



## Servo-assisted 2/2 way diaphragm valve

- Push-over solenoid system AC07
- Energy-saving AC07 coil, max. DN20
- Body in brass
- Pressure range 0.5 up to 10 bar<sup>1)</sup>

Type 6211 can be combined with...



**Type 2516**

Cable plug to DIN EN 175301-803 Form C<sup>2)</sup>



**Type 2507**

Cable plug industrial standard Form B



**Type 2510**

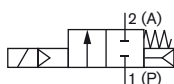
ASI-cable plug

The Type 6211 is a servo-assisted normally closed 2/2 way solenoid valve with a servo diaphragm for use especially with neutral fluids and gaseous media. The valve has a low power consumption, low weight and a compact body.

The valve is normally closed by spring force. Energized, the solenoid opens the pilot valve first. Then the medium pressure opens the main valve due to the pressure drop above the diaphragm. The valve opens.

The special design and geometry of the inner parts of the valve result in a soft closing function and cause almost no water hammer.

### Circuit function A



2/2 way servo-controlled solenoid valve, normally closed

| Technical data                  |                                                                                                                                                                                                                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Body material</b>            | Brass (DIN 50930-6)                                                                                                                                                                                                                                                                   |
| <b>Body cover</b>               | PPE/PA                                                                                                                                                                                                                                                                                |
| <b>Sealing material</b>         | NBR, EPDM, FKM                                                                                                                                                                                                                                                                        |
| <b>Media</b>                    |                                                                                                                                                                                                                                                                                       |
| NBR                             | neutral gases and fluids (e.g. compressed air, water, hydraulic oil, oil, fat without additives);                                                                                                                                                                                     |
| EPDM                            | oil and fat-free media                                                                                                                                                                                                                                                                |
| FKM                             | (e.g. alkaline washing and bleaching lyes); per-solutions, oils with additives                                                                                                                                                                                                        |
| <b>Medium temperature</b>       |                                                                                                                                                                                                                                                                                       |
| NBR                             | 0 ... +70 °C                                                                                                                                                                                                                                                                          |
| EPDM                            | -10 ... +70 °C                                                                                                                                                                                                                                                                        |
| FKM                             | 0 ... +70 °C                                                                                                                                                                                                                                                                          |
| <b>Ambient temperature</b>      | max. +55 °C                                                                                                                                                                                                                                                                           |
| <b>Port connection</b>          | G 1/8 ... G 1 (NPT or RC on request)                                                                                                                                                                                                                                                  |
| <b>Operating voltage</b>        | 24 V DC<br>24 / 110 / 230 V / 50-60 Hz                                                                                                                                                                                                                                                |
| <b>Power consumption</b>        | 4 W                                                                                                                                                                                                                                                                                   |
| Inrush                          | 9 VA AC, 4 W DC (hot) 5 W (cold)                                                                                                                                                                                                                                                      |
| Hold                            | 6 VA AC, 4 W DC                                                                                                                                                                                                                                                                       |
| <b>Voltage tolerance</b>        | ± 10 %                                                                                                                                                                                                                                                                                |
| <b>Duty cycle</b>               | 100 % continuous rating                                                                                                                                                                                                                                                               |
| <b>Electrical connection</b>    | <ul style="list-style-type: none"> <li>▪ Tag connector sideways</li> <li>▪ acc. to DIN EN 175301-803* Form C for cable plug Type 2516 (on request)</li> <li>▪ acc. to DIN 43650 Form B (industrial standard) for cable plug Type 2507 (see Ordering chart for accessories)</li> </ul> |
| <b>Installation</b>             | as required, preferably with actuator upright                                                                                                                                                                                                                                         |
| <b>Weight</b>                   | see table Response times                                                                                                                                                                                                                                                              |
| <b>Protection class</b>         | IP65 with cable plug                                                                                                                                                                                                                                                                  |
| <b>Insulating class of coil</b> |                                                                                                                                                                                                                                                                                       |
| Polyamide coil                  | Cable plug Form C - class B                                                                                                                                                                                                                                                           |
| Epoxy coil                      | Cable plug Form B - class H                                                                                                                                                                                                                                                           |
|                                 | Flying leads                                                                                                                                                                                                                                                                          |

<sup>1)</sup> Pressure data [bar]: Overpressure with respect to atmospheric pressure

<sup>2)</sup> For opening the full cross-section, a pressure difference of 0.5 bar is required.

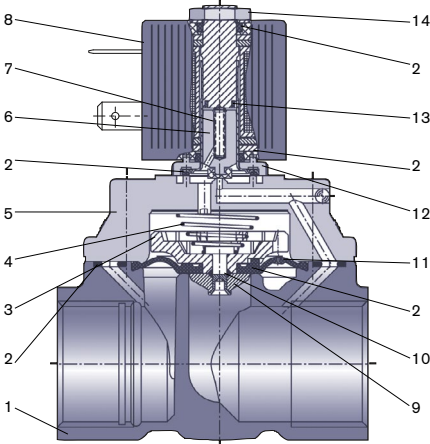
Response times

| Orifice<br>[mm] | K <sub>v</sub> value<br>water<br>[m³/h] | Port<br>connection<br>[mm] | Pressure<br>range <sup>2)</sup><br>[bar] <sup>1)</sup> | Response times  |                 | Weight<br>Closing<br>[kg] |
|-----------------|-----------------------------------------|----------------------------|--------------------------------------------------------|-----------------|-----------------|---------------------------|
|                 |                                         |                            |                                                        | Opening<br>[ms] | Closing<br>[ms] |                           |
| 10              | 1.9                                     | G ¾, G ½                   | 0.5 - 10                                               | 20 - 25         | 100 - 120       | 0.31                      |
| 13              | 3.6                                     | G ½, G ¾                   | 0.5 - 10                                               | 100 - 200       | 200 - 250       | 0.44                      |
| 20              | 8.3                                     | G ¾, G 1                   | 0.5 - 10                                               | 400             | 500 - 700       | 1.03                      |

<sup>1)</sup> Pressure data [bar]: Overpressure with respect to atmospheric pressure  
<sup>2)</sup> For opening the full cross-section, a pressure difference of 0.5 bar is required.

- K<sub>v</sub> value [m³/h]: Flow rate value for water, measured at + 20 °C and 1 bar<sup>1)</sup> pressure differential over a fully opened valve.
- Response times [ms]: measured at valve outlet at 6 bar<sup>1)</sup> and + 20 °C  
Opening: pressure build-up 0 ... 90 %, Closing: pressure relief 100 ... 10 %

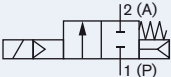
Materials



|    |                                   |                                      |
|----|-----------------------------------|--------------------------------------|
| 1  | Body                              | Brass                                |
| 2  | O-ring                            | NBR, FKM, EPDM                       |
| 3  | Diaphragm support                 | PPS                                  |
| 4  | Spring                            | St. st. 1.4310                       |
| 5  | Body cover                        | PPE/PA                               |
| 6  | Plunger                           | St. st. 1.4105                       |
| 7  | Spring                            | St. st. 1.4310                       |
| 8  | Coil                              | PA (on request)                      |
|    | DIN EN 175301-803 <sup>*)</sup> C |                                      |
|    | DIN 43650                         |                                      |
|    | (industrial standard) Form B      | Epoxy                                |
| 9  | Diaphragm holder                  | Brass, PPS                           |
| 10 | Bolt                              | Brass                                |
| 11 | Diaphragm                         | NBR, FKM, EPDM                       |
| 12 | Flange                            | Steel                                |
|    |                                   | (thick-film passivated acc. to Rohs) |
| 13 | Shading ring                      | Cu                                   |
| 14 | Locknut                           | Steel                                |
|    |                                   | (thick-film passivated acc. to Rohs) |

## Ordering chart for valves (other versions on request)

**Type 6211 Solenoid Valve with coil Form B (industrial standard) for cable plug, Type 2507**  
(cable plug not supplied)

| Circuit function                                                                               | Orifice<br>DN<br>[mm] | Port connection | K <sub>v</sub> value<br>water<br>[m³/h] | Pressure range<br>[bar] <sup>1)</sup> | Article no. per voltage/frequency [V/Hz]                                                     |                                                                                              |                                                                                              |                                                                                              |
|------------------------------------------------------------------------------------------------|-----------------------|-----------------|-----------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                                                                                                |                       |                 |                                         |                                       | 24/DC                                                                                        | 24/50-60                                                                                     | 110/50-60                                                                                    | 230/50-60                                                                                    |
| <div>A</div>  | Seal material NBR     |                 |                                         |                                       |                                                                                              |                                                                                              |                                                                                              |                                                                                              |
|                                                                                                | 10                    | G 3/8           | 1.9                                     | 0.5-10                                | 163358      | 163359    | 163360    | 163361    |
|                                                                                                |                       | G 1/2           | 1.9                                     | 0.5-10                                | 161944    | 163362    | 163363    | 163364    |
|                                                                                                | 13                    | G 1/2           | 3.6                                     | 0.5-10                                | 163384    | 163385    | 163386    | 163387    |
|                                                                                                |                       | G 3/4           | 3.6                                     | 0.5-10                                | 163388    | 163389    | 163390    | 163391    |
|                                                                                                | 20                    | G 3/4           | 8.3                                     | 0.5-10                                | 163408    | 163409    | 163410    | 163411    |
|                                                                                                |                       | G 1             | 8.3                                     | 0.5-10                                | 163412    | 163413    | 163414    | 161469    |
|                                                                                                | Seal material FKM     |                 |                                         |                                       |                                                                                              |                                                                                              |                                                                                              |                                                                                              |
|                                                                                                | 10                    | G 3/8           | 1.9                                     | 0.5-10                                | 163369    | 163370    | 163371    | 163372    |
|                                                                                                |                       | G 1/2           | 1.9                                     | 0.5-10                                | 161946    | 163373    | 163374    | 163375    |
|                                                                                                | 13                    | G 1/2           | 3.6                                     | 0.5-10                                | 163392    | 163393    | 163394    | 163395    |
|                                                                                                |                       | G 3/4           | 3.6                                     | 0.5-10                                | 163396    | 163397    | 163398    | 163399    |
|                                                                                                | 20                    | G 3/4           | 8.3                                     | 0.5-10                                | 163415    | 163416    | 163417    | 163418    |
|                                                                                                |                       | G 1             | 8.3                                     | 0.5-10                                | 163419    | 163420    | 163421    | 163422    |
|                                                                                                | Seal material EPDM    |                 |                                         |                                       |                                                                                              |                                                                                              |                                                                                              |                                                                                              |
|                                                                                                | 10                    | G 3/8           | 1.9                                     | 0.5-10                                | 163336    | 163337    | 163338    | 163339    |
|                                                                                                |                       | G 1/2           | 1.9                                     | 0.5-10                                | 163340    | 163351    | 163352    | 163353    |
|                                                                                                | 13                    | G 1/2           | 3.6                                     | 0.5-10                                | 163376  | 163377  | 163378  | 163379  |
|                                                                                                |                       | G 3/4           | 3.6                                     | 0.5-10                                | 163380  | 163381  | 163382  | 163383  |
|                                                                                                | 20                    | G 3/4           | 8.3                                     | 0.5-10                                | 163400  | 163401  | 163402  | 163403  |
|                                                                                                |                       | G 1             | 8.3                                     | 0.5-10                                | 163404  | 163405  | 163406  | 163407  |

<sup>1)</sup> Pressure rate [bar]: Overpressure with respect to atmospheric pressure

## Ordering chart for accessories

### Cable plug Type 2507, Form B Industrial standard

|  | Description                      | Voltage         | Article no. |
|--|----------------------------------|-----------------|-------------|
|  | None (standard)                  | 0 - 250 V AC/DC | 423845      |
|  | With LED and varistor            | 24 V AC/DC      | 423849      |
|  | With LED and free-wheeling diode | 24 V DC         | 423851      |
|  | With rectifier, LED and varistor | 12 - 24 V AC/DC | 423853      |

Supplied with cable plug: flat seal and fixing screw.

Other versions of cable plug Form B (industrial standard) with circuitry see separate Datasheet Type 2507.

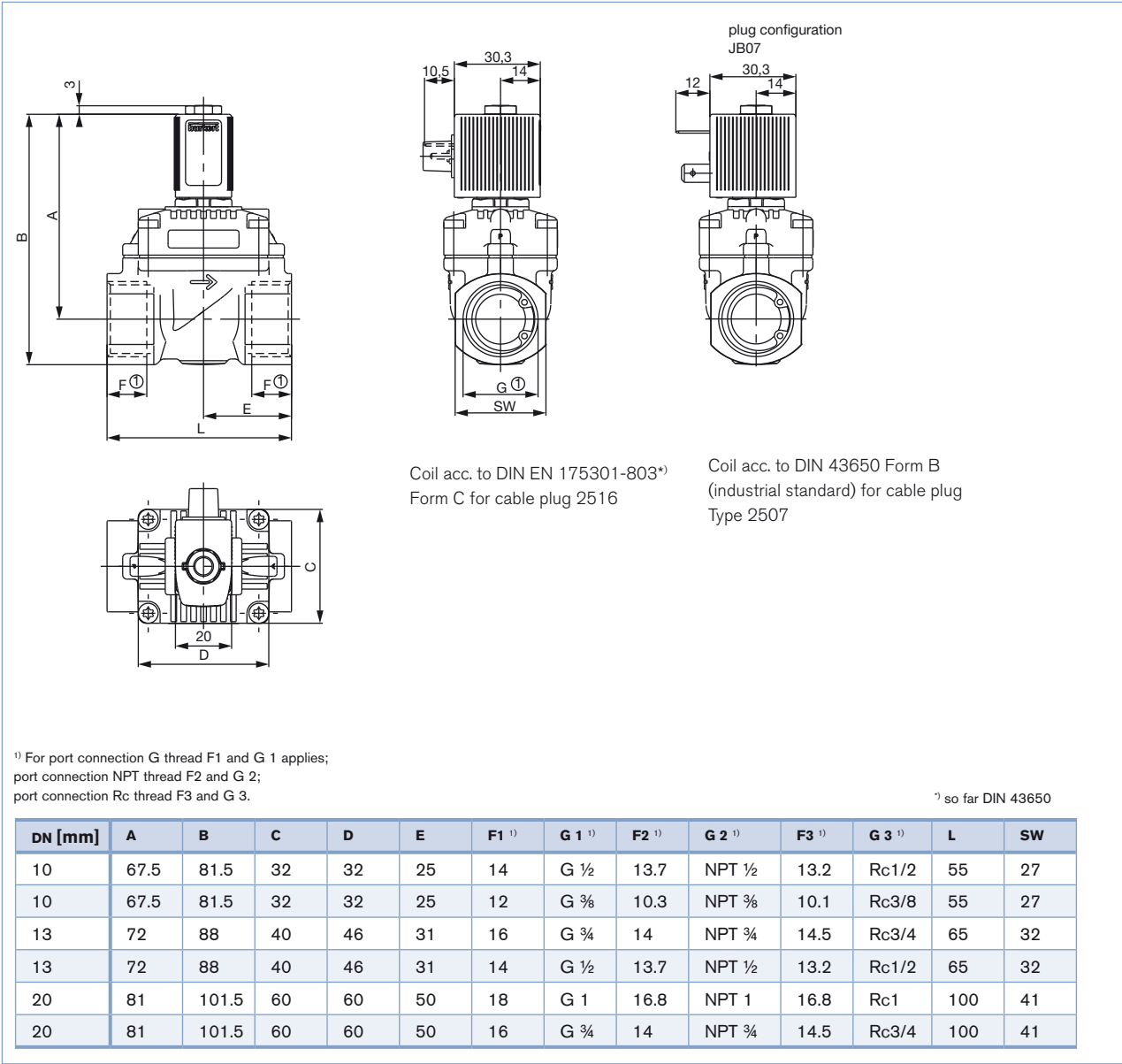
### Further versions on request

**Electrical Connection**  
Coil with cable plug acc. to DIN EN 175301-803 Form C  
Coil with flying leads

**Port Connection**  
Threaded port NPT, Rc

**Approvals**  
UR/CSA

Dimensions [mm]



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