

Pressure Sensors Type IPS PPSU

Inline Pressure Sensor

IPS the new inline pressure sensor from AVS-Römer





Inline pressure sensor for measuring pressure of liquid and gaseous media.

The ceramic pressure measuring cell combined with the proven ELSA push-in connector made from PPSU is mainly used in the food industries.

Other features:

- minimal dead space
- temperature-compensated evaluation electronics
- materials and constructional design especially optimised for food applications

Variations / options:

- other tube connections
- other material for seal
- other pressure range

CHARACTERISTICS

GENERAL

| | |
|-------------------------|--|
| Constructional design | Ceramic pressure measuring cell |
| Product name | Inline pressure sensor |
| Product type | IPS-V36 |
| Nominal diameter | DN 2.5 up to DN 6 |
| Connection | ELSA plug fittings for pipe/tube OD 4 to OD 8 |
| Ambient temperature | 0 °C to +60 °C |
| Medium temperature | 0 °C to +140 °C |
| Body material | PPSU (KTW approved, NSF certified) |
| Measuring cell material | Al ₂ O ₃ |
| O-ring material | FKM or EPDM peroxid curved |
| Mounting method | by spring clip, internal width Ø18-22 mm (not included in scope of supply) |
| Mounting position | Preferably upright |
| Approval | NSF/ANSI 169 |

PNEUMATIC - HYDRAULIC

| | |
|------------------|---|
| Nominal pressure | up to PN 16 in accordance with the specification table |
| Pressure range | 0 bar (Vacuum: -0,8 bar) up to allowable operating pressure OP in accordance with the specification table |
| Flow rate | Kv-value in accordance with the specification table |
| Medium | Gases or liquids which do not corrode the materials specified |

ELECTRIC

| | |
|-----------------------|--|
| Supply voltage | +5 V bis +36 V DC |
| Voltage tolerance | ±10 % |
| Output voltage | +0,5 V bis +4,5 V DC (ratiometric) (0 V to +5 V DC, 0 V to +10 V DC DC on request) |
| Electrical connection | 0.75 m 3-pole screened cable (LiYCY 3 x AWG 26), strand ends pre-tinned. |
| Protection class | IP65 |

ACCURACY

| | |
|------------------------------|---------------|
| Total error | ±1.5 % FS |
| Temperature error zero point | <±0.02 % FS/K |
| Temperature margin of error | -0.012 % FS/K |
| Response time | <2 ms |

Caution! PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

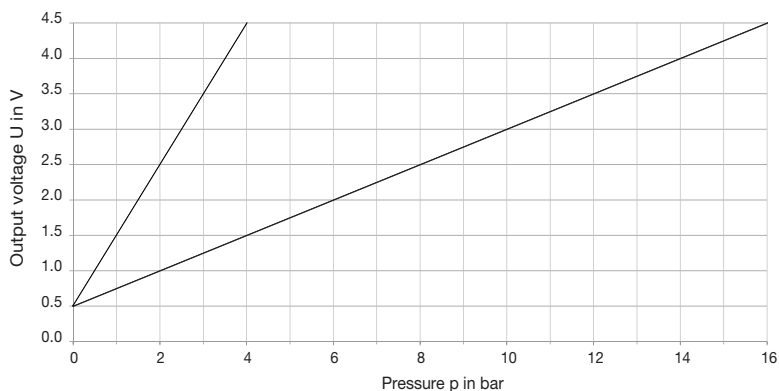
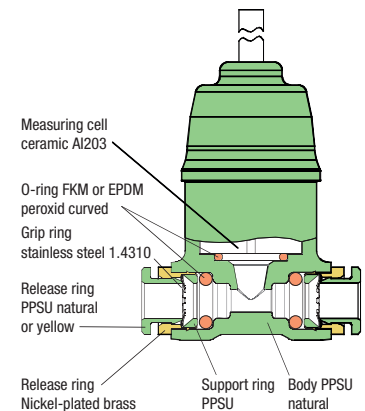
Pressure Sensor - Type IPS

 Price group **730** Max. Allow. OP at ambient temp.
 $T_{min} 0\text{ }^{\circ}\text{C}$, $T_{max} +60\text{ }^{\circ}\text{C}$

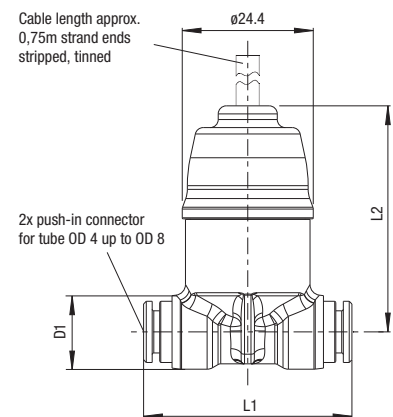
**Plastic
PPSU**

| | | |
|---------------|--|---------------|
| LiCYC 3xAWG26 | | Cable screen |
| | | Supply |
| | | Output signal |
| | | Earth |

| for tube OD | DN | Kv-value water [l/min] | PN | Allow. OP [bar] at medium temp. | | | L1 | L2 | D1 | Seal material | Type | Order number |
|-------------|-----|------------------------|----|---------------------------------|--------|--------|------|------|------|---------------|--------------------------|--------------|
| | | | | 20 °C | 100 °C | 140 °C | | | | | | |
| 4 | 2.5 | 3.2 | 4 | 4 | 4 | 4 | 38.8 | 42.1 | 13.5 | FKM | IPS-V36-958P3-4FF-004-51 | 390900 |
| 4 | 2.5 | 3.2 | 16 | 16 | 12 | 6 | 38.8 | 42.1 | 13.5 | FKM | IPS-V36-958P3-4FF-016-51 | 390901 |
| 6 | 4 | 12.8 | 4 | 4 | 4 | 4 | 38.8 | 42.1 | 13.5 | FKM | IPS-V36-958P3-6FF-004-51 | 390580 |
| 6 | 4 | 12.8 | 16 | 16 | 12 | 6 | 38.8 | 42.1 | 13.5 | FKM | IPS-V36-958P3-6FF-016-51 | 390581 |
| 8 | 6 | 26.5 | 4 | 4 | 4 | 4 | 44.8 | 42.8 | 17.2 | FKM | IPS-V36-958P3-8FF-004-51 | 390906 |
| 8 | 6 | 26.5 | 16 | 16 | 12 | 3 | 44.8 | 42.8 | 17.2 | FKM | IPS-V36-958P3-8FF-016-51 | 390584 |

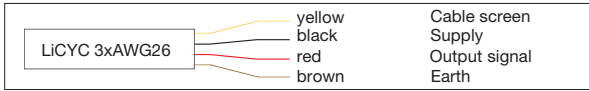
Characteristic Curve 0-4 bar or 0-16 bar 0.5-4.5 V (ratiometric)

Illustration


Cable length approx. 0,75m strand ends stripped, tinned



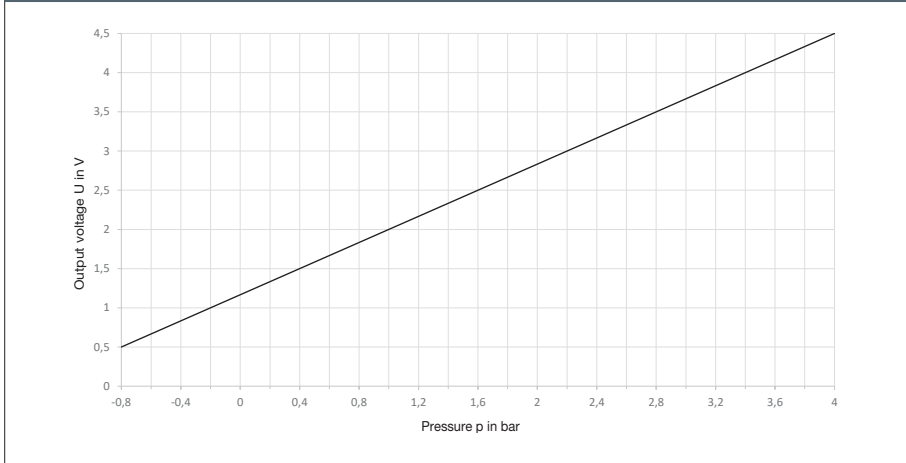
Pressure Sensor - Type IPS vacuum

Price group **730** Max. Allow. OP at ambient temp. $T_{min} 0\text{ }^{\circ}\text{C}$, $T_{max} +60\text{ }^{\circ}\text{C}$ **NSF** **Plastic PPSU**



| for tube OD | DN | Kv-value water [l/min] | PN | Allow. OP [bar] at medium temp. | | | L1 | L2 | D1 | Seal material | Type | Order number |
|-------------|-----|------------------------|----|---------------------------------|--------|--------|------|------|------|---------------|--------------------------|--------------|
| | | | | 20 °C | 100 °C | 140 °C | | | | | | |
| 4 | 2.5 | 3.2 | 4 | 4 | 4 | 4 | 38.8 | 42.1 | 13.5 | FKM | IPS-V36-958P3-4FF-V04-51 | 390902 |
| 4 | 2.5 | 3.2 | 16 | 16 | 12 | 6 | 38.8 | 42.1 | 13.5 | FKM | IPS-V36-958P3-4FF-V16-51 | 390903 |
| 6 | 4 | 12.8 | 4 | 4 | 4 | 4 | 38.8 | 42.1 | 13.5 | FKM | IPS-V36-958P3-6FF-V04-51 | 390904 |
| 6 | 4 | 12.8 | 16 | 16 | 12 | 6 | 38.8 | 42.1 | 13.5 | FKM | IPS-V36-958P3-6FF-V16-51 | 390905 |
| 8 | 6 | 26.5 | 4 | 4 | 4 | 4 | 44.8 | 42.8 | 17.2 | FKM | IPS-V36-958P3-8FF-V04-51 | 390907 |
| 8 | 6 | 26.5 | 16 | 16 | 12 | 3 | 44.8 | 42.8 | 17.2 | FKM | IPS-V36-958P3-8FF-V16-51 | 390908 |

Characteristic Curve 0.8 bar bis 4 bar 0.5 V bis 4.5 V (ratiometric)



Illustration

