VPT10 Universal Pressure Transmitter

VETRIX

Features

- Compact structure
- Digital circuit compensation
- Strong anti-interference, good long-term stability
- Small diameter, small size, easy to install and use
- Can measure absolute pressure, gauge pressure and sealed gauge pressure
- A variety of electrical connections
- Liquid contacting diaphragm 316L
- Suitable for mass production

Applications

- Air compressor
- Hydraulic and pneumatic equipment
- Servo valves and drive
- Air conditioning systems
- Piping systems

Notes:

1 Do not touch the diaphragm with hard objects, which may cause damage to the diaphragm.

2 Please read the Instruction Manual of the product carefully before installation and check the relevant information of the product.

3 Strictly follow the wiring method for wiring, otherwise it may cause product damage or other potential faults.

4 Misuse of the product may cause danger or personal injury.

VPT10 pressure transmitter is specially designed for small and medium equipment applications such as booster pumps and air compressors. It is also applicable to a wide range of industrial applications, with a variety of structures, output forms and pressure connections to meet the requirements of most applications. PCM390 is designed with compact structure which especially applies to the installation in small space.

Notes:

1 Do not misuse documentation.

2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.

3 Complete installation, operation, and maintenance information is provided in the instructions of the product.

4 Misuse of the product may cause danger or personal injury.

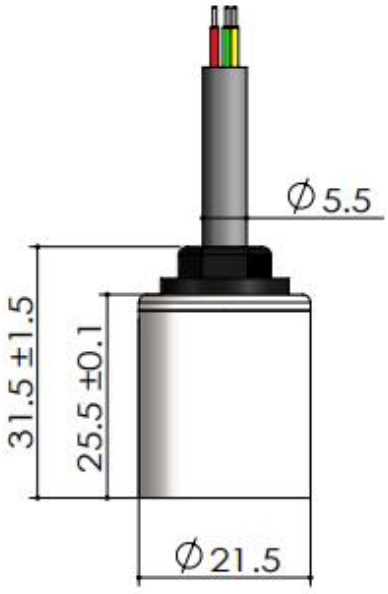
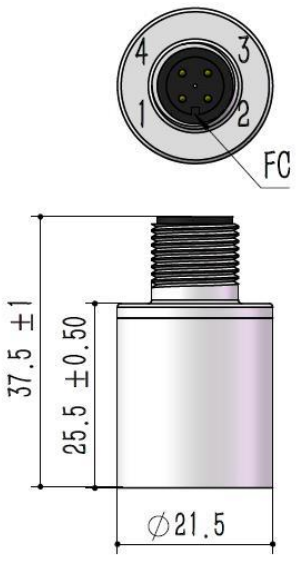
Performance parameters	
Pressure range	0~1000 Bar
Pressure reference	Gauge pressure, Absolute pressure, Sealed gauge pressure
Accuracy	±0.5%FS(typ.)for pressure ⩾100kPa; ±1%FS(max.) for pressure ＜ 100kPa
Hysteresis & repeatability	≤±0.1%FS

Temp. drift	≤±1.5%FS(-20° C~85° C)
Response time	<10ms
Service life	≥10×10^6 pressure cycles
Ambient temp.	-20° C~80° C
Medium temp.	-30° C~105° C
Storage temp.	-40° C~120° C
EMC-interference	IEC 61000-6-3
EMC-immunity	IEC 61000-6-2
Insulation resistance	≥100MΩ/500VDC(200MΩ/250VDC)
Vibration resistance	Sine curve: 20g, 25Hz~2kHz; IEC 60068-2-6
	Random: 7.5grms, 5Hz~1kHz; IEC 60068-2-64
Shock resistance	Shock: 100g/11ms； IEC 60068-2-27
	Free fall: 1m; IEC 60068-2-32
Protection	IP65
Material	Diaphragm and sensor inside (AISI316L)
	Housing and pressure port: (AISI304)
	Electrical connection: PA66
Net weight	50g~90g
Size of hexagon	HEX22

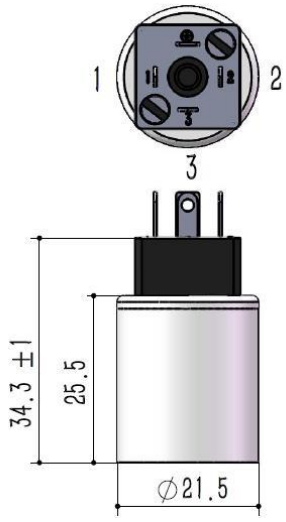
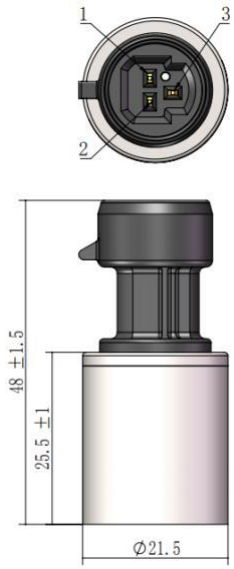
Supply & output

Code	B1	B7	B6
Output	4～20mA	0～10V	0.5～4.5V R/M
Supply	12～30VDC	12～30VDC	5VDC

Electrical connection & wiring method

Connector code	J3: Cable outlet	J4: M12
Dimension In mm		

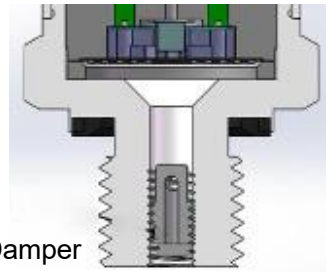
Connection mode Current (2 wires)	Red: Supply+ Green: Current output	Pin 1: Supply+ Pin 2: Current output Pin 3: Pending
Connection mode Voltage (3 wires)	Red: Supply+ Green: Ground Yellow: Voltage output	Pin 1: Supply+ Pin 2: Voltage output Pin 3: Ground

Connector code	**J6: Mini 4 pin**	**J7: Round Packard**
Dimension In mm		
Connection mode Current (2 wires)	Pin 1: Supply+ Pin 2: Current output Pin 3: Pending Grounding: Pending	Pin 1: Supply+ Pin 2: Current output Pin 3: Pending
Connection mode Voltage (3 wires)	Pin 1: Supply+ Pin 2: Ground Pin 3: Voltage output Grounding: Pending	Pin 1: Supply+ Pin 2: Ground Pin 3: Voltage output

Application of damper

Application

Cavitation, liquid hammer and pressure peak may occur in air or hydraulic systems with varying flow rates, such as the rapid closing of valve or the start and stop of pump. Even at relatively low operating pressures, these problems may occur at the entrance and exit.



Damper

Installation

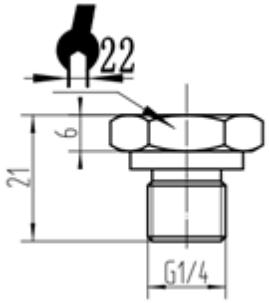
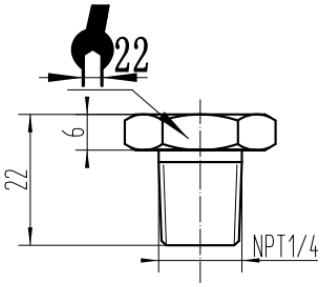
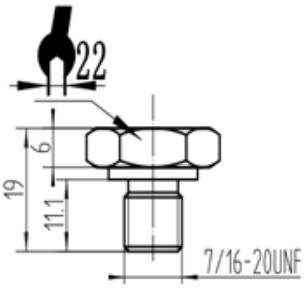
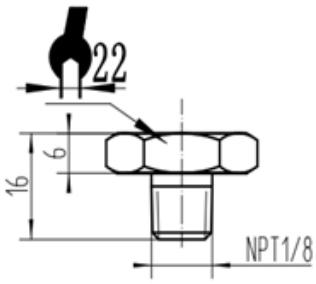
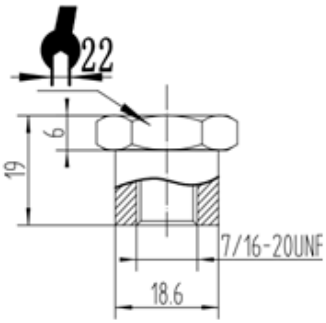
If the fluids containing particles, then nozzle clogging maybe occur, and the vertical installation of the

transmitter minimizes the risk of clogging.

Accessory

Name	Appearance	Description	Item number
M4 damper		1 Refer to “Application of damper” 2 Pressure ports with thread code C12, C34 and C36 are not applicable	100030100027

Pressure port

Thread code	**C3: G1/4**	**C5: NPT1/4-18**	**C11: 7/16-20UNF**
Dimension In mm			
Recommended torque	15~25 N•m	15~25 N•m	15~25 N•m
Thread code	**C18: NPT1/8**	**C11F: 7/16-20UNF Female**	
Dimension In mm			
Recommended torque	15~25 N•m	15~25 N•m	

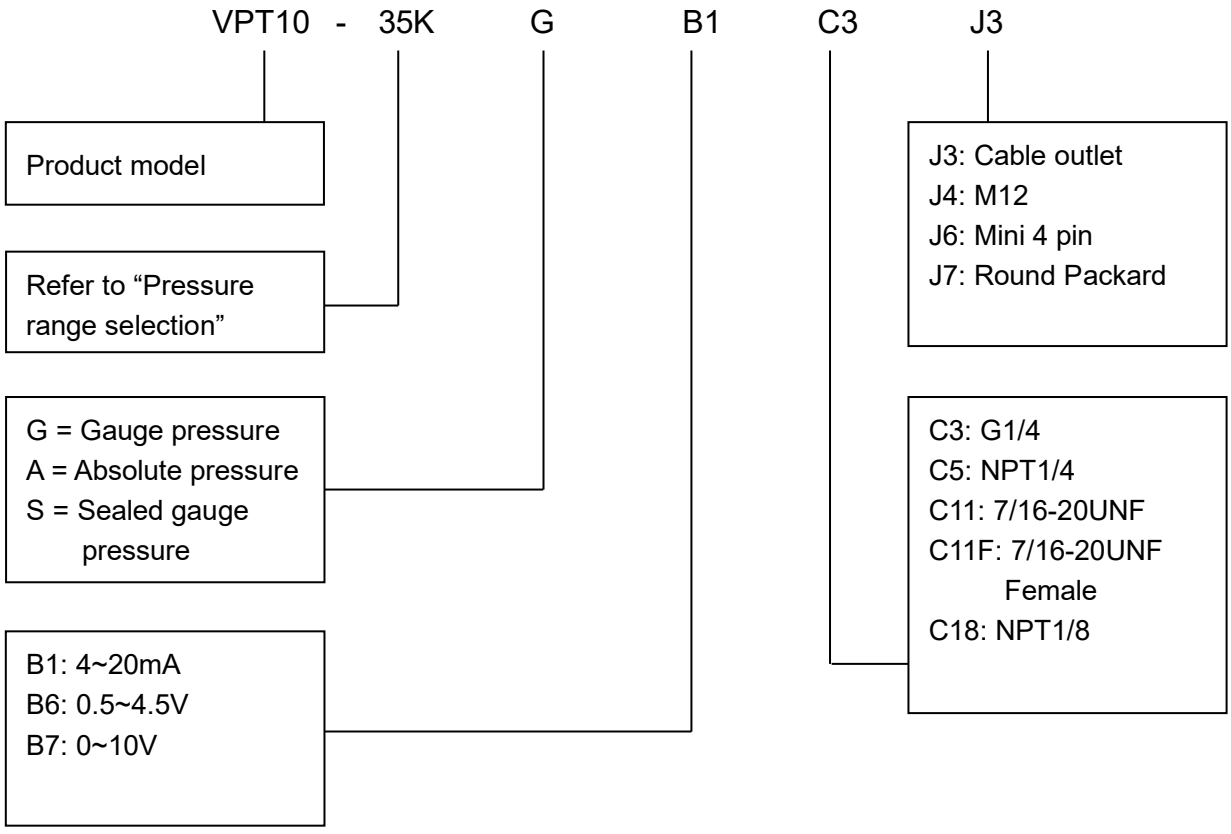
Note: Recommended torque depends on various factors such as material of gasket, supporting materials, lubrication of thread and pressure.

Pressure range selection

Pressure range code	Pressure reference	Pressure range	Overpressure	Burst pressure	Remark
35k	G	0~0.35 Bar	300%FS	600%FS	①
70k	G	0~0.7 Bar	300%FS	600%FS	①
100kC	G、A	0~1 Bar	200%FS	500%FS	
160kC	G	0~1.6 Bar	200%FS	500%FS	
250kC	G、A	0~ 2.5 Bar	200%FS	500%FS	
400kC	G	0~4 Bar	200%FS	500%FS	
600kC	G	0~6 Bar	200%FS	500%FS	
1MC	G	0~10 Bar	200%FS	500%FS	
1.6MC	G、S	0~16 Bar	200%FS	500%FS	
2.5MC	S	0~25 Bar	200%FS	500%FS	
4MC	S	0~40 Bar	200%FS	400%FS	
6MC	S	0~60 Bar	200%FS	300%FS	
10M	S	0~100 Bar	200%FS	300%FS	①
16M	S	0~160 Bar	150%FS	200%FS	①
25M	S	0~250 Bar	150%FS	200%FS	①

Note: (1)G stands for gauge pressure, A, absolute pressure, S, sealed gauge pressure. (2)"①"is non-glass header, please note.

How to order



Example: VPT10
Refer to product model VPT10, pressure range 0~70kPa, pressure reference gauge pressure, output signal 4~20mA, pressure port G1/4, electrical connection cable outlet.

Ordering tips:

Ensure compatibility between measured media and contacting part of product when placing an order.