

PT-BLOCK - PRESSURE TRANSMITTER
4 TO 20 MA , 2 WIRES PRESSURE TRANSMITTER
0 TO 5 VDC , 3 WIRES PRESSURE TRANSMITTER



MAIN FEATURES

- *4:20 mA , 2-wire pressure transmitter*
- *0 – 5VDC , 3-wire pressure transmitter (typical). Could be changed to 0-10VDC if specified.*
- *Configurable span*
- *2 points calibration*
- *-1(0) 1000 Bar*
- *Gauge or Absolute Pressure*
- *300% Overpressure safety limit*
- *Hygienic process connection*
- *Turn down 25:1*
- *IP66 Certified .*
- *IEC60529 Certified.*

DESCRIPTION

PT BLOCK is an advanced Pressure Transmitter could be configured as 4:20mA output 2 wires loop powered transmitter or 0 – 5VDC , 3-wire pressure transmitter (typical). Could be changed to 0-10VDC if specified .Configuration is simply done by a 4 position DIP switch inside the transmitter.

PT BLOCK measures the pressure by means of a Piezoresistive silicon chip sensor for Perfect long term stability .

The electronics are separated from the media by a thin diaphragm and an oil-filling. Three different oil fillings are available , including a mineral oil complying with demands from FDA for use in the food and pharmaceutical industries.

Pressure sensor is a standard and most popular sensor applied in air and liquid pressure measuring. A high sensitivity silicon pressure chip is employed in the transducer. The sensor is welded with the housing, no leakage will happen. It is more reliable compared with O-ring sealing for leakage.

PT BLOCK is used in food, chemical and petrochemical industries to measure absolute or gauge pressure for machine and hydraulic applications etc.

The wide range of process connections together with the configurable facilities make PT BLOCK is the ideal choice for all pressure measuring applications.

Hygienic process connections for a wide range of standards are available for PT BLOCK with a flush diaphragm and G1/2A male nipple.

TECHNICAL DATA**Pressure range**

-1Bg , 100mBg , 350mBg , 700mBg , 1BG , 2.5Bg , 4BG , 6Bg , 10Bg , 16Bg , 25Bg , 40Bg , 60Bg , 100Bg , 160Bg , 250Bg , 400Bg , 700Bg , 1000Bg

Pressure reference

Gauge pressure | Absolute pressure | Sealed gauge pressure

Overpressure

300%F.S.($\leq 70\text{Kpa}$) | 200%F.S.($< 25\text{Mpa}$) | 150%F.S.($\geq 25\text{Mpa}$)

Output signal

Signal span 4...20 mA , 2-wire

Signal span 0 – 5VDC , 3-wire

Output limits

3.5...23 mA

Input Power

From 7.5 VDC up to 30VDC For 4-20 mA , 2-wires configuration

From 13 VDC up to 30VDC For 0-5VDC , 3-wires configuration

Characteristic

Linear

Accuracy

$< 0.25\%$ f.s.

Isolation voltage

500 Vac

Operating temp.

-40-70 °C

Storage temp.

-40-70 °C

Zero temp. coefficient

0.025%F.S. /°C($\geq 100\text{kPa}$) | 0.04%F.S. /°C($< 100\text{kPa}$)

Span temp. coefficient

0.025%F.S. /°C($\geq 100\text{kPa}$) | 0.04%F.S. /°C($< 100\text{kPa}$)

Insulation resistance

> 200Mohm/250VDC

Vibration

20g (20--5000HZ)

Shock

100g, 10ms

Response time

≤1ms(10% to 90%F.S.)

Oil filling

Silicon oil (Typical) | Olive oil available for sanitary application

Housing and diaphragm

Stainless steel 316L

Sensor wire connection

4 wire (typical) | 5 wire (available) 39×φ0.015, Silicon shielded, 200°C

TYPES OF PRESSURE SENSORS***P01******P02***

ELECTRICAL CONNECTIONS

Cable entry

DIN43650A connector

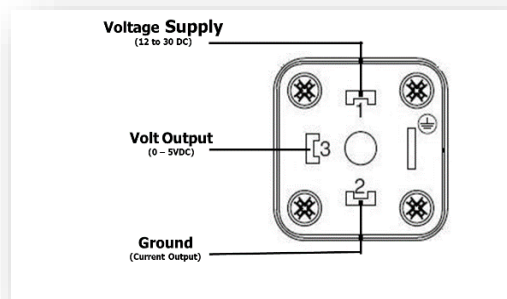


Cable Connection

PIN 1 – Input Power (12 – 30VDC)

PIN 2 – Ground , (4-20 mA output if selected)

PIN 3 – 0-5VDC output (if selected).

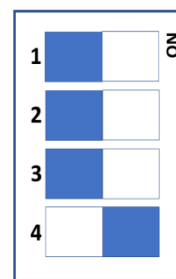


CHANGING OF OUTPUT SIGNAL

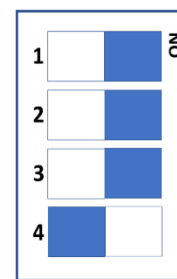
It is easy to change the output signal from 4-20mA to 0-5VDC by changing the position of the 4 DIP switches installed on the transmitter main board.

Open the transmitter and position the 4 DIP switches as shown in the following sketch.

Normally this operation is done before the final installation and the transmitter must be calibrated after.



DIP SWITCH POSITION FOR 4-20 mA Current Output

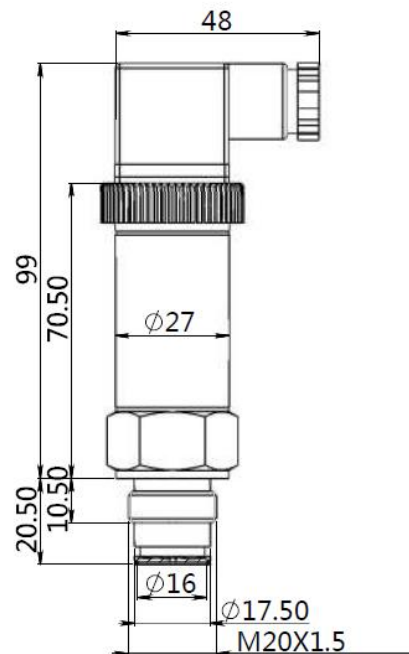


DIP SWITCH POSITION FOR 0-5VDC Output

ADDITIONAL DESCRIPTION

The mounting of the pressure Transmitter ensures fast response time and high measuring accuracy. Accessories are usually supplied separately and must be assembled by the customer. However, if you prefer the accessories to be assembled from the factory prior to delivery, please specify .

DIMENSIONS



LOOP POWERED INDICATOR (OPTIONAL)

- *4 Digit Display.*
- *2 wires , no additional power supply required.*
- *High accuracy and stability. 0.2% of span ± 1 digit*
- *Visible in the dark environment.*
- *Easy to program using 2 push buttons.*
- *Compact Designed.*



HOW TO ORDER

PT BLOCK – AA – BB – CC – DD – EE - OPTIONS

AA – TYPE OF SENSOR

P01

P02

BB - PRESSURE RANGE , PLEASE WRITE DIRECTLY

CC – PRESSURE REFERENCE

A – ABSOLUTE

G – GAUGE

DD - PRESSURE CONNECTION

M20*1.5

G1/2 (TYPICAL)

OTHERS (PLEASE SPECIFY)

EE – TYPE OF OUTPUT

4 - 20 MA

0 – 5VDC

0 – 10VDC

OTHERS (PLEASE SPECIFY)

OPTIONS - PLEASE SPECIFY DIRECTLY.