

Intelligent Pressure Transmitter 171-IPT

INTRODUCTION

The 171 IPT intelligent pressure transmitter is a highly versatile gauge pressure transmitter. It finds extensive application in the measurement of level, pressure, and flow of liquids. This transmitter provides output signals of 4mA to 20mA DC and HART, allowing for seamless integration into various systems. Additionally, it can be conveniently connected to a handheld communicator for easy configuration and monitoring.

HOW ITS WORKS

The Intelligent pressure transmitter 171 IPT consists of two distinct components: the main unit and the auxiliary unit. The main unit comprises the sensor and process connection. The process media is pressurized to the diaphragm of the pressure sensor through a corrugated, isolated diaphragm and filling oil. On the other end of the pressure sensor diaphragm, it is connected to the air for gauge measurement. This setup causes a change in the resistance of the sensor diaphragm, resulting in the detection system producing varying voltage levels. The output voltage is directly proportional to the pressure variation and is transmitted to the standard output through an adapter and amplifier.

FEATURES

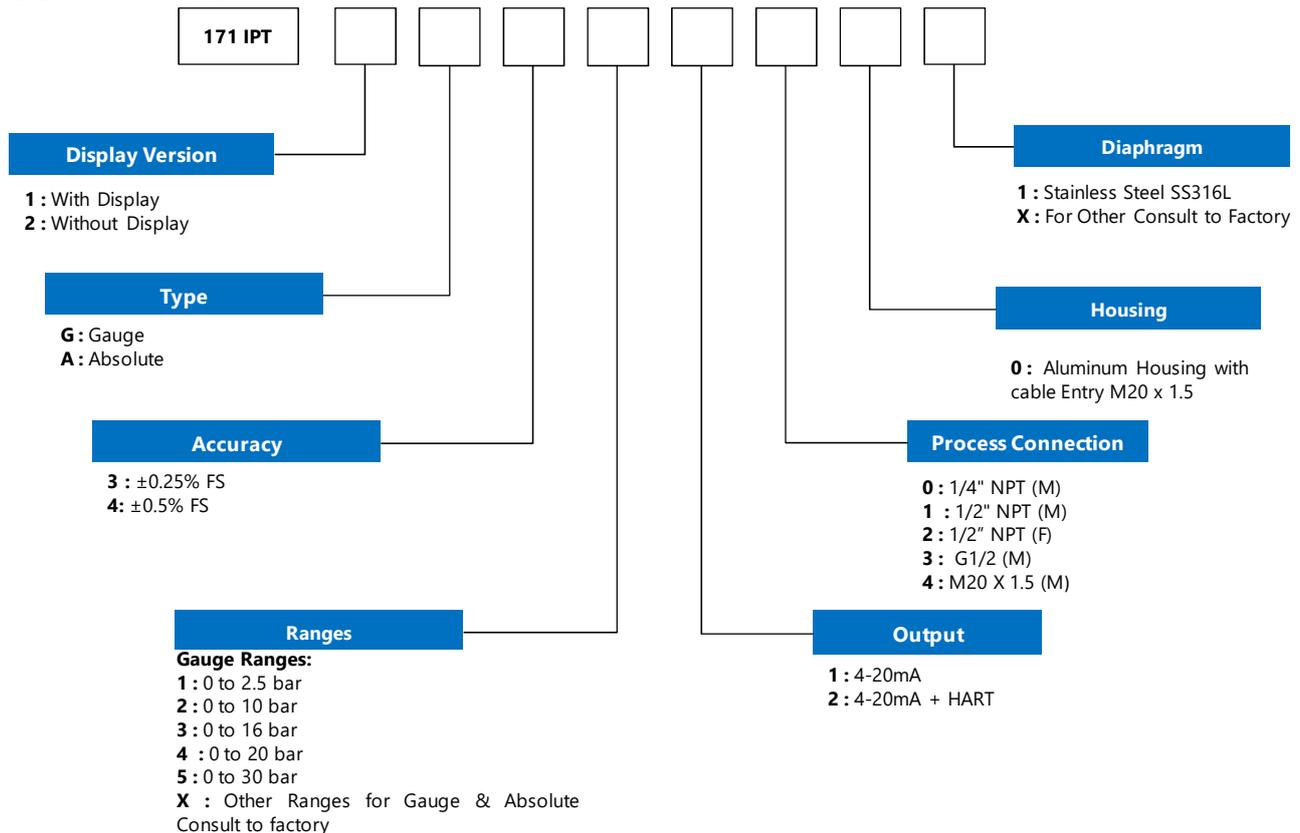
- high-performance monocrystalline silicon pressure sensing technology
- Measures Pressure & Current.
- Over Pressure is 1.5 times of over the range.
- Burst Pressure is 2 times of range.
- Configuration via HART Server.
- IP65 protected



APPLICATION

- Water

ORDERING CODE



SPECIFICATIONS

Sr.No.	Category	Parameter Name	Parameter Description
1	Functional Specification	Type	1) Gauge 2) Absolute
2		Measuring Ranges	1) 0 to 2.5 bar 2) 0 to 10 bar 3) 0 to 16 bar 4) 0 to 20 bar 5) 0 to 30 bar
3		Typical Application	Water
4		Measurement Media	Liquid
5		Display Version	1) With Display 2) Without Display
6		Display Parameter	Pressure & Current in (mA)
7		Accuracy	1) $\pm 0.5\%$ of Full scale 2) $\pm 0.25\%$ of Full scale
8		Power Supply	2 Wire, 24VDC @500 Ω
9		Analog Output	1) 2 Wire 4-20 mA @ 500 Ω OR 2) 2 Wire 4-20mA + HART Communication (@250 Ω Load)
10		Communication O/P	HART (Optional)
11		HART Load	250 Ω
12		Over Pressure	1.5 times of over the Range
13		Burst Pressure	2 times of Range
14		Environment Temperature	0 to 65 $^{\circ}$ C
15	Construction	Transmitter Housing Enclosure	Aluminum Alloy
16		Housing Sealing Ring	NBR
17		Diaphragm	Stainless Steel SS316L
18		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
19		Filling Liquid	Silicone Oil
20		Protection class	IP 65 (Standard) & IP 67(As Request)
21		Weight	~ 1.6 kg

MECHANICAL DIMENSIONS



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