

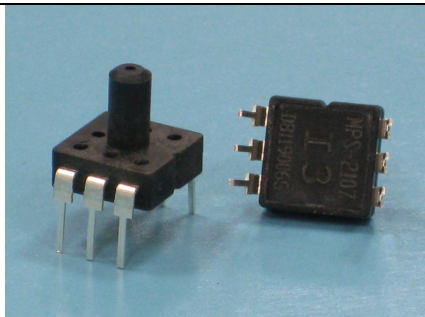
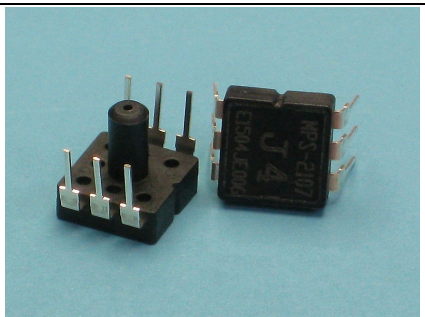
MPS-2100 series Pressure Sensor

■ Features

- Competitive price dual in-line package
- Wide operating temperature range:- 40 to +85°C
- Solid-state reliability
- Easy to Use
- Easily embedded in OEM equipment
- Gauge pressure type (1 、 5.8 、 15 、 30 、 100 PSI)

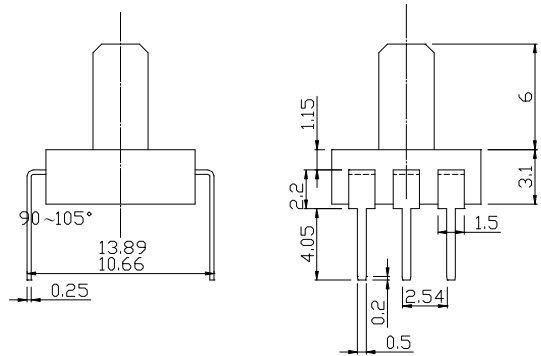
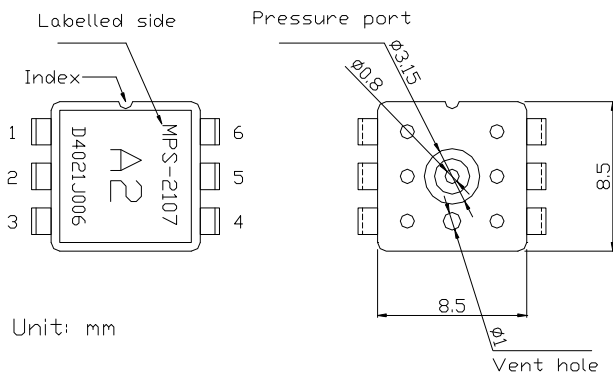
■ Applications

- Digital blood pressure meter
- Digital pressure gauges
- Environmental monitoring
- Consumer & Sports
- Medical instrumentation & monitoring
- Disposable blood pressure sensor

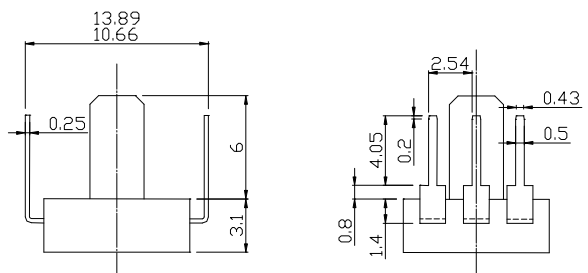
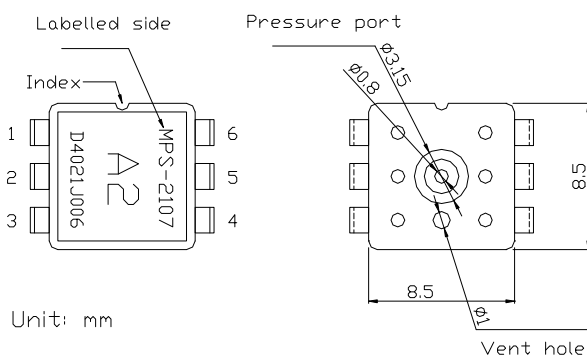
| Pressure type | Gauge | Gauge |
|---------------|--|---|
| | MPS-2107-006GC | MPS-2107-006GRC |
| Model |  |  |

■ Outline dimensions

MPS-2107-006GC



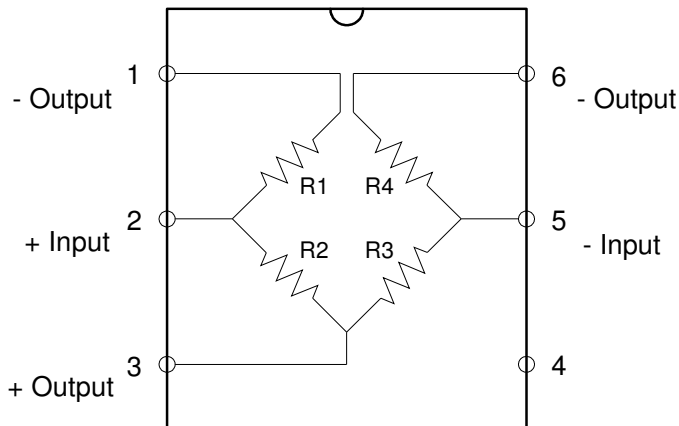
MPS-2107-006GRC



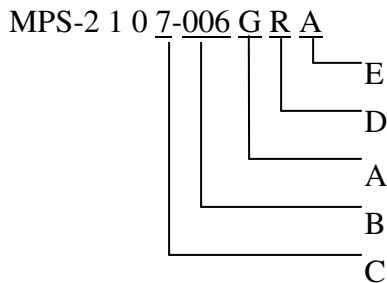
■ Specifications

| Parameter | Min | Typ | Max | Units | Notes |
|---|-------------------------------------|----------------------|-------|-----------|-------------------------------|
| General | | | | | |
| Pressure Range | 1 · 5.8 · 15 · 30 · 100 | | | PSIG | |
| Maximum Overpressure | | | 2X | | Rated pressure |
| Operating Temperature Range | -40 | | 85 | °C | -40 °F ~+185 °F |
| Storage Temperature Range | -40 | | 125 | °C | -40 °F ~+257 °F |
| Operating humidity | 15 | | 85 | % RH | No condensation |
| Media Compatibility | Clean, dry air & noncorrosive gases | | | | |
| Electrical performance⁽¹⁾ | | | | | |
| Excitation voltage | 2 | 5 | 15 | Vdc | |
| Excitation current | | | | | (5) |
| 3.3kOhm (MPS-2103) | 0.6 | 1.5 | 4.5 | mA | |
| 5kOhm (MPS-2107 · MPS-2108) | 0.4 | 1 | 3 | | |
| Bridge resistance | | | | | |
| 3.3kOhm (MPS-2103) | 2.7 | 3.3 | 3.9 | kΩ | |
| 5kOhm (MPS-2107 · MPS-2108) | 4 | 5 | 6 | | |
| Offset Voltage | -25 | | 25 | mV | |
| Full Scale Span Voltage | | | | | |
| 1PSI (MPS-2107) | 20 | 30 | 40 | | |
| 5.8 PSI (MPS-2107) | 50 | 75 | 100 | | |
| 5.8 PSI (MPS-2103 · MPS-2108) | 20 | 45 | 70 | mV | |
| 15 PSI (MPS-2103 · MPS-2108) | 70 | 100 | 130 | | |
| 30 PSI (MPS-2108) | 80 | 110 | 140 | | |
| 100 PSI (MPS-2108) | 70 | 120 | 170 | | |
| Linearity | | | | | |
| 1PSI | -0.7 | 0.15 | 0.7 | % Span | (2) |
| 5.8, 15, 30, 100PSI | -0.3 | 0.05 | 0.3 | | |
| Temperature Coefficient of Zero Offset | | | | | |
| 1PSI | -0.22 | | 0.22 | % Span/°C | (3) |
| 5.8, 15, 30, 100PSI | -0.08 | | 0.08 | | |
| Temperature Coefficient of Span | -0.16 | -0.21 ⁽⁴⁾ | -0.26 | %Span/°C | Const. Voltage excitation (3) |
| | -0.05 | 0.025 ⁽⁵⁾ | 0.05 | | Const. Current excitation (3) |
| Temperature Coefficient of Resistance | 0.17 | 0.2 | 0.23 | %/°C | (3) |
| Notes : | | | | | |
| 1. Unless otherwise specified, measurements were taken with a supply voltage of 5 Vdc at a temperature of 25±3°C and humidity ranging from 25% ~85% . | | | | | |
| 2. Best fit straight line. | | | | | |
| 3. Between 0 °C and 50 °C. Temperature coefficients are typical values. | | | | | |
| 4. Measured only with constant voltage excitation (5V) . | | | | | |
| 5. Measured only with constant current excitation (1mA for 5kOhm sensor ; 1.5mA for 3.3kOhm sensor) . | | | | | |
| Metrodyne Microsystem Corp. reserves the right to make changes to the product specification in this publication. | | | | | |

■ Terminal connection diagram



■ Ordering information



| A | Pressure type | B | Pressure range |
|-----|--|---------------------------------|---|
| G | Gauge | 001 006 015 030 100 | 1 PSI 5.8 PSI 15 PSI 30 PSI 100 PSI |
| C | | | |
| 3 | 3.3kOhm | | |
| 7 | Temp. compensation High sensitivity | | |
| 8 | Temp. compensation Low sensitivity | | |
| D | Lead direction | E | Lead plating |
| R | The same direction as the tube | A | Silver |
| N/A | Opposite direction to the tube | C | Plastic cover |

| Part No. | Pressure type | Pressure range | Feature | Note |
|-----------------|---------------|----------------|---------|---------------|
| MPS-2107-001GC | Gauge | 1 PSI | 5kOhm | Plastic cover |
| MPS-2103-006GRC | Gauge | 5.8 PSI | 3.3kOhm | Plastic cover |
| MPS-2107-006GC | Gauge | 5.8 PSI | 5kOhm | Plastic cover |
| MPS-2107-006GRC | Gauge | 5.8 PSI | 5kOhm | Plastic cover |
| MPS-2108-015GC | Gauge | 15 PSI | 5kOhm | Plastic cover |
| MPS-2108-030GC | Gauge | 30 PSI | 5kOhm | Plastic cover |
| MPS-2108-100GC | Gauge | 100 PSI | 5kOhm | Plastic cover |

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