

PDCR 300

For Harsh Test Applications

This product has been specifically designed and tested to meet the harsh requirements found within many Aerospace applications. 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 use in hydraulic applications. 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.



Target Applications

General use for Aerospace Test

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)

Pressure Ranges

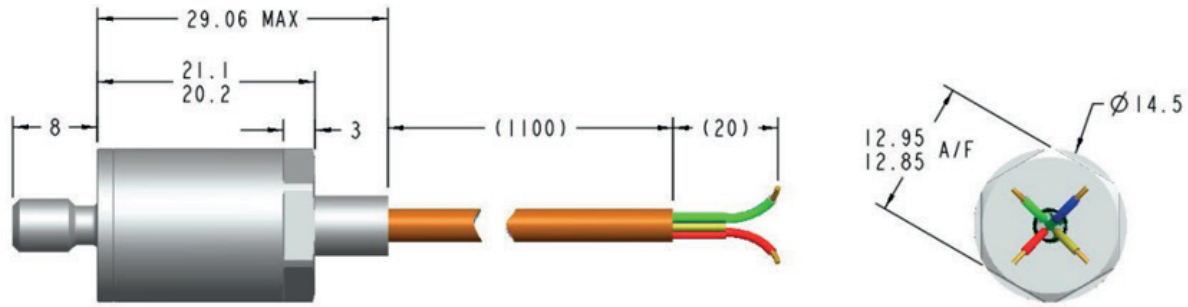
0 to 35MPa absolute (see table 1)

Pressure Ranges

Table 1

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

Physical properties

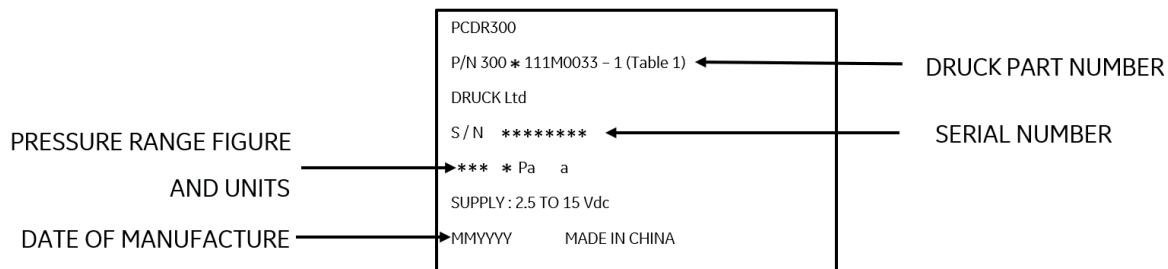


Wiring Details

Table 2

Electrical Connections	
Colour	Function
Red	Supply Positive (EXC +)
Blue	Supply Negative (EXC -)
Yellow	Output Positive (Output +)
Green	Output Negative (Output -)
Screen	Not Connected

Laser Marking Details (Example)



Mechanical Properties

- Pressure connection M5x0.8-6g
- Proof Pressure 1.5 x Full Scale
- Containment Pressure 2.0 x Full Scale
- Media compatibility:
 - Ranges 0 to 7MPa: Liquids and gasses compatible with Stainless Steel 316L and 17/4PH
 - Ranges >7MPa: Liquids and gasses compatible with Stainless Steel 316L, 17/4PH 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: 2500 Ohms (nominal) Max 5000 Ohms
- Insulation resistance >100 MOhms @ 500 Vdc

Notes:

- For all other applications outside of Aerospace the opportunity will be considered on a case by case basis, understanding the entry in to market certification needs.
- Standard Lead-time is 8 weeks from order.
- Minimum Order Quantities any type (defined by pressure range) is 2 pieces.
- Other ranges may be available upon request – subject to review and approval.

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

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

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