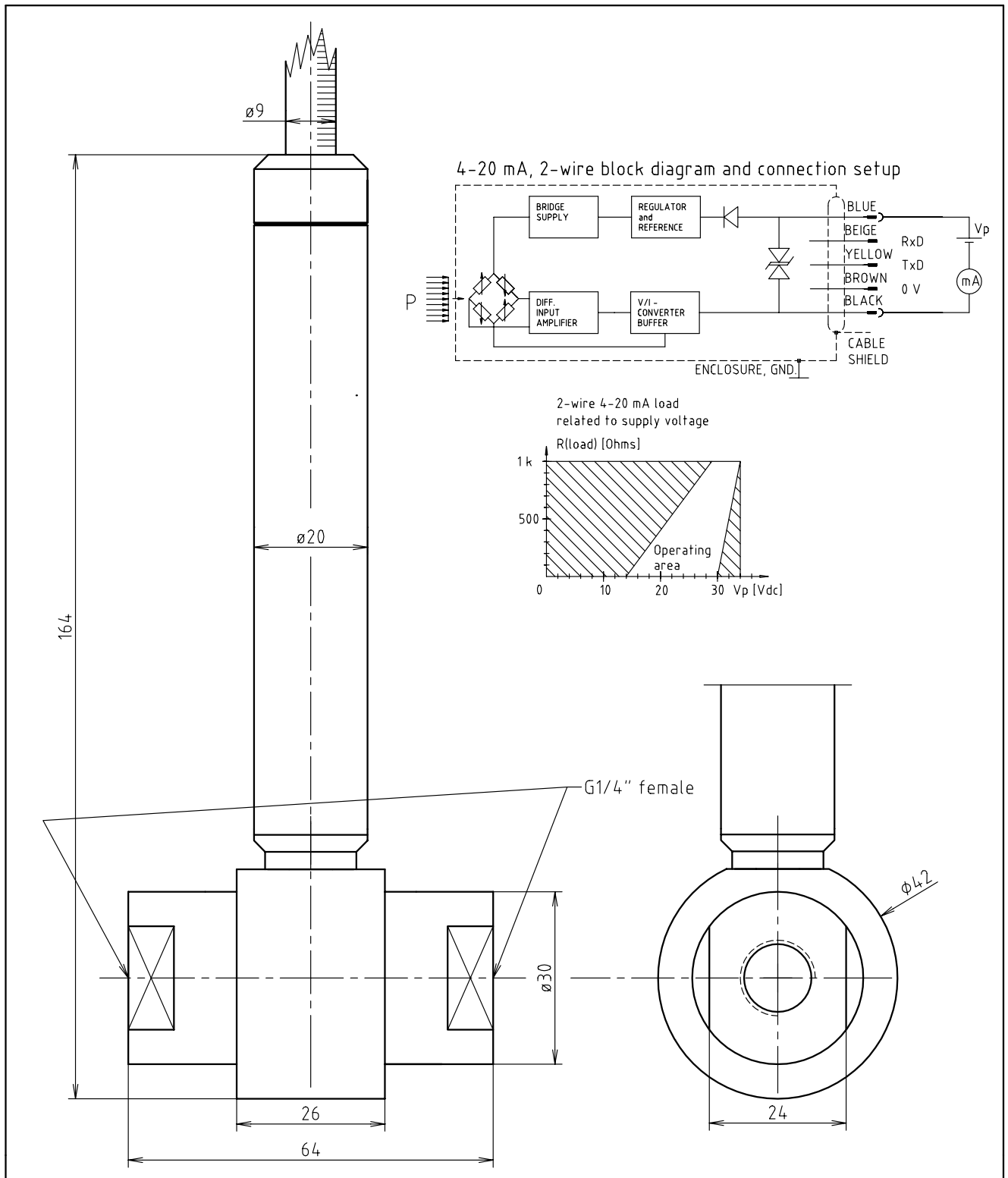


# DIFFERENTIAL PRESSURE TRANSMITTER TYPE PDS x L/x (submersible)



## DESCRIPTION

PDS uses a piezoresistive differential pressure sensor as sensing element. The two pressure ports act upon a piezoresistive bridge diffused into a silicon diaphragm, which provides high overload capabilities together with excellent linearity, hysteresis performance and fast response. The integral two wire electronics provide excitation and conditioning of the bridge signal to generate a 4 – 20 mA output.

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2.5.3

## SPECIFICATIONS

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| <b>Standard range</b>                                    | 50 mbar, 100 mbar, 200 mbar<br>500 mbar, 1 bar, 2 bar  |
| <b>Non-linearity and hysteresis</b>                      | < ± 0.5 % of FSO from best fit straight line   |
| <b>Overpressure</b>                                      | 200 % FS positive pressure port , or min 700 mbar<br>100 % FS negative pressure port, or min 350 mbar  |
| <b>Line pressure</b>                                     | 10 bar max   |
| <b>Output</b>  | 4 – 20 mA <sub>DC</sub> , 2 –wire, R <sub>L</sub> : see diagram, C <sub>L</sub> < 1 µF   |
| <b>Supply voltage</b>                                    | 12 – 30 V <sub>DC</sub> ,  |
| <b>Supply voltage effect</b>                             | < 0.03 %/V   |
| <b>Pressure media</b>                                    | Liquids and gases compatible with AISI 316L  |
| <b>Temperature range</b><br>- compensated<br>- operating | 0 °C to +50 °C<br>-10 °C to +80 °C   |
| <b>Temperature coefficient of sensitivity</b>            | < 0.05 %/°C  |
| <b>Temperature coefficient of zero point</b>             | < 0.05 %/°C/FS   |
| <b>Response time (0 – 100 %)</b>                         | 10 msec  |
| <b>EMC Emission and Immunity</b>                         | EN 61326   |
| <b>Surge immunity</b>                                    | According to IEC 61000-4-5: 1995 + Corr1:1995<br>2 kV/42 Ohm between wires<br>4kV/2 Ohm on cable shield  |
| <b>Pressure connection</b>                               | G¼" female   |
| <b>Submersible</b>                                       | Min. 100 m Water column  |
| <b>Cable</b>   | Outer insulation: ø9 mm black PUR.<br>Wires: 5x0.5 mm <sup>2</sup> PVC insulated wires + 2 supporting wires.<br>Ventilation: ø2.5 mm polyamid capillary tube.<br>Used for helium leak test.<br>Weight: 70 g/m. |
| <b>Weight</b>  | 300 g  |

## ORDERING INFORMATION

PDS x L/x

└── Cable length

└── Pressure range (bar) P<sub>1</sub> / P<sub>2</sub>

P<sub>1</sub> equal 4 mA

P<sub>2</sub> equal 20 mA