| 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

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

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Pressure Ranges

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

Physical

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

Performance

Total Error Band[1]	+/-2% of span (-20 ≤ T ≤ 100° C) +/-3% of span (T < -20° C,T < 100° C)

1. Including accuracy, calibration, temperature, non-linearity, hysteresis, non-repeatability, error

Electrical

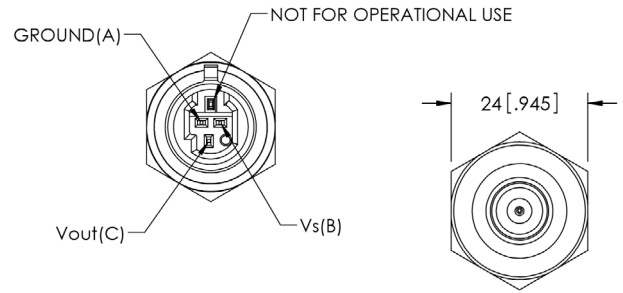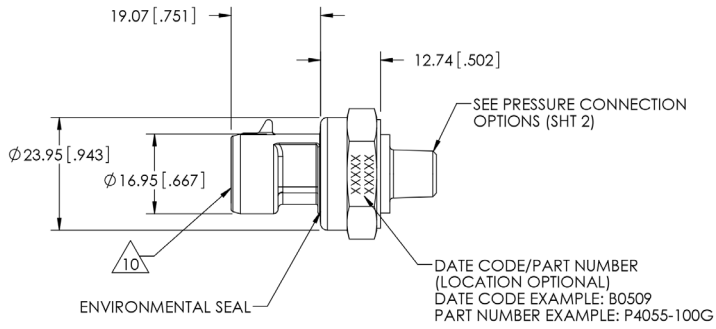|	
Output Signal	0.5…4.5 VDC ratiometric
Operating Supply Signal	5 VDC ± 5%
Power Consumption	≤ 25 mW
Overvoltage Protection	16 VDC
Short-circuit Proofness	Yes[2]
Insulation Voltage	500 VDC
Reverse Polarity Protection	Yes[3]
Impedance	Min load 25 kΩ
Response Time	≤ 10 ms max. to 63% of full scale pressure 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

19.07 [.751]

12.74 [.502]

SEE PRESSURE CONNECTION
OPTIONS (SHT 2)

Ø 23.95 [.943]

Ø 16.95 [.667]

⟨10⟩

ENVIRONMENTAL SEAL

DATE CODE/PART NUMBER
(LOCATION OPTIONAL)
DATE CODE EXAMPLE: B0509
PART NUMBER EXAMPLE: P4055-100G

GROUND(A)

NOT FOR OPERATIONAL USE

Vout(C)

Vs(B)

24 [.945]

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Pressure Sensors

ORDERING OPTIONS

P4055 Pressure Sensor, 0 – 15 PSI Absolute, Fluorosolicone, 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: Metripack 150 with mating connector 12" leads
C: Metripack 150 without mating connector

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Pressure Sensors

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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