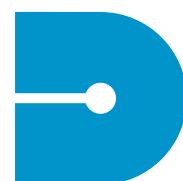


PMP 317 Series



**Druck**

## PMP 317 Series

### High Performance Automotive Pressure Transducers

- Ranges from 1.5 psi to 10,000 psi
- $\pm 0.15\%$  accuracy
- $-65^{\circ}$  to  $+250^{\circ}\text{F}$  operation
- 400% overpressure
- Compact and rugged design
- Low power consumption with amplified output



The PMP 317 series has been designed to withstand the extreme temperature, vibration and shock levels of automotive test applications. A micro machined silicon sensing element is mounted within a high integrity pressure module constructed from stainless steel 316L and Hastelloy C276. This provides hostile media compatibility, high overpressure and burst ratings.

The temperature compensated signal is a customer specific high level output voltage ideal for interfacing with data acquisition hardware. Pressure and electrical interfaces can also be selected by the customer.

The PMP 317 series can be powered directly from the vehicle battery, even during the start cycle. It is suitable for measurements where temperature cannot be controlled and reliable high performance measurement is required. Applications include fuel system, transmission, manifold and turbo pressure, air conditioning, braking system and crankcase pressures.

## High Performance Automotive Pressure Transducers

### STANDARD SPECIFICATION

#### Pressure Measurement

##### Operating Pressure Ranges

Any zero based pressure range between  
 1 psi to 900 psig  
 5 psi to 10,000 psia  
 1000 psi to 10,000 psi sealed gauge

Bi-directional gauge and compound ranges available

Other engineering units can be specified

##### Overpressure

The rated pressure can be exceeded by the following without degrading performance:  
 4 x FS up to 900 psi (3000 psi maximum)  
 2 x FS above 900 psi (13,000 psi maximum)

##### Media Compatibility

Fluids compatible with Stainless Steel 316L and Hastelloy C276

##### Excitation Voltage

7 to 30 Vdc (<2mA at no load)

##### Output Voltage

3 Wire: 1 to 6 Volts  
 4 Wire: 0 to 5 Volts  
*Alternatives available - refer to Druck*

#### Performance Specification

##### Accuracy

±0.15 % FS BSL combined effects of non-linearity, hysteresis and repeatability  
 Better than ±0.1% FS - *refer to Druck*

##### Zero Offset & Span Setting

± 1% FS

##### Long Term Stability

Less than 0.1% FS per annum

##### Operating Temperature Range

-65° to +250°F

#### Temperature Effects

Total Error Band (TEB) or average coefficients (%FS/°F) includes thermal zero shift, span sensitivity shift and thermal hysteresis:

-40 to +250°F ±1.5% TEB (±0.005%FS/°F)

*For ranges below 5 psi FS, these values may increase*

#### Improved Performance

Transducers with improved accuracy for special applications can be supplied. For more detailed information refer to Druck

#### Insulation Resistance

Greater than 100MΩ at 500Vdc

#### Acceleration Sensitivity

Typically 0.02% FS/g for 5 psig and below, decreasing to 0.0003% FS/g for ranges above 900 psi, along the sensitive axis

#### Mechanical Shock

1000g, 1mS half sine pulse in each of three mutually perpendicular axes will not affect performance

#### Vibration

Response less than 0.05% FS/g at 30g peak 10Hz to 2kHz, limited by 0.5 inches double amplitude

#### Physical Specification

##### Weight

4.3 oz. nominal

#### Pressure Connection

Ranges up to 900 psi:  
 1/8" NPT Male  
 7/16" - 20 UNJF to MS33656-4 (1/4" AN)  
 Ranges up to 10,000 psi:  
 1/4" NPT Female

*Others available - refer to Druck*

#### Electrical Connection

PTIH-10-6P 6 pin bayonet plug or 4 conductor Teflon shielded cable(3 ft. supplied as standard)  
*Alternatives available - refer to Druck*

### OPTIONS

- (A) Mating connector for bayonet plug
- (B) Male/male pressure adapters for ranges above 900 psi. Specify thread required
- (C) Additional teflon cable (length to be specified)
- (D) Shunt Cal (Refer to Druck)

### CALIBRATION STANDARDS

Pressure transducers manufactured by Druck are calibrated against precision pressure calibration equipment which is traceable to international standards.

Statement of conformity supplied as standard.

### ORDERING INFORMATION

- Please state the following
- (1) Model number (PMP 317)
  - (2) Pressure range and units
  - (3) Gauge, sealed gauge or absolute
  - (4) Output voltage (3 or 4 wire)
  - (5) Pressure connection
  - (6) Electrical connection
  - (7) Options (if required)

*Continuing development sometimes necessitates specification changes without notice*

**Druck is an ISO 9001 registered company**



## INSTALLATION DRAWINGS - Dimensions in inches

