

## Differential Pressure Transmitter 171-DPT

### INTRODUCTION

A 171 DPT Differential Pressure Transmitter (DPT) is an essential instrument used in various industrial processes to measure and monitor the difference in pressure between two points. Difference in pressure between two points and converts this measurement into an electrical signal for monitoring and control purposes. It plays a crucial role in ensuring efficient operation, safety, and reliability of process systems.

### HOW ITS WORKS

A Differential Pressure Transmitter (DPT) operates by measuring the difference in pressure between two distinct points in a system. It features two input ports: one for high pressure and another for low pressure. Inside the transmitter, these pressures are applied to a sensing element, such as a diaphragm or a capacitive sensor, which detects the pressure difference. This mechanical or capacitive change is then converted into an electrical signal. The transmitter's electronics condition this signal, converting it into a standardized output, such as a 4-20 mA current. This output is then transmitted to a control system or display for real-time monitoring and process control. By providing precise differential pressure measurements, the DPT helps optimize and regulate processes, ensuring efficiency and safety in various industrial applications.

### FEATURES

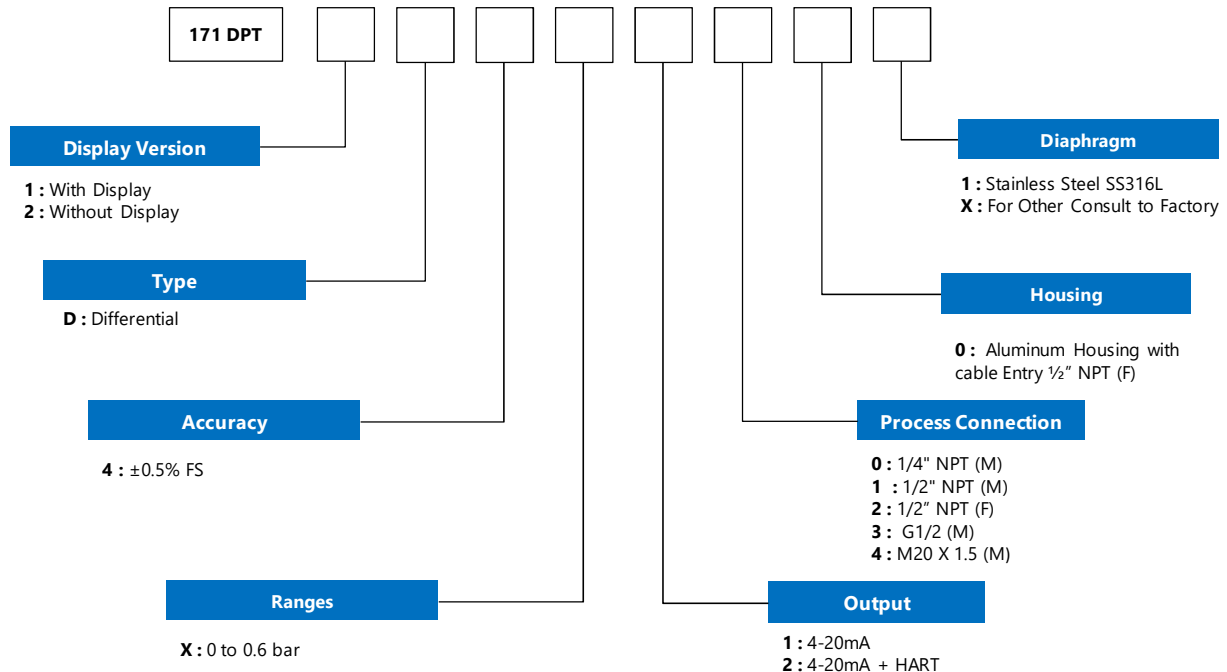
- Offset & Full Scale Adjustment
- Stable, Reliability & Good interchangeability
- Measures Pressure & Current..
- Configuration via HART Server.
- IP65 protected



### APPLICATIONS

- Flow Measurement
- Level Measurement
- Water and Wastewater Treatment

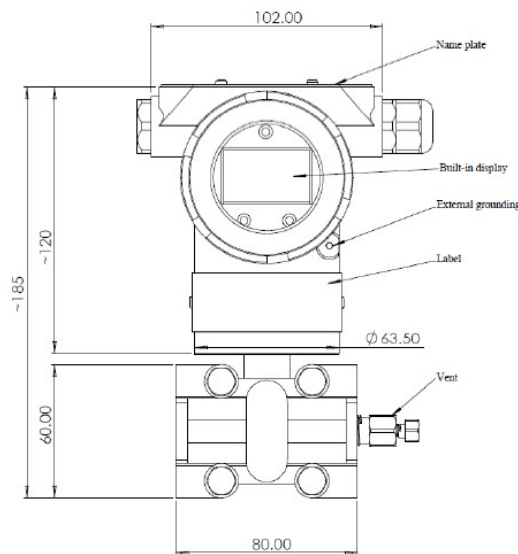
### ORDERING CODE



## SPECIFICATIONS

Sr.No	Category	Parameter Name	Parameter Description
1	Functional Specification	Type	Differential Pressure Transmitter
2		Measuring Ranges	0 to 6000mm H <sub>2</sub> O / 0 .... 0.6 bar
3		Application	Loss of Head measurement across filter bed (Differential Pressure Bed)
4		Duty	Clarified Water
5		Display Version	1) With Display 2) Without Display
6		Display Parameter	Pressure
7		Display Range	5 Digit (19999 to 99999)
8		Accuracy	±0.5% of Full scale
9		Power Supply	2 Wire, 24VDC @50mA
10		Analog Output	1) 2 Wire 4-20 mA @ 600 Ω OR 2) 2 Wire 4-20mA + HART Communication (@250Ω Load)
11		Communication O/P	HART 7 (Optional)
12		HART Load	250 Ω
13		Over Pressure	1.5 times of over the Range
14		Burst Pressure	2 times of Range
15		Environment Temperature	0 to 60 °C
16		Compensated Temperature	0 to 60 °C
17	Construction & Material	Transmitter Housing	Cast Aluminum
18		Housing Sealing Ring	NBR
19		Sealing Ring	NBR
20		Diaphragm	Stainless Steel SS316L
21		Filling Liquid for Diaphragm	Silicone Oil
22		Sensor Process Connection & Material	1) 1/4" NPT (M) Threaded in Stainless Steel SS316L 2) 1/2" NPT (M) Threaded in Stainless Steel SS316L 3) 1/2" NPT (F) Threaded in Stainless Steel SS316L 4) G1/2 (M) Threaded 5) M20 X 1.5
23		Cable Entry	1/2" NPT (Female)
24		Protection class	IP 65 (Standard)

## MECHANICAL DIMENSIONS



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