PT20SR-3100 HART®Intelligent Pressure Transmitter

Features

·4mA～20mA DC current output together with HART® （2-wire）;

·digital compensation and linearity correction;

·-10℃～80℃ digital wider temperature compensation;

·Local and long-distance zero, range adjustment;

·Local key operation, easy configuration;

·Protection IP65.

Introduction

PT20SR-3100 HART® intelligent pressure transmitter is an intelligent pressure measurement product with high accuracy, high stability, multi-parameter and four and a half digits LCD display. It conforms to HART protocol. The users could manage, adjust or monitor the process variables by HART® communicator, and it could also be configurated by key-press at local working place.

The product uses the most advanced digital technique, temperature compensation, linearity correction and reliable ex-proof construction for production. The whole product has high accuracy, wider temperature compensation range and standard signal output to measure flow pressure precisely.

PT20SR-3100 transmitter is 2-wire instead of 4mA~20mA DC analog output, can be communicated with Micro Sensor ROSEMOUNT 275 hand-communicator and MS-H375 hand-communicator together. Electromagnetic radiation conforms to IEC801 standard.

Specifications

Code	02	03	07	08	09	10	12	13	14	15	17	18	19	20
Unit	kPa					MPa								
Pressure	0-20 ～ 0-70	0-30 ～ 0-100	0-60 ～ 0-200	0-100 ～ 0-350	0-200 ～ 0-700	0-0.3 ～ 0-1.0	0-0.6 ～ 0-2.0	0-1.0 ～ 0-3.5	0-2.0 ～ 0-7.0	0-3.0 ～ 0-10.	0-4.0 ～ 0-20	0-8.0 ～ 0-35	0-16 ～ 0-70	0-20 ～ 0-100
Upper limit	70	100	200	350	700	1.0	2.0	3.5	7.0	10	20	35	70	100
Overpressure	100	150	300	500	1000	1.5	3.0	5.0	10	15	30	52	100	110

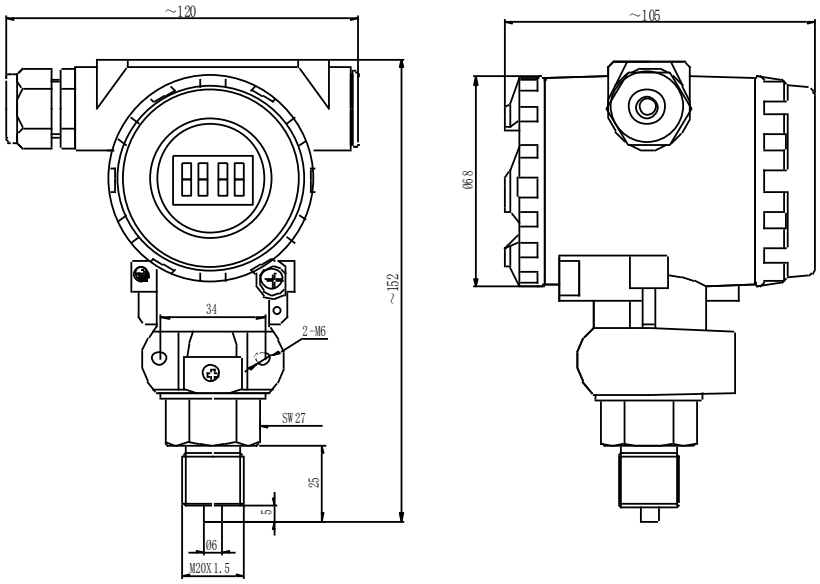
For the other pressure range between min.range and max.range, but not indicated on the above table, we enlarge the above basic pressure range to produce (overpressure unavailable);

The min. available shrinked pressue range is 1/5 of basic pressure range.

	Specification	Unit
Accuracy	±0.1(typ.) ±0.25(max.)	%FS
Zero Thermal error	≤±0.25（in the whole operation temp.range）	%FS
FS Thermal error	≤±0.25（in the whole operation temp.range）	%FS
Stability	≤±0.25	%FS/year
Compensation temp.	-10～80	℃
Operation temp.	-20～80	℃
Storage temp.	-40～85	℃
Power supply	12～36	VDC
Digital output	4～20mADC output+ HART®	
Display	LCD indicator, 2 or 3 keys to calibrate	
Damp	0～32	s
Load	（U-12V）/0.02A	Ω
Insulation	100MΩ/50V	
Shock	20g，20～5000Hz	
Impact	20g，11ms	
Diaphragm	Stainless steel 316L/tantalum	
Pressure port	Stainless steel 1Cr18Ni9Ti/hastelloy	
O-ring	Viton	
Weight	~1.7kg	

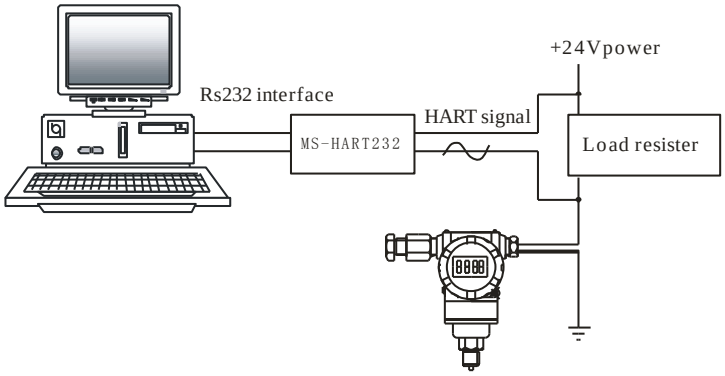
Outline Construction

（Unit: mm）

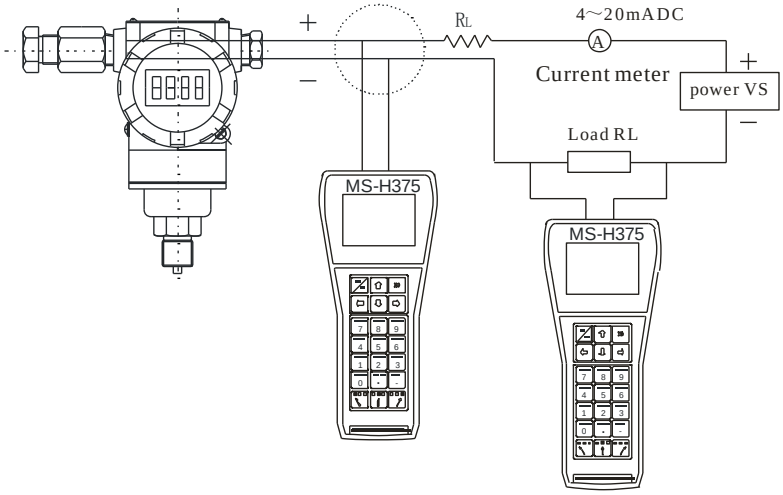


Electric Connection

Transmitter Connecting with Computer



Transmitter Connecting with Hand-Communicator



Assistant Software

Transmitter Software

The user could calibrate and adjust transmitter with HART protocol through MS-HART232 transforming module.

Order Guide

PT20SR-3100	HART® Intelligent Pressure Transmitter				
Code	Pressure range (kPa or MPa)				
[0 ～ X] kPa or MPa	02	0～20…70kPa	13	0～1.0…3.5MPa	
	03	0～30…100kPa	14	0～2.0…7.0MPa	
	07	0～60…200kPa	15	0～3.0…10.0MPa	
	08	0～100…350kPa	17	0～4.0…20.0MPa	
	09	0～200…700kPa	18	0～8.0…35.0MPa	
	10	0～0.3…1.0MPa	19	0～16.0…70.0MPa	
	12	0～0.6…2.0MPa	20	0～20.0…100.0MPa	

Code	Output signal
E	4mA～20mA DC + HART® communication protocol （2-wire）

Code	Construction material		
	Diaphragm	Pressure port	Housing
22	SS 316L	SS	Aluminum-alloy
24	SS 316L	SS 316L	Aluminum-alloy
25	Tantalum	SS	Aluminum-alloy
35	Tantalum	Hastelloy C	Aluminum-alloy

Code	Others
C_1	M20×1.5 male, face type seal
C_3	G1/2 male
C_5	M20×1.5 male, waterline seal
PC_1	Flush diaphragm, M20×1.5 male
PC_3	Flush diaphragm, G1/2 male
G	Gauge
S	Sealed gauge
A	Absolute

PT20SR-3100	[0～200]kPa	E	22	C_1G	the whole spec

Order Note

1. Flush diaphragm pressure range: 0kPa～70kPa…35Mpa;
2. If the user has special requirement, please feel free to contact our company.