

HART[®] Intelligent Pressure Transmitter DR3-432



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1 Introduction

DR3-432 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 configured 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.

DR3-432 transmitter is 2-wire instead of 4~20mADC analog output, can be communicated with Micro Sensor ROSEMOUNT 275 hand-communicator. Electromagnetic radiation conforms to IEC801 standard.

2 Features

- 4~20mA 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.

3 Specification

Code	02	03	07	08	09	10	12	13	14	15	17	18	19	20
Unit	bar													
Pressure	0-0.2 ~ 0-0.7	0-0.3 ~ 0-1	0-0.6 ~ 0-2	0-1 ~ 0-3.5	0-2 ~ 0-7	0-3 ~ 0-10	0-6 ~ 0-20	0-10 ~ 0-35	0-20 ~ 0-70	0-10 ~ 0-100	0-40 ~ 0-200	0-80 ~ 0-350	0-160 ~ 0-700	0-200 ~ 0-1000
Upper limit	0.7	1	2	3.5	7	10	20	35	70	100	200	350	700	1000
Over pressure	1	1.5	3	5	10	15	30	50	100	150	300	520	1000	1100

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);

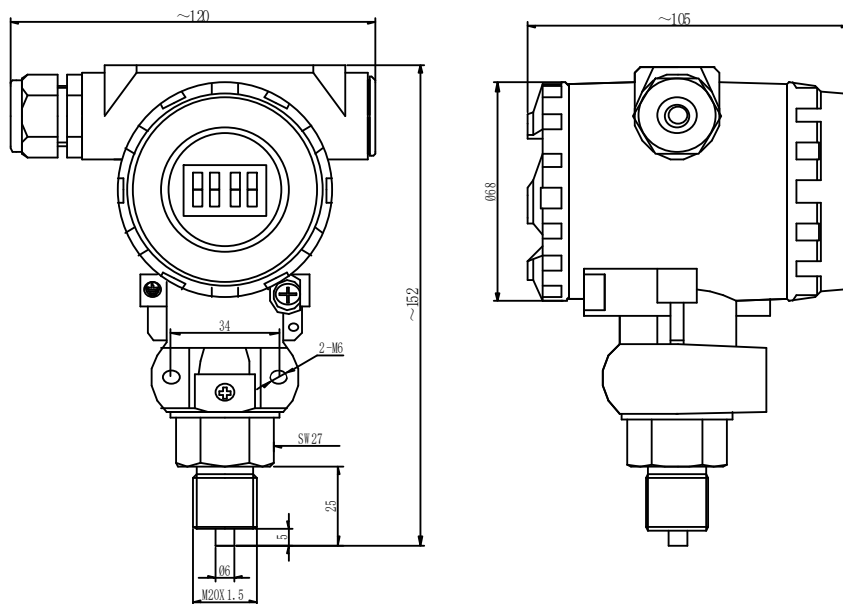
Parameters	Specification	Unit
Accuracy	±0.1(typ.) ±0.25(max.)	%FS
Zero Thermal error	≤±0.25(in the whole operation temp.range)	%FS

FS Thermal error	$\leq \pm 0.25$ (in the whole operation temp. range)	%FS
Stability	$\leq \pm 0.25$	%FS/year
Compensation temp.	-10~80	°C
Operation temp.	-30~80	°C
Storage temp.	-40~85	°C
Power supply	13~36	VDC
Digital output	4~20mA DC output+ HART®	
Display	LCD indicator, 2 or 3 keys to calibrate	
Damp	0~32	s
Load	(U-12V)/0.02A	Ω
Insulation	100M Ω @50V	
Shock	20g, 20~5000Hz	
Impact	20g, 11ms	
Diaphragm	Stainless steel 316L/tantalum	
Pressure port	Stainless steel 304/Hastelloy	
O-ring	Viton	
Weight	~1.7kg	

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

LCD display may not be readable and LCD display updates will be slower at temperatures below -22 °F (-30°C).

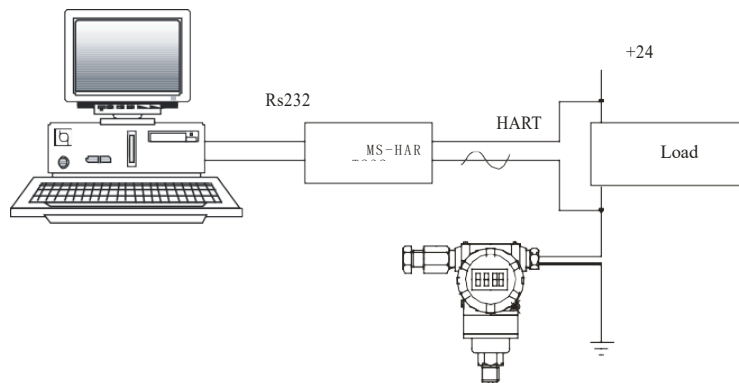
4 Outline dimension Specification



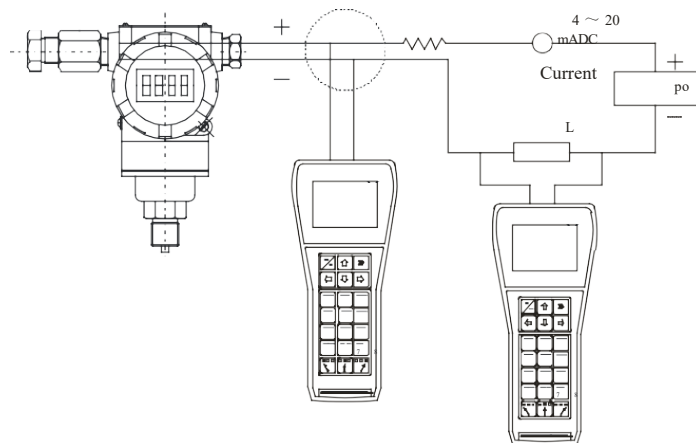
(Unit: mm)

5 Electronic connection

Transmitter Connecting with Computer



Transmitter Connecting with Hand-Communicator



6 Order Guide

DR3-432		HART® Intelligent Pressure Transmitter								
	[0~X] kPa or MPa	Code		Pressure range bar						
		02	0~0.2…0.7		13	0~10…35				
		03	0~0.3…1		14	0~20…70				
		07	0~0.6…2		15	0~30…100				
		08	0~1…3.5		17	0~40…200				
		09	0~2…7		18	0~80…350				
		10	0~3…10		19	0~160…700				
		12	0~6…20		20	0~200…1000				
			Code	Output signal						
			E	4~20mADC + HART® communication protocol (2-wire)						
				Code	Construction material					
					Diaphragm	Pressure port	Housing			
				22	SS 316L	SS	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							
		P	Flush diaphragm, G1/2 male							
		G	Gauge							
		S	Sealed gauge							
		A	Absolute							

DR3-432 [0~2]bar E 22 C₁G the whole spec.

Notes

Flush diaphragm pressure range: 0~0.7bar...350bar;

If the user has special requirement, please feel free to contact our company.