



## DP360 High Line Differential Pressure Sensor

## DP363 High Line Differential Pressure Sensor



### Features

- Low dP Range, High Line Pressure
- Ranges From  $\pm 8.0$  to  $\pm 10,000$  psi FS
- Wet-Wet Capability
- Line Pressure to 10,000 psig
- Fast dynamic response
- Sensor diaphragms are field replaceable
- Stainless Steel Pressure Cavities
- High natural frequency

The DP360 and DP363 pressure sensor are designed to make low differential pressure measurements at high static line pressures.

The DP363 can be calibrated for a full scale as low as  $\pm 8$  psid, while the DP360 can be calibrated for a full scale as low as  $\pm 50$  psid, while withstanding high static line pressure. Low differential pressure may be measured at static pressures as high as 10,000 psig with a maximum of 3% full scale zero shift error.

Full scale pressure ranges up to 10,000 psid are available and field-replaceable sensing diaphragm allow for the user to change ranges in the field.

Easy take-apart construction facilitates cleaning and range changes. All surface exposed to pressure media are 410 stainless steel or 316 stainless steel or Inconel and diaphragm and o-ring material.

The DP360 and DP363 will accept both gases and liquids directly at the sensing diaphragm; there are no internal isolation fluids to slow the sensor response or cause excessive temperature error shifts.

Very small pressure cavity volume and volumetric change for full pressure excursion coupled with a high natural frequency ensure excellent dynamic response characteristics.

Pressure port placement like shown in the picture above have the pressure port and the connector at a 90° angle is one of the two options available. Pressure port and the connector at a 180° angle is also available as an option for easy manifolding.

These variable reluctance pressure sensors need a signal conditioning device to provide excitation and output. We offer a variety of models that provide analog outputs (voltage or current) to digital outputs via USB or RS485.

The small form factor and weight allows you to use the DP360 and the DP363 in small or delicate setups. With the remote carrier demodulator options, you have the ability to get your readings at a considerable distance from the pressure sensor installation.

### The DP360/DP363 is ideal for:

- Level measurements
- Hydraulic systems
- Oil core testing

## Specifications

**General Specifications -**

**Type:** High Line, Differential or Gage Pressure Transducer

**Full Scale Ranges:** ±8 to ±10,000 PSID  
Other Eng. Units available

**Accuracy:** ±0.5% FS includes non-linearity, hysteresis and non-repeatability.

**Over Pressure:** 200% FS to 10,000 psid (Max. 0.5% Output shift)

**Maximum Line Pressure & Error:** 10,000PSI. 1%/1000, 3% Max.

**Pressure Ports:** 1/8" Female NPT (Other options available)

**Electrical Connector:** PT02A-10-6P (STD), other options available

**Environmental Specifications -**

**Operating Temp.:** -65°F to 250°F (-54°C to 121°C)

**Compensated Temp.:** Approx. 77°F (23°C)

**Sensor Physical Specifications -**

**Pressure Media:** Fluids and gases compatible with 410, 316SST, Inconel and Hastelloy

**O-Rings:** Buna-N (STD), other compounds available

**Weight:** 12 Oz. (.34 Kg)

**Approx. Size:** 1.47 x 1.97 x 1.34

**Pressure Cavity Volume:** 4e-3 cu. In., each port

**Volumetric Displacement:** 3e-4 cu. In. at FS

**Zero and FS. Output -**

**Output:** 20mV/V FS nominal

**Inductance:** 20 mH nominal, each coil

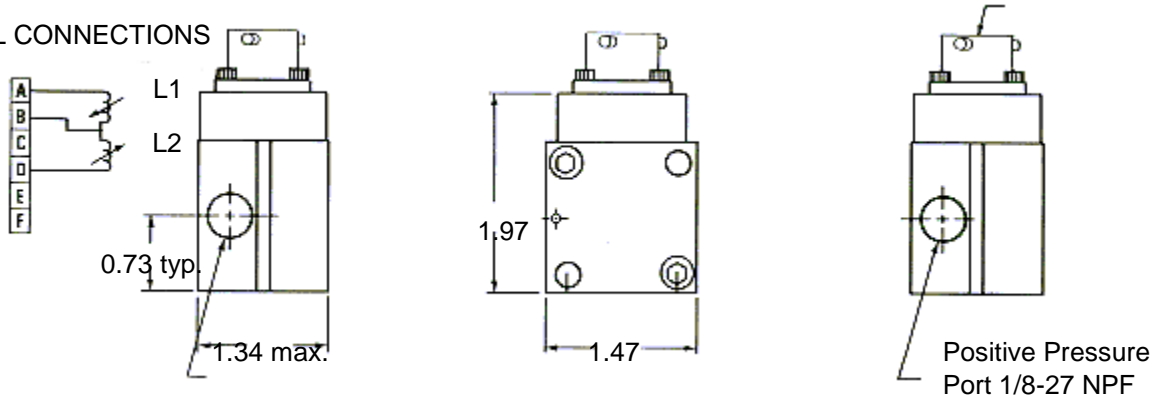
**Zero Balance:** Within 5mV/V

**Excitation:** Rated: 5V rms, at 3kHz to 5kHz  
Limits: 30V rms, at 3kHz 1kHz to 20 kHz with 20mH coils

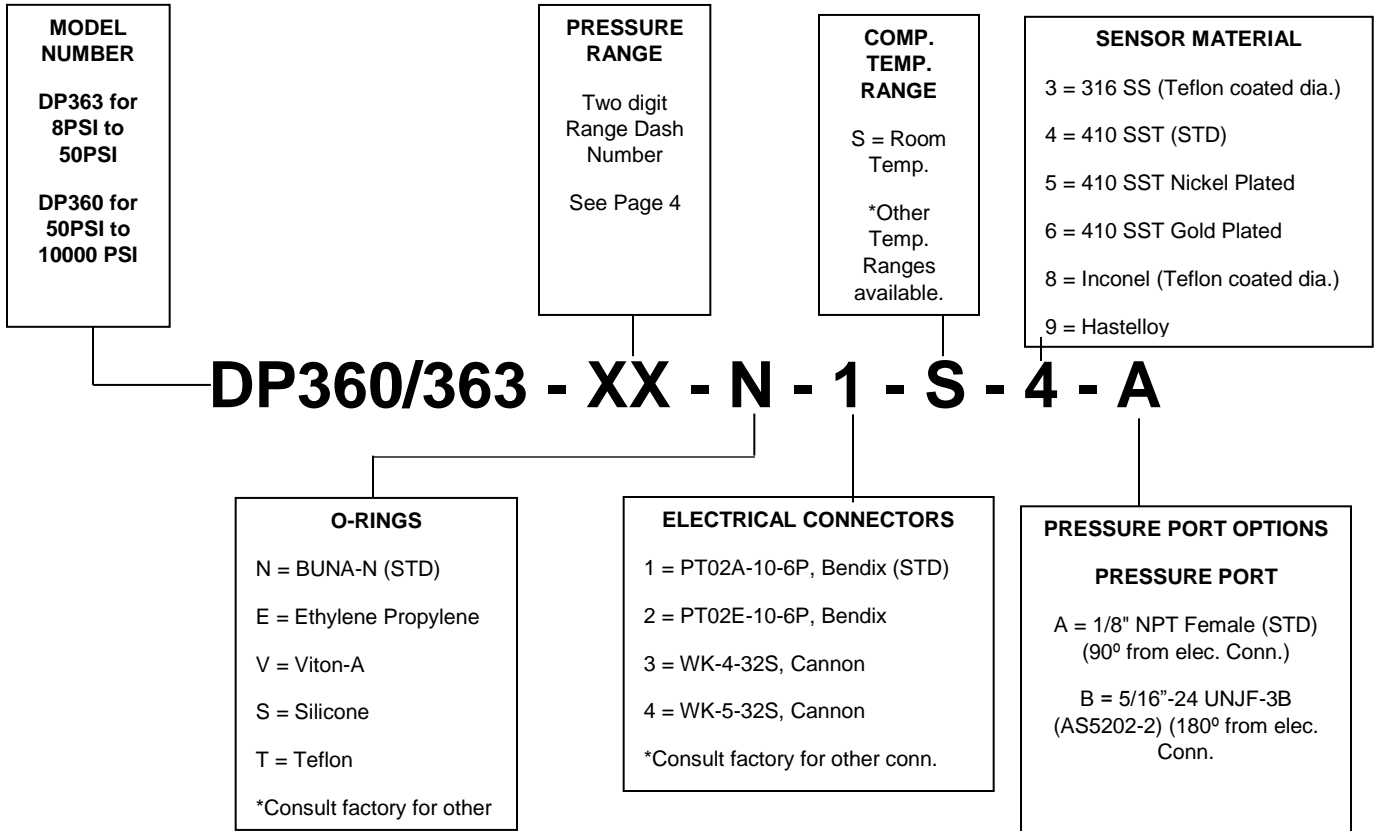
## Outline Drawing & Connections

PT02A-10-6P, or equal

**ELECTRICAL CONNECTIONS**



**Ordering Information – DP360 / DP363**



**Signal Conditioning Required**

The DP360 and DP363 are variable reluctance pressure sensors and need some signal conditioning to provide excitation. We have analog options like the CD15, CD16, CD23, etc as well as digital options like CD17 and the USB2250 which can read 16 DP360/DP363's at a time. Contact our factory via email or phone today!

**Special Requirements?**

With over 3000 custom specifications already we are confident we can customize a solution to fit your needs. Form factor, housing, pressure ports, electrical connectors, outputs and calibrations are all customizable. Contact our factory via email or phone today!



**Ordering Information - Range Chart**

Model	Range Code	Psi	In Hg	In H2O	KPa	Torr	CM H2O
DP363	38	8.0	16.0	222.0	55.0	414.0	560.0
DP363	40	12.5	25.0	350.0	86.0	650.0	880.0
DP363	42	20.0	41.0	550.0	140.0	1030.0	1400.0
DP363	44	32.0	65.0	890.0	220.0	1650.0	2250.0
DP363	46	50.0	102.0	1400.0	350.0	2580.0	3500.0
DP360	48	80.0	160.0	2220.0	550.0	4140.0	5600.0
DP360	50	125.0	250.0	3500.0	860.0	6500.0	8800.0
DP360	52	200.0	410.0	5500.0	1400.0	10300	14000
DP360	54	320.0	650.0	8900.0	2200.0	16500	22500
DP360	56	500.0	1020.0	14000	3500.0	28500	35000
DP360	58	800.0	1600.0	22200	5500.0	41400	56000
DP360	60	1250.0	2500.0	35000	8600.0	65000	88000
DP360	62	2000.0	4100.0	55000	14000	103000	140000
DP360	64	3200.0	6500.0	89000	22000	165000	225000
DP360	66	5000.0	10200	140000	35000	258000	350000
DP360	68	8000.0	16000	222000	55000	414000	560000
DP360	70	10000	20300	277000	68900	517000	703000

- Units can be calibrated in other engineering units as well. Contact the factory for details.
- For pressures in between range codes, pick the lower range code. Example: to obtain a 15 psi transducer, select the 40 Range Dash Number. This transducer may then be calibrated and used for any full scale pressure range from ±12.5 to ±20 psi.