

## APPLICATIONS

- DIESEL ENGINES
- REFRIGERATION AND HVAC SYSTEMS
- HYDRAULIC FLUID PRESSURES
- GENERAL INDUSTRIAL PRESSURE
- OFF ROAD VEHICLES

## MODEL ML • OEM PRESSURE TRANSDUCER

The model ML pressure transducer combines the latest in ASIC technology with our proven stainless steel design. This digitally compensated transducer offers an unparalleled value and performance combination making it the ideal pressure sensing solution for demanding automotive and industrial applications. Fully temperature compensated, calibrated, and amplified, the ML is available in 100 to 5000 PSIS pressure ranges.

The ML has three standard output options: a 0.50 to 4.50 Vdc ratiometric output from 5 Vdc excitation, a 1.0 to 6.0 Vdc regulated output from 7-35 Vdc excitation, and a 4-20 mA current from 9-35 Vdc excitation. The ML transducer delivers  $\pm 0.25\%$  full scale accuracy (BFSL) over a wide temperature range of  $-40^{\circ}\text{C}$  to  $105^{\circ}\text{C}$  and utilizes a proven industry standard connector for high reliability and user flexibility.



# ML SERIES

# PRESSURE TRANSDUCER

## FEATURES

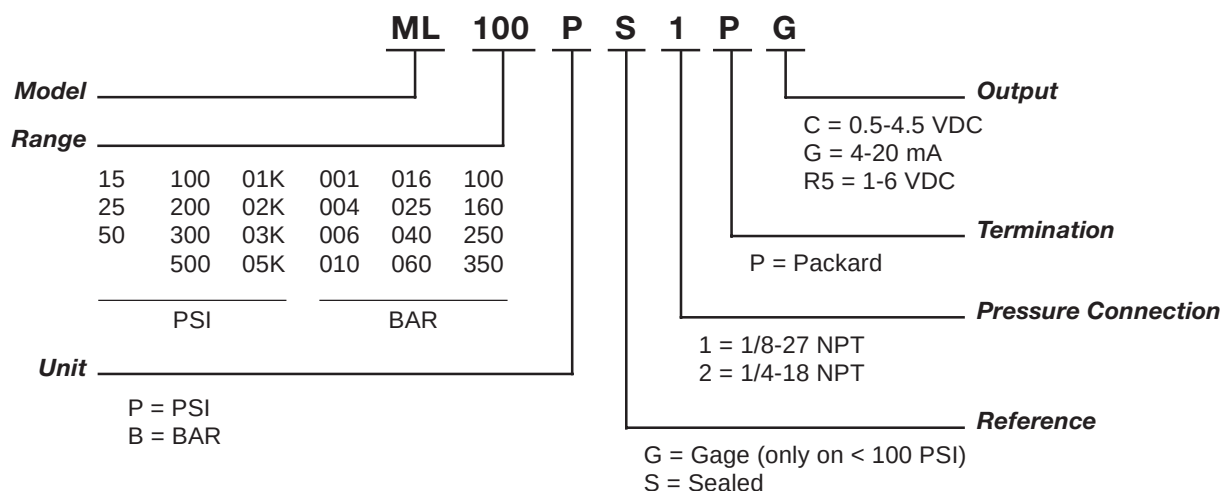
- High value and outstanding performance
- No internal elastomeric seals
- Amplified outputs
- Reverse polarity protection
- Less than 500 microseconds response time
- Designed to meet IP65 standards\*
- Exceeds CE Heavy Industrial EMC

## BENEFITS

- Excellent OEM value
- Eliminates O-Ring compatibility issues
- Eliminates cost of external amplifiers
- Not damaged by reversed excitation
- Accurate high speed measurements
- Protected from harsh environments

\* With appropriate mating connector, Packard #12065287.

## HOW TO ORDER



Note: Not all combinations are available. Minimum quantity orders apply. Contact the factory for more details.

## TECHNICAL SPECIFICATIONS

### RANGES

15, 25, 50 PSIG; 100, 200, 300, 500, 1000, 2000, 3000, 5000 PSIS  
6, 10, 16, 25, 40, 60, 100, 160, 250 BAR

### PHYSICAL

|                                |                               |                                             |
|--------------------------------|-------------------------------|---------------------------------------------|
| Proof Pressure                 | < 500 psi<br>2 X rated range  | ≥ 500 psi<br>1.5 X rated range              |
| Burst Pressure                 | < 500 psi<br>10 X rated range | ≥ 500 psi (30K psi max)<br>10 X rated range |
| Material in Contact with Media | 300 series SS, braze compound |                                             |
| Weight                         | 2.0 oz (57 gm)                |                                             |

### ENVIRONMENTAL

|           |                                                                                                 |  |
|-----------|-------------------------------------------------------------------------------------------------|--|
| Shock     | 50 g's peak (5 ms), 100 g's peak (11 ms)                                                        |  |
| Vibration | Figure 514.2-5, Curve AK, Table 514.2-V<br>Random Vibration Test (Overall g rms = 20.7 minimum) |  |

| ELECTRICAL             | Ratiometric Voltage          | Regulated                  | Current            |
|------------------------|------------------------------|----------------------------|--------------------|
| Zero Output            | 0.5 Vdc                      | 1.0 Vdc                    | 4.0 mA             |
| Full Scale Output*     | 4.0 Vdc<br>(0.50-4.50 Vdc)   | 5.0 Vdc<br>(1.0-6.0 Vdc)   | 16 mA<br>(4-20 mA) |
| Excitation             | 5 Vdc ±250 mV<br>(7.0 V max) | 7-35 Vdc                   | 9.5-35 Vdc         |
| Supply Current         | 5 mA typical<br>(7 mA max)   | 5 mA typical<br>(7 mA max) | N/A                |
| Source (nominal)       | 2.0 mA                       | 2.0 mA                     | N/A                |
| Sink (nominal)         | 20 µA<br>@ zero output       | 20 µA<br>@ zero output     | N/A                |
| Supply Rejection Ratio | 90 db                        | 90 db                      | 90 db              |
| Output Impedance       | 25 W max.                    | 25 W max.                  | N/A                |

### PERFORMANCE

|                                                     |                                                                                                                                                                           |  |  |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Response Time                                       | < 500 microseconds                                                                                                                                                        |  |  |
| EMI/RFI                                             | Exceeds CE heavy industrial (30v/m radiated 150kHz-1GHz)                                                                                                                  |  |  |
| Electrical Connection                               | Packard Metri-Pack™ connector requires Packard #12065287 mating connector                                                                                                 |  |  |
| Accuracy                                            | ±0.25% F.S.O. best fit straight line.<br>Includes: non-linearity, hysteresis, non-repeatability.<br>Thermal errors not included. 0.5% < 100 PSI **                        |  |  |
| Total Error Band                                    | ±2% Typical (±3% Max.) F.S.O.<br>Includes: zero offset error, span error, thermal effect on zero and thermal effect on span, non-linearity, hysteresis, non-repeatability |  |  |
| Compensated Operating and Storage Temperature Range | -40° to 105°C<br>(-40° to 221°F)                                                                                                                                          |  |  |

\* PSIG vented thru vent hole protected by Gortex® filter

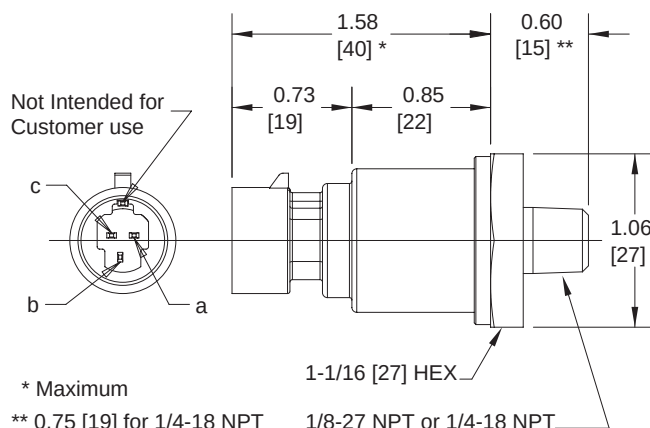
NOTE: All specifications are measured at 25° C (77° F) and at rated excitation unless otherwise specified.

NOTE: Meets IEC-68-2 or MIL-STD 810C.

NOTE: Contact the factory to discuss other pressure ranges.

### DIMENSIONS

xx.xx = inches  
(xx.x) = mm



### PIN AND WIRE CODES

| Pins | Voltage      | Current      |
|------|--------------|--------------|
| A    | + Excitation | + Excitation |
| B    | Output       | - Excitation |
| C    | Common       | NC           |

### WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

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**Honeywell**

Sensing and Control  
Honeywell  
100 Discovery Way  
Acton, MA 01720 USA

Tel: (877) 384-1300; Fax: (978) 263-0630

[www.honeywell.com/sensing/](http://www.honeywell.com/sensing/)