PDCR 300

For harsh test applications

This product has been specifically designed and tested to meet the harsh requirements found within many Aerospace applications, whilst also satisfying many industrial requirements. The product is founded on the highly reliable silicon chip produced within Druck's own 21st Century clean room. The Piezoresistive technology has been developed and enhanced for more than 45 years, which is widely used within the Aerospace/Industrial and Oil & Gas markets. This compact analogue sensor provides unrivalled performance across a wide Pressure and Temperature range, which lends itself very well for a variety of uses across high pressure requirements within hydraulic systems to low pressure, barometric measurement. No micro-processors are adopted within this product, which enables reliability at high temperatures to be achieved. The conditioned millivolt output is distributed through a 4-wire configuration.



Construction

- All Stainless Steel 316L, 17/4PH & INC 625
- 24 AWG PTFE Insulated cable

Performance

- NLH&R1 (see table 1)
- Total Accuracy² ± 3% Full Scale (across wide temp. range -55°C to +150°C)

Mechanical properties

- Pressure connection M5x0.8-6g
- Proof Pressure 1.5 x Full Scale
- Containment Pressure 2.0 x Full Scale
- Media compatibility:
- Ranges <=2MPa or =7MPa: Fluid compatible with SS17-4PH and SS316L
- Ranges >2MPa to <7MPa: Fluid compatible with SS17-4PH, SS316L and Inconel 625
- Mounting Torque: 4 Nm maximum

Target applications

Aerospace Test and General Industrial

Pressure ranges

Zero based ranges:

- Lowest Full Scale Range 110 kPa (1.1 bar)
- Highest Full Scale Range 35 MPa (350 bar)

See table 1 for complete offering.

Electrical properties

- Power Supply: 2.5 to 15 Vdc (output ratiometric to supply)
- Input impedance: >2000 Ohms
- Output Impedance: 5000 Ohms (nominal)
- Insulation resistance >100 MOhms @ 500 Vdc



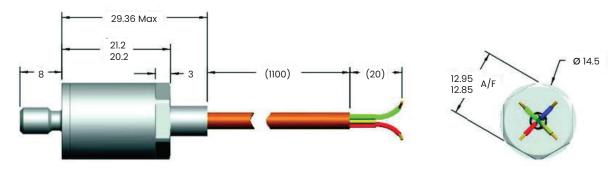
¹ The effects of Non-linearity, Hysteresis and Repeatability.

² Accuracy includes the combined effects of Non-Linearity, Hysteresis, Repeatability (NLH&R) and zero & span over the calibrated range.

Table 1. Pressure ranges

| Part number | Pressure range | NLH&R (at room temperature) | Output |
|----------------|-----------------------|--------------------------------|-------------|
| 300T111M0033-1 | 0 to 35 MPa Absolute | ±0.3% FS BSL | 0 to 120 mV |
| 300S111M0033-1 | 0 to 28 MPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300R111M0033-1 | 0 to 21 MPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300P111M0033-1 | 0 to 14 MPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300N111M0033-1 | 0 to 10 MPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300M111M0033-1 | 0 to 7 MPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300L111M0033-1 | 0 to 4 MPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300K111M0033-1 | 0 to 2 MPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300J111M0033-1 | 0 to 1.7 MPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300Н111М0033-1 | 0 to 1.4 MPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300G111M0033-1 | 0 to 1 MPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300F111M0033-1 | 0 to 700 kPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300E111M0033-1 | 0 to 500 kPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300D111M0033-1 | 0 to 350 kPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300C111M0033-1 | 0 to 230 kPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300B111M0033-1 | 0 to 200 kPa Absolute | ±0.2% FS BSL | 0 to 120 mV |
| 300A111M0033-1 | 0 to 110 kPa Absolute | ±0.2% FS BSL | 0 to 60 mV |

Physical properties

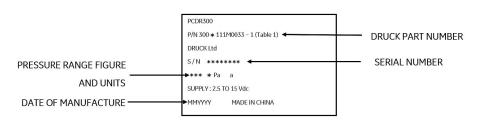


All dimensions in mm

Wiring details

| Electrical connections | | | |
|------------------------|----------------------------|--|--|
| Color | Function | | |
| Red | Supply Positive (EXC +) | | |
| Blue | Supply Negative (EXC -) | | |
| Yellow | Output Positive (Output +) | | |
| Green | Output Negative (Output -) | | |
| Screen | Not Connected | | |

Laser marking details (example)



Notes:

- For supply of this product outside of China, the TRS requirements will need to be considered on a case by case basis.
- Standard Lead-time is 8 weeks from order for popular ranges.
- Minimum Order Quantities any type (defined by pressure range) is 2 pieces.
- Other ranges may be available upon request subject to review and approval.

