2/2-way-valves Orifice 0.06 to 0.24

Direct operated poppet valves
Solenoid actuated
Connection G 1/4
Operating pressure: 0 to 580 psi (0 to 40 bar) (see technical data)

Description
Solenoid valve for neutral gases and fluids*
Fluid temperature: -13°F to 176°F (-25 °C to +80 °C)
Ambient temperature: -13°F to 176°F (-25 °C to +80 °C), depending on solenoid system
Mounting position: as required, preferably with solenoid on top
* With contaminated fluids, upstream installation of a dirt trap is recommended.

Material
Body: Brass
Seat seal: NBR
Internal parts: Steel 1.4104 (AISI 430F), Brass

Features
- No differential pressure required, works from 0 psi (0 bar)
- Short switching times
- Maximum leak rate 1.33·10^-3 m bar·l/s
- For AC solenoid systems with integrated rectifier (40 to 60Hz)
- Valves and solenoids (see solenoid table) with Ex approval according to ATEX

Technical data

<table>
<thead>
<tr>
<th>Connection size G</th>
<th>Orifice inch</th>
<th>Cv-Value</th>
<th>Part number* valve</th>
<th>Solenoid group**</th>
<th>Operating pressure psi</th>
<th>Drawing no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switching function: normally closed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/4</td>
<td>0.06</td>
<td>4.8</td>
<td>9500100</td>
<td>13B</td>
<td>0 - 580</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>0.08</td>
<td>8.3</td>
<td>9500200</td>
<td>13B</td>
<td>0 - 508</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>0.12</td>
<td>13.8</td>
<td>9500300</td>
<td>13C</td>
<td>0 - 145</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>0.16</td>
<td>24.2</td>
<td>9500400</td>
<td>13D</td>
<td>0 - 174</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>0.24</td>
<td>38.0</td>
<td>9501600</td>
<td>16D</td>
<td>0 - 73</td>
<td>2</td>
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<tr>
<td>Switching function: normally open</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/4</td>
<td>0.08</td>
<td>6.9</td>
<td>9502210</td>
<td>13B</td>
<td>0 - 290</td>
<td>3</td>
</tr>
<tr>
<td>1/4</td>
<td>0.12</td>
<td>11.0</td>
<td>9502310</td>
<td>13B</td>
<td>0 - 145</td>
<td>3</td>
</tr>
</tbody>
</table>

* When ordering please indicate solenoid, voltage and current type (frequency).
** Please see following pages for technical data and ordering information.

Accessories

Cable gland protection class EEx e, EEx d (ATEX), Nickel plated brass
Connectors

EEx e 0568819 (for solenoids 42xx / 46xx M20 x 1.5) 0570275
## Solenoid actuators group 13B

<table>
<thead>
<tr>
<th>Type</th>
<th>Power consumption 24V DC W</th>
<th>230V AC VA</th>
<th>Rated current 24V DC mA</th>
<th>230V AC VA</th>
<th>Ex-protection category</th>
<th>Protection class</th>
<th>Temperature ambient fluid °F</th>
<th>Electrical connector size</th>
<th>Dimensions no.</th>
<th>Circuit diagram no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0246</td>
<td>8.0</td>
<td>-</td>
<td>331</td>
<td>-</td>
<td>-</td>
<td>IP 65 (with connector)**</td>
<td>-13 ... +140 fluid: max. 80</td>
<td>Connector DIN EN 175301-803 form A ***</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>3206</td>
<td>-</td>
<td>9.2</td>
<td>-</td>
<td>40</td>
<td>-</td>
<td>IP 65 (with connector)**</td>
<td>-13 ... +140 fluid: max. 80</td>
<td>Connector DIN EN 175301-803 form A ***</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

## Solenoid actuators group 13C

<table>
<thead>
<tr>
<th>Type</th>
<th>Power consumption 24V DC W</th>
<th>230V AC VA</th>
<th>Rated current 24V DC mA</th>
<th>230V AC VA</th>
<th>Ex-protection category</th>
<th>Protection class</th>
<th>Temperature ambient fluid °F</th>
<th>Electrical connector size</th>
<th>Dimensions no.</th>
<th>Circuit diagram no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0200</td>
<td>12.1</td>
<td>-</td>
<td>504</td>
<td>-</td>
<td>-</td>
<td>IP 65 (with connector)**</td>
<td>-13 ... +140 fluid: max. 80</td>
<td>Connector DIN EN 175301-803 form A ***</td>
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<td>1</td>
</tr>
<tr>
<td>3204</td>
<td>-</td>
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<td>-</td>
<td>49</td>
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<td>IP 65 (with connector)**</td>
<td>-13 ... +140 fluid: max. 80</td>
<td>Connector DIN EN 175301-803 form A ***</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>4220</td>
<td>8.9</td>
<td>-</td>
<td>369</td>
<td>-</td>
<td>II2G II2D</td>
<td>EEx me II T5/T4 IP 66 T 130 °C *</td>
<td>T5: -40 ... +131 T4: -40 ... +149</td>
<td>M20 x 1.5 ***</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>4221</td>
<td>-</td>
<td>10.0</td>
<td>-</td>
<td>43</td>
<td>II2G II2D</td>
<td>EEx me II T5/T4 IP 66 T 130 °C *</td>
<td>T5: -40 ... +131 T4: -40 ... +149</td>
<td>M20 x 1.5 ***</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

## Solenoid actuators group 13D

<table>
<thead>
<tr>
<th>Type</th>
<th>Power consumption 24V DC W</th>
<th>230V AC VA</th>
<th>Rated current 24V DC mA</th>
<th>230V AC VA</th>
<th>Ex-protection category</th>
<th>Protection class</th>
<th>Temperature ambient fluid °F</th>
<th>Electrical connector size</th>
<th>Dimensions no.</th>
<th>Circuit diagram no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0700</td>
<td>16.9</td>
<td>-</td>
<td>703</td>
<td>-</td>
<td>-</td>
<td>IP 65 (with connector)**</td>
<td>-13 ... +140 fluid: max. 80</td>
<td>Connector DIN EN 175301-803 form A ***</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>3703</td>
<td>-</td>
<td>17.3</td>
<td>-</td>
<td>75</td>
<td>-</td>
<td>IP 65 (with connector)**</td>
<td>-13 ... +140 fluid: max. 80</td>
<td>Connector DIN EN 175301-803 form A ***</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>4230</td>
<td>11.4</td>
<td>-</td>
<td>475</td>
<td>-</td>
<td>II2G II2D</td>
<td>EEx me II T5/T4 IP 66 T 130 °C *</td>
<td>T5: -40 ... +104 T4: -40 ... +122</td>
<td>M20 x 1.5 ***</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>4231</td>
<td>-</td>
<td>15.2</td>
<td>-</td>
<td>66</td>
<td>II2G II2D</td>
<td>EEx me II T5/T4 IP 66 T 130 °C *</td>
<td>T5: -40 ... +104 T4: -40 ... +122</td>
<td>M20 x 1.5 ***</td>
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<td>4</td>
</tr>
</tbody>
</table>

## Solenoid actuators group 16D

<table>
<thead>
<tr>
<th>Type</th>
<th>Power consumption 24V DC W</th>
<th>230V AC VA</th>
<th>Rated current 24V DC mA</th>
<th>230V AC VA</th>
<th>Ex-protection category</th>
<th>Protection class</th>
<th>Temperature ambient fluid °C</th>
<th>Electrical connector size</th>
<th>Dimensions no.</th>
<th>Circuit diagram no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0800</td>
<td>16.9</td>
<td>-</td>
<td>703</td>
<td>-</td>
<td>-</td>
<td>IP 65 (with connector)**</td>
<td>-13 ... +140 fluid: max. 80</td>
<td>Connector DIN EN 175301-803 form A ***</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>3803</td>
<td>-</td>
<td>17.3</td>
<td>-</td>
<td>75</td>
<td>-</td>
<td>IP 65 (with connector)**</td>
<td>-13 ... +140 fluid: max. 80</td>
<td>Connector DIN EN 175301-803 form A ***</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>

Standard voltages 24V DC, 230V AC. Other voltages on request. Design according to VDE 0580, EN50014/50028. 100% duty cycle.

* EC-Type Examination Certificate KEMA 98 ATEX 4452 X
** Required connector: type 0570275
*** Connector/Cable gland is not indicated in delivery
**** IP65 according to DIN 40050/IEC 529 and DIN EN 60068-2-38
***** This solenoid has a fuse with an appropriate rating.
Series 95000

Dimensional drawings for valves

Drawing 1 *

Drawing 2 *

Drawing 3 *

* Dimensions in inches

Drawing legend

<table>
<thead>
<tr>
<th>Index</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>M4 x 6</td>
</tr>
</tbody>
</table>
Series 95000

Dimensional drawings for solenoid operators

**Drawing 4**

**Drawing 5**

**Drawing 6**

**Drawing 7**

**Drawing 8**

**Drawing legend**

<table>
<thead>
<tr>
<th>Index</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Connector rotatable 4 x 90°</td>
</tr>
<tr>
<td>2</td>
<td>Ø 13 (with adaptor sleeve)</td>
</tr>
</tbody>
</table>

* Dimensions in inches
Series 95000

Circuit diagrams

Circuit diagram 1

Circuit diagram 2

Circuit diagram 3

Circuit diagram 4

Further options on request
# Options selector (applicable for the Norgren range)

<table>
<thead>
<tr>
<th>Nominal size</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5; 2; 3; 4; 6; 12</td>
<td>1, 2, 3, 4, 6, 7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material seat seal</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBR</td>
<td>0</td>
</tr>
<tr>
<td>EPDM</td>
<td>1</td>
</tr>
<tr>
<td>FPM</td>
<td>2</td>
</tr>
<tr>
<td>PTFE* (Orifice 0.06 - 0.2) NC</td>
<td>3</td>
</tr>
<tr>
<td>FFKM</td>
<td>4</td>
</tr>
<tr>
<td>Rubin (Orifice 0.08 + 0.12) NC</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solenoids</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>See solenoids</td>
<td></td>
</tr>
</tbody>
</table>

* Possible only with series 9500XXX

## Ordering example

2/2 directional control valve,  
Orifice (nominal diameter) 2, normally closed,  
Port size: G 1/4,  
Current draw: 8W, voltage: 24V DC  
Type: 9500200.0246.024.00  
Connector: 0570275
Series 95100

2/2 directional control valves Orifice 0.08 to 0.24
Direct operated poppet valves
Solenoid actuated
Connection G 1/8, G 1/4
Operating pressure: 0 to 725 psi (0 to 50 bar) (see technical data)

Description
Solenoid Valve for aggressive gases and liquids*
Flow direction: determined
Fluid temperature: 14°F to 248°F (-10 °C to +120 °C)
Ambient temperature: -13°F to 176°F (-25 °C to + 80 °C),
depending on solenoid system
Mounting position: as required, preferably with solenoid on top

* With contaminated fluids, upstream installation of a dirt trap is recommended.

Material
Body: Stainless steel 1.4404 (AISI 316)
Seat seal: FPM
Internal parts: Stainless steel

Features
- No differential pressure required, works from 0 psi (0 bar)
- Maximum leak rate 1.33·10⁻³ mbar·l/s
- Assembled free of oil and grease
- Valves and solenoids (see solenoid table) with Ex approval according to ATEX

Technical data

<table>
<thead>
<tr>
<th>Connection size G</th>
<th>Orifice inch</th>
<th>Cv-Value</th>
<th>Part number* valve</th>
<th>Solenoid group**</th>
<th>Operating pressure psi</th>
<th>Drawing no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switching function: normally closed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>0.08</td>
<td>0.12</td>
<td>9510202</td>
<td>13D</td>
<td>0 - 725</td>
<td>1</td>
</tr>
<tr>
<td>1/8</td>
<td>0.08</td>
<td>0.12</td>
<td>9510202</td>
<td>13B</td>
<td>0 - 290</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>0.16</td>
<td>0.39</td>
<td>9511402</td>
<td>16D</td>
<td>0 - 174</td>
<td>2</td>
</tr>
<tr>
<td>1/4</td>
<td>0.24</td>
<td>0.60</td>
<td>9511602</td>
<td>16D</td>
<td>0 - 73</td>
<td>2</td>
</tr>
</tbody>
</table>

* When ordering please indicate solenoid, voltage and current type (frequency).
** Please see pages 43 and 44 for technical data and ordering information.

Accessories

Cable gland protection class EEx e, EEx d (ATEX), Nickel plated brass

Connectors

EEx e 0588819 (for solenoids 42xx / 46xx M20 x 1.5) 0570275

Symbol 1: 2/2 NC
Dimensional drawings for valves

Drawing 1

Drawing 2

* Dimensions in inches

Drawing legend

<table>
<thead>
<tr>
<th>Index</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>M4 x 6</td>
</tr>
</tbody>
</table>

The actuating solenoids correspond to those of the 95000 series.

Further options on request
3/2-way valves Orifice 0.08 to 0.20
Direct operated poppet valves
Solenoid actuated
Connection G 1/4
Operating pressure: 0 to 261 psi (0 to 18 bar) (see technical data)

Description
Solenoid valve for neutral gases and liquids*
Fluid temperature: -13°F to 176°F (-25°C to +80°C)
Ambient temperature: -13°F to 176°F (-25°C to +80°C), depending on solenoid system
Mounting position: as required, preferably with solenoid on top

* With contaminated fluids, upstream installation of a dirt trap is recommended.

Material
Body: Brass
Seat seal: NBR
Internal parts: Steel 1.4104, Brass

Features
- No differential pressure required, works from 0 bar
- Fast switching times
- Maximum leak rate 1.33·10⁻³ m bar·l/s
- For AC solenoid systems with integrated rectifier (40 to 60Hz)
- Valves and solenoids (see solenoid table) with EX approval according to ATEX

Technical data

<table>
<thead>
<tr>
<th>Connection size G</th>
<th>Orifice inch</th>
<th>Cv-Value</th>
<th>Part number* valve</th>
<th>Solenoid group**</th>
<th>Operating pressure psi</th>
<th>Drawing no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switching function: normally closed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/4</td>
<td>0.08</td>
<td>8.3</td>
<td>9600210</td>
<td>13B</td>
<td>0 - 145</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>0.08</td>
<td>8.3</td>
<td>9600240</td>
<td>13D</td>
<td>0 - 261</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>0.12</td>
<td>13.8</td>
<td>9600320</td>
<td>13C</td>
<td>0 - 87</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>0.12</td>
<td>13.8</td>
<td>9600340</td>
<td>13D</td>
<td>0 - 203</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>0.16</td>
<td>24.2</td>
<td>9601440</td>
<td>16D</td>
<td>0 - 145</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>0.20</td>
<td>31.1</td>
<td>9601540</td>
<td>16D</td>
<td>0 - 102</td>
<td>2</td>
</tr>
<tr>
<td>Switching function: normally open</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1/4</td>
<td>0.08</td>
<td>6.9</td>
<td>9602210</td>
<td>13B</td>
<td>0 - 131</td>
<td>3</td>
</tr>
<tr>
<td>1/4</td>
<td>0.12</td>
<td>11.0</td>
<td>9602340</td>
<td>13D</td>
<td>0 - 131</td>
<td>3</td>
</tr>
<tr>
<td>1/4</td>
<td>0.16</td>
<td>20.7</td>
<td>9602440</td>
<td>16D</td>
<td>0 - 87</td>
<td>3</td>
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</tbody>
</table>

* When ordering please indicate solenoid, voltage and current type (frequency).
** Please see pages 43 and 44 for technical data and ordering information.

Accessories

Cable gland protection class EEx e, EEx d (ATEX), Nickel plated brass

<table>
<thead>
<tr>
<th>Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEx e 0588819 [for solenoids 42xx / 46xx M20 x 1.5]</td>
</tr>
</tbody>
</table>
Dimensional drawings for valves

**Drawing 1**

**Drawing 2**

**Drawing 3**

**Drawing legend**

<table>
<thead>
<tr>
<th>Index</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>M4 x 6</td>
</tr>
</tbody>
</table>

* Dimensions in inches

The actuating solenoids correspond to those of the 95000 series.

Further options on request
3/2 Stainless steel directional control valves
Orifice 0.08 to 0.12
Direct operated poppet valves
Solenoid actuated
Connection G 1/8
Operating pressure: 0 to 174 psi (0 to 12 bar) (see technical data)

Description
Solenoid valve for aggressive gases and liquids*
Flow direction: determined
Fluid temperature: 14°F to 248°F (-10°C to +120°C)
Ambient temperature: 14°F to 140°F (-10°C to +60°C), depending on solenoid system
Mounting position: as required, preferably with solenoid on top

* With contaminated fluids, upstream installation of a dirt trap is recommended.

Material
Body: Stainless steel 1.4571
Seat seal: FPM
Internal parts: Stainless steel 1.4571

Features
- No differential pressure required, works from 0 psi (0 bar)
- Fast switching times
- Maximum leak rate 1.33·10⁻³ mbar·l/s
- Assembled oil and grease-free
- For AC solenoid systems with integrated rectifier (40 to 60Hz)

Technical data

<table>
<thead>
<tr>
<th>Connection size G</th>
<th>Orifice inch</th>
<th>Cv-Value</th>
<th>Part number*</th>
<th>Solenoid group**</th>
<th>Operating pressure psi</th>
<th>Drawing no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td></td>
<td></td>
<td>valve</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>0.08</td>
<td>0.13</td>
<td>9610242</td>
<td>13D</td>
<td>0 - 174</td>
<td>1</td>
</tr>
<tr>
<td>1/8</td>
<td>0.12</td>
<td>0.23</td>
<td>9610342</td>
<td>13D</td>
<td>0 - 87</td>
<td>2</td>
</tr>
</tbody>
</table>

* When ordering please indicate solenoid, voltage and current type (frequency).
** Please see pages 43 and 44 for technical data and ordering information.

Accessories
Cable gland protection class Ex e, Ex d (ATEX), Nickel plated brass
Connectors

Ex e 0588819 (for solenoids 42xx / 46xx M20 x 1.5) 0570275

Symbol 1: 3/2 NC
**Dimensional drawings for valves**

**Drawing 1**

- **G 1/8**
- **M4 x 0.24**

**Drawing 2**

- **G 1/8**
- **M4 x 0.24**

Socket can be turned to four positions at 90° steps

* Dimensions in inches

The actuating solenoids correspond to those of the 95000 series.

**Further options on request**
3/2-, 5/2- and 5/3-way valves
Indirectly controlled soft seal spool valves
Solenoid actuated
Port size G 1/4, 1/4" NPT
NAMUR Interface
Operating pressure: 29 to 116 psi (2 to 8 bar)

Description
NAMUR Interface for filtered, non-lubricated and dry compressed air*
Operation: solenoid, indirectly controlled
Mounting position: as required
Flow direction: fixed
Nominal size: 0.24 inch
Connection 1: G 1/4
Connection 3 and 5: G 1/8
Electrical connection: see solenoid table
Temperatures: Valve: -13°F to 122°F (-25 °C to +50 °C).
Solenoid: see solenoid table
* Oil recommendation: Shell Hydrol D0 32, ESSO Febis K 32 (as of July 1992) or comparable oils with DVI-values < 8 (DIN 53521) and ISO viscosity class 32-46 (DIN 51519).

Material
Body: Aluminium anodized
Pilot flange: PBT
Seals: NBR

Features
- For single and double operated actuators
- Exhaust air recirculation (3 way function)
- Crossover-free switching, switch-over function guaranteed even with small cross section air supply
- In event of power failure, valve switches to original position (spring-loaded with monostable design)
- Lockable manual override
- Compact design
- Simple design of soft seal spool system
- Easily interchangeable solenoid

3/2, 5/2 and 5/3 directional valves, standard design

<table>
<thead>
<tr>
<th>Connection size</th>
<th>G 3.5</th>
<th>G 2.4</th>
<th>Cv-Value</th>
<th>Part number*</th>
<th>Operation</th>
<th>Operating pressure psi</th>
<th>Drawing no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>1/8</td>
<td>Flange</td>
<td>51.8</td>
<td>9710000</td>
<td>Solenoid/Spring</td>
<td>29 - 116</td>
<td>1</td>
</tr>
<tr>
<td>1/4</td>
<td>1/8</td>
<td>Flange</td>
<td>51.8</td>
<td>9711000</td>
<td>Solenoid/Solenoid</td>
<td>29 - 116</td>
<td>2</td>
</tr>
<tr>
<td>1/4</td>
<td>1/8</td>
<td>Flange</td>
<td>34.5</td>
<td>9712000</td>
<td>Solenoid/Solenoid mid position APB</td>
<td>29 - 116</td>
<td>3</td>
</tr>
</tbody>
</table>

* When ordering please indicate solenoid, voltage and current type (frequency).
Valve function: APB = All Ports Blocked
Solenoid actuators

<table>
<thead>
<tr>
<th>Type</th>
<th>Power consumption</th>
<th>Ex-protection</th>
<th>Protection class</th>
<th>Temperature ambient/ fluid °C</th>
<th>Dimensions no.</th>
<th>Circuit diagram no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3036</td>
<td>1.6 W 3.5 VA</td>
<td>-</td>
<td>IP 65 (with connector) DIN EN 175301-803 form A *</td>
<td>-40 ... +50</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

* Connector not included: required connector for DC: type 0680003 Form B, 0570275 Form A.

3/2, 5/2 and 5/3 directional valves for minimal electrical power, including EEx i

5/2-way or 3/2-way function

<table>
<thead>
<tr>
<th>Connection size 6</th>
<th>1/4 1/8</th>
<th>Type *</th>
<th>Operation</th>
<th>Operating pressure bar</th>
<th>Flow l/min</th>
<th>Drawing no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 1/8 Flange 971002</td>
<td>Solenoid/Spring</td>
<td>29 - 116</td>
<td>750</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/4 1/8 Flange 9712002</td>
<td>Solenoid/Solenoid mid position APB</td>
<td>29 - 116</td>
<td>500</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* When ordering please indicate solenoid, voltage and current type (frequency).
Valve function: APB = All Ports Blocked

Solenoid actuators

<table>
<thead>
<tr>
<th>Type</th>
<th>Power consumption</th>
<th>Rated current</th>
<th>Ex-protection</th>
<th>Protection class</th>
<th>Temperature ambient/ fluid °C</th>
<th>Dimensions no.</th>
<th>Circuit diagram no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3050</td>
<td>1.7 W - - -</td>
<td>-</td>
<td>-</td>
<td>IP 65 (with connector) DIN EN 175301-803 form B **</td>
<td>-40 ... +50</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>3034</td>
<td>0.7 W 0.7 VA</td>
<td>-</td>
<td>-</td>
<td>IP 65 (with connector) DIN EN 175301-803 form A **</td>
<td>-40 ... +50</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Standard voltages 24 V DC, 230 V AC. Other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.

* Valves can be operated with DC only. For 230 V AC application please use 206 V DC coil together with rectifier plug 0663303.
** Connector not included: required connector for DC: type 0680003 Form B, 0570275 Form A.

Accessories

Silencer

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
</tr>
<tr>
<td>0014500 (G 1/8)*</td>
</tr>
</tbody>
</table>

Connectors

<table>
<thead>
<tr>
<th>0570275 form A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0663303 with rectifier</td>
</tr>
<tr>
<td>0680003 form B</td>
</tr>
</tbody>
</table>

* For indoor use.
Dimensional drawings for valves

Drawing 1 and 2

Drawing 3

Dimensional drawings for solenoid operators

Drawing 4

Drawing 5

*C Dimensions in inches

Circuit diagrams

Circuit diagram 1

Circuit diagram 2
Herion 18D

Pneumatic pressure switches (diaphragm type)

Vac - 435 psi

Adjustable setpoint
Gold-plated contacts
Vibration resistant to 15 g
Microswitch approved by UL and CSA

Technical data

Medium
Neutral, gaseous and liquid fluids

Operation
Diaphragm

Mounting position
Optional

Operating pressure
Vac to 435 psi

Over pressure
1150 psi

Ambient temperature
-14°F to 175°F (-10°C to +80°C)

Viscosity
Up to 1000 mm²/s (±450 ssu).

Fluid temperature
-14°F to 175°F (-10°C to +80°C)

Repeatability
±3%, for vacuum ±4%

Electrical connection
DIN 43 650

Switching element
Microswitch

Degree of protection
IP 65

Weight
.4 lbs (0.2 kg)

Materials
Housing: aluminum
Seals: Perbunan, Viton
‘O’-ring: NBR

Model numbers - pneumatic/lubrication applications

<table>
<thead>
<tr>
<th>Port size</th>
<th>Type</th>
<th>Pressure range psi (bar)</th>
<th>Switching pressure difference psi* (bar)</th>
<th>Model</th>
<th>Dimension Drawing No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 NPT Female</td>
<td>-14 – 0 (-1 – 0)</td>
<td>2 (0.15) 3 (0.18)</td>
<td>0880120 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Flange</td>
<td>-14 – 0 (-1 – 0)</td>
<td>2 (0.15) 3 (0.18)</td>
<td>0881100 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/4 NPT Female</td>
<td>3 – 30 (0.2 – 2)</td>
<td>2 (0.15) 4 (0.27)</td>
<td>0880220 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Flange</td>
<td>3 – 30 (0.2 – 2)</td>
<td>2 (0.15) 4 (0.27)</td>
<td>0881200 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/4 NPT Female</td>
<td>7 – 120 (0.5 – 8)</td>
<td>4 (0.2) 9 (0.65)</td>
<td>0880320 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Flange</td>
<td>7 – 120 (0.5 – 8)</td>
<td>4 (0.2) 9 (0.65)</td>
<td>0881300 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/4 NPT Female</td>
<td>15 – 230 (1 – 16)</td>
<td>4 (0.2) 13 (0.90)</td>
<td>0880420 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Flange</td>
<td>15 – 230 (1 – 16)</td>
<td>4 (0.2) 13 (0.90)</td>
<td>0881400 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/4 NPT Female</td>
<td>15 – 435 (1 – 30)</td>
<td>15 (1.0) 75 (5.0)</td>
<td>0880620 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Switches are supplied with DIN 43650 mating connector.

* Switching pressure difference (hysteresis) is not adjustable. Typical valves are shown.

Caution: Observe switching range. Do not subject switch to maximum allowable pressure during normal operation. Even short pressure peaks must not exceed this value.
### Making And/Or Breaking Capacity

<table>
<thead>
<tr>
<th>Load Level*</th>
<th>Type of Current</th>
<th>Type of Load</th>
<th>Vmin [V]</th>
<th>Maximum Permanent Current $I_{max}$ [A] at V</th>
<th>Contact life</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>24 V</td>
<td>125 V</td>
<td>250 V</td>
</tr>
<tr>
<td>Standard (relays, solenoids)</td>
<td>AC</td>
<td>Resistive</td>
<td>12</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>AC</td>
<td>Inductive</td>
<td>12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DC</td>
<td>Resistive</td>
<td>12</td>
<td>5</td>
<td>.4</td>
</tr>
<tr>
<td></td>
<td>DC</td>
<td>Inductive</td>
<td>12</td>
<td>3</td>
<td>.05</td>
</tr>
<tr>
<td>Low (electronic circuits)</td>
<td>AC</td>
<td>Resistive</td>
<td>5</td>
<td>.34</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>DC</td>
<td>Inductive</td>
<td>5</td>
<td>.1</td>
<td>-</td>
</tr>
</tbody>
</table>

*Load Level Explanation*

Series 18D Pressure Switches have microswitch contacts with gold-plating over silver base metal. The gold plating remains intact when “low level” voltage / current levels are observed. This feature assures highly reliable switching in low-level electronic circuits.

Standard applications do not require the gold plating – which will decay naturally when switching larger electrical loads.

Notes:
1. Reference conditions: 30 cycles per min and 86°F (30°C) ambient.
2. Reducing load current to 50% of $I_{max}$ approximately doubles contact life.
3. Creepage and clearance distances correspond to insulation group B per VDE Reg. 0110 (except contact clearance of microswitch.)

---

**Protective Cover**

An optional elastomer cover for protection of the switch adjustment against dirt and splashing liquids Part No. 0554737
Herion 18D

Hydraulic pressure switches (piston type)
70 to 6100 psi

Adjustable setpoint
Gold-plated contacts
Vibration resistant to 15 g
Microswitch approved by UL and CSA

Technical data

Medium
Hydraulics, lubricating and light fuel oils

Operation
Piston

Mounting position
Optional

Operating pressure
70 to 6100 psi

Over pressure
5800 psi, 08824xx: 8700 psi

Ambient temperature
-4°F to 175°F (-20°C to +80°C)

Viscosity
Up to 1000 mm²/s (±450 ssu).

Fluid temperature
-4°F to 175°F (-20°C to +80°C)

Repeatability
±3%

Electrical connection
DIN 43650

Switching element
Microswitch

Degree of protection
IP 65

Weight
.2 lbs (0.2 kg)

Materials
Housing aluminum
Port: stainless steel
Seals: Teflon/Buna-N

Model numbers - hydraulic applications

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Type</th>
<th>Pressure Range psi (bar)</th>
<th>Switching Pressure Difference (Hysteresis)* psi (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>flange</td>
<td>70 – 1015 (5 – 70)</td>
<td>Lower Range 152 (10.5)  218 (15)  0883100 2</td>
</tr>
<tr>
<td></td>
<td>7/16-20 UNF</td>
<td>female</td>
<td>152 (10.5)  218 (15)  0883199 1</td>
</tr>
<tr>
<td></td>
<td>1/4 NPT</td>
<td>female</td>
<td>152 (10.5)  218 (15)  0882100 1</td>
</tr>
<tr>
<td></td>
<td>flange</td>
<td>150 – 2320 (10 – 160)</td>
<td>160 (11)  247 (17)  0883200 2</td>
</tr>
<tr>
<td></td>
<td>7/16-20 UNF</td>
<td>female</td>
<td>160 (11)  247 (17)  0882199 1</td>
</tr>
<tr>
<td></td>
<td>1/4 NPT</td>
<td>female</td>
<td>160 (11)  247 (17)  0882200 1</td>
</tr>
<tr>
<td></td>
<td>flange</td>
<td>360 – 3600 (25 – 250)</td>
<td>160 (11)  247 (17)  0883300 2</td>
</tr>
<tr>
<td></td>
<td>7/16-20 UNF</td>
<td>female</td>
<td>160 (11)  247 (17)  0882300 1</td>
</tr>
<tr>
<td></td>
<td>1/4 NPT</td>
<td>female</td>
<td>160 (11)  247 (17)  0882300 1</td>
</tr>
<tr>
<td></td>
<td>flange</td>
<td>580 – 6100 (40 – 420)</td>
<td>247 (17)  508 (35)  0883400 2</td>
</tr>
<tr>
<td></td>
<td>7/16-20 UNF</td>
<td>female</td>
<td>247 (17)  508 (35)  0882419 1</td>
</tr>
<tr>
<td></td>
<td>1/4 NPT</td>
<td>female</td>
<td>247 (17)  508 (35)  0882420 1</td>
</tr>
</tbody>
</table>

Note: Switches are supplied with DIN 43650 mating connector
* Switching pressure difference (hysteresis) is not adjustable. Maximum values are shown.
### Herion 18D

#### Making And/Or Breaking Capacity

<table>
<thead>
<tr>
<th>Load Level*</th>
<th>Type of Current</th>
<th>Type of Load</th>
<th>Vmin [V]</th>
<th>Maximum Permanent Current Imax [A] at V</th>
<th>Contact life electrical at Imax</th>
<th>Contact life mechanical at I = 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard (relays, solenoids)</td>
<td>AC</td>
<td>Resistive</td>
<td>12</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>AC</td>
<td>Inductive</td>
<td>12</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DC</td>
<td>Resistive</td>
<td>12</td>
<td>5</td>
<td>.4</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>DC</td>
<td>Inductive</td>
<td>12</td>
<td>3</td>
<td>.05</td>
<td>-</td>
</tr>
<tr>
<td>Low (electronic circuits)</td>
<td>AC</td>
<td>Resistive</td>
<td>5</td>
<td>.34</td>
<td>.08</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>DC</td>
<td>Inductive</td>
<td>5</td>
<td>.1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Load Level Explanation*

Series 18D Pressure Switches have microswitch contacts with gold-plating over silver base metal. The gold plating remains intact when “low level” voltage / current levels are observed. This feature assures highly reliable switching in low-level electronic circuits.

Standard applications do not require the gold plating – which will decay naturally when switching larger electrical loads.

#### Notes:

1. Reference conditions: 30 cycles per min and 86°F (30°C) ambient.
2. Reducing load current to 50% of Imax approximately doubles contact life.
3. Creepage and clearance distances correspond to insulation group B per VDE Reg. 0110 (except contact clearance of microswitch).

#### Protective Cover

An optional elastomer cover for protection of the switch adjustment against dirt and splashing liquids Part No. 0554737
Herion 33D Series
Solid state switches (pneumatic / all-fluid)

Vac to 9100 psi

Real time pressure display with backlight

Compact and robust design

Easy programming of set points and additional functions

Transistor output signals 1 x PNP, 2 x PNP, or 1 x PNP + 4 to 20 mA

Electronic lock

Switching status indicated by LED

Standard M12x1 electrical connection (IP 65)

For pneumatic, all fluid and hydraulic applications

Technical data

Medium

Pneumatic types: compressed air or neutral gases

All fluid types: gasses or liquids, including aggressive

Display

LCD 4 digits illuminated, pressure unit programmable for bar, psi, mpa

Mounting position

Optional

Operating pressure

Vac to 230 psi (pneumatic)

0 to 9100 psi (hydraulic/allfluid)

Temperature sensitivity (zero point)

0.4% of final value/10 K

Temperature sensitivity (range)

0.4% FS/10 K

Ambient temperature

14°F to 140°F (-10°C to 60°C)

Fluid temperature

14°F to 75°F (-10°C to 80°C)

Switching point

Adjustable between 0 and 100% FS

Reset point

Adjustable between 0 and 100% FS

Electrical connection

M12 x 1

Linearity

< 0.2% FS ±1 digit

Degree of protection to DIN 40 050

IP 65 (with mounted plug)

---

Options selector

<table>
<thead>
<tr>
<th>Pressure range (pneumatic)</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 15 psi</td>
<td>0</td>
</tr>
<tr>
<td>0 – 230 psi</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pressure range (allfluid)</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 145 psi</td>
<td>1</td>
</tr>
<tr>
<td>0 – 580 psi</td>
<td>3</td>
</tr>
<tr>
<td>0 – 1450 psi</td>
<td>4</td>
</tr>
<tr>
<td>0 – 2300 psi</td>
<td>5</td>
</tr>
<tr>
<td>0 – 3600 psi</td>
<td>6</td>
</tr>
<tr>
<td>0 – 5800 psi</td>
<td>7</td>
</tr>
<tr>
<td>0 – 9100 psi</td>
<td>8</td>
</tr>
</tbody>
</table>

---

Model number - standard pneumatic models*

<table>
<thead>
<tr>
<th>Port size</th>
<th>Measuring range (psi) (relative pressure)</th>
<th>Maximum overpressure (psi)</th>
<th>Output signal</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 NPT</td>
<td>Vac–15</td>
<td>145</td>
<td>1 x PNP</td>
<td>0863014</td>
</tr>
<tr>
<td>Flange</td>
<td>Vac–15</td>
<td>145</td>
<td>1 x PNP</td>
<td>0863016</td>
</tr>
<tr>
<td>1/4 NPT</td>
<td>Vac–15</td>
<td>145</td>
<td>2 x PNP</td>
<td>0863024</td>
</tr>
<tr>
<td>Flange</td>
<td>Vac–15</td>
<td>145</td>
<td>2 x PNP</td>
<td>0863026</td>
</tr>
<tr>
<td>1/4 NPT</td>
<td>0 – 230</td>
<td>435</td>
<td>1 x PNP</td>
<td>0863214</td>
</tr>
<tr>
<td>Flange</td>
<td>0 – 230</td>
<td>435</td>
<td>1 x PNP</td>
<td>0863216</td>
</tr>
<tr>
<td>1/4 NPT</td>
<td>0 – 230</td>
<td>435</td>
<td>2 x PNP</td>
<td>0863224</td>
</tr>
<tr>
<td>Flange</td>
<td>0 – 230</td>
<td>435</td>
<td>2 x PNP</td>
<td>0863226</td>
</tr>
<tr>
<td>1/4 NPT</td>
<td>0 – 230</td>
<td>435</td>
<td>1 x PNP / 4–20 mA</td>
<td>0863244</td>
</tr>
<tr>
<td>Flange</td>
<td>0 – 230</td>
<td>435</td>
<td>1 x PNP / 4–20 mA</td>
<td>0863246</td>
</tr>
</tbody>
</table>

* M12 x 1 connector not included. Please see table on next page.

---

Fluid/electrical connection

<table>
<thead>
<tr>
<th>Substitution</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/1, M12 x 1 2</td>
</tr>
<tr>
<td>1/4 NPT, 1/2 x 1 4</td>
</tr>
<tr>
<td>Flange, 1/2 x 1 6</td>
</tr>
</tbody>
</table>

---

Output signal

<table>
<thead>
<tr>
<th>Substitution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 digital out 1</td>
</tr>
<tr>
<td>2 digital out 2</td>
</tr>
<tr>
<td>1 digital out/4 – 20 mA** 4</td>
</tr>
</tbody>
</table>

** 4-20 mA option not available on flange mounted versions.

---

Materials

Housing: aluminum

Pneumatic version

Seal: viton O-ring (FKM)

Sensor: silicon

Hydraulic/All fluid version

Porting block / sensor: 316 SS welded

---

4-20 mA option not available on flange mounted versions.
Herion 33D

**Electrical parameters**

- Power supply: 10 – 32 V d.c. (polarity safe) digital models
- 15 – 32 V d.c. (polarity safe) analog models
- Permissible residual ripple: 10% (within 12 to 32 V)
- Current consumption: <50 mA (plus load current)

**Electromagnetic compatibility**

- Interference emission: Conforming to EN 50081, Part 1
- Interference immunity: Conforming to EN 50082, Part 2

**Electrical connection M12 x 1**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Signal</th>
<th>Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Supply voltage</td>
<td>Brown</td>
</tr>
<tr>
<td>2</td>
<td>Out 2 (PNP) / analog 4 – 20 mA</td>
<td>White</td>
</tr>
<tr>
<td>3</td>
<td>Common</td>
<td>Blue</td>
</tr>
<tr>
<td>4</td>
<td>Out 1 (PNP)</td>
<td>Black</td>
</tr>
<tr>
<td>5</td>
<td>Earth ground</td>
<td>Grey</td>
</tr>
</tbody>
</table>

**Switching output**

- Switching mode: PNP sourcing type transistor, suitable for inductive load
- Output voltage: Supply voltage -1.5 V
- Analog output: 4 – 20mA
- Contact rating: I_max = 500 mA (short-circuit proof)
- Switching time: < 10 ms
- Damping: 5 ms – 0.64 sec programmable
- Signal delay: On/off 0 to 20 sec programmable
- Service life: min. 100 million switching cycles
- Switching logic: n.o. / n.c. programmable
- Operating mode: Standard, hysteresis and window mode

**Accessories**

**Part number**

- 8112184: Mating connector 5-pin straight w/screw terminals, no cable
- 8112193: Molded cordset 5-pin straight w/2m cable
- 8112194: Molded cordset 5-pin 90° w/2m cable

* must be ordered separately

**Dimensions**

- Front view: M12 x 1
- Rear view (flange version)

* Suitable for M 5 x 35 or 10-24 screws
** Flange diameter 8 x 1.2 deep, O-ring 4.47 x 1.78 (Viton 90)
Herion 18S Allfluid Series
Analog pressure sensor for hydraulic / all-fluid applications, 0 - 11,600 psi

Robust sensor for hydraulic applications
Temperature compensated
3-wire technology (0 to 10 V)
2-wire technology (4 to 20 mA)
Excellent long-term stability
Stainless steel measuring element - not oil-filled

Technical data
Medium
For neutral and aggressive gases or fluids
Fluid connection
1/4 NPT male
Mounting position
Optional
Pressure range
0 to 11,600 psi
Fluid temperature:
-4°F to 185°F (-20°C to +85°C)
Ambient temperature:
-4°F to 185°F (-20°C to +85°C)
Degree of protection
IP 65 (acc. to DIN 40050)
Shock protection
30g, to DIN EN 60068-2-27
Vibration protection
3g, 5 to 500 Hz, xyz, DIN EN 60068-2-6
Electrical connection
M12 x 1
Supply voltage
UB = 12 to 30 V d.c. (current output)
UB = 15 to 30 V d.c. (voltage output)
Output signal
4 to 20 mA (Two-wire technology)
0 to 10 V (Three-wire technology)
Electromagnetic compatibility
Interference immunity acc. to EN 50081. Part 1
Interference immunity acc. to EN 50082. Part 2
Load resistance
See diagram
Polarity
Short-circuit proof

Standard models*

<table>
<thead>
<tr>
<th>Model</th>
<th>Measuring range (psi) (Relative pressure)**</th>
<th>Value max. (bar) (Over pressure)</th>
<th>Output signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>0862176</td>
<td>0 – 145</td>
<td>580</td>
<td>4 – 20 mA</td>
</tr>
<tr>
<td>0862188</td>
<td>0 – 145</td>
<td>580</td>
<td>0 – 10 V</td>
</tr>
<tr>
<td>0862376</td>
<td>0 – 360</td>
<td>725</td>
<td>4 – 20 mA</td>
</tr>
<tr>
<td>0862388</td>
<td>0 – 360</td>
<td>725</td>
<td>0 – 10 V</td>
</tr>
<tr>
<td>0862476</td>
<td>0 – 1450</td>
<td>2900</td>
<td>4 – 20 mA</td>
</tr>
<tr>
<td>0862488</td>
<td>0 – 1450</td>
<td>2900</td>
<td>0 – 10 V</td>
</tr>
<tr>
<td>0862676</td>
<td>0 – 3625</td>
<td>7250</td>
<td>4 – 20 mA</td>
</tr>
<tr>
<td>0862688</td>
<td>0 – 3625</td>
<td>7250</td>
<td>0 – 10 V</td>
</tr>
<tr>
<td>0862776</td>
<td>0 – 5800</td>
<td>10,800</td>
<td>4 – 20 mA</td>
</tr>
<tr>
<td>0862788</td>
<td>0 – 5800</td>
<td>10,800</td>
<td>0 – 10 V</td>
</tr>
<tr>
<td>0862976</td>
<td>0 – 11,600</td>
<td>14,500</td>
<td>4 – 20 mA</td>
</tr>
<tr>
<td>0862988</td>
<td>0 – 11,600</td>
<td>14,500</td>
<td>0 – 10 V</td>
</tr>
</tbody>
</table>

* Order mating connector separately

Electrical connection M 12 x 1 (4 pin)

Options selector

Measuring range
See table below
Linearity
< ±0.5% FS
Hysteresis
< 0.15% FS
Temperature sensitivity
(zero point)
Zero point < ± 0.4% FS/10K
Range < ± 0.2% FS/10K
Materials
Housing: 316 stainless steel
Sensor: 316 stainless steel welded

www.norgren.com/fluid
Electrical diagram for 2-wire versions 4 to 20 mA

1 = I Output
2 = Load

Electrical diagram for 3-wire versions 0 to 10 V

Max. load $RL = \frac{U_B - 12\,V}{0.02\,A}$

Weight: 2.50 oz.

Accessory

<table>
<thead>
<tr>
<th>Part number</th>
<th>Connector and cordsets (M12 x 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0523055</td>
<td>mating connector, 4-pin straight w/screw terminals, no cable</td>
</tr>
<tr>
<td>0523057</td>
<td>molded cordset, 4-pin straight, 2 meter</td>
</tr>
<tr>
<td>0523052</td>
<td>molded cordset, 4-pin straight, 5 meter</td>
</tr>
<tr>
<td>0523056</td>
<td>molded cordset, 4-pin 90°, 2 meter</td>
</tr>
<tr>
<td>0523053</td>
<td>molded cordset, 4-pin 90°, 5 meter</td>
</tr>
</tbody>
</table>