

## ZNC-3051-Y Smart Pressure Transmitter



### Product Usage:

Commonly used in a pressure detection, transmission instrumentation, widely used in a variety of industrial self-control environment, involving water conservancy and hydropower, railway and transport, intelligent buildings, production automation, aerospace, military, petrochemical, oil wells, electric power, ships, machine tools, pipelines and many other industries.

### I. OVERVIEW

ZNC-3051-Y pressure transmitter is a kind of pressure transmitter with dexterous appearance, stable measurement and high accuracy. There are three kinds of pressure measurement methods: gauge pressure and absolute pressure, negative pressure. It adopts the most advanced diffusion silicon sensor and its manufacturing process to ensure the best quality performance and long-term stability. Free on-site configuration through the three keys, you can adjust the zero point, full scale on-site. And can be installed with high contrast with backlight LCD display, and a variety of process connectors.

### II. Product characteristics

- Easy to install, can be directly installed, can also be mounted with bracket;
- High accuracy, high stability, high reliability, strong resistance to frequency interference;
- Gauge pressure, absolute pressure, negative pressure can be measured;
- Zero point can be migrated, the range can be adjusted;
- Support group network applications;

### III. Instrument parameters

Measurement range	-0.1Mpa~60Mpa
Accuracy level	0.1%、0.2%、0.5%
Measuring medium	Liquid, gas or vapour
Operating power	External power supply: 24VDC $\pm$ 15%, ripple $\leq$ ±5%
stability	Better than 0.1 per cent



output signal	4~20mA、RS485、HART、0~10V、1~5V
Diaphragm Material	316L stainless steels
Medium temperature	-20°C~350°C
load resistance	≤ 1000Ω
Process Connector Material	304, 316 stainless steel, 316L stainless steel
Process Connector Material	304 stainless steel 316L stainless steel
Table header type	Display, Explosion Proof
protection class	IP65

#### IV. Instrument Selection

Type								instructions
ZNC-3051-Y	-□	/□	/□	/□	/□	/□	/□	
Instrument type	201							standard type
	202							compact
Measurement range		L						-0.1Mpa ~ 60Mpa (This range is the minimum and maximum measurement value, the order needs to provide the specific range)
output form			1					4~20mA
			2					RS485
			3					Hart
			4					1~5V
			5					0~10V
Accuracy level			P	1				0.1%FS
			P	2				0.2%FS
			P	5				0.5%FS
Connection Method				1				M20×1.5 external thread (standard)
				2				M27×2 male thread
				3				G1/2 male thread
				T				special requirement
Display Type						N		Not display
						L		Display Type
Flameproof							B	non-explosive
							F	Flameproof ExdIICT6 Gb

## V. Product Pictures

1、Y201 Standard



2、Y201 Display type



3、Y202 standard



4、Y202 display type



5、Explosion-proof type



6、Ex-proof display type



7、High temperature type

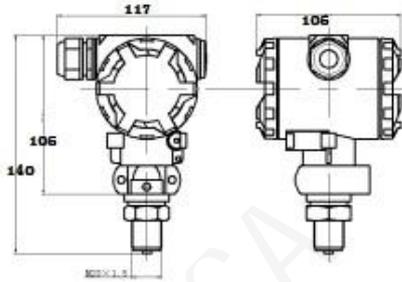


8、High temperature display

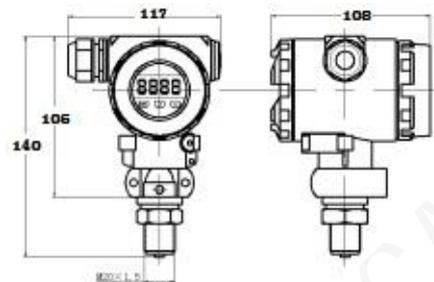


## VI. External Dimensions

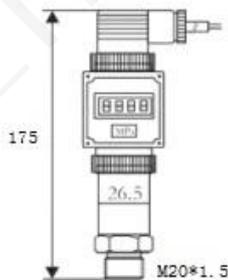
1、Y201



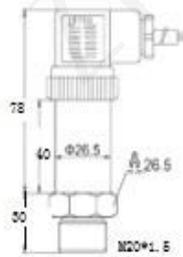
2、Y201 display type



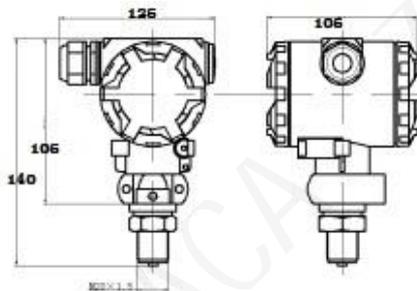
3、Y202



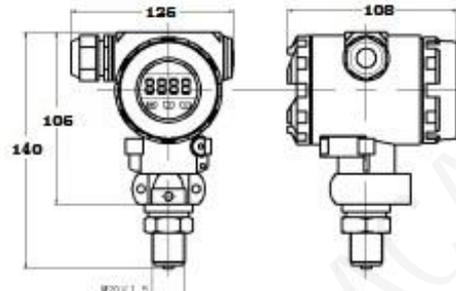
4、Y202 display type



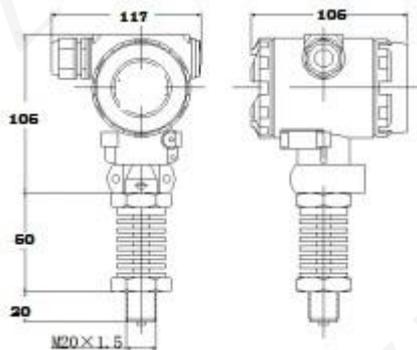
5、Explosion-proof type



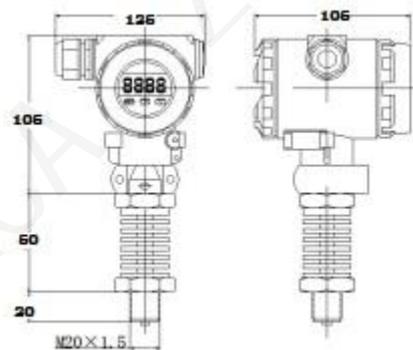
6、Explosion-proof display type



7、High temperature type



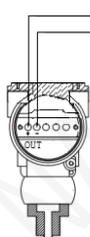
8、High temperature display type



## VII. Electrical connection diagrams

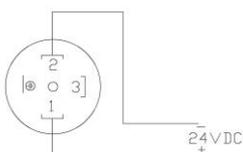
In order to connect the needs of a variety of specific instruments, the pressure transmitter output model and electrical connection as shown in the following diagram:  
4 ~ 20mA analog signal output two-wire system

### 1. Standard:



Two-wire 24VDC power supply, 4~20mADC output:  
OUT+—24VDC+  
OUT—24VDC-

### 2. Compact:



Two-wire 24VDC power supply, 4~20mADC output:  
1—24VDC+  
2—24VDC-

## VIII. Failure analysis

### calibration zero

1、 Press key set, enter the menu LOCK, press key set, enter the password 0066, press key set, press key ↑ to page up to AdC1 item, press key set, press key ↑ to clear, then press key set, press key ↑ to page up to end, press key set, the operation is completed.

### 2. Phenomenon: High output

#### Potential Causes and Troubleshooting:

Pressure guide tube: Check for clogging.

Check that the shut-off valve is fully open.

Check if there is gas in the liquid piping or liquid in the gas piping.

Check that the specific gravity of the liquid in the pressure guide pipe has not changed.

Circuit section check: Does the displayed pressure value match the current output, otherwise perform current retuning.

Power: Check the output of the power supply.

### 3. Phenomenon: Unstable output

#### Potential Causes and Troubleshooting Methods:

**Parameter check:** Check that the zero migration and range settings are correct.

**Loop Wiring:** Check for proper voltage to the transmitter. Check for intermittent short-circuit

breaks and multi-point grounding.

**Measured medium pulsation:** Adjust the damping value.

**Pressure conduit:** Check whether there is gas in the liquid piping or liquid in the gas piping

**Circuit part detection:** Check whether the pressure value is stable by means of the gauge head, so as to determine whether the instability is caused by the sensor and the main circuit board.

#### 4、Symptom : Low output or no output

##### Potential Causes and Troubleshooting:

Parameter Check: Checks that the zero migration and range settings are correct.

Primary element: Check the installation and operating conditions of the sensor. Any change in the characteristics of the measured medium will affect the output. Loop Wiring: Check that the voltage to the transmitter is normal.

Check for short circuits and multi-point grounding.

Check for correct polarity.

Check loop impedance.

### IX. Accessory charts

Welding Base 	meter bend 	Second valve group 	heat sink 
Mounting Bracket 	Welded Pipe Fittings 	needle valve 	Multi-turn table bends 