

DFP300I Digital Pressure Transmitter



- Product Features Wide measurement range: 0-100 kPa...100 MPa.
- 24-bit high-precision analog-to-digital conversion.
- Real-time temperature-drift compensation.
- Reliable performance; safe and easy to use.
- Output: 15%-85%.
- IIC bus protocol. Low power consumption.

Overview

The DFP300I IIC digital pressure transmitter uses an oil-filled pressure sensor core isolated by a metal diaphragm. The product has a built-in temperature compensation sensor and provides real-time compensation for sensor zero error and drift, sensitivity error and drift, and nonlinearity error. It outputs pressure and temperature data conforming to the IIC interface protocol. The product is compact, easy to install, and cost-effective, with accurate and reliable pressure measurement, greatly enhancing field adaptability. It is widely used for pressure measurement and control in industrial process sites such as pharmaceutical, food processing, and packaging equipment.

Performance Specifications

Measurement Range	0-100 kPa...100 MPa	Overload	1.5x full-scale pressure
Pressure Accuracy	±0.5%FS	Pressure Type	Absolute/gauge/sealed gauge pressure
Temperature Accuracy	±1°C	Input Voltage	1.8 V-3.6 VDC
Output	15%-85% (IIC bus protocol)	Operating Current	≤0.3 mA; standby current approx. 0.1 μA

Environmental Conditions

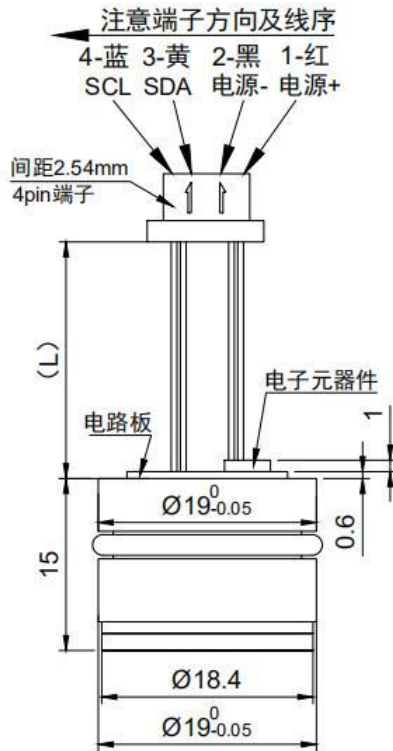
Operating temperature: -40°C to 80°C

Storage temperature: -40°C to 85°C

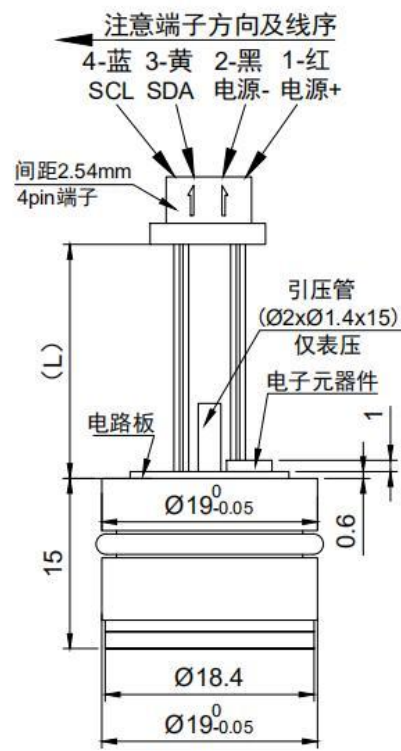
Compensation temperature: -20°C to 80°C

IP rating: IP65

Form Factor



Absolute pressure



Gauge pressure

Electrical Connection

No.	Cable Color	Electrical Definition
1	Red	Power +
2	Black	Power -
3	Yellow	SDA
4	Blue	SCL

Output Conversion

Percentage Output (%)	Digital Value (Decimal)	Digital Value (Hexadecimal)
0	0	0x000000
10	1677722	0x19999A
15	2516582	0x266666
85	14260633	0xD99999
90	15099494	0xE66666
100	16777215	0xFFFFF

Selection Guide

DFP300I	Digital Pressure Transmitter					
	Measurement Range	Measurement range: 0-100 kPa...100 MPa				
	[0-X] kPa or MPa	X: actual measurement range				
		Code	Supply Voltage			
		3	(3.3±0.1) VDC (default)			
			Code	Communication Interface		
			C	IIC		
				Code	Pressure Type	
				G	Gauge type (range ≤ 3.5 MPa)	
				A	Absolute type (range ≥ 70 kPa)	
				S	Sealed gauge type (range ≥ 3.5 MPa)	
DFP300I	[0-2.5]MPa	3	C	A	Complete model number	

Selection Tips

- 1、 A floating structure is recommended for assembling the pressure transmitter. Avoid compression sealing on its end face, as this may affect transmitter stability.
- 2、 Protect the isolation diaphragm at the front end of the pressure transmitter to prevent dents that may affect performance or damage the transmitter.
- 3、 The standard O-ring supplied with the pressure transmitter is rated for -20°C to 250°C. Contact the company if the operating temperature is below -20°C or if the transmitter is used with harsh media.