DP-1XPressure Transmitter

Operating Manual

Version:202005

1. Product Overview

DP-1x transmitter using imported silicon resistance pressure sensor as signal measuring element. Hirschmann Joint, Integrated Cable Type all use single chip solution. Using high integrated special sensor signal conditioning chip, digital circuit design, 1wire digital communication calibration, no potentiometer, high accuracy, high stability. Hirschmann standard quick coupler, can choose digital tube or LCD field display, to realize the display ofvarious engineering quantities. Integrated Cable Type with high protection level, suitable for outdoor, diving and other complex site use. Sanitary pressure transmitter flat diaphragm design, solves the problems ofthe common pressure transmitter that pressure hole can not be cleaned of dirt and impurities. It uses the advanced temperature supplement and nonlinear correction techniques, suitable for hygiene-grade conditions such as food and pharmaceutical industries.

2. Technical Specification

Measuring Range：

Gauge pressure (G): 0~2.5MPa, minimum 0-500Pa

Sealed gauge pressure (S): 0-60MPa, minimum 0-3.5MPa

Absolute pressure (A): 0-60MPa, minimum 0-2kPa

Negative pressure: -0.1MPa-60MPa

Micro melting pressure transmitter: 0.1~70MPa, minimum not less than 100KPa

Measuring Accuracy：

0.5%FS 0.25%FS

Allowable Environment Temperature：

-40～85℃，－20～70℃（Display）

Allowable Medium Temperature：

-40℃~+105℃

Allowable Storage Temperature：

-40℃~+85℃

Temperature influence：

Better than 0.2%/10 ℃

Power Supply：

24V DC（12～30V）

Output：

(4~20)mA Two line analog signal

RS485(MODBUS-RTU)

0-5VDC 0-10VDC Other voltage outputs can be customized

Long term stability：

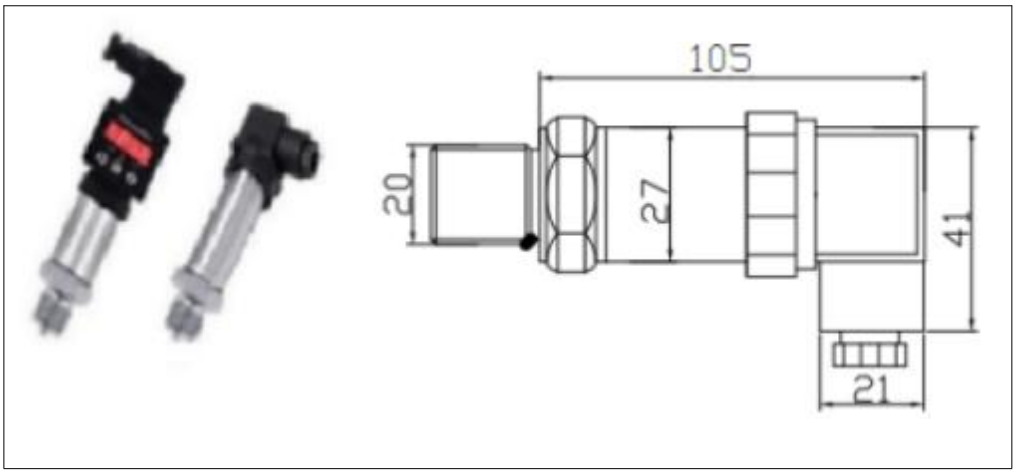
Exceeding 0.2% FS annually

Process Connection Standard：

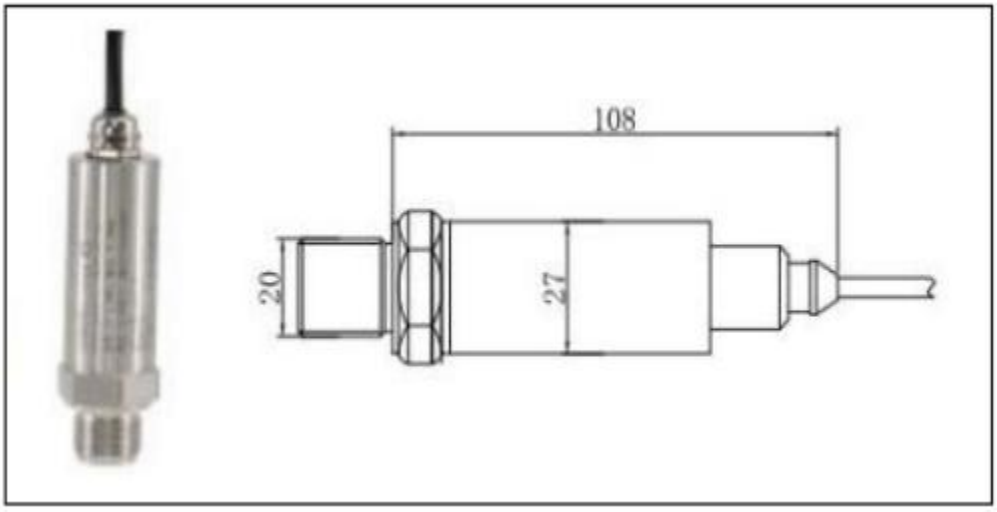
M20 * 1.5 or G1/2, φ 50 chuck (sanitary type), others can be customized

Micro melting pressure transmitter: M20 * 1.5 material 17-4PH or G1/4 material 17-4PH

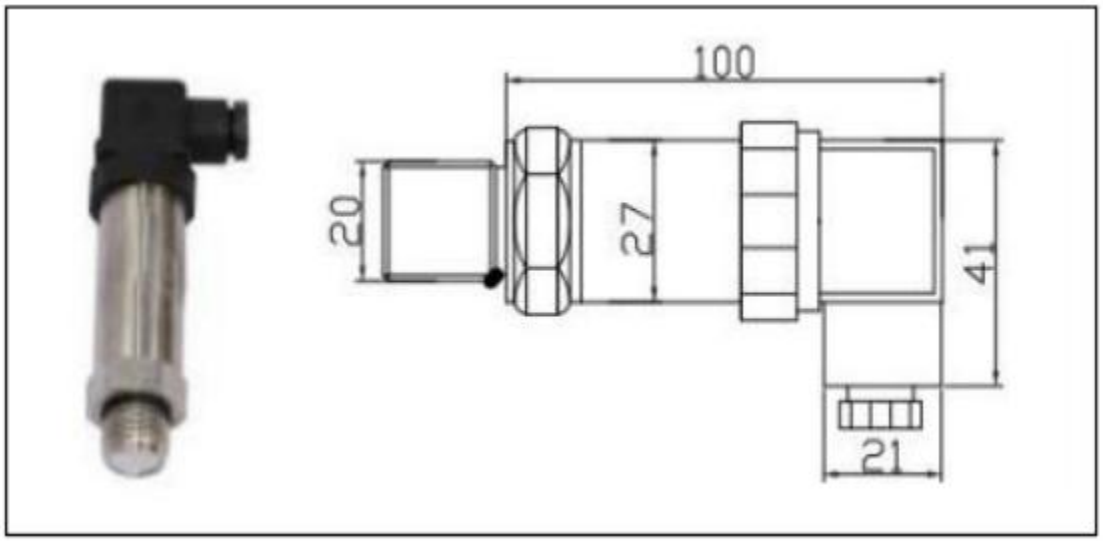
3. Appearance and dimension



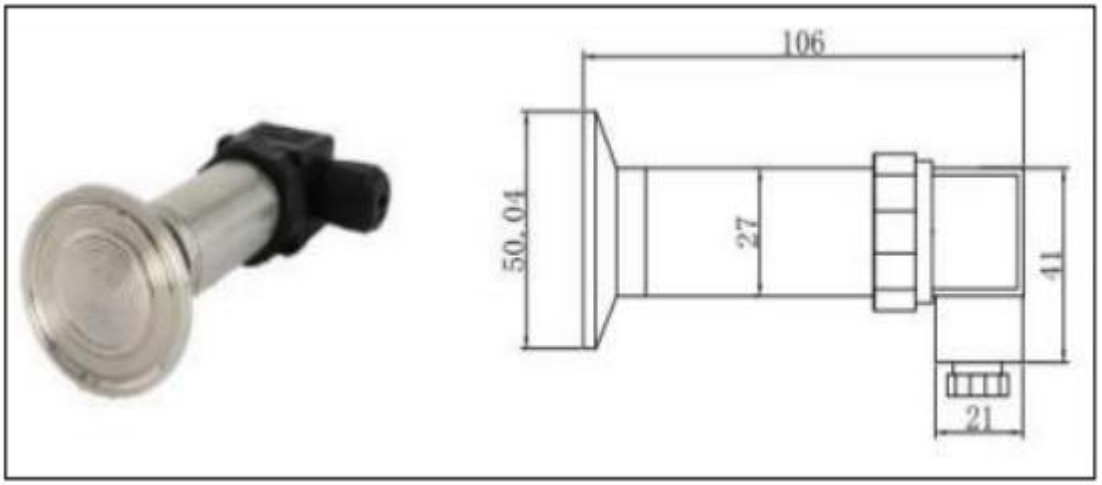
Hirschman Type



Integrated Cable Type



Flat Diaphragm Sanitary Type



Chuck Sanitary Type (Height of high temperature type will increase 35mm)

4. Wiring Instructions

Hirschman Joint Type

No.	(4-20)Output	RS485	Voltage output
1	Power supply +	Power supply +	Power supply +
2	Power supply - (current output)	Power supply -	Power supply - (common - ground)
3	N/A	A	Voltage output

Ground terminal	grounded or N/A	B	grounded or N/A

Integrated Cable Type

color	(4-20) output	RS485	Voltage output
red	Power supply +	Power supply +	Power supply +
black	Power supply -(current output)	Power supply -	Power supply -
blue	N/A	A	Voltage output
Brown (or white)	grounded or N/A	B	grounded or N/A

5. Menu description（Hirschman Joint Type）

After powering on, press the [S] first, then press the up key to enter the password setting
Up key to modify numbers, down key to shift.
Customer mode menu password: 00006

Customer mode menu		Operation steps	Parameter Description
Unit	Unit	Enter with the S key Up and down keys to select units Confirm and exit with the S key	KPa；MPa；Pa；Bar；mBar；PSI；℃；℉；kg/cm²；atm；mmHg；mH2O；m；cm；mm；V;mV;A；mA;
dot	Decimal point	Enter with the S key Up and down keys for decimal point shift Confirm and exit with the S key	
2Ero	Range-low	Enter with the S key Up key to modify ; down key shift Confirm and exit with the S key	
NEG	Range symbol	Enter with the S key Up and down keys to modify symbols Confirm and exit with the S key	Range symbol -1.0 Indicates that the range-low is negative Range symbol 1.0 Indicates that the range-low is positive
FULL	Range-high	Enter with the S key Up key to modify ; down key shift Confirm and exit with the S key	
bIa5	Deviation compensation	Enter with the S key Up key to modify ; down key shift Confirm and exit with the S key	
5AuE	Save Settings	Enter with the S key Up and down keys select YES/NO Confirm and exit with the S key	
End	Exit menu	Press the S key to exit	

Note 1: -1.0 represents a negative range symbol; 1.0 represents a positive range symbol.

Note 2: Reading parameters can compensate for the deviation between displayed values and actual quantities
Example: If the displayed value is 10.05 and the zero point is set and corrected by -0.05, the compensated displayed value will be 10.00.

Note 3: Modifying any parameter requires saving. Otherwise, it is invalid