DFP4800 Pressure Transmitter

Features

- The electronic shell is made of aluminum alloy and the shell protection is IP67
- With reverse polarity protection, instant overcurrent, overvoltage and anti-interference protection measures
- Optional signal output
- LCD display and LED display table optional
- Marine type, explosion-proof optional
- Intrinsically safe products comply with the requirements of GB/T 3836.1, GB/T 3836.4 and GB3836.20 standards, and the explosion-proof mark is Ex ia lIC T6 Ga
- Explosion-proof products comply with the requirements of GB/T 3836.1 and GB3836.2 standards, and the explosion-proof mark is Ex db lIC T6 Gb

Overview

The DFP4800 pressure transmitter adopts OEM piezoresistive sensors with stainless steel isolation diaphragms that have been automatically tested by computer and compensated for zero point and sensitivity in a wide temperature range with laser resistance modulation process as signal measurement elements. The sensor signals are converted into standard signal output after signal processing circuits. The products have been strictly screened by long-term aging and stability assessment processes, and the performance is stable and reliable. It is used in open-air sites with harsh environments. At the same time, it is required to be able to observe the pressure display on site, require zero point migration and range adjustment. It is suitable for process control and pressure measurement in petroleum, chemical, metallurgy, power, light industry, textile, building materials, hydrogeology, food, medicine, environmental control and other industries.

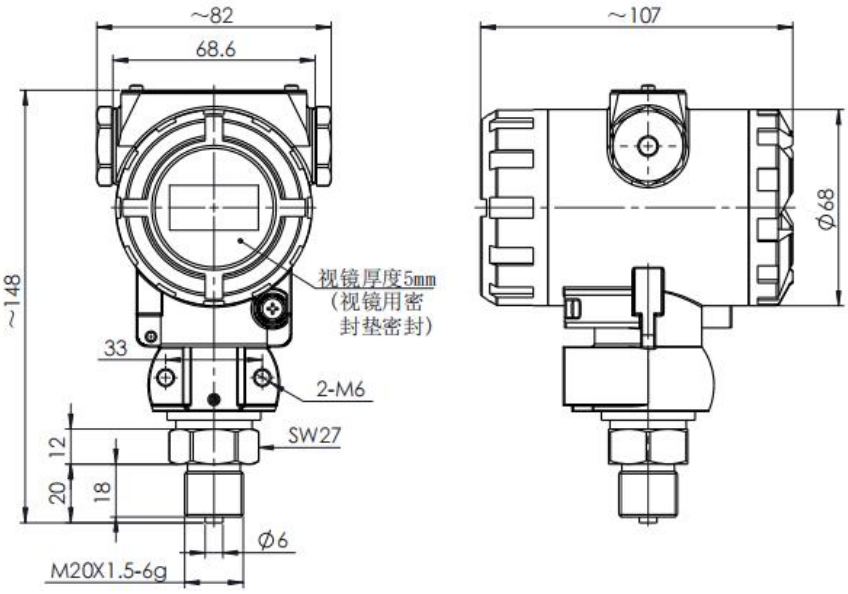
Technical Parameters

Pressure Parameters	
Measurement Range	-0.1MPa…0MPa～0.01MPa…100MPa
Overload	2x full scale pressure or 110MPa (min)
Pressure Type	Absolute pressure, sealed gauge pressure, gauge pressure (gauge pressure is not

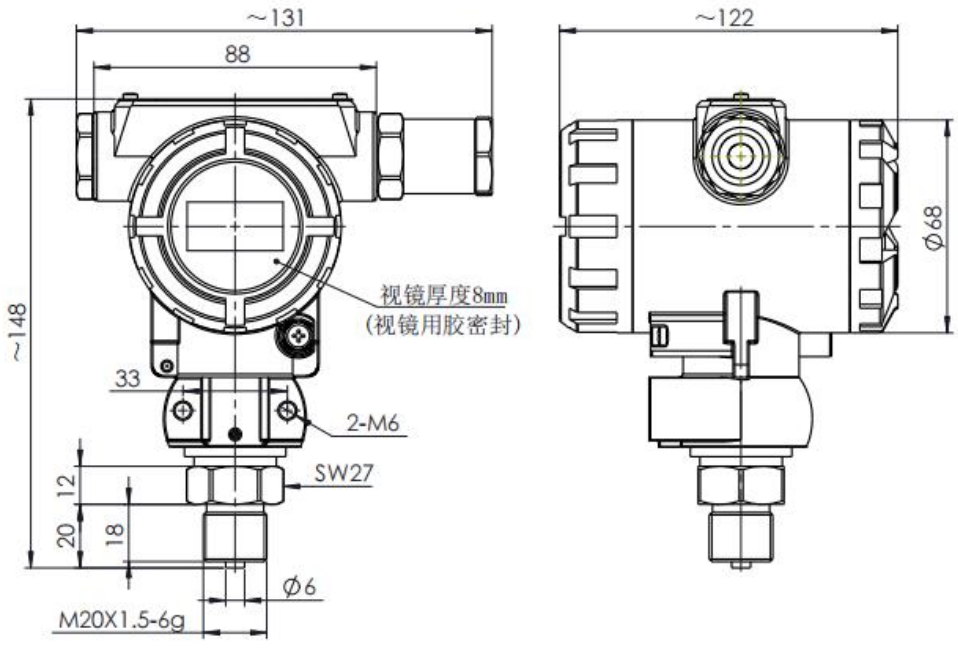
	recommended for flameproof)	
Electrical Specifications		
Output Type	Current type	Voltage type
Power Supply	11～30V DC	11～30V DC
Output Signal	4mA ~ 20mA DC (2-wire system)	0... 1V ~ 5... 10V DC (3-wire system)
Load Resistance	≤（U-11）/0.02A（Ω）	≥10k
Insulation Resistance	100MΩ@100V DC	

Structural parameters	
CASE	Stainless steel
sensor	316L stainless steel
sealing ring	Fluorine rubber
IP Grade	IP67
environmental parameter	
Media suitability	Various fluids without corrosion to 316L stainless steel and fluorubber
Compensation Temperature	-10℃～80℃
Operating Temperature	Intrinsically safe type: -30° C ~ 60° C
	Flameproof type: -30 ℃ ~ 60 ℃
	-40° C ~ 80° C (normal type)
	-20 ℃ ~ 60 ℃ (LCD head)
	-30 ℃ ~ 70 ℃ (led head)
Storage Temperature	-40℃～85℃
Performance	
Accuracy	± 0.25% FS (typical) ± 0.5% FS (max)
Zero Temperature Coefficient	0.03%FS/℃（≤100kPa）；0.02%FS/℃（＞100kPa）
Full temperature coefficient	0.03%FS/℃（≤100kPa）；0.02%FS/℃（＞100kPa）
LONG-TERM STABILITY STUDIES	± 0.3% FS/yr (max)

Form Factor



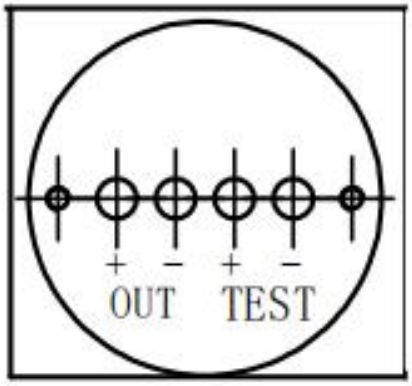
Normal/Intrinsically Safe Outline Diagram



Outline diagram of flameproof type

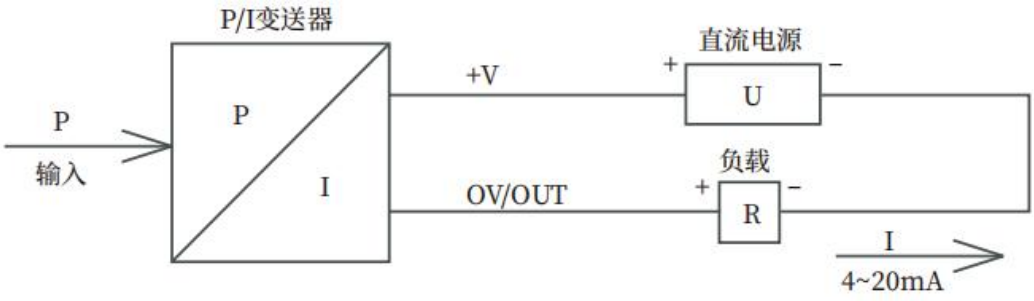
Electrical connection

Wiring Definition		
Terminal	Two-Wire System	Three-Wire System
OUT+	Power Supply positive: + V	Power Supply positive: + V
OUT-	Signal: + out	Public: GND
TEST-	Empty	Output: + out

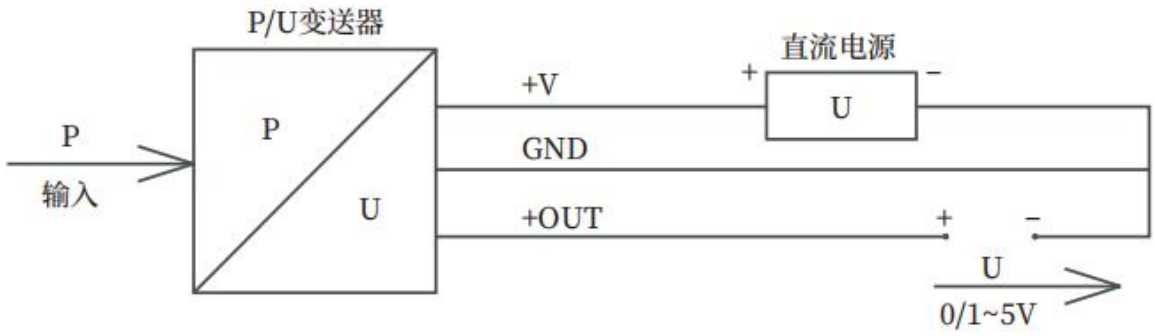


Schematic diagram of electrical connections

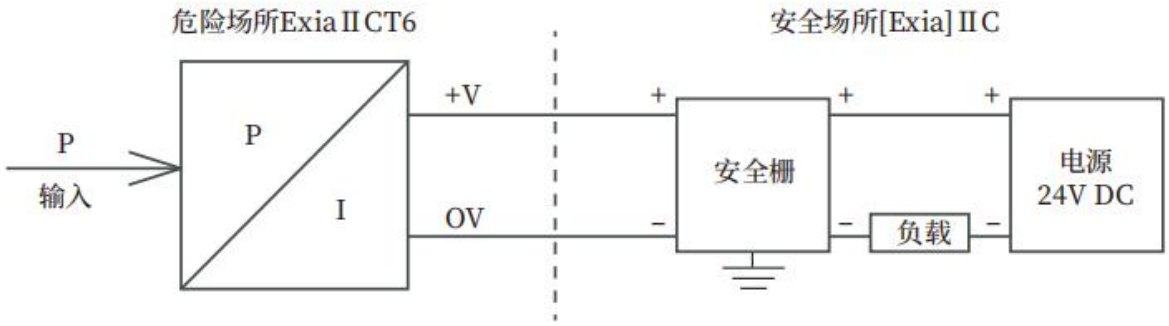
Schematic diagram of the electrical connection method of the two-wire 4mA- 20mA DC output transmitter



Three-Wire System 0... 1V -5... 10VDC output transmitter electrical connection method schematic diagram



Schematic diagram of the electrical connection method of the intrinsically safe explosion-proof type



Explosion-proof parameters of the transmitter	
Ui	28V DC
Ii	93mA DC
Li	0uH
Ci	0.022uF
Pi	0.65W

Safety barrier output explosion-proof parameters	
Uo	28V DC
Io	93mA DC

Selection Guide

DFP4800	Type Pressure Transmitter			
	Measurement Range	Measurement range: -0.1MPa... 0MPa ~ 0.01 MPa... 100MPa		
	[0-X] kPa or MPa	X: Actual Measurement Range		
		code	Output Signal	
		E	4～20mA DC	
		F	1V～5V DC	
		EH	4～20mA DC+HART	
			structural material	

code	Isolation diaphragm	Interface	CASE
22	Stainless Steel 316L	Stainless steel	Aluminum alloy
24	Stainless Steel 316L	Stainless Steel 316L	Aluminum alloy
25	Tantalum	Stainless steel	Aluminum alloy
35	Tantalum	Hastelloy C	Aluminum alloy

code	Outgoing Line Format	
bbPress Default	No Show	Only available in the 4mA ~ 20mA DC Output
M3	4-digit LCD digital display head	
M4	4-bit led digital display head	

code	Process connection
PC1	Flat membrane type, M20 × 1.5 male thread pressure interface
PC3	G1/2 male thread pressure interface flush membrane type
C1	M20 × 1.5 male thread pressure interface, end face seal
C3	G1/2 male thread pressure interface
C5	M20 × 1.5 male thread pressure interface, water line sealing

code	FORNET SHOPS
i	Intrinsically safe Ex ia lIC T6 Ga
d	Flameproof Ex db lIC T6 Gb
bbPress Default	No certification requirements

code	Pressure Type
G	Gauge type
A	Absolute pressure type
S	Sealing gauge pressure

DFP4800 [0-10] MPa E 22 M3 C1 i G Full Specification Model