

YHY60 Mine-use Intrinsically Safe Digital Pressure transmitter

Features

- Pressure range: -0.1~60Mpa;
- 4 digital LED display, support RS485 digital signal output;
- Using diffusion silicon pressure sensor;
- Advanced membrane separation technology;
- Small size, light weight;
- High accuracy, good stability, short response time;



Application

- Monitoring pressure or liquid level of Coalcutter、 roadheader etc.
- Mine-use manned equipment and monorail hoist
- The mine safety monitoring system

Introduction

YHY60 digital pressure transmitter is a mine-use intrinsically safe pressure transmitter. It features 4 digital LED display and support RS485 digital signal output. The product uses wider temperature display LED indicator, high stable pressure sensor, precise digital temperature compensation and non-linearity correction technology, the whole product is precise and reliable. With compact size and excellent performance, the product can be used for precise pressure measure and display in coal mine environment.

Specification

Medium	Liquid ,gas, vapor ,which are compatible with SS316L								
Pressure type	Absolute, Gauge, Sealed gauge pressure								
Pressure range(MPa)	-0.1	1	1.6	6	10	20	40	60	or customized
Pressure range (bar)	-1	10	16	60	100	200	400	600	or customized
Pressure range (psi)	-14.5	300	700	900	2k	4k	8k	or customized	

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Mine-use Digital Pressure Transmitter

Overload range	120%FS
Power Supply	18~30VDC
Output signal	DC(4~20)mA ; RS485 digital signal
Transmitting	6-wires
Load	$\leq(U-15)/0.02\Omega$, > 100k
Relay load capability	240V/2A(AC),30V/5A(DC)
Vibration	10~500Hz 25g
Shock resistance	50g 11ms
Accuracy	$\pm 1.0\%FS$ (typ.)
Zero temp.drift	$\pm 0.03\%FS/^{\circ}C$
Spacing control accuracy	$\leq \pm 1\%FS@25^{\circ}C$
FS temp.drift	$\pm 0.03\%FS/^{\circ}C$
Long-term stability	$\pm 0.2\%FS/Y$
Insulation resistance	250 M Ω /250V
Relative humidity	0%~95%RH (no condensation)
Ambient temp.	(-5~40) $^{\circ}C$
Housing	Aluminium alloy, 304 Stainless steel, IP54
Anti-explosion	Mine-use intrinsically safe, Exib I Mb

Electrical Connection

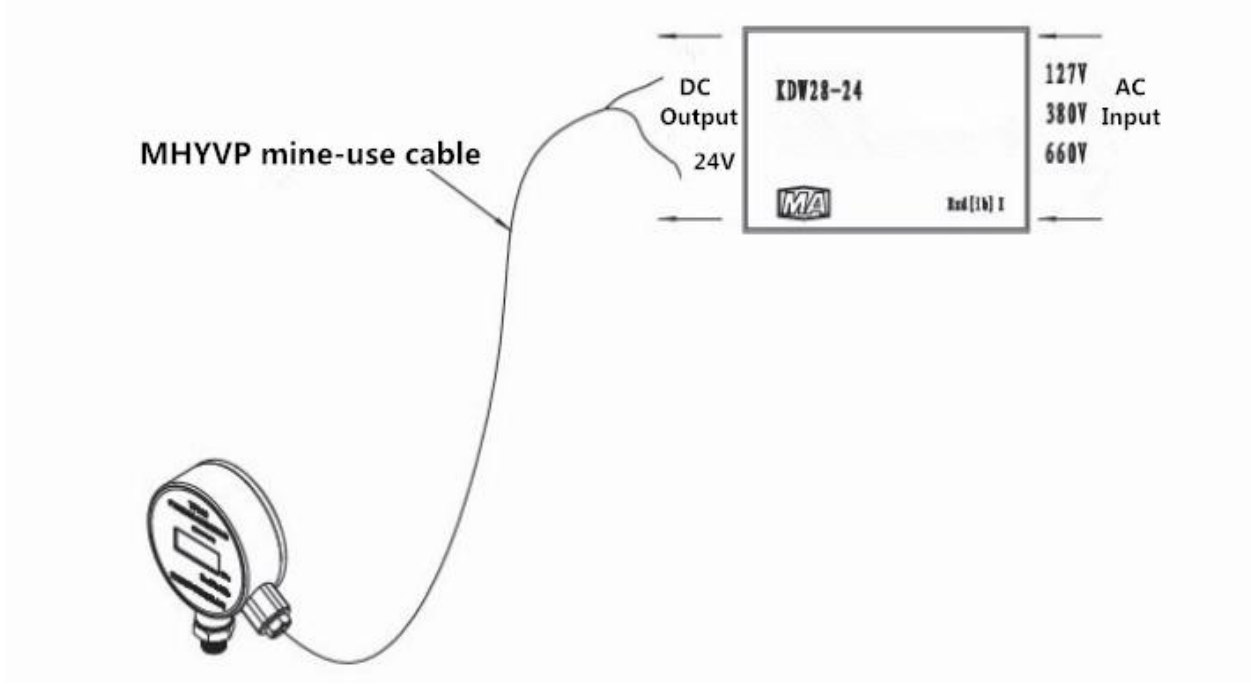
1. The pressure gauge use the connection between MHYVP mine-use cable and KDW28-24 mine-use flame-proof & Intrinsically safe uninterruptible power.

Cable definition	Power +	Power -	Signal output+	Signal output-	RS485 communication A	RS485 communication B
Cable function	Power supply		Analog output		Digital output	
Cable color	Red	Green	Yellow	White	Blue	Orange

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2. RS485 Communication Protocol

Interrogation command (16 band): 0xFF、0x00、0x03、0x0A

Communication rate: 9600bps

Output value: 0x00、0xFF、high pressure byte、low pressure byte

Pressure output value (Unit: Mpa)

Pressure output value	0 Mpa	3000 Mpa	6000 Mpa
Output (10 band)	0	3000	6000

Remark: In order to increase the display precision(two decimals), the converted decimal value is 100 times as many as the actual liquid level value, the decimal point can be added at the bottom two decimals in PC displaying.

Note:

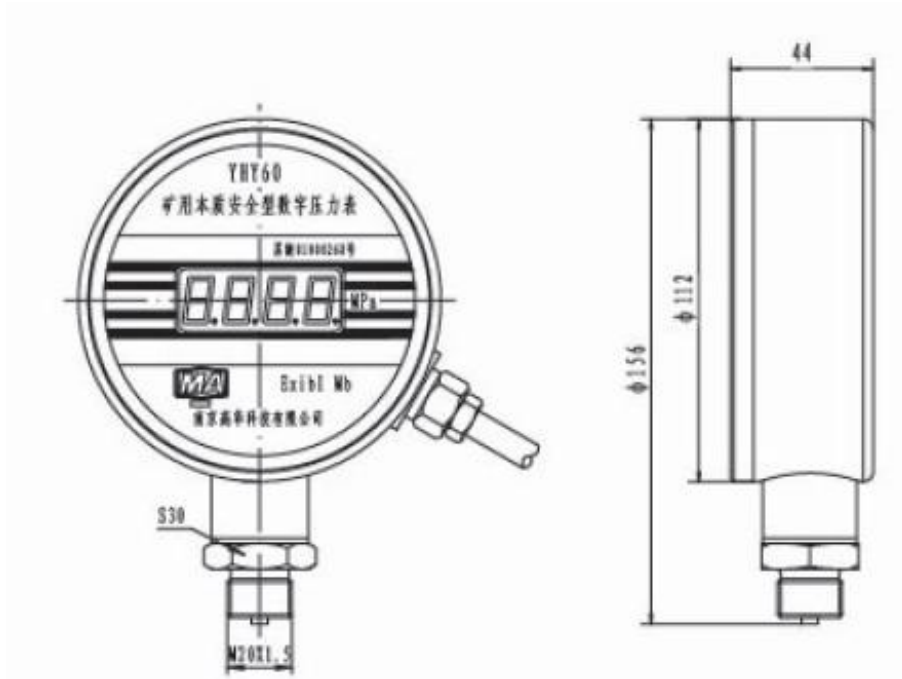
1. Once the product passed the explosion-proof test, its intrinsically safe circuit/structure、the relative electrical parameter and the specification/model of the electrical elements can't be changed at will.
2. The connection line between the transmitter and the intrinsically safe port shall not be reversed.

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Outline Structure (Unit:mm)



Order Guide

YHY60	Mine-use intrinsically safe digital pressure transmitter			
	-0.1~60 MPa	Pressure range, please write the range directly(Unit: Mpa,kpa,psi,bar etc.)		
		Code	Excitation	
		V1	30V	
		V2	18V	
		V3	others (please specify)	
		Code	Output signal	
		S1	RS485; DC (4~20Ma) , load resistance (0~160Ω)	
			Code	Thread connection
			T1	M20x1.5 (typ.)
			T2	G1/2
			T3	G1/4
			T4	NPT1/4 (others, please specify)
			Code	Pressure type
		A	Absolute pressure	
		G	Gauge pressure	
		S	Sealed gauge pressure	

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Mine-use Digital Pressure Transmitter

YHY60	1MPa	V1	S1	T1	A	
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Order Note

1. The material of measuring medium should be compatible with the stainless steel. If it is corrosive, pls specify its material in detail.
2. Please note it in detail if your application environment is critical or the elements which may influence the pressure transmitter normal operation existed.
3. The structure and demension of the transmitter can be used for most of the application occasions, if your application space is too small or having other requirements to the transmitters, please specify it in detail.
4. All specifications are subject to change. Contact Gaohua for specifications and engineering drawings that are critical to your application. Drawings contained in this document are for reference only.

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