

Intrinsically Safe Pressure Transmitters

for hazardous environments

TRONIC LINE

- Pressure Transmitter • Type IS-10
 - Pressure Transmitter with Flush Diaphragm • Type IS-11

- Pressure ranges from 0 ... 0.1 bar to 0 ... 4000 bar
- Case and wetted parts of stainless steel
- - protection: EEx ia IIC T6 in compliance with ATEX 100a
- Applicable in all hazardous environments:
 - Gases and vapour: Zone 0, Zone 1 and Zone 2
 - Dust: Zone 20, Zone 21 and Zone 22
 - Mining: Category 1 and category 2
- Immersion protection IP 65 to IP 68
- Special version for oxygen application
- Various pressure connections
- Combinable with all WIKA-made chemical seals
- Most parts available on stock



Model IS-10



Model IS-11

Description

The intrinsically safe pressure transmitters have been specially designed to comply with the most difficult requirements of industrial applications. Due to their high grade of accuracy, reliability, compatibility with most media, short delivery times (stock program), adjustability and versatility, these transmitters are an ideal solution for almost any task in hazardous environments. The most important features are the wide ranging certifications for hazardous applications (CENELEC certificate complying with the new ATEX 100a). This certificate will still be valid after March 20, 2003.

Structure

All wetted parts are made of stainless steel and are completely welded to avoid possible conflict of sealing material with the pressure medium. The compact case is also made of stainless steel and generally provides IP 65 ingress protection (special versions up to IP 68).

The transmitters get supplied via intrinsically safe line transformers (e.g. WIKA Model A-IVB-1), or via standard barriers with an input power of 10 ... 30 V. Their output signal is 4 ... 20 mA, two-wire system.

With the robust connecting head **Snap Cap** the electrical installation can be quickly and securely carried out without any tools. **Snap Cap** is rotatable up to 300° and offers the ingress protection IP 67. As a consequence it can even be perfectly used in rough environments.

When used in humid environment all pressure transmitters can be supplied with a hermetically sealed high grade stainless steel case with IP 68 ingress protection. This version guarantees unrestricted functionality even when immersed in water. A pressure compensation towards the atmosphere - which is necessary for the measuring of relative pressure values - is achieved via a compensation tube within the cable.

For the pressure ranges from 0 ... 0.25 bar up to 0 ... 1600 bar the pressure transmitters can be shipped in oxygen version.



Model IS-10 with Snap Cap

Supplementary data sheets:

- IS-Level Probe
(see data sheet PE 81.23)
- IS-Line Transformer
(see data sheet PE 82.06)

Model IL-10
Model A-IVB-1

| Specifications | | Models IS-10 and IS-11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------|---|------|----------------|-----|--|---|-----|-----|------------------------|----|-------------------|----|------------------------|-----|-----|-----|------|------|------|------|------|------|-----------------|------|-----|------|------|-----|-----|---|-----|-----|---|---|----|----|----|----|----|-----|-----|-----|-----|-----|------|------|------|------|----------------------|-----|---|-----|---|---|---|---|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|------|------|------|------|------|----------------|-----|---|---|---|---|---|---|----|----|----|----|----|----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|--------------------|--|--|--|--|--|--|--|--|--|--|--|-------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Sensing principle | | <table border="0"> <tr> <td colspan="10">piezoresistive</td> <td colspan="10">thin-film strain gauge</td> </tr> <tr> <td>Pressure ranges</td> <td>bar</td> <td>0.1</td><td>0.16</td><td>0.25</td><td>0.4</td><td>0.6</td><td>1</td><td>1.6</td><td>2.5</td><td>4</td><td>6</td><td>10</td><td>16</td> <td>25</td><td>40</td><td>60</td><td>100</td><td>160</td><td>250</td><td>400</td><td>600</td><td>1000</td><td>1600</td><td>2500</td><td>4000</td> </tr> <tr> <td>Over pressure safety</td> <td>bar</td> <td>1</td><td>1.5</td><td>2</td><td>2</td><td>4</td><td>5</td><td>10</td><td>10</td><td>17</td><td>35</td><td>35</td><td>80</td> <td>50</td><td>80</td><td>120</td><td>200</td><td>320</td><td>500</td><td>800</td><td>1200</td><td>1500</td><td>2000</td><td>3000</td><td>4400</td> </tr> <tr> <td>Burst pressure</td> <td>bar</td> <td>2</td><td>2</td><td>2</td><td>2</td><td>4</td><td>5</td><td>10</td><td>10</td><td>17</td><td>35</td><td>35</td><td>80</td> <td>250</td><td>400</td><td>550</td><td>800</td><td>1000</td><td>1200</td><td>1700</td><td>2400</td><td>3000</td><td>4000</td><td>5000</td><td>7000</td> </tr> <tr> <td>Pressure reference</td> <td></td> <td colspan="10">relative pressure {absolute pressure: 0 ... 0.25 bar abs to 0 ... 16 bar abs}</td> <td colspan="10">relative pressure</td> </tr> <tr> <td></td> <td></td> <td colspan="10">{special pressure range 800 ... 1200 mbar abs}</td> <td colspan="10"></td> </tr> </table> | | piezoresistive | | | | | | | | | | thin-film strain gauge | | | | | | | | | | Pressure ranges | bar | 0.1 | 0.16 | 0.25 | 0.4 | 0.6 | 1 | 1.6 | 2.5 | 4 | 6 | 10 | 16 | 25 | 40 | 60 | 100 | 160 | 250 | 400 | 600 | 1000 | 1600 | 2500 | 4000 | Over pressure safety | bar | 1 | 1.5 | 2 | 2 | 4 | 5 | 10 | 10 | 17 | 35 | 35 | 80 | 50 | 80 | 120 | 200 | 320 | 500 | 800 | 1200 | 1500 | 2000 | 3000 | 4400 | Burst pressure | bar | 2 | 2 | 2 | 2 | 4 | 5 | 10 | 10 | 17 | 35 | 35 | 80 | 250 | 400 | 550 | 800 | 1000 | 1200 | 1700 | 2400 | 3000 | 4000 | 5000 | 7000 | Pressure reference | | relative pressure {absolute pressure: 0 ... 0.25 bar abs to 0 ... 16 bar abs} | | | | | | | | | | relative pressure | | | | | | | | | | | | {special pressure range 800 ... 1200 mbar abs} | | | | | | | | | | | | | | | | | | | |
| piezoresistive | | | | | | | | | | thin-film strain gauge | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pressure ranges | bar | 0.1 | 0.16 | 0.25 | 0.4 | 0.6 | 1 | 1.6 | 2.5 | 4 | 6 | 10 | 16 | 25 | 40 | 60 | 100 | 160 | 250 | 400 | 600 | 1000 | 1600 | 2500 | 4000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Over pressure safety | bar | 1 | 1.5 | 2 | 2 | 4 | 5 | 10 | 10 | 17 | 35 | 35 | 80 | 50 | 80 | 120 | 200 | 320 | 500 | 800 | 1200 | 1500 | 2000 | 3000 | 4400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Burst pressure | bar | 2 | 2 | 2 | 2 | 4 | 5 | 10 | 10 | 17 | 35 | 35 | 80 | 250 | 400 | 550 | 800 | 1000 | 1200 | 1700 | 2400 | 3000 | 4000 | 5000 | 7000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pressure reference | | relative pressure {absolute pressure: 0 ... 0.25 bar abs to 0 ... 16 bar abs} | | | | | | | | | | relative pressure | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | {special pressure range 800 ... 1200 mbar abs} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pressure connection Model IS-10 | | G ½ B per DIN 16 288 (G ¼ B, ½ NPT, ¼ NPT) {other connections on request} (M 16 x 1.5 female for pressure range 0 ... 2500 bar or higher) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Model IS-11 | | G 1 B flush diaphragm with o-ring (pressure ranges: 0 ... 0.1 to 0 ... 1.6 bar) G ½ B flush diaphragm with o-ring (pressure ranges: 0 ... 2.5 to 0 ... 600 bar) {weld-on socket for flush diaphragm units with connection G ½ B, G 1 B} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Material wetted parts Model IS-10 from 25 bar Model IS-11 case internal transmission fluid | | stainless steel 1.4571 (other materials see WIKA chemical seal) stainless steel 1.4571 and 1.4542 stainless steel 1.4571 and o-ring: NBR {viton or EPDM}; {hastelloy C4} stainless steel 1.4571 silicon oil (only for pressure ranges up to 0 ... 16 bar or flush diaphragm units) {halocarbonoil for oxygen applications} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Power supply U _B | DC V | 10 < U _B ≤ 30 {with el. connection Snap Cap: 11 < U _B ≤ 30} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal output and maximum load R _A | | 4 ... 20 mA, 2-wire system R _A ≤ U _B - 10 V / 0.02 A (R _A in Ohm and U _B in Volt) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adjustability zero/span | % | ± 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Response time (10 ... 90%) | ms | ≤ 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accuracy | % of span | ≤ 0.5 {0.25 ¹⁾ } (limit point calibration) (calibrated in vertical mounting position) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hysteresis | % of span | ≤ 0.25 {0.125 ¹⁾ } (BFSL) (with pressure connection bottom) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Repeatability | % of span | ≤ 0.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-year stability | % of span | ≤ 0.05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Permissible temperature of medium* | °C (°F) | -30 ... +100 (-22 ... +212) {-50 ... +105} (-58 ... +221) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ambient* | °C (°F) | -30 ... +100 (-22 ... +212) {-50 ... +105} (-58 ... +221) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| storage | °C (°F) | -60 ... +105 (-76 ... +221) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Compensated temp. range | °C (°F) | 0 ... +80 (32 ... +158) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature coefficients in compensated temp. range: mean TC of zero | % of span/10 K | ≤ 0.2 (< 0.4 with pressure ranges 0 ... 0.1 and 0 ... 0.16 bar) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| mean TC of range | % of span/10 K | ≤ 0.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ⚡-protection Signal output ⚡-certification | | The instruments can be operated in the categories* M1, M2, 1G, 1D, 1/2G, 1/2 D, 2G, 2D 4 ... 20 mA, 2-wire system EEx ia IIC T4 (DMT 99 ATEX E 017 X) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conformity specifications: | | EEx ia IIC T5 (DMT 99 ATEX E 017 X) | | | | EEx ia IIC T6 (DMT 99 ATEX E 017 X) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| power supply | DC V | 30 | | | | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| short circuit rating | mA | 100 | | | | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| power limitation | W | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| medium temperature* | °C | -20 {-50} ... +105 | | | | -20 {-50} ... +80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ambient temperature* | °C | -20 {-50} ... +105 | | | | -20 {-50} ... +80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| storage temperature | °C | -60 ... +105 | | | | -60 ... +105 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| internal capacity Ci | nF | ≤ 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| internal inductivity Li | µH | ≤ 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | for further safety information please see the EC-type homologation certificate (DMT 99 ATEX E 017 X) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ⓢ-conformity | | Interference emission see EN 50 081-1 (march 93) and EN 50 081-2 (march 94), Interference immunity see EN 50 082-2 (march 95); declaration of conformity on request | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HF-immunity | V/m | 10 {30} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Burst | kV | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shock resistance | g | 1000 according to IEC 770 (mechanical shock) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vibration resistance | g | 20 according to IEC 770 (vibration under resonance) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Electrical connection and ingress protection EN 60 529/IEC529 | | 4-pin L-plug (thread 9) per DIN 43 650, IP 65 {4-pin L-plug (thread 13.5) per DIN 43 650, IP 65 for ship approvals} {4-pin locking plug M 12 x 1, IP 67} {Snap Cap (thread 11), IP 67}; {ML-plug, 6-pin, IP67}; {5-pin (locking plug, M 16 x 0,75, thread 7), IP 67} {flying lead IP 67 with 1.5 m of vented cable} {flying lead IP 68 with 1.5 m of vented cable and access to zero and span pots} {flying lead IP 68 with 1.5 m of vented cable without access to zero and span pots} protected against reversed polarity | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wiring protection | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weight | kg | approx. 0.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dimensions | | see drawings | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

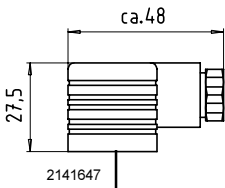
Items in curved brackets { } are optional extras for additional price.

1) only available for measuring ranges beyond 0 ... 0.25 bar

* see list of EC-type homologation certificate

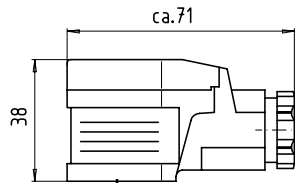
Dimensions in mm

4-pin L-plug
DIN 43 650, IP 65



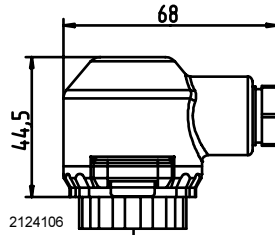
2141647

large 4-pin L-plug,
DIN 43 650, IP 65



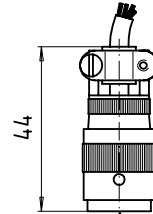
2141655

Snap Cap, IP 67



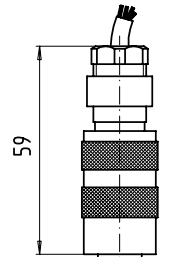
2124106

MIL-plug, IP 67

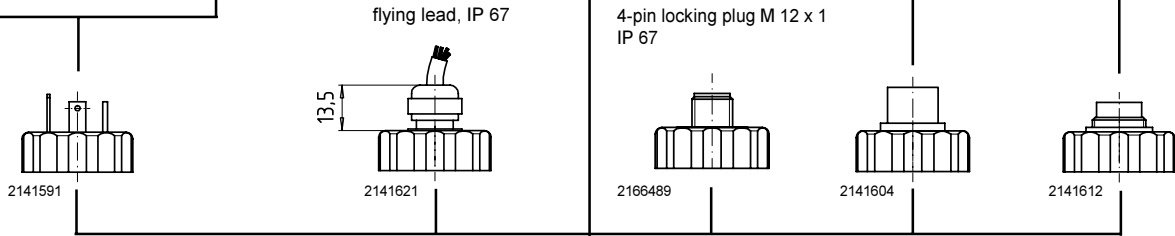


2141663

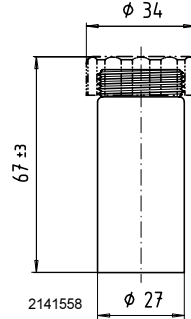
5-pin round plug
M 16 x 0.75; IP 67



2141680

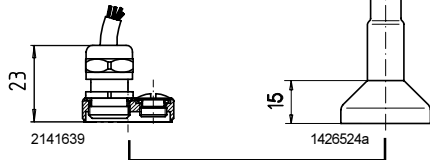


flying lead without access to zero and span pots, IP 68



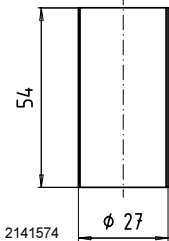
2141558

flying lead with access to zero and span pots, IP 68



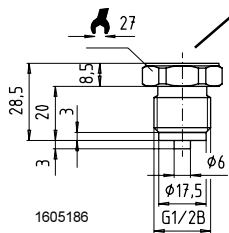
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1426524a

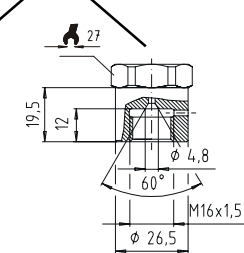


2141574

Pressure connections: model IS-10

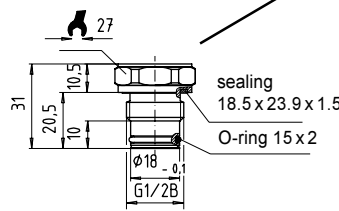


1605186

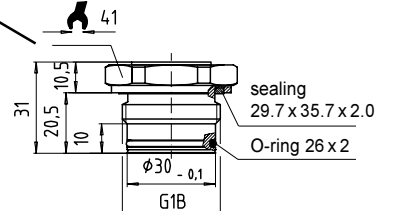


1605208a

model IS-11 with flush diaphragm

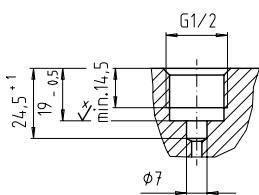


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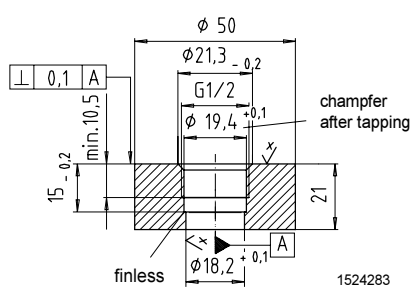


1605234

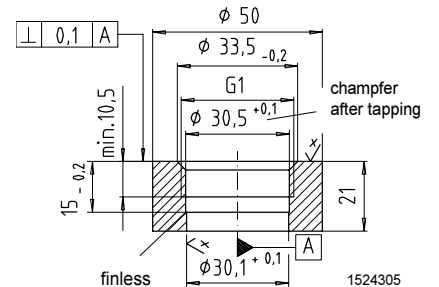
weld-on adaptors / sockets for pressure connections



1605216



1524283

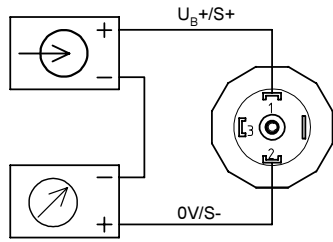


1524305

Wiring details

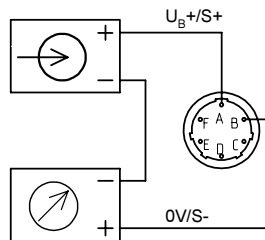
2-wire system

DIN 43 650 plug



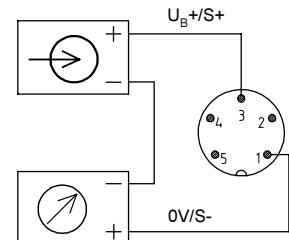
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MIL-plug PT 02 E-10-6P



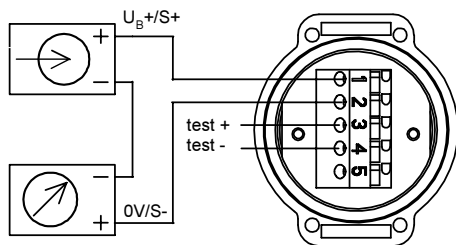
1605380

5-pin round plug M 16 x 0.75



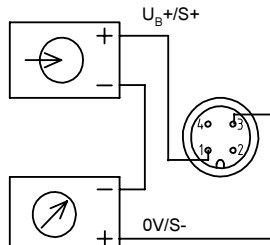
1605399

Snap Cap



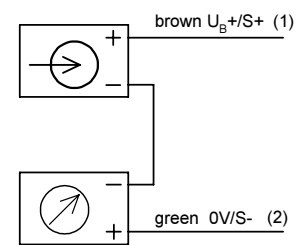
2104253a

4-pin locking plug M 12 x 1



2163292

flying lead



1523988

Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.