

2/2-Way; G 3/8"-G 1"; 0.5-10 bar



## Advantages/Benefits

- ▶ High lifetime also under pulsed conditions
- ▶ Solutions for rough air applications
- ▶ High reliability
- ▶ Compact design with high flow rates
- ▶ Modular solenoid coil system different sizes and power ratings
- ▶ Low noise
- ▶ Easy coil change
- ▶ Coil can be locked in 4x 90° positions, or move freely between, as required
- ▶ 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.

This valve is specifically designed for general purpose applications with air. The design principle of this valve allows high pulsed operations in air pipe runs, where other general purpose valves cannot be used, as they start to vibrate quickly. So life-time of this valve could be substantially increased, compared to other solutions.

A minimal pressure differential of 0.5 bar is required for complete opening.

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.

## Applications

### Fluids

- Compressed air also with higher pulse rates

### Applications

- Pneumatic systems
- Compressed air circuits

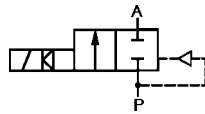
**burkert**  
Easy Fluid Control Systems

## Technical Data

### Circuit function

**A** 2/2-way, normally closed (N.C.),  
servo-piston valve,  
2-way pilot controlled

### Symbol



### Operating Data (Valve)

|                          |   |
|--------------------------|---|
| Pressure range           | 0.5-10 bar  |
| Port connection          | G 3/8" - G 1"   |
| Fluid                    | Seal material NBR:<br>Compressed air<br>pulsed air,   |
| Medium temperature       | -10 ... +90 °C  |
| Max. ambient temperature | +55 °C  |
| Response times           | opening: 80-100 ms <sup>1)</sup><br>closing: 200-300 ms <sup>1)</sup><br><sup>1)</sup> Depend on orifice and fluid pressure |
| Installation             | as required, but preferably<br>with solenoid system upright   |

### Operating Data (Actuator)

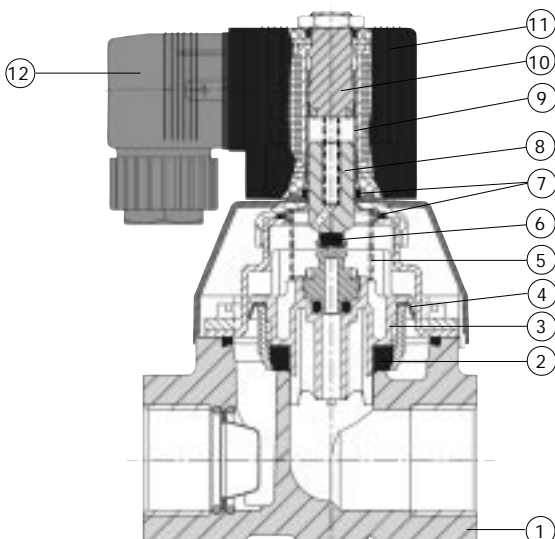
|                    |   |
|--------------------|---|
| Operating voltages | AC: 24, 110, 230, V/50 Hz<br>DC: 24 V/= |
| Voltages tolerance | ±10 %                                   |

### Power consumption

| Operating status    | DN (mm)    |            |            |
|---------------------|------------|------------|------------|
|                     | 10         | 13         | 20         |
| AC: inrush          | 34 VA      | 36 VA      | 38 VA      |
| AC: hold            | 14 VA/ 8 W | 14 VA/ 8 W | 14 VA/ 8 W |
| DC: inrush and hold | 10 W       | 10 W       | 10 W       |

|                                     |  |
|-------------------------------------|--|
| Duty cycle                          | 100% continuously rated  |
| Cycling rate                        | up to 20 c.p.m.  |
| Protection class with<br>cable plug | IP 65  |
| Electr. connection                  | Delivery standard:<br>Cable plug DIN 43 650 A,<br>0-250 V (Other versions<br>see accessories). |

## Materials



|    |                      |           |
|----|----------------------|-----------|
| 1  | Valve body:          | Brass     |
| 2  | Seat-seal:           | NBR       |
| 3  | Piston:              | PPS       |
| 4  | Gasket:              | PTFE      |
| 5  | Spring:              | 1.4310    |
| 6  | Plunger-seal:        | NBR       |
| 7  | O-rings:             | NBR       |
| 8  | Plunger:             | 1.4105    |
| 9  | Armature guide tube: | 1.4301    |
| 10 | Stopper:             | 1.4105    |
| 11 | Coil                 | Polyamide |
| 12 | Cable plug:          | Polyamide |

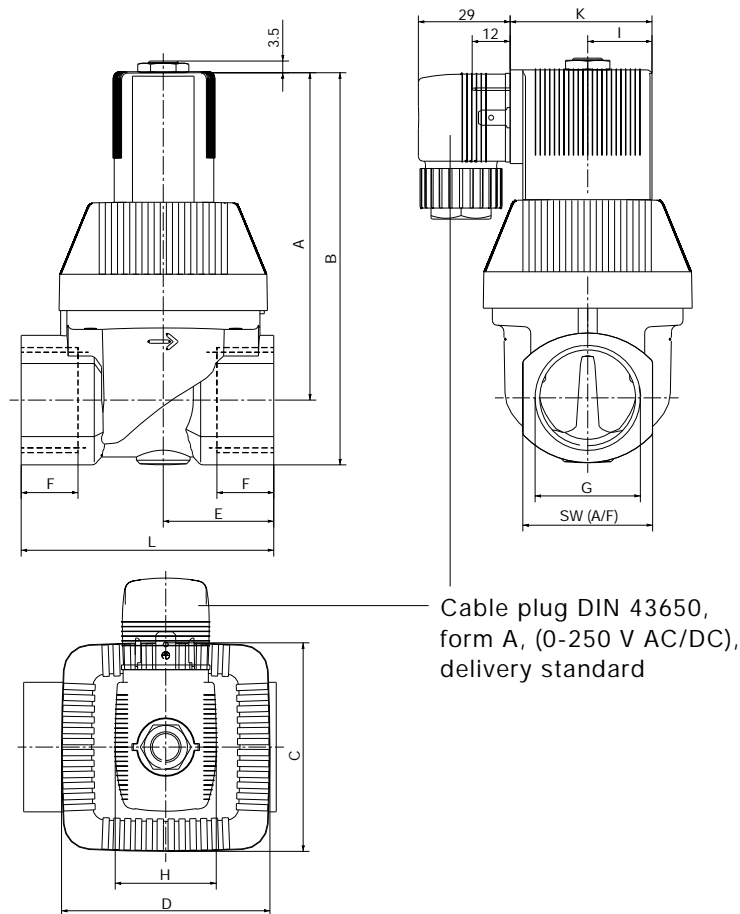
**Specifications - Ordering Chart (Other Versions on Request)**

**Brass valve body; seal material NBR**

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

| Port connection<br>[Inch] | Orifice<br>[mm] | Q <sub>Nn</sub> -value<br>(air)<br>[l/min] | Pressure<br>Range<br>[bar] | Seal<br>material | Weight<br>[kg] | ORDER - NO.                |           |           |           |
|---------------------------|-----------------|--|----------------------------|------------------|----------------|----------------------------|-----------|-----------|-----------|
|                           |                 |  |                            |                  |                | Voltage / Frequency [V/Hz] |           |           |           |
|                           |                 |  |                            |                  |                | 24/=                       | 24/50     | 110/50    | 230/50    |
| G 3/8                     | 10.0            | 1300                                       | 0.5-10                     | NBR              | 0.40           | 134 293 N                  | 134 294 P | 134 295 Q | 134 296 R |
| G 1/2                     | 13.0            | 3200                                       | 0.5-10                     | NBR              | 0.60           | 134 297 J                  | 134 298 T | 134 299 U | 134 300 U |
| G 3/4                     | 20.0            | 8700                                       | 0.5-10                     | NBR              | 1.00           | 134 301 W                  | 134 302 X | 134 303 Y | 134 304 Z |
| G 1                       | 20.0            | 8700                                       | 0.5-10                     | NBR              | 1.00           | 135 155 L                  | 135 156 M | 135 157 N | 135 158 X |

**Dimensions (in mm)**



**Variable dimensions [mm]**

| Threaded port<br>[inch] | Orifice<br>[mm] |      |      |    |      |    |    |       | AC-Coil |    |      |    |      | DC-Coil |    |      |    |  |
|-------------------------|-----------------|------|------|----|------|----|----|-------|---------|----|------|----|------|---------|----|------|----|--|
|                         |                 | C    | D    | E  | F    | L  | SW | A     | B       | H  | I    | K  | A    | B       | H  | I    | K  |  |
| G 3/8                   | 10              | 37,5 | 38.0 | 20 | 12.0 | 50 | 27 | 72.0  | 86.0    | 32 | 20.5 | 45 | 68.5 | 82.5    | 40 | 23,5 | 51 |  |
| G 1/2                   | 13              | 45.0 | 50.5 | 24 | 14.0 | 58 | 32 | 90,5  | 106.5   | 32 | 20.5 | 45 | 80.0 | 96.0    | 40 | 23,5 | 51 |  |
| G 3/4                   | 20              | 66.0 | 66.0 | 35 | 16.0 | 80 | 41 | 104.5 | 125.0   | 32 | 20.5 | 45 | 95.5 | 116.0   | 40 | 23,5 | 51 |  |
| G 1                     | 20              | 66.0 | 66.0 | 35 | 18.0 | 80 | 41 | 104.5 | 125.0   | 32 | 20.5 | 45 | 95.5 | 116.0   | 40 | 23,5 | 51 |  |

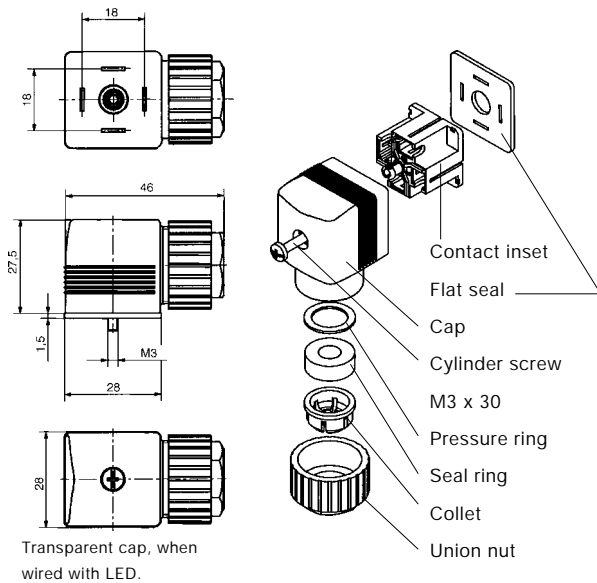


# Solenoid Valve for high pulsed and compressed air

## General Purpose

# Type 6221

### Dimensions Accessories (in mm)



### Ordering Chart for Accessories

| Device/Accessory                       | Features  | Order-No. |
|--|---|-----------|
| Cable-plugs <sup>1)</sup><br>Type 2508 | Standard cable plug, 0-250 V AC/DC (standard-delivery) <sup>1)</sup>      | 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) |           |

<sup>1)</sup> 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)