

GPE300 SERIES HIGH TEMPERATURE PRESSURE TRANSMITTER

FEATURES

- ◎ Titanium alloy membrane, corrosion resistance
- ◎ High accuracy, high temperature resistance
- ◎ Intrinsically safe explosion-proof



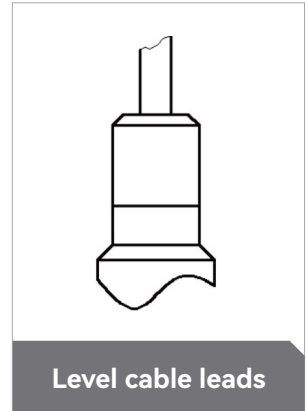
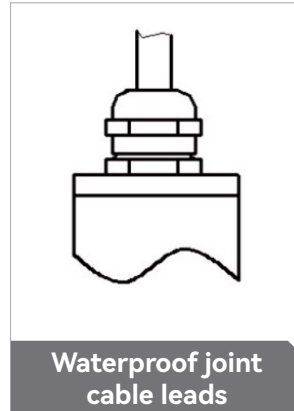
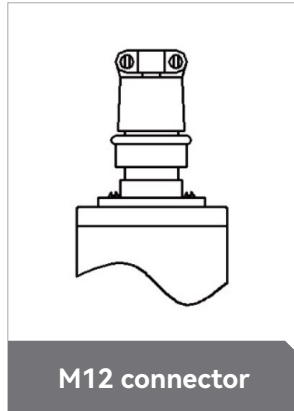
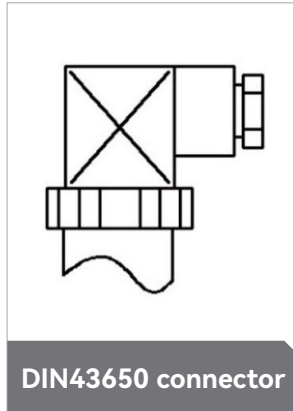
INTRODUCTION

The GPE300 series pressure transmitter uses a sapphire pressure sensor as its core sensing element. It outputs standard signals for industrial applications and networking through temperature compensation, digital circuit correction, and signal conditioning. The sensor features two diaphragms: a titanium alloy pressure-sensing diaphragm and a titanium alloy measuring diaphragm. A heteroepitaxial silicon strain-sensitive circuit on the sapphire is bonded to the titanium alloy measuring diaphragm. When pressure is applied, it is transmitted to the measuring diaphragm, causing it to undergo micro-stress deformation. This deformation leads to a change in the bridge output, with the magnitude of the change being directly proportional to the measured pressure. The bridge circuit then converts the imbalance signal into a voltage output.

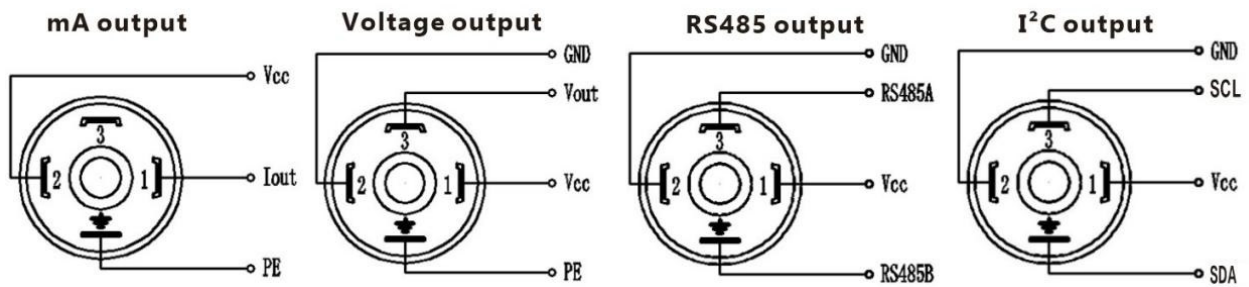
SPECIFICATIONS

Pressure type	Gauge pressure, Absolute pressure, Sealed pressure
Pressure range	-0.1MPa~0kPa~10kPa...160MPa
Power supply	10VDC ~ 30VDC (Standard 24VDC)
Output signal	4mA ~ 20mA, RS485, I ² C, 0V~10V (Others on request)
Overload pressure	≤ 200%(<10MPa), ≤ 150%(≥ 10MPa)
Response time	≤ 3ms(10%~90%)
Media temperature	-60°C ~150°C
Accuracy	0.1%FS, 0.25%FS, 0.5%FS
Measuring medium	Fluid compatible with titanium alloy
Protection	IP65

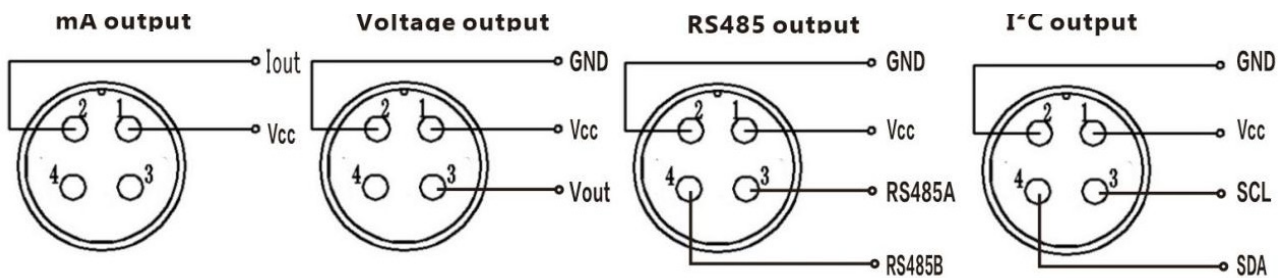
ELECTRICAL CONNECTION



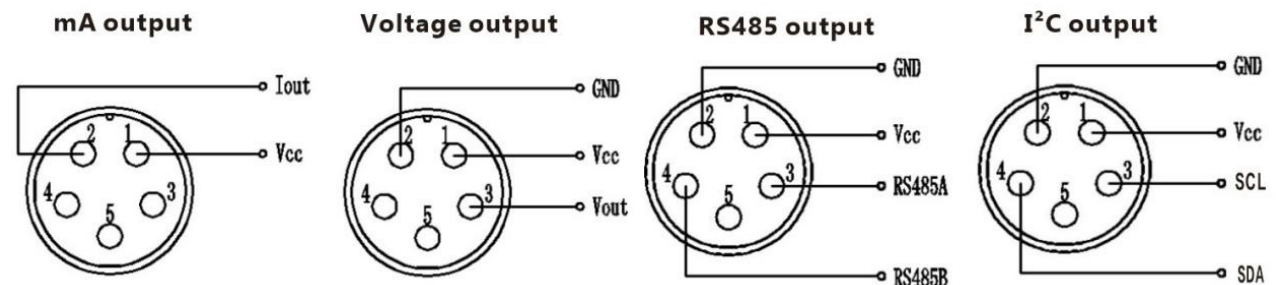
DIN43650 CONNECTOR WIRING



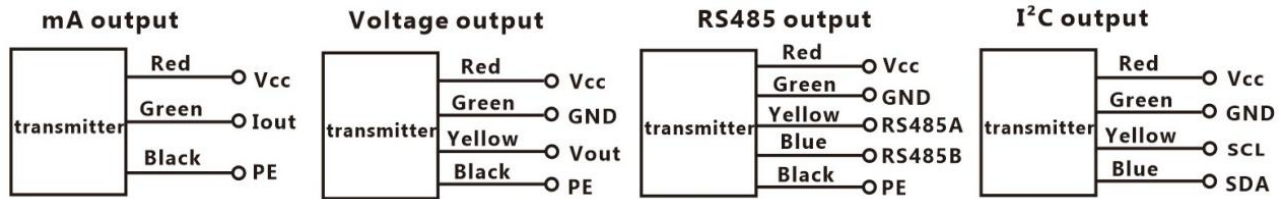
M12 CONNECTOR 4 PIN WIRING



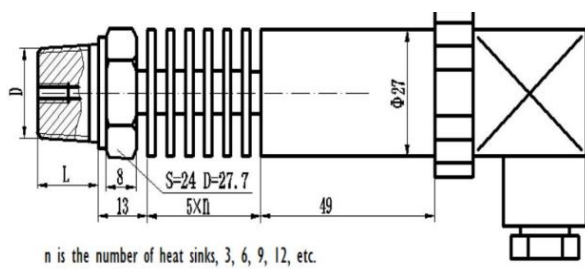
M12 CONNECTOR 5 PIN WIRING



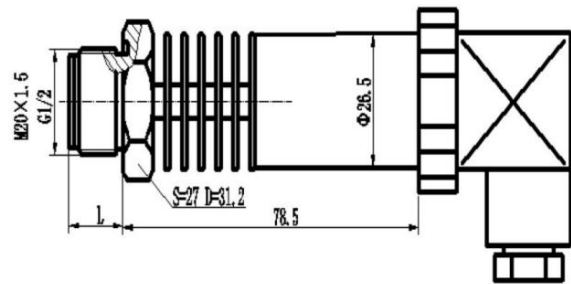
CABLE LEADS WIRING



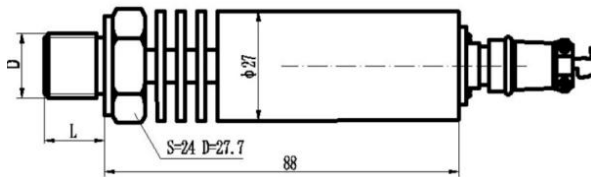
STRUCTURES



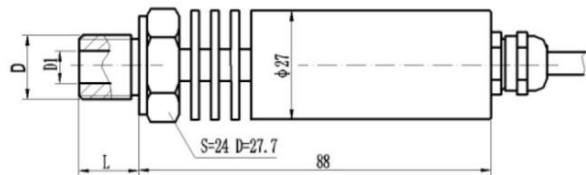
GPE310 DIN43650 connector



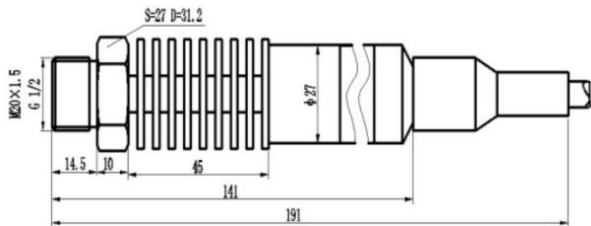
GPE310F DIN43650 connector flush diaphragm



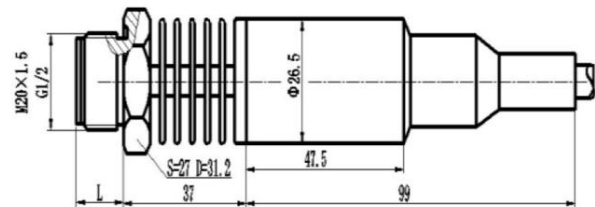
GPE320 M12 connector



GPE330 waterproof joint cable lead



GPE340 level cable lead



GPE340F level cable lead flush diaphragm

MECHANICAL CONNECTION

SIZE D	LENGTH L	SIZE D	LENGTH L	SIZE D	LENGTH L	SIZE D	LENGTH L
M22x1.5	15	M16x1.5	15	M8X1	12	3/8 PT	15
G1/2	15	M14X1.5	15	G1/8	12	1/4 NPT	15
M20X1.5	15	G1/4	15	1/2NPT	18	1/4 PT	15
M18X1.5	15	M12X1	15	1/2PT	18	1/8 NPT	12
G3/8	15	M10X1	12	3/8 NPT	15	1/8 PT	12

ORDER FORMAT

GPE310F - H - M11B - A - G1/2 - MA - D1

Model	
GPE310	GPE310F
GPE320	GPE320F
GPE330	GPE330F
GPE340	GPE340F

Accuracy	Code
0.1%FS	C
0.25%FS	H
0.5%FS	M

Pressure Range	Code
0~Xbar	XBar
0~XKPa	XKPa
0~XMPa	XMPa
0~XPSI	XPSI
-x~Xbar	MxXB
-x~XKPa	MxXK

Pressure Type	Code
Gauge pressure	Null
Absolute pressure	A
Sealed pressure	S

Code	Customization
Null	Standard version
D1	4-digit LCD display*
D2	4-digit LED display*
*Only available for 4~20mA output signal	

Code	Output signal
MA	4~20mA
V1	0~10V
R4	RS485
HT	HART protocol
I2	I ² C protocol

Code	Thread size
G1/2	G1/2
G1/4	G1/4
1/2NPT	1/2NPT
1/4NPT	1/4NPT
M20	M20X1.5