

DPT-BLOCK - DIFFERENTIAL PRESSURE TRANSMITTER
4 TO 20 MA , 2 WIRES DIFF. PRESSURE TRANSMITTER
0 TO 5 VDC , 3 WIRES DIFF. PRESSURE TRANSMITTER



MAIN FEATURES

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

DESCRIPTION

DPT BLOCK is an advanced Diff. Pressure Transmitter could be configured as 4:20mA output 2 wires loop powered transmitter or 0 – 5VDC output , 3-wire transmitter (typical). Could be changed to 0-10VDC if specified .

Configuration is simply done by a 4 position DIP switch inside the transmitter.

DPT BLOCK measures the Diff. 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.

Diff. Pressure sensor is a standard and most popular sensor applied in air and liquid Diff. Pressure measuring. A high sensitivity silicon Diff. 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.

DPT BLOCK is used in food, chemical and petrochemical industries . The wide range of process connections together with the configurable facilities make DPT BLOCK is the ideal choice for all Diff. Pressure measuring applications.

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

TECHNICAL DATA
Diff. Diff. Pressure range

350 mBar, 700 mBar, 1 Bar, 2.5 Bar, 4 Bar, 6 Bar, 10 Bar, 16 Bar, 25 Bar

Over Pressure

Range	Positive Overpressure	Negative Overpressure
350 mBar	700 mBar	350 mBar
700 mBar	1.5 Bar	700 mBar
1 Bar	2 Bar	1 Bar
2.5 Bar	5 Bar	2.5 Bar
4 Bar	8 Bar	4 Bar
6 Bar	12 Bar	6 Bar
10 Bar	20 Bar	10 Bar
16 Bar	32 Bar	10 Bar
25 Bar	50 Bar	10 Bar

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

0.02%F.S. /°C(≥100kPa) | 0.04%F.S. /°C(<100kPa)

Span temp. coefficient

0.02%F.S. /°C(≥100kPa) | 0.04%F.S. /°C(<100kPa)

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

ELECTRICAL CONNECTIONS

Cable entry

DIN43650A connector

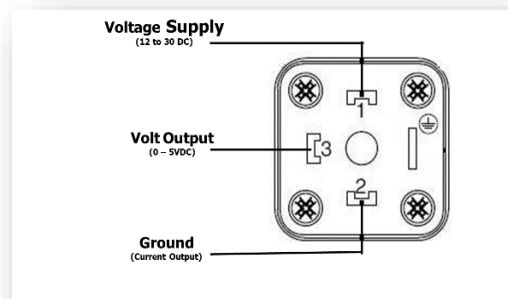


Cable Connection

PIN 1 – Input Power (12 – 30VDC)

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

PIN 3 – 0-5VDC output (if selected).

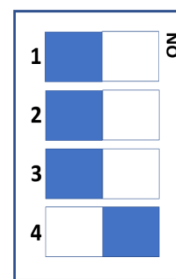


CHANGING OF OUTPUT SIGNAL

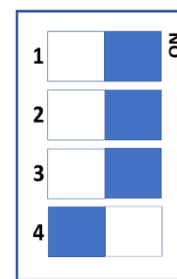
It is easy to change the output signal from 4-20mA to 0-5VDC by changing the position of the 4 DIP switches installed on the transmitter main board.

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

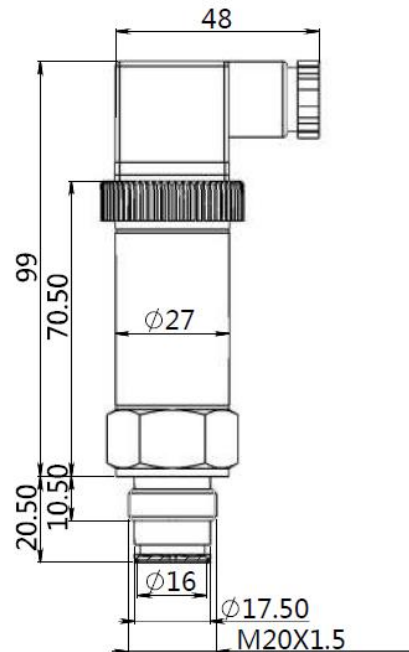


DIP SWITCH POSITION FOR
0-5VDC Output

ADDITIONAL DESCRIPTION

The mounting of the Diff. 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

DPT BLOCK – AA – BB – CC – DD – OPTIONS

AA - PRESSURE RANGE , PLEASE WRITE DIRECTLY

BB – PRESSURE REFERENCE

A – ABSOLUTE

G – GAUGE

CC - PRESSURE CONNECTION

M20*1.5

G1/2 (TYPICAL)

OTHERS (PLEASE SPECIFY)

DD – TYPE OF OUTPUT

4 - 20 MA

0 – 5VDC

0 – 10VDC

OTHERS (PLEASE SPECIFY)

OPTIONS - PLEASE SPECIFY DIRECTLY.