

FEATURES

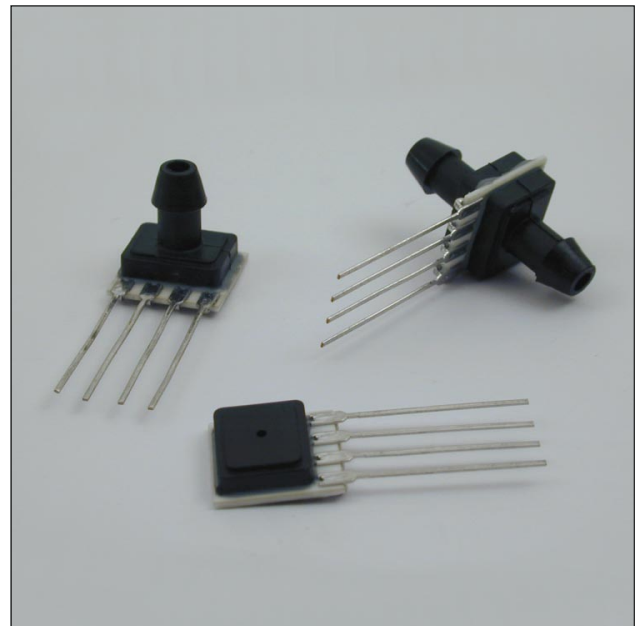
- 0...4 "H₂O to 0...150 psi gage or differential, 0...15 to 0...150 psi absolute
- Precision temperature compensated
- Calibrated offset and span
- Voltage excitation
- Excellent long term stability

SERVICE

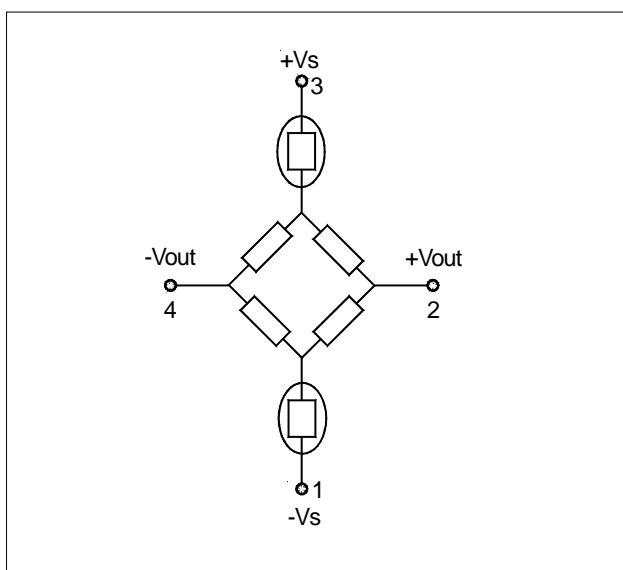
Non-corrosive, non-ionic working fluids such as clean dry air, dry gases and the like.

The media wetted materials are:

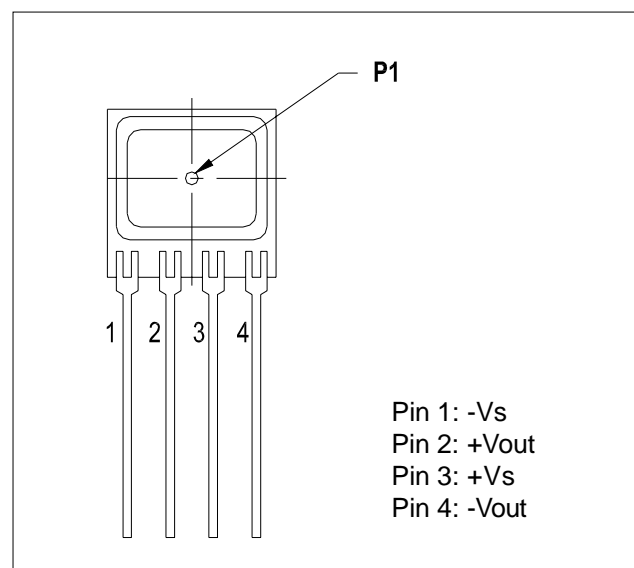
- port 1:
 - front side of silicon sensor chip
 - glass filled nylon
 - RTV
 - silgel (for devices of 5 psi and above)
 - ceramic (Al₂O₃)
- port 2:
 - silicon sensor chip
 - glass filled nylon
 - RTV
 - ceramic (Al₂O₃)



EQUIVALENT CIRCUIT



ELECTRICAL CONNECTION



SPECIFICATIONS

Maximum ratings (for all devices)

| | |
|--|-----------|
| Supply voltage V_s | 3 to 16 V |
| Lead temperature (soldering 5 seconds) | 315 °C |
| Common mode pressure | 50 psig |

Environmental specifications (for all devices)

| | |
|----------------------------------|---------------|
| Temperature range | |
| Compensated | 0 to 70 °C |
| Operating | -25 to 85 °C |
| Storage | -40 to 125 °C |
| Humidity limits (non-condensing) | 0 to 95 %RH |

PRESSURE SENSOR CHARACTERISTICS

$V_s = 12\text{ V}$, $T_A = 25^\circ\text{C}$, pressure applied to port P1

| Part no. | Operating pressure | Proof pressure ¹ | Burst pressure ² | Full scale span ³ | | |
|-----------|----------------------|-----------------------------|-----------------------------|------------------------------|--------|--------|
| | | | | Min. | Typ. | Max. |
| CPCL04... | 4 "H ₂ O | 3 psi | 5 psi | 23 mV | 25 mV | 27 mV |
| CPCL10... | 10 "H ₂ O | 3 psi | 5 psi | 19 mV | 20 mV | 21 mV |
| CPC0.3... | 0.3 psi | 3 psi | 5 psi | 19 mV | 20 mV | 21 mV |
| CPC01... | 1 psi | 3 psi | 5 psi | 17 mV | 18 mV | 19 mV |
| CPC05... | 5 psi | 15 psi | 25 psi | 57 mV | 60 mV | 63 mV |
| CPC15... | 15 psi | 45 psi | 75 psi | 85 mV | 90 mV | 95 mV |
| CPC30... | 30 psi | 90 psi | 150 psi | 85 mV | 90 mV | 95 mV |
| CPC60... | 60 psi | 180 psi | 300 psi | 85 mV | 90 mV | 95 mV |
| CPC100... | 100 psi | 250 psi | 400 psi | 95 mV | 100 mV | 105 mV |
| CPC150... | 150 psi | 250 psi | 400 psi | 85 mV | 90 mV | 95 mV |

PERFORMANCE CHARACTERISTICS

$V_s = 12\text{ V}$, $T_A = 25^\circ\text{C}$, pressure applied to port P1

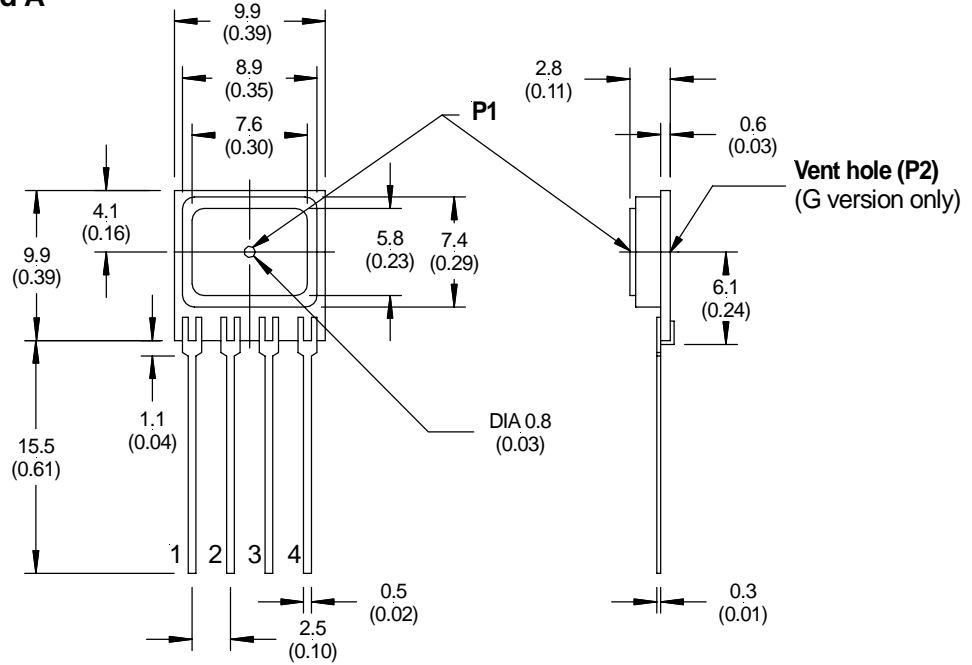
| Characteristics | Min. | Typ. | Max. | Unit |
|--|---------|-------|------|------|
| Zero pressure offset | -1.0 | 0 | +1.0 | mV |
| Combined non-linearity and hysteresis ⁴ | | ±0.25 | ±1.0 | %FSS |
| Temperature effects (0 to 70°C) ⁵ | Span | | ±2.0 | |
| | Offset | | ±1.0 | mV |
| Input resistance | 5 | | | kΩ |
| Output resistance | | 3 | | |
| Response time (10 to 90 %FSS) | CPCL... | | 500 | μs |
| | CPC... | | 100 | |
| Common mode voltage ⁶ | | 6 | | V |

Notes

- ¹ Proof pressure is the maximum pressure which may be applied without causing durable shifts of the electrical parameters of the sensing element.
- ² Burst pressure is the maximum pressure which may be applied without causing damage to the sensing element or leaks from the housing.
- ³ Full scale span is the algebraic difference between the output voltage at full-scale pressure and the output at zero pressure. The span is ratiometric to the supply voltage.
- ⁴ Non-linearity refers to the **Best Straight Line** fit measured for offset pressure, full-scale pressure and ½ full-scale pressure.
- ⁵ Shift is relative to 25°C. The CPCL04... has a compensated temperature range from 0 to 50°C.
- ⁶ This is the common-mode voltage of the output arms (pins 2 and 4) for $V_s = 12\text{ V}$.

OUTLINE DRAWING

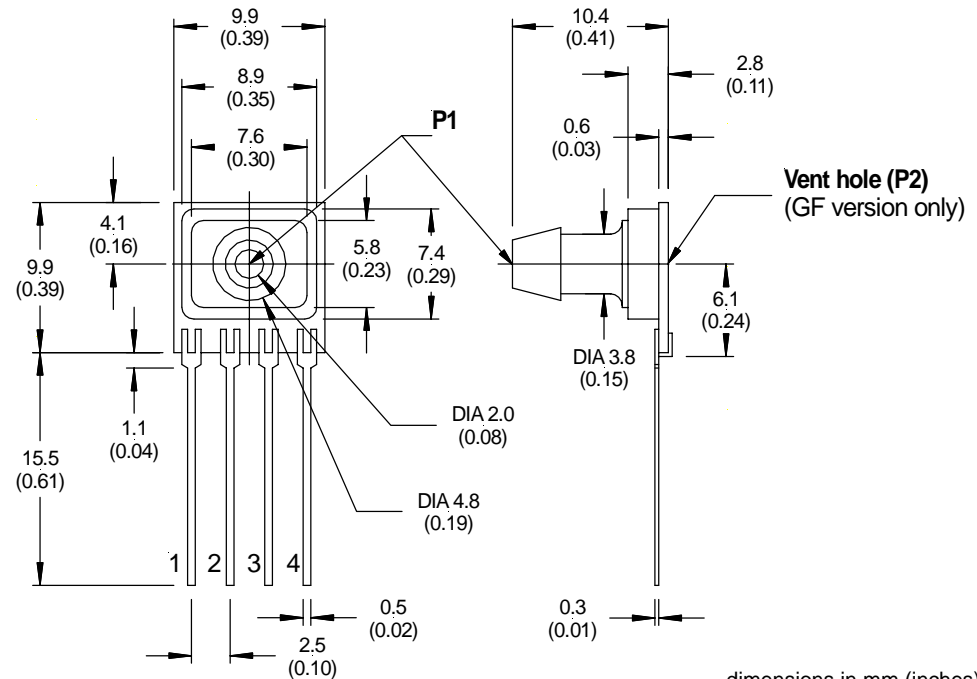
**Package version G and A
 (no port)**



mass: approx. 2 g

dimensions in mm (inches)

Package version GF and AF

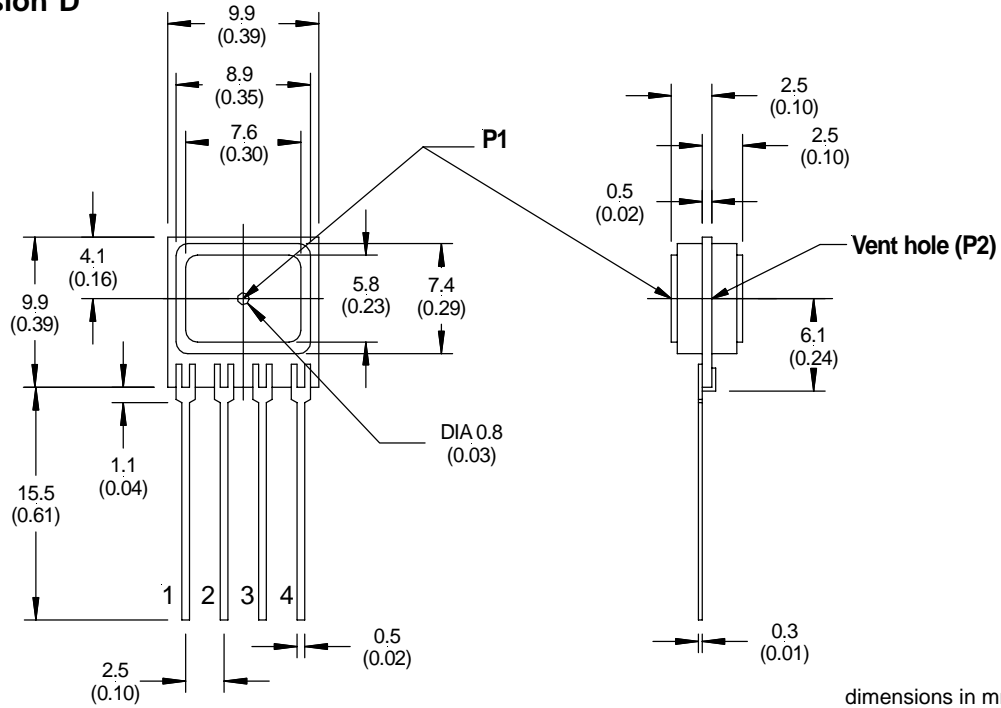


mass: approx. 2 g

dimensions in mm (inches)

OUTLINE DRAWING

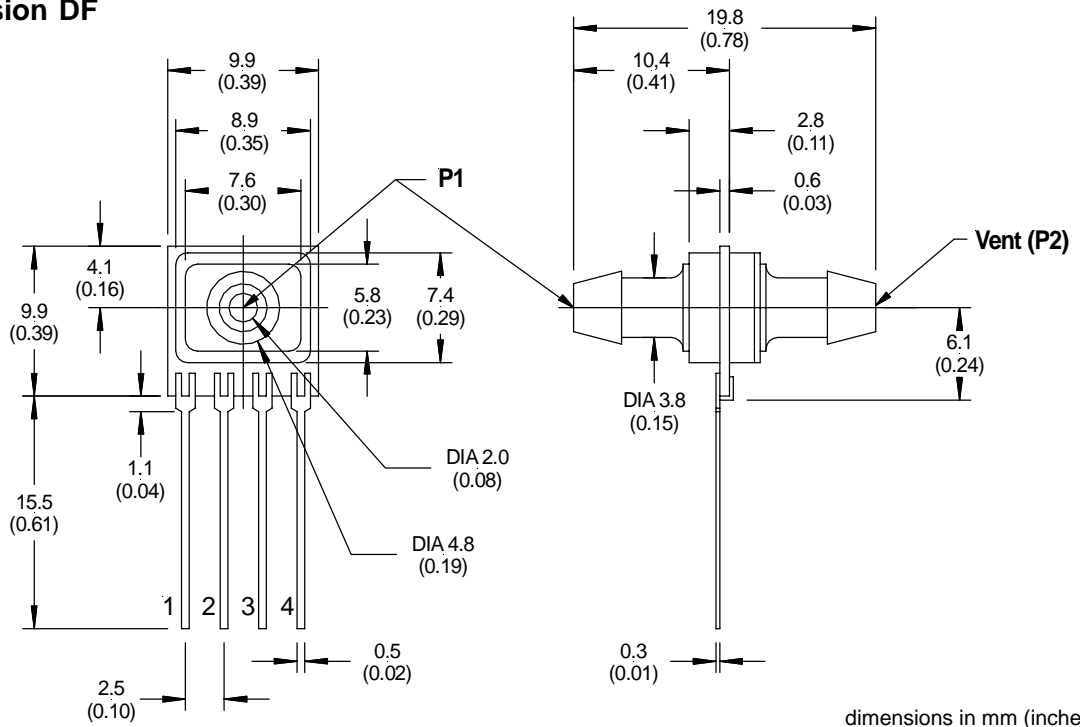
Package version D



mass: approx. 2 g

dimensions in mm (inches)

Package version DF



mass: approx. 2 g

dimensions in mm (inches)

ORDERING INFORMATION

| Pressure range | Absolute devices | | Gage devices | | Differential devices | |
|----------------------|------------------|------------------|------------------|------------------|----------------------|------------------|
| | No port (A) | Axial port (AF) | No port (G) | Axial port (GF) | No port (D) | Axial port (DF) |
| 4 "H ₂ O | | | CPCL04GC | CPCL04GFC | CPCL04DC | CPCL04DFC |
| 10 "H ₂ O | | | --- ⁷ | CPCL10GFC | --- ⁷ | CPCL10DFC |
| 0.3 psi | | | CPC0.3GC | CPC0.3GFC | --- ⁷ | --- ⁷ |
| 1 psi | | | --- ⁷ | CPC01GFC | --- ⁷ | CPC01DFC |
| 5 psi | | | CPC05GC | CPC05GFC | --- ⁷ | CPC05DFC |
| 15 psi | CPC15AC | CPC15AFC | --- ⁷ | CPC15GFC | --- ⁷ | CPC15DFC |
| 30 psi | CPC30AC | CPC30AFC | --- ⁷ | --- ⁷ | --- ⁷ | --- ⁷ |
| 60 psi | --- ⁷ | CPC60AFC | --- ⁷ | --- ⁷ | --- ⁷ | CPC60DFC |
| 100 psi | --- ⁷ | CPC100AFC | CPC100GC | CPC100GFC | --- ⁷ | --- ⁷ |
| 150 psi | --- ⁷ | --- ⁷ | --- ⁷ | CPC150GFC | --- ⁷ | CPC150DFC |

Note

**⁷ THESE DEVICES ARE AVAILABLE ON SPECIAL REQUEST.
MINIMUM ORDER QUANTITY APPLIES.**

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