

MICRO-MACHINED MODULAR TECHNOLOGY PRESSURE SENSOR



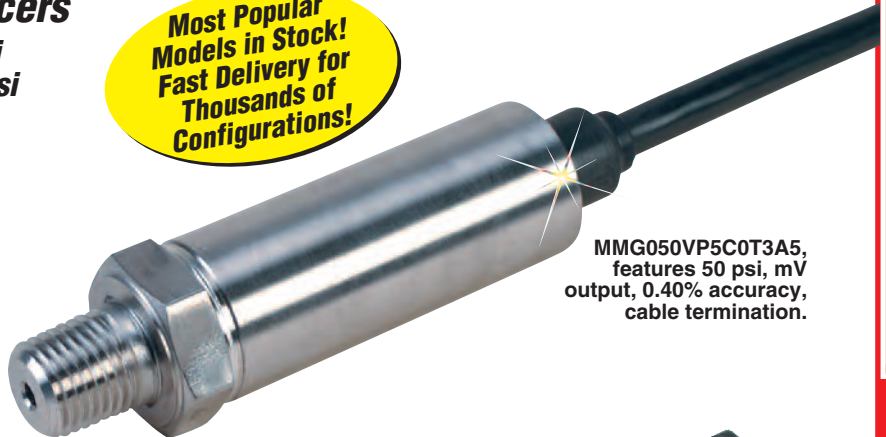
**Configurable—High Accuracy—High Temperature Performance
For Industrial, Test and Measurement, and Aerospace Applications**

MM Series Pressure Transducers

Low Pressure from 10 in-H₂O to 2.5 psi
and Standard Ranges from 5 to 5000 psi

Metric Ranges: 25 mbar to 350 bar

**Most Popular
Models in Stock!
Fast Delivery for
Thousands of
Configurations!**



MMG050VP5C0T3A5,
features 50 psi, mV
output, 0.40% accuracy,
cable termination.

B

✓ Customer Selectable Features

✓ Fast Delivery

✓ High Accuracy

✓ Up to ±0.03% Linearity

Accessories Available:

0.05% FS BSL*

0.08% FS BSL

0.20% FS BSL

0.40% FS BSL

✓ Premium Temperature Performance

✓ Broad Compensated Range

✓ Gage, Absolute, Barometric, Vacuum,

✓ Compound and Differential

✓ 5-Point NIST Traceable Calibration



MMG100C1P5C6T3A5,
features 100 psi
4 to 20 mA output,
0.40% accuracy,
mini DIN termination.



MMDWU015VP5C1T3A5,
features 15 psid,
mV output, 0.40% accuracy,
twist-lock termination.



MMG10WVP3C1T2A2,
features 0 to 10 in-H₂O,
mV output, 0.08% accuracy,
twist-lock termination.

All models shown actual size.

**1 Week Delivery
on Custom
Configurations**

*Best Straight Line.

ONE SOURCE FOR ALL YOUR PRESSURE MEASUREMENT APPLICATIONS



Gage Pressure
Low Pressure
Absolute Pressure
Differential Pressure
Vacuum Ranges
Compound Ranges
Barometric Pressure

Adjustable
zero and span
potentiometers

MMG1.0KC1P2J0T3A5P,
4 to 20 mA output,
1000 psi, 0.05% accuracy,
2 m (6') cable, and
optional potentiometers.

MMG100C1P5C6T3A5,
features 100 psi
4 to 20 mA output,
0.40% accuracy,
mini DIN termination.

All models shown
actual size.

MMG10WVP3C1T2A2,
features 0 to 10
in-H₂O, 3 mV/V
output, 0.08% accuracy,
twist-lock termination.

OMEGA has developed a rapid delivery system for its new Micro Machined Silicon product line.

You can have your pick of pressure ports, electrical connections, pressure range and units, thermal range and accuracy and accessories like trim pots. There are over 1-million possible combinations. OMEGA can deliver reasonable quantities of almost any combination within 5 working days. We have an easy-to-use configurator online at omega.com where you can select the transducer with the exact specifications for your project.

We also have the most popular configurations stocked for same day shipment!

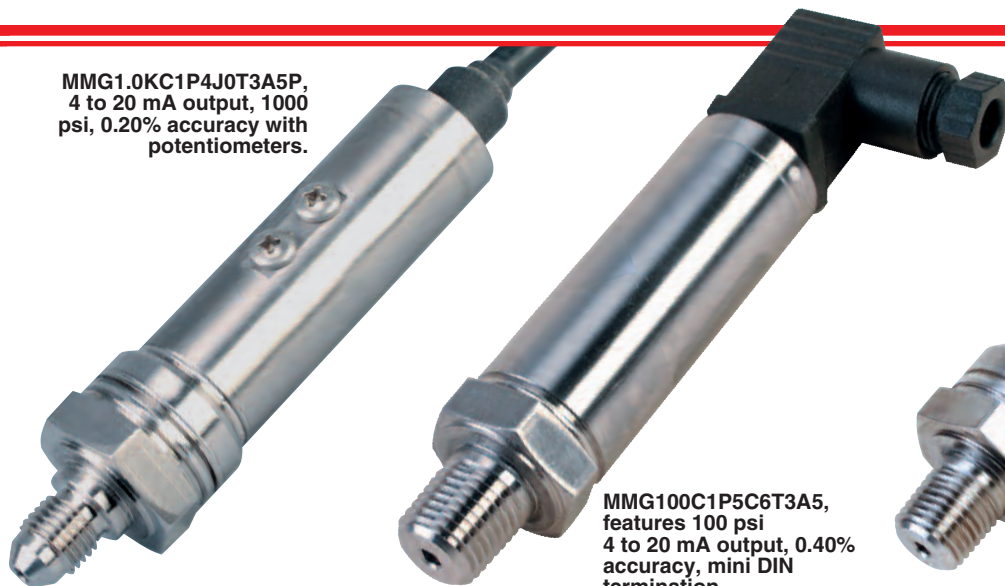
OMEGA's micro-machined piezoresistive pressure transducers have a proven record in high performance commercial, automotive, test and measurement and aerospace applications. The piezoresistive process uses strain gages molecularly embedded into a highly stable silicon wafer. The silicon wafer is diced into individual die which each contain a full strain gage bridge. The die is mounted in a sealed chamber protected from the environment by glass to metal seals and a pressure sensitive stainless steel diaphragm. A small volume of silicone oil transfers the pressure from the diaphragm to the strain bridge. The construction provides a very rugged transducer with exceptional accuracy, stability and thermal effects.

A unique design ruggedizes the transducers by providing secondary fluid containment in the event of a diaphragm rupture.

- ✓ Five Accuracies
- ✓ Ninety-Two Pressure Ranges
- ✓ Ten Electrical Outputs
- ✓ Four Thermal Ranges
- ✓ Fourteen Pressure Ports
- ✓ Five Electrical Terminations
- ✓ Over 1,000,000 Combinations!

MM SERIES

MMG1.0KC1P4J0T3A5P,
4 to 20 mA output, 1000
psi, 0.20% accuracy with
potentiometers.



MMG100C1P5C6T3A5,
features 100 psi
4 to 20 mA output, 0.40%
accuracy, mini DIN
termination.

MMG1.0KC1P2C2T3A5,
features 1000 psi, 4 to 20 mA
output, 0.05% accuracy, cable
termination with ½ NPT
conduit fitting.

CABLE CONNECTION			
COLOR	mV	5/10V	mA
BLACK	- EXC	- EXC	- EXC
WHITE	+ SIG	+ Out	+ CAL
GREEN	- SIG	SHUNT	SHUNT
RED	+ EXC	+ EXC	+ EXC

M12, MINI DIN AND SOLDER PINS CONNECTION			
PIN	mV	5/10V	mA
1	+ EXC	+ EXC	+ Supply
2	- EXC	+ EXC	- Supply
3	+ OUT	+ Output	NC
4	- OUT	NC	NC

TWIST-LOCK CONNECTION			
PIN	mV	5/10V	mA
A	+ EXC	+ EXC	+ EXC
B	- EXC	- EXC	- EXC
C	+ OUT	+ OUT	+ SHUNT
D	- OUT	+ SHUNT	+ SHUNT
E	SPARE	SPARE	SPARE
F	SPARE	SPARE	SPARE

COMMON SPECIFICATIONS

Approvals: RoHS and CE

Calibration: 5-point NIST traceable

Bandwidth: DC to 1 kHz typical

Response Time: < 1 ms

Weight: 115 to 200 g (4 to 7 oz) (depending upon configuration)

CE Compliant: IEC61326

Emissions: IEC550022 Class B

Electrostatic Discharge Immunity: IEC1000-4-2

EM Field Immunity: IEC61000-4-3

EFT Immunity: IEC61000-4-4

Surge Immunity: IEC61000-4-5

Conducted RF: IEC61000-4-6

Rate Power Frequency Magnetic Field: IEC61000-4-8

Minimum Resistance Between Body and Any Wire: 100 MΩ @ 50 Vdc

Environmental

Operating Temperature: -51 to 127°C (-60 to 260°F)

Protection:

Cable: 2 m (6') IP67

mini DIN: IP65

Twist-Lock: IP65

Conduit 2 m (6') Cable with ½ NPT Conduit Fitting: IP67

Mechanical

Wetted Parts: 316L stainless steel

Media: Compatible with 316L SS

Pressure Cycles: 1 million minimum

Shock: 50 g, 11 ms half sine (under test)

Vibration: ±20 g (under test)

Overpressure Safe:

10 in-H₂O: 10 times span

1 psi: 6 times span

2.5 to 3500 psi: 4 times span

5000 psi: 3 times span

Secondary Containment

Gage/Diff/Vac/Compound:

10 in-H₂O to 5 psi: To 1000 psi

15 to 150 psi: To 3000 psi

250 to 1000 psi: To 6000 psi

1500 to 5000 psi: To 15,000 psi

Secondary Containment Absolute/Barometric:

Barometric Ranges: To 6000 psi

5 to 1000 psi: To 6000 psia

1500 to 5000 psi: To 15,000 psia

Excitation

3 mV/V: 10 Vdc (ratiometric 5 to 10 Vdc)

10 mV/V: 10 Vdc (ratiometric 5 to 10 Vdc)

0 to 5 Vdc: 10 to 30 Vdc @ 10 mA

0 to 10 Vdc: 15 to 30 Vdc @ 10 mA

4 to 20 mA: 9 to 30 Vdc (9 to 20 Vdc above 229°F)

Bipolar Amplifiers: Same as corresponding outputs from above—compound and some differential pressure models

ELECTRICAL TERMINATION

<p>6-Pin, Vented or Non-Vented Bendix PT06F10-6S mating connector.</p> <p>4.3 (0.17)</p>	<p>M12 Connector</p> <p>Ø 20.2 0.8 M12 x 1 5 (0.2) Vent with porous plug (gage units only)</p>	<p>4-Pin, Vented or Non-Vented mini DIN</p> <p>included 4.8 (0.19)</p>	<p>4-Conductor Integral Cable, 2 Meter</p> <p>4.8 (0.19)</p>	<p>4-Pin, mini DIN</p> <p>1/2 NPT conduit fitting 9.4 (0.37)</p>
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DIMENSIONS

<p>Low Range Pressure Transducer <15 psi Units</p> <p>Ø22.3 (0.88) 45.2 (1.78) 20.8 (0.82) Hex 25 (1) Wrench Flats</p>	<p>Mid Range Pressure Transducer Barometric Transducer ≥15 psi Units</p> <p>Ø22.3 (0.88) 57.1 (2.25) 9.4 (0.37) Hex 22.2 (0.875) Wrench Flats</p>	<p>Low Range Differential Pressure Transducer <15 psi Units</p> <p>Ø22.3 (0.88) 65.2 (2.57) 25 (1) Wrench Flats 49 (1.93) Hex Hex</p>	<p>Mid Range Differential Pressure Transducer ≥15 psi Units</p> <p>Ø22.3 (0.88) 63.7 (2.51) 22.2 (0.875) Wrench Flats 49.5 (1.95) Hex Hex</p>
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PRESSURE PORTS*

Ø = diameter
Dimensions: mm (in)

<p>Male</p>	<p>16.2 (0.64) M12 x 1.5-6g</p>	<p>17 (0.67) 9/16-18 UNF-2A</p>	<p>14 (0.55) G 1/4B-19TPI</p>	<p>10.6 (0.42) G 1/8-28TPI</p>	<p>16.5 (0.65) 7/16-20 UNJF-2A</p>	<p>14.2 (0.56) 1/4-18 NPT</p>	<p>13 (0.51) 1/8-27 NPT</p>
<p>Female</p>	<p>12.7 (0.50) M12 x 1.5-6H</p>	<p>18.3 (0.72) 9/16-18 UNF-2B</p>	<p>14.2 (0.56) G 1/4B-19TPI</p>	<p>10.6 (0.42) G 1/8-28TPI</p>	<p>17 (0.67) 7/16-20 UNJF-2B</p>	<p>14.2 (0.56) 1/4-18 NPT</p>	<p>14.2 (0.56) 1/8-27 NPT</p>

* Dimensions may vary slightly for ranges >1000 psi.