

Introduction

Z3051 series intelligent pressure / differential pressure transmitter is a fully isolated intelligent field measurement instrument with HART communication protocol optional, developed by our company.

The transmitter uses a fully isolated circuit technology design, and the sensor signals of the power supply box are isolated and processed, which greatly improves the stability and anti-interference ability of the whole equipment.

In addition to the three basic function buttons for adjusting the zero, range and zero pressure of previous smart transmitters, the transmitter is also designed to be used in combination with the three buttons M, S, and Z on the display. (You can set the measurement range without adding pressure, modify the zero and full pressure values), set display engineering units, linearity, square root conversion, set damping time, and fixed current output.

The transmitter also has parameter data backup and recovery functions. When data is damaged, it can be restored online with three keys, with which can immediately back up the modified data.

The key functions of the transmitter can be adjusted by communication software or Hand-held device from our company.

It is widely used in industrial applications with extreme chemical and mechanical loads field and high



Features

- ◇ High accuracy: $\pm 0.25\%$, $\pm 0.5\%$ F.S
- ◇ The range and zero are continuously adjustable externally, and the range ratio is 100: 1
- ◇ Positive migration up to 500%, negative migration up to 600%
- ◇ Good stability, stability: 0.25% for 60 months
- ◇ Contact diaphragm material is optional; mortgage cast aluminum alloy shell
- ◇ Miniaturized (2.4kg) all stainless steel flange, easy to install
- ◇ The process is compatible with other products to achieve the best measurement
- ◇ Standard 4-20mA with HART protocol optional



Z3051 Series Differential pressure transmitter

Performance Parameter

Application: liquid, gas and steam

Signal output: Two-wire 4 ~ 20mA isolated DC signal superimposed HART, digital signal output, can output large current not exceeding 22mA.

Power supply: DC 12 ~ 45V; during HART communication, the power supply voltage range: 15.5 ~ 45VDC; general working voltage 24VDC.

Load range: In HART communication, the resistance in the power circuit is ≥ 250 ohms, and the power supply voltage is ≥ 15.5 volts

Communication distance: The diameter of the connecting wire is greater than 0.6mm, and the communication distance is about 1500 meters.

Display: Intelligent LCD, backlight 5 digits and a half digital display; Zero and span shift: The lower limit of the measurement range is not lower than the lower limit of the large measurement range, and the upper limit does not exceed the upper limit of the maximum measurement range, that is, the working range does not exceed the sensor The limit value, zero position and range can be set at any corresponding point of 4 ~ 20mA.

Zero pressure fine adjustment: use F3 key or code potentiometer knob to correct the error caused by transmitter installation position change or zero position drift, and adjust the pressure of transmitter to zero pressure value.

Damping value: electronic damping adjustable range 0-32 seconds.

Fault alarm: when the self diagnosis program detects a fault, the analog output is higher than 20.8ma or lower than 3.9ma.

Temperature and lodging compensation: the computer collects temperature data and sends it to the transmitter for temperature compensation.

Temperature indication: indicates the field ambient temperature value of the transmitter.

Working temperature: electronic circuit: - 40 ~ + 85 °C, with LCD: - 30 ~ + 80 °C

Sensitive element (silicone oil filled): - 40 ~ + 104 °C

Sensitive element (filled with inert oil): - 18 ~ + 71 °C

Safety protection: and circuit protection design, anti-static impact, surge current, strong overload protection function.

Z3051 (H) Pressure/Differential pressure transmitter

Code	Output
None	4-20mA
H	4-20mA with Hart protocol
Code	Type
GP	Gauge Pressure
DP	Differential Pressure
AP	Absolute Pressure
Code	Pressure range
2	0-0.1KPa~1.5KPa
3	0-1.3KPa~7.5KPa
4	0-6.2KPa~37.4KPa
5	0-31.1KPa~186.8KPa
6	0-117KPa~690KPa
7	0-345KPa~2068KPa
8	0-1170KPa~6890KPa
9	0-3450KPa~20680KPa
0	0-6890KPa~41370KPa
Code	Connection Material
A	Stainless Steel 316
B	Hastelloy
C	Titanium
D	Monel Alloy
Code	Process connection
1	M20X1.5
2	Special Design
Code	Protection Grade
A	None
B	Institutionally safe
C	Explosion proof
Code	E-connection
1	M20X1.5
2	1/2-1/4 NPT
Code	Indicating
A	None
B	LED Digital Indicator
Code	Mounting Bracket
1	Flat
2	Bend

