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# HR3288 HART Smart Pressure Transmitter

## Overview

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The HR3288 protocol Smart Pressure Transmitter is a high-precision, high-stability, multi-parameter, four and a half digits LCD display for intelligent pressure measurement products. It conforms to HART protocol. The users could manage, adjust or monitor the process variables by HART communicator, and it could also be configured by key-press at local working place.

The pressure transmitter uses the most advanced digital technique, temperature compensation, linearity correction and reliable ex-proof construction for production. MPM486 pressure transmitter has high accuracy, wider temperature compensation range and standard signal output to measure flow pressure precisely.

The product works in a two-wire mode and can be directly replaced analog two-wire 4mA-20mA DC output transmitter. Digital communication with manual operator. Electromagnetic radiation fits IEC801 standard.



## Features

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- 4mA ~ 20mA DC current output together with HART (2-wire)
- Digital compensation and non-linearity correction
- Local and long-distance zero, range adjustment
- -10°C~80°C digital wider temperature compensation;
- Local key operation, easy configuration.
- Digital error correction
- Reverse power protection, over voltage protection
- Anti-surge, electromagnetic interference

## **Specification**

Range code	02	03	07	08	09	10	12	13	14	15	17	18	19	20
Unit	kPa						MPa							
Pressure	0-70	0-100	0-200	0-350	0-700	0-1.0	0-2.0	0	0-7.0	0-10.	0-20	0-35	0-70	0-100
Upper limit	70	100	200	350	700	1	2	3.5	7	10	20	35	70	100
Over Pressure	100	150	300	500	1000	1.5	3	5	10	15	30	52	100	110

### **Main performance indicators**

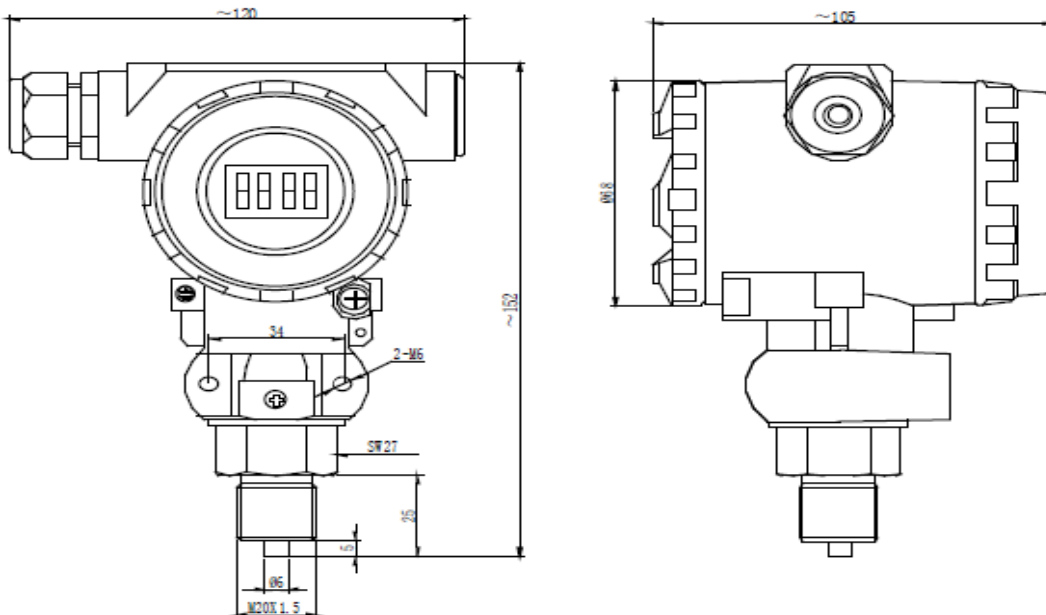
Range	-0.1~0~0.01~100MPa
Accuracy	4~20mA: $\pm 0.25\%$ (typ.) , $\pm 0.5\%$ F·S (max.)
	HART protocol: $\pm 0.1\%$
Long-term stability	0.1%F·S/year
Overload capability	1.5X F·S
Load	(U-12)/0.02 ( $\Omega$ )
Pressure type	Gauge pressure (atmospheric reference), absolute pressure, gauge pressure (sealed reference)

### **Temperature characteristics**

Compensation temperature	-10~80°C
Operating temperature	-20~85°C
Zero temperature drift	0.03%F.S/°C (≤100KPa) 0.02%F.S/°C (>100KPa)
F. S temperature drift	0.03%F.S/°C (≤100KPa) 0.02%F.S/°C (>100KPa)
Storage temperature	-40~125°C
<b>Electrical characteristics</b>	
Power supply	DC12 ~ 30V ( typ. 24V)
Power protection	Anti-reverse connection, over voltage protection
Output method	Two-wire system 4 ~ 20mA, 4 ~ 20mA+HART (Optional)
	LCD display + three buttons
Damping	0 ~ 32 second
<b>Structural characteristics</b>	
Measuring medium	Compatible with stainless steel and fluoro rubber
Pressure interface	M20*1.5male
Housing material	316L stainless steel
Cable material	Polyurethane or PVC optional
<b>Environmental characteristics</b>	

Protection level	IP65
Explosion-proof grade	ExiaII C T6
Insulation	100MΩ@50V
Vibration	20g, 20 ~ 5000Hz
Shock	20g, 11ms

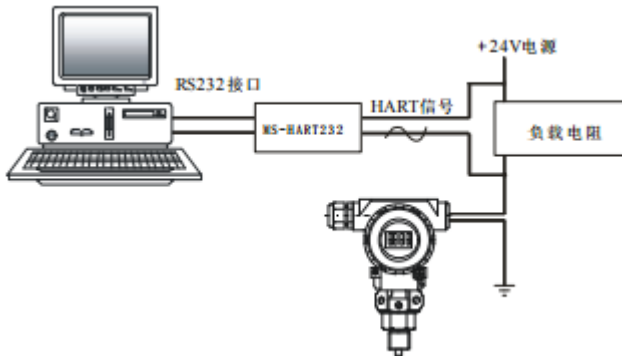
**Outline Construction (unit: mm)**



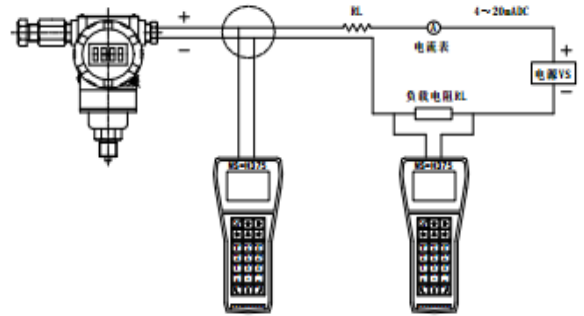
**Electrical connections**

No.	Color	Definition
1	Red	DC24V+
2	Blue	4 ~ 20mA output (GND)

### Transmitter connecting with computer

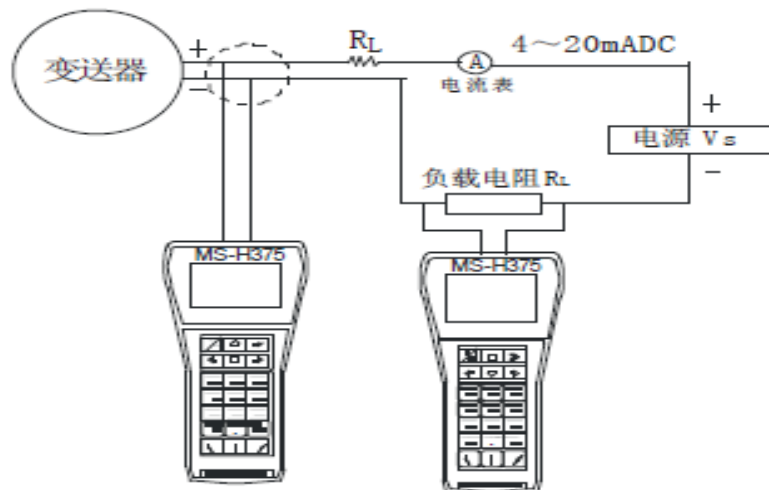
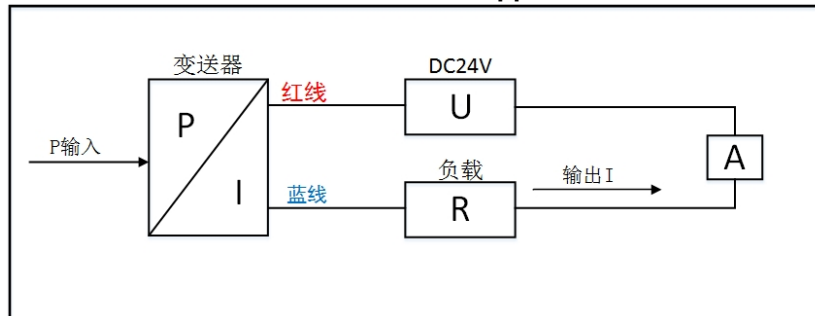


### Transmitter and hand-communicator



## Typical application

Picture 1. 4~20mA Application



Picture 2. HART 4~20mA Application

## Selection Guide

HR3288	HART protocol smart pressure transmitter				
	Range				
	[0~X] KPa/MPa				
			Output signal		
		Q	HART protocol		
		Q1	4 ~ 20mA with HART protocol		
		code	Metal material		
			Housing	Diaphragm	Process connection
		S1	SS	316L	SS
		S2	316L	316L	316L
				Others	
C1	M20×1.5 male, face type seal				
C2	M20×1.5 male, waterline seal				
C3	G1/2 male				

				F1	Fixed flange
				LM	Current limiting module
				G	Gauge pressure type (atmospheric reference)
				S	Gauge pressure type((sealed reference)
				A	Absolute pressure
HR3288	[0 ~ 10]KPa	Q	S1	C1LMG	Full model example