air, town gas, natural gas, water, hydraulic oil, petrol.

Suitable for technical vacuum

Applications
- Pneumatic control
- Shut-off, dosing, filling and venting
- Small-scale instruments, laboratory and measuring technology
- Welding technology

bürkert
Easy Fluid Control Systems

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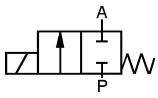
Technical Data Type 6013

Circuit function

A 2/2-way valve, normally closed

Symbol



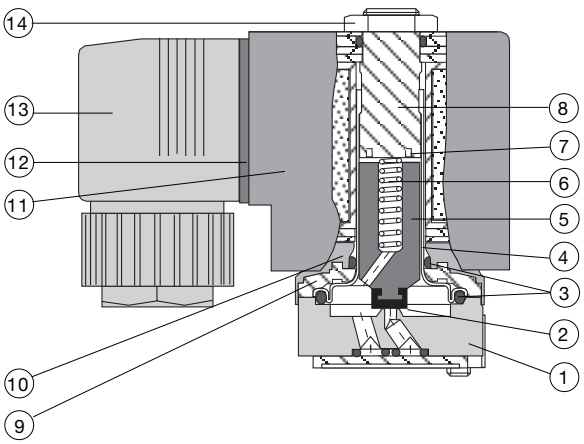
Operating Data (Valve)

Pressure range	0-25 bar (see specifications)
Port connection	Sub-base connection
Orifice	DN 2,0 mm
Fluid	Neutral gases and liquids, e.g. compressed air, town gas, natural gas, water, hydraulic oil, petrol. Suitable for techn. vacuum.
Medium temperature	–10 bis +100 °C
Max. ambient temperature	+55 °C
Max. viscosity	21 mm²/s
Response times	
Opening	AC, DC 20 ms
Closing	AC, DC 30 ms
Installation	As required, but preferably with solenoid system upright

Operating Data (Actuator)

Operating voltages	AC 24, 110, 230 V/50 Hz, 24 V/DC
Voltages tolerance	±10 %
Power consumption 32 mm-coil	AC inrush: 24 VA; AC hold: 17 VA/8 W; DC: 8 W
Duty cycle Duty cycle for multiple manifolds	100% continuously rated 60% periodic duty (30 min) or use 5W-version (on request)
Cycling rate	Up to 1 000 c.p.m.
Rating with cable plug	IP 65
Electr. connection	Delivery standard: Cable plug DIN 43 650 A, 0-250 V (Other versions see accessories)

Materials



1	Valve body:	Brass
2	Plunger seal:	FKM
3	O-rings:	FKM
4	Armature guide tube:	1.4303
5	Plunger:	1.4105
6	Spring:	1.4310
7	Shading ring:	Cu (copper)
8	Stopper:	1.4105
9	Flange:	Zn3 gl cC (surface)
10	Bonnet:	Durethan BKV30H
11	Coil:	PA (Polyamide)
12	Flat seal:	NBR
13	Cable plug:	PA (Polyamide)
14	Locknut:	9SMnPb28K (surface Zn5glcA)

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Specifications - Ordering Chart (Other Versions on Request)

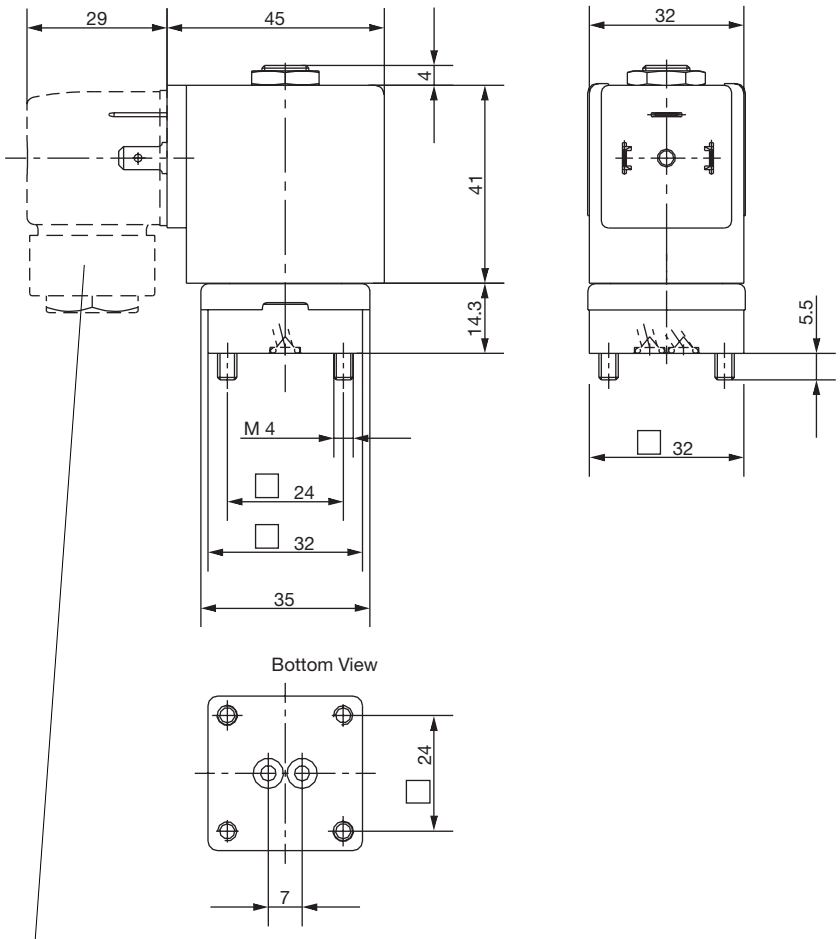
Type 6013: brass body (MS); coil 8W (with standard-cable plug 0-250 V AC/DC)

Circuit finction	Orifice [mm]	Kv-Value water[1] [m³/h]	Weight [g]	Port connection	Seal material	Pressure range[2] [bar]	Voltage/ frequency [V/Hz]	Item-No.
A	2,0	0,12	320	Sub-base	FKM	0–12	24/DC	134 244 U
						0–25	24/50	134 245 V
						0–25	110/50	134 246 W
						0–25	230/50	134 247 X

[1] Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C.
[2] All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

Dimensions [mm]

Sub-base version



Cable plug DIN 43650,
form A, (0-250 V AC/DC)
delivery standard.

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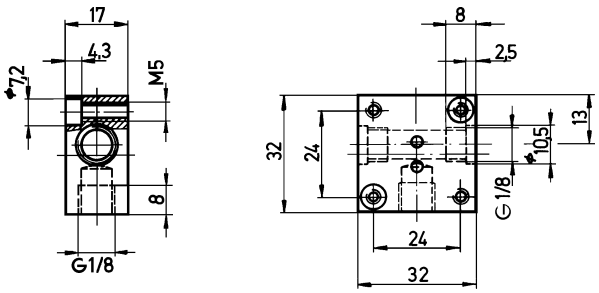
Dimensions Accessories [mm]

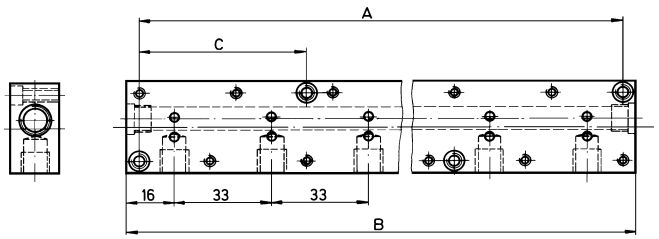
Single manifold



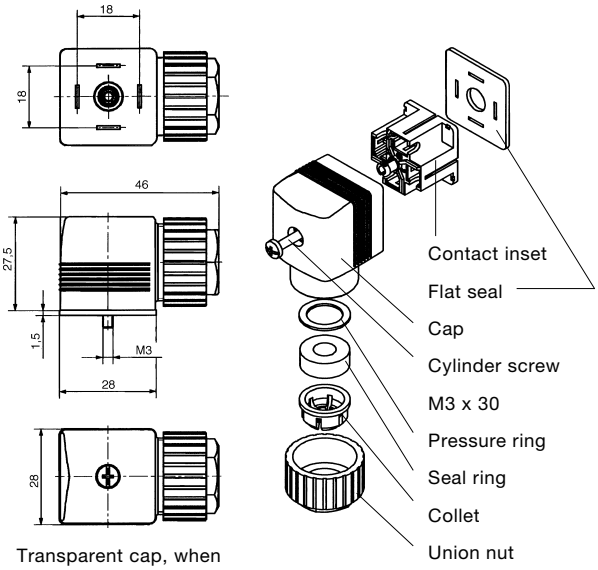
Multiple manifold

Manifolds mounted 5W-versions should be 100% continously rated. 8W-versions should be limited to 60% duty cycle, 30 min switch-on time. The pressure port of the manifold is marked with P (R), the outlet port with A (B). Only similar ports can be coupled together. A 3/2-way valve Type 6014 in circuit function C can also be mounted to the manifold, if the applied pressure corresponds to the valve. Unused connections to be plugged (see accessories). Manifolds may be coupled together using special push-fit O-ring connection nipples for linking the pressure inlets P (R).
Manifolds joined together in this way should be securely mounted.

Multiple manifold



Standard Cable plug



Transparent cap, when wired with LED.

Ordering Chart for Manifolds/Accessories

Device/Accessory	Features			Item-No.
Single manifold	Aluminium			005 020 W
Multiple manifold (aluminium)	Hole spacing A	Overall length B	Hole spacing C	
2 valves	57	65	–	005 023 M
3 valves	90	98	–	005 286 S
4 valves	123	131	–	005 287 T
5 valves	156	164	57	005 035 R
6 valves	189	197	57	005 038 U
8 valves	255	263	57	005 386 W
10 valves	321	329	90	005 764 G
Connector nipples	with O-rings			005 040 A
Blanking screw	with seal ring, G 1/8			005 041 X
Blanking plug	with screws + 0-ring			005 630 E

Ordering Chart for Accessories

Device/ Accessory	Features	Item-No.
Cable plugs[1] Type 2508	Standard cable plug, 0–250 V AC/DC (standard-delivery)[1]	008 376 N
	with LED, 12–24 V AC/DC	008 360 S
	with LED, 100-120 V AC/DC	008 361 P
	with LED + varistor, 12–24 V AC/DC	008 367 M
	with LED + varistor, 100–120 V AC/DC	008 368 W
	with LED + varistor, 200–240 V AC/DC	008 369 X
	(optional wirings and connection specifications see data sheet Type 2508)	

[1] **The standard cable plug (0-250 V AC/DC) Order-No. 008 376 N is part of the standard delivery.**
Ordering of optional cable plugs with separate item number.

A wide selection of further cable plugs is available (see data sheet Type 2508)

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