



## | P4055

Pressure Transducer

### Description

The P4055 Pressure Transducer incorporate a back-side PRT configuration that is compatible with many types of liquid and gaseous media. This flexible product family can be supplied with a built in Metri-Pack 150 electrical connector. The small sensor size is ideal for high volume applications. Pressure ranges may be customized for OEM applications. The P4055 is specified with pressure ranges measured in PSI.



### Features

- Small Size
- Absolute, Gage or Sealed Gage Pressure References
- Packard Metri-Pack 150 Electrical Connector Standard
- 0.5 to 4.5 Vdc Output
- High Vibration Tolerance
- Superior EMI/RFI Performance
- Available with NPT, G1/4, M10, & M12 Pressure Ports
- Temperature Compensated
- RoHS Compliant

### Applications

- Pumps & Compressors
- Process Controls
- Filter Restriction
- Oil and Fuel Pressures
- Water Management
- Level Measurement
- Test & Monitoring Equipment



### MAIN FEATURES

<b>Pressure Ranges</b>	0 to 3 up to 0 to 300 PSI
<b>Electrical Connection</b>	Packard Electric Metri-Pack 150 Series
<b>Pressure Connection</b>	1/4-18 NPT (external), 1/8-27 NPT (external) - for more options see how to order
<b>Housing Material</b>	Brass
<b>Output Signal</b>	0.5 - 4.5 VDC



## Pressure Ranges

<b>From 0 to ...</b>	PSI	3	5	15	30	50	75	100	150	200	300
<b>Proof Pressure</b>	PSI	6	10	30	60	10	150	200	300	300	450
<b>Burst Pressure</b>	PSI	9	15	45	90	150	225	300	450	400	600

## Physical

<b>Operating Life Cycle</b>	min. 1 million full pressure cycles over the full range
<b>Vibration Resistance</b>	10 G's peak to peak sinusoidal, from 20 to 2000 Hz
<b>Shock Resistance</b>	75 G's ½ sine wave
<b>Drop Test</b>	1m onto concrete surface
<b>Weight</b>	≤ 50 grams
<b>Ingress Protection</b>	IP67
<b>Media Temperature</b>	-40°C to + 125°C
<b>Environmental Temperature</b>	-40°C to + 125°C
<b>Storage Temperature</b>	-40°C to + 125°C
<b>Media</b>	All class II fluids and gases compatible with brass and fluorosilicone

## Performance

<b>Total Error Band<sup>1</sup></b>	+/-2% of span (-20 ≤ T ≤ 100° C) +/-3% of span (T < -20° C, T < 100° C)
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1. Including accuracy, calibration, temperature, non-linearity, hysteresis, non-repeatability, error

## Electrical

<b>Output Signal</b>	0.5...4.5 VDC ratiometric
<b>Operating Supply Signal</b>	5 VDC ± 5%
<b>Power Consumption</b>	≤ 25 mW
<b>Overvoltage Protection</b>	16 VDC
<b>Short-circuit Proofness</b>	Yes <sup>2</sup>
<b>Insulation Voltage</b>	500 VDC
<b>Reverse Polarity Protection</b>	Yes <sup>3</sup>
<b>Impedance</b>	Min load 25 kΩ
<b>Response Time</b>	≤ 10 ms max. to 63% of full scale pressure with step change on input

2. for min. 3 intervals at 5 minutes each

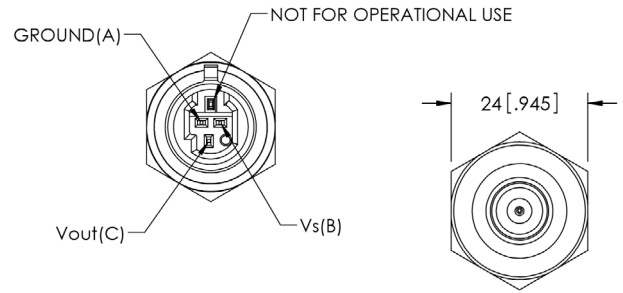
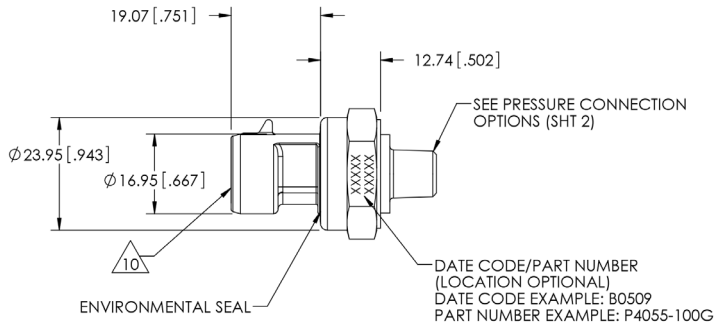
3. for min. 10 seconds on assigned pins



# DIMENSIONS

Dimensions in mm [Inch]

Packard (metri-pack 150) Pin Call Outs			
Output	Pin 1	Pin 2	Pin 3
0.5-4.5 VDC ratiometric	GND	Vsup	Vout





P4055 Pressure Sensor, 0 – 15 PSI Absolute, Fluorosilicone, Internal Seal, 1/4 18 NPT, Pressure Connection with Packard, Metri-Pack 150 Built-in Connector

P4055 - 15 A - E 1 A

Family

P4055

Pressure Ranges (PSI)

- 3: 0 - 3 PSI
- 5: 0 - 5 PSI
- 10: 0 - 10 PSI
- 15: 0 - 15 PSI
- 30: 0 - 30 PSI
- 50: 0 - 50 PSI
- 75: 0 - 75 PSI
- 100: 0 - 100 PSI
- 150: 0 - 150 PSI
- 200: 0 - 200 PSI
- 300: 0 - 300 PSI

Reference

- A: Absolute
- G: Gauge
- S: Sealed Gauge

Internal Seal Material

E: Fluorosilicone

Pressure Connection (Port)

- 1: 1/4-18 NPT
- 2: M12 X 1.5-6g PER ISO 6149
- 3: M10 X 1-6g PER ISO 6149
- 4: 1/8-27 NPTF
- 5: STUD END PER DIN 3852-A-G1/4 (sealing by washer, not supplied)
- 6: M14 X 1.5-6g PER ISO 6149
- 7: STUD END PER DIN 3852-C-R1/4 (1/4-19 BSPT)
- 8: 7/16-20UNF-2A
- 9: M16 X 1.5-6g
- 10: STUD END PER DIN 3852-C-R1/8 (1/8-28 BSPT)

Built-in Connector

- A: Metri-pack 150 with mating connector 12" leads
- C: Metri-pack 150 without mating connector



## AGENCY APPROVALS & CERTIFICATIONS



2002/95/EC RoHS Directive



Pressure equipment directive 97/23/EC

EMC directive 2004/108/EEC, EN 61 326 Emission (Group 1, Class B) and Immunity (industrial locations), EMI, ESD protected



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