

Please refer to page 5 for detailed selection



UT30

Union Type Pressure Transmitter

Product Description

The Y-type pressure transmitter is suitable for pressure measurement of granular, high impact, viscous media such as mud, crude oil, and wet soil. The measurement front-end adopts high-quality and specially processed sturdy membranes, and the exquisite mechanical transmission structure and packaging technology make it compact in structure, resistant to vibration, frequent high-pressure impact, strong sand particle impact, and wear resistance, suitable for various harsh working environments. Optional intrinsic safety explosion-proof.

Scope of application

The Y-type pressure transmitter is widely used for pipeline monitoring in the petroleum industry, such as oil and gas extraction, oilfield fracturing, cementing, and drilling, due to its fast installation sealing, high pressure resistance, and anti blocking characteristics. It is also suitable for mud transportation, crude oil transportation, and downhole supporting equipment, and can measure the pressure of viscous media containing solid particles. It is also suitable for heavy-duty working conditions such as chemical slurry, mining grouting, and engineering machinery hydraulic pipelines. It is easy to disassemble and maintain, and can cope with high-pressure and strong vibration harsh sites, providing stable data support for real-time monitoring and safety control of industrial high-pressure fluid pressure.

Features

The Y-type pressure transmitter adopts a quick installation Y-type spherical sealing structure, which is easy to disassemble and securely sealed. The flat film anti blocking design is suitable for viscous media containing particles such as mud and crude oil. The whole machine is encapsulated in stainless steel, which is resistant to high pressure, strong vibration and impact, corrosion-resistant and suitable for oil and gas corrosion conditions. The measurement accuracy is stable and the response speed is fast. Built in surge and anti-interference circuit, supporting 4-20mA standard signal output, wide range coverage, low zero drift during long-term operation, high protection level, suitable for online pressure monitoring of heavy-duty high-pressure equipment such as oil field fracturing and cementing.



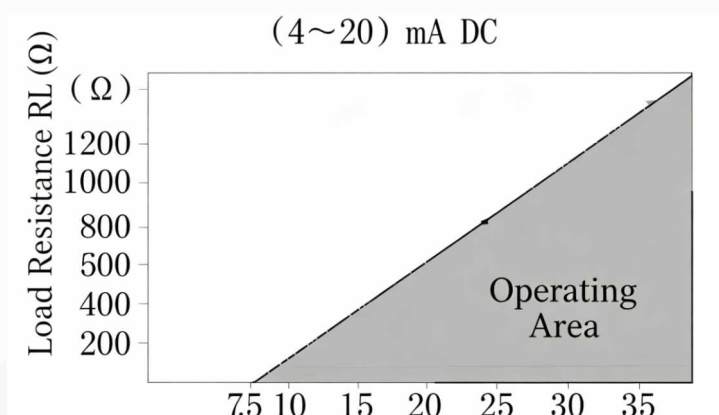
Technical Parameters

Measuring medium	Mud, crude oil, wet soil, etc. (compatible with contact materials)
Pressure range	0~35MPa~105MPa (see range selection table for details)
Pressure mode	Sealing pressure
output signal	4~20mA
power supply voltage	12~36VDC, 15-24VDC
medium temperature	-40°C~125°C
connection time	20ms
Response Frequency	S100Hz
accuracy class	0.5%FS
temperature compensation	-40~70°C
stable performance	+0.1% FS/year
temperature drift	± 0.01% FS/° C (within temperature compensation range)
Explosion proof type	Intrinsically safe ExiaICT6Ga (limited to 4-20mA output only)
Protection rating	IP67
Durability	1X10 cycles (from lower range to upper range)
total weight	≈2600g
maximum power	≤ 0.02Us (W) Note: Us=supply voltage.
resolution	0.01%FS



Load characteristics

Current type: $\leq \{(U_s - 7.5) \div 0.02 \text{ (} U_s = \text{supply voltage)}\} \Omega$



Environmental conditions

Environmental temperature: -40~125 °C (no condensation, no dew)

Overvoltage and explosion

Pressure type	Measurement range	Overload pressure	Burst pressure	O-ring
Sealing pressure	25 < FS ≤ 100 MPa	150%FS	300%FS	Fluororubber

Tips! Note ①: Overload pressure, not damaged but not functioning properly;

Danger Note ②: Blasting pressure, damage or damage relief.

Overall material

Diaphragm: 316L stainless steel (in contact with the measured medium)

Process connection: 316L stainless steel (in contact with the measured medium)

Shell: 316L stainless steel

Sealing element: Nitrile rubber (in contact with the tested medium)

Cable: Φ 5mm polyurethane shielded cable (UV resistant)

Mechanical stability

Anti vibration performance: 20g (20... 2000Hz) in accordance with IEC60068-2-6 standard

Impact resistance: 500g/ms in accordance with IEC60068-2-27 standard

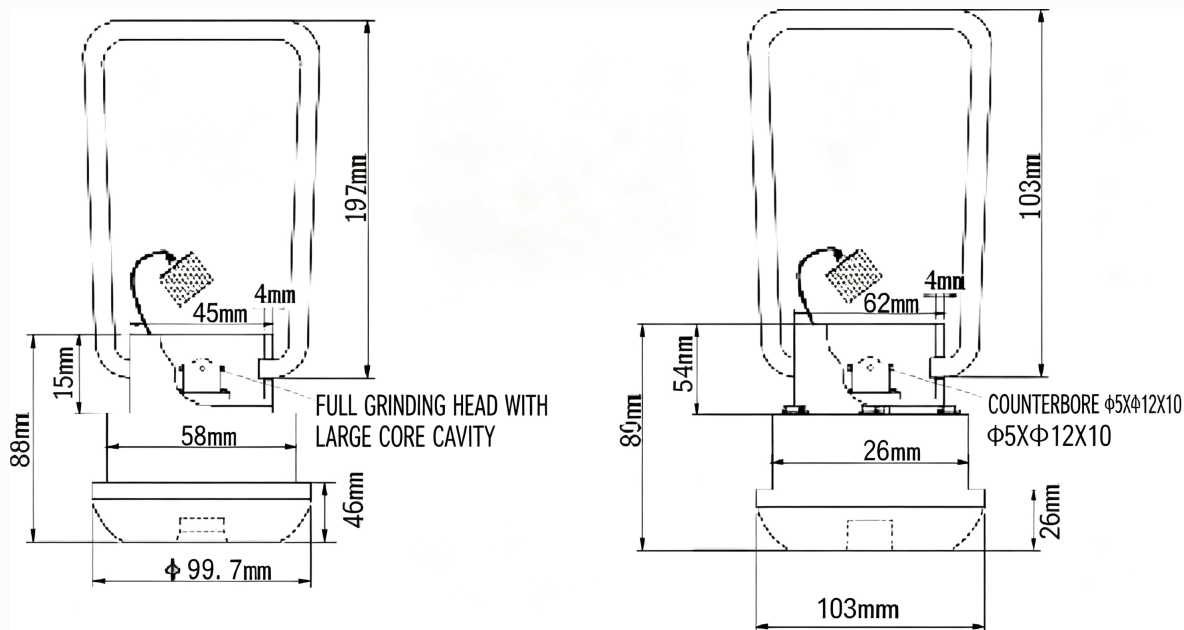
Electrical protection

Reverse protection: No damage, but not working

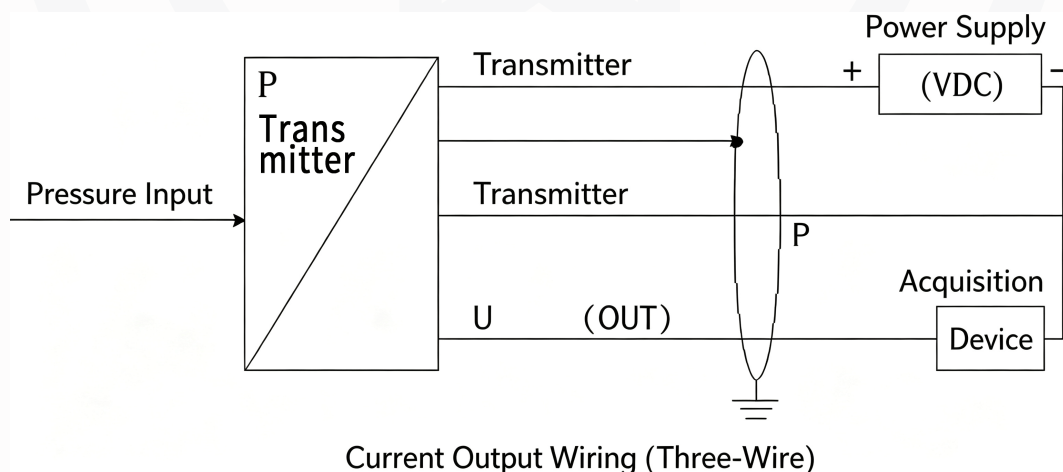
Insulation resistance: $\geq 100\text{M}\Omega$ 500VDC

Insulation strength: 500VAC

Overall dimensions



Wiring Diagram



Representing shielded wires, all marked grounding points must be effectively grounded.

The transmitter housing defaults to ground, so it is required that the on-site equipment be effectively grounded.

Only the current output has reverse connection protection (no damage but not working) and current and voltage limiting protection. Reversing other output signals can cause damage to the transmitter.



UT30 is composed of a union type pressure transmitter - selection composition

Example of Selection **UT30** **A** **C** **H** **K** **M** **N** **S**

1 2 3 4 5 6 7

1. Appearance type	A	Integrated
	B	split-type
2. Range of measurement	C	0~35MPa
	D	0~70MPa
	E	0~105MPa
	F	0~5000PSI
	G	0~10000PSI
	T()	Other ranges
3. Output signal	H	4~20mA three-wire system
	J	Other signals
4. Connection method	K	1502 wing type union interface
	L	Its connection method
5. Accuracy level	M	0.5%FS
6. Power supply voltage	N	12~36VDC
	P	15~24VDC(For intrinsic safety only)
	Q	Other voltages
7. Explosion proof type	R	Intrinsic safety type (limited to current output only)
	S	Standard type (no explosion-proof)

Instructions:

The UT30 union type pressure transmitter is an integrated type with a range of 0~35MPa, an output signal of 4~20mA three wire system, a connection method of 1502 wing type union interface, an accuracy level of 0.5% FS, a power supply voltage of 12~36VDC, and an explosion-proof type of standard type.

Product Certification

Compliance and approval; Rod Weige flowmeter meets key standards and certifications for process measurement technology;Thus ensuring the highest reliability in such settings;

