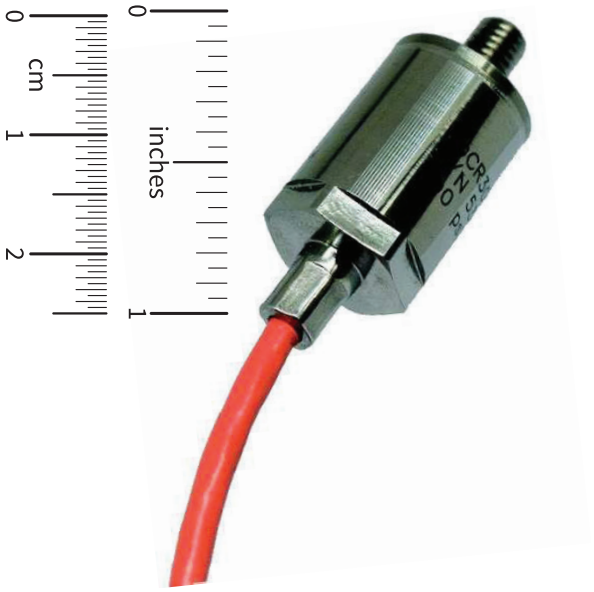
PDCR 300

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&R[1] (see table 1)
- Total Accuracy[2] ± 3% Full Scale (across wide temp. range -55˚C to +150˚C)

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.

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

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.

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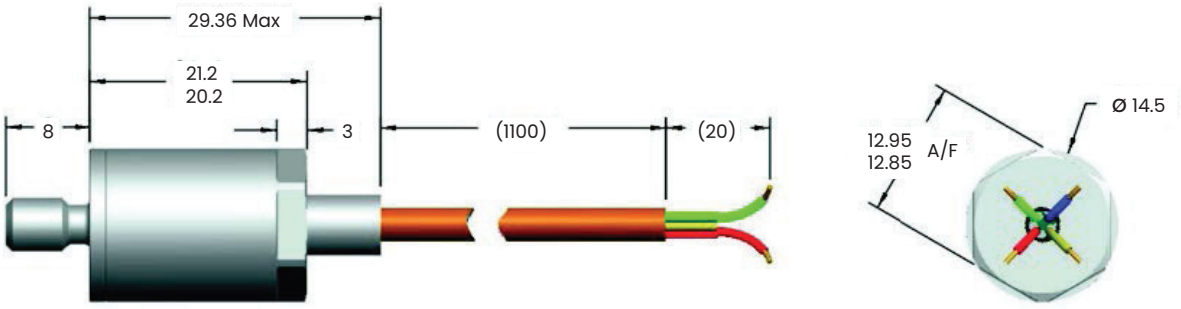
Table 1. Pressure ranges

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
300H111M0033-1	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

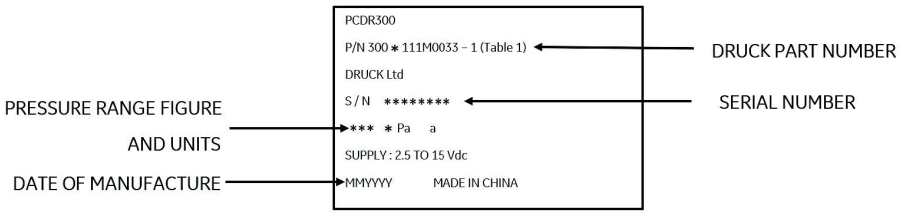


All dimensions in mm

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.

Baker Hughes

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