# Compact Solenoid Valve - General Purpose

Threaded Port G1/8"-G1/4"

**Type 6013**

## 2/2-Way; G1/8"-G1/4"; PN up to 10 bar




## Advantages/Benefits

- **Coil can be changed easy with valve in place**
- **Coil can be locked in 4x 90° positions or move freely between, as required**
- **Medium is only in contact with the valve internals and body**
- **High-quality seal material FPM (Viton) standard**
- **Wide range of cable plug options Type 2508**

## Design/Function

The valves are based on a modular concept comprising three basic elements; Valve assembly, 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. Valves are available in brass or stainless steel.
All valves have high quality viton (FPM) seals as standard.

To simplifiy 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 applications requirements.

– The valve are interchangeable with Type 211.

## Applications

**Fluids**

Brass version: Neutral gases and liquids, e.g.compressed air, town gas, natural gas, water, hydraulic oil, petrol.
Stainless steel version: Difficult and slightly aggressive media

Suitable for technical vacuum

**Applications**

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

bürkert
Easy Fluid Control Systems

# Compact Solenoid Valve - General Purpose **Type 6013**

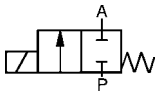
Threaded Port G1/8"-G1/4"

## Technical Data Type 6013

**Circuit function**

**A** 2/2-way valve, normally closed

**Symbol**



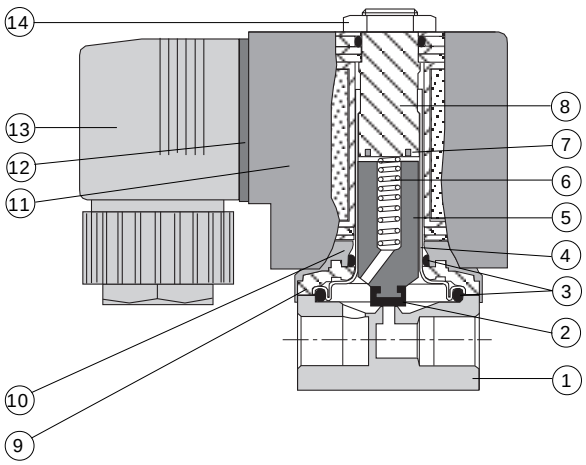

## Operating Data (Valve)

| | |
|---|---|
| Pressure range | 0-10 bar (see specifications) |
| Port connection | Threaded port G 1/8"-G 1/4" |
| Orifice | DN 2,0-6,0 mm |
| Fluid | Neutral gases and liquids, e.g. compressed air, town gas, natural gas, water, hydraulic oil, petrol. Stainless steel version: Difficult and slightly aggressive media. |
| | Suitable for techn. vacuum. |
| Medium temperature | –10 bis +100 °C |
| Max. ambient temperature | +55 °C |
| Max. viscosity | 21 $mm^2/s$ |
| 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, DC 12, 24 V/= |
| Voltage tolerance | ±10 % |
| Power consumption 32 mm-coil | AC inrush: 24 VA; AC hold: 17 VA/8 W; DC: 8 W |
| Duty cycle | 100% continuosly rated |
| Duty cycle for multiple manifolds | 60% for manifold mounting (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, S.Steel 1.4305 (G1/8") S.Steel 1.4401 (G1/4") |
| 2 | Plunger-seal: | FPM (Viton) |
| 3 | O-rings: | FPM (Viton) |
| 4 | Armature guide tube: | 1.4303 |
| 5 | Plunger: | 1.4105 |
| 6 | Spring: | 1.4310 |
| 7 | Shading ring: | Cu (brass version) Ag (stainless steel version) |
| 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) |

# Compact Solenoid Valve - General Purpose **Type 6013**

Threaded Port G1/8"-G1/4"

## Specifications - Ordering Chart (Other Versions on Request)

### Type 6013: brass body, coil 8W

(with standard-cable plug 0-250 V AC/DC)

| Circuit function | Orifice [mm] | Kv-value water[1] [m³/h] | Pressure range[2] [bar] | Port connection [inch] | Seal material | Voltage/ frequency [V/Hz] | Weight [g] | **Order-No.** |
|---|---|---|---|---|---|---|---|---|
| A | 2,0 | 0,12 | 0–10 | G 1/8 | FPM | 24/= | 360 | 125 293 M |
| | | | 0–10 | | | 24/50 | | 125 294 N |
| | | | 0–10 | | | 110/50 | | 125 295 P |
| | | | 0–10 | | | 230/50 | | 125 296 Q |
| | 2,5 | 0,16 | 0– 6 | G 1/8 | FPM | 24/= | 360 | 125 297 R |
| | | | 0– 6 | | | 24/50 | | 125 298 S |
| | | | 0– 6 | | | 110/50 | | 126 090 J |
| | | | 0– 6 | | | 230/50 | | 125 299 T |
| | 3,0 | 0,23 | 0– 6 | G 1/8 | FPM | 24/= | 360 | 126 091 F |
| | | | 0–10 | | | 24/50 | | 126 092 G |
| | | | 0–10 | | | 110/50 | | 126 093 H |
| | | | 0–10 | | | 230/50 | | 126 094 A |
| | 3,0 | 0,23 | 0– 6 | G 1/4 | FPM | 24/= | 465 | 125 301 V |
| | | | 0–10 | | | 24/50 | | 125 302 W |
| | | | 0–10 | | | 110/50 | | 125 303 X |
| | | | 0–10 | | | 230/50 | | 125 304 Y |
| | 4,0 | 0,30 | 0– 2 | G 1/4 | FPM | 24/= | 465 | 125 306 S |
| | | | 0– 4 | | | 24/50 | | 125 307 T |
| | | | 0– 4 | | | 110/50 | | 125 308 C |
| | | | 0– 4 | | | 230/50 | | 125 309 D |
| | 6,0 | 0,55 | 0– 1 | G 1/4 | FPM | 24/= | 465 | 125 311 N |
| | | | 0– 1,5 | | | 24/50 | | 125 312 P |
| | | | 0– 1,5 | | | 110/50 | | 125 313 Q |
| | | | 0– 1,5 | | | 230/50 | | 125 314 R |

### Type 6013: stainless steel body (VA); coil 8W;

(with standard-cable plug 0-250 V AC/DC)

| Circuit function | Orifice [mm] | Kv-value water[1] [m³/h] | Pressure range[2] [bar] | Port connection [inch] | Seal material | Voltage/ frequency [V/Hz] | Weight [g] | **Order-No.** |
|---|---|---|---|---|---|---|---|---|
| A | 2,0 | 0,12 | 0–10 | G 1/8 | FPM | 24/= | 345 | 126 075 N |
| | | | 0–10 | | | 24/50 | | 126 076 P |
| | | | 0–10 | | | 110/50 | | 126 077 Q |
| | | | 0–10 | | | 230/50 | | 125 315 J |
| | 3,0 | 0,23 | 0– 6 | G 1/8 | FPM | 24/= | 345 | 126 078 Z |
| | | | 0–10 | | | 24/50 | | 126 079 S |
| | | | 0–10 | | | 110/50 | | 126 080 Q |
| | | | 0–10 | | | 230/50 | | 126 081 D |
| | 3,0 | 0,23 | 0– 6 | G 1/4 | FPM | 24/= | 445 | 125 317 L |
| | | | 0–10 | | | 24/50 | | 126 082 E |
| | | | 0–10 | | | 110/50 | | 126 083 F |
| | | | 0–10 | | | 230/50 | | 126 084 G |
| | 4,0 | 0,30 | 0– 2 | G 1/4 | FPM | 24/= | 445 | 125 318 V |
| | | | 0– 4 | | | 24/50 | | 125 319 W |
| | | | 0– 4 | | | 110/50 | | 126 085 H |
| | | | 0– 4 | | | 230/50 | | 125 320 T |
| | 6,0 | 0,55 | 0– 1 | G 1/4 | FPM | 24/= | 445 | 126 086 A |
| | | | 0– 1,5 | | | 24/50 | | 126 087 B |
| | | | 0– 1,5 | | | 110/50 | | 126 088 L |
| | | | 0– 1,5 | | | 230/50 | | 126 089 M |

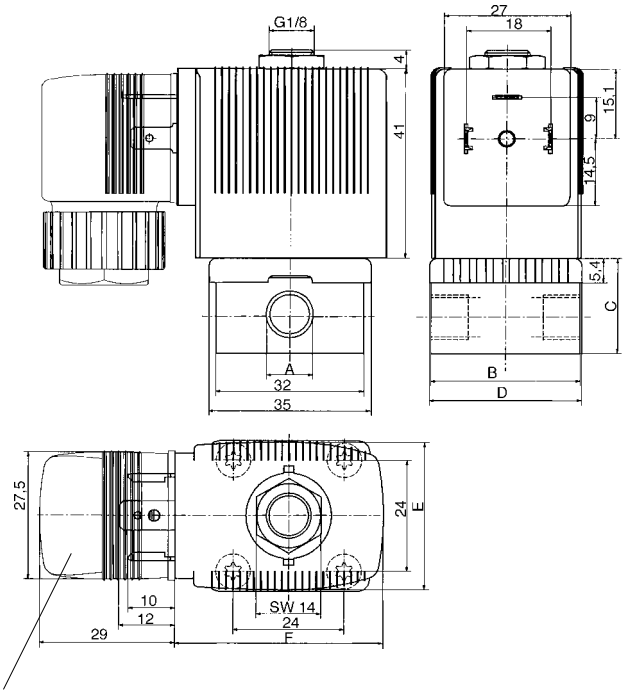
[1] Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C.
[2] All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

# Compact Solenoid Valve - General Purpose **Type 6013**

Threaded Port G1/8"-G1/4"

## Dimensions (in mm)

**Solenoid coil: 8W power consumption**

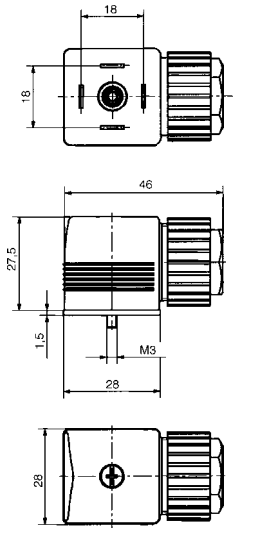



Cable plug DIN 43650, form A,
(0-250 V AC/DC) delivery standard.

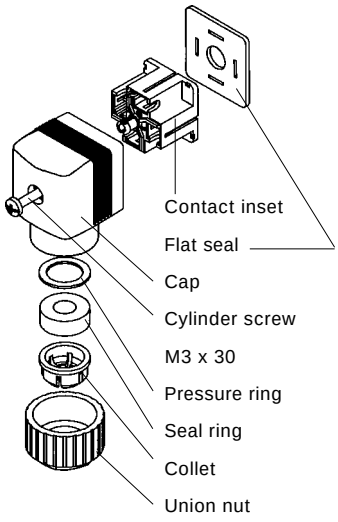
**Variable dimensions**

| | Armature | | | | Coil (8 Watt) | |
|---|---|---|---|---|---|---|
| | A | B | C | D | E | F |
| Threaded port G | 1/8 | 32 | 20,8 | 32,6 | 32 | 45 |
| Threaded port G | 1/4 | 46 | 26,8 | 49,0 | 32 | 45 |

## Dimensions Accessories (in mm)




Transparent cap, when
wired with LED.




## Ordering Chart for Accessories

| Device/ Accessory | Features | **Order-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 ordering number.

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