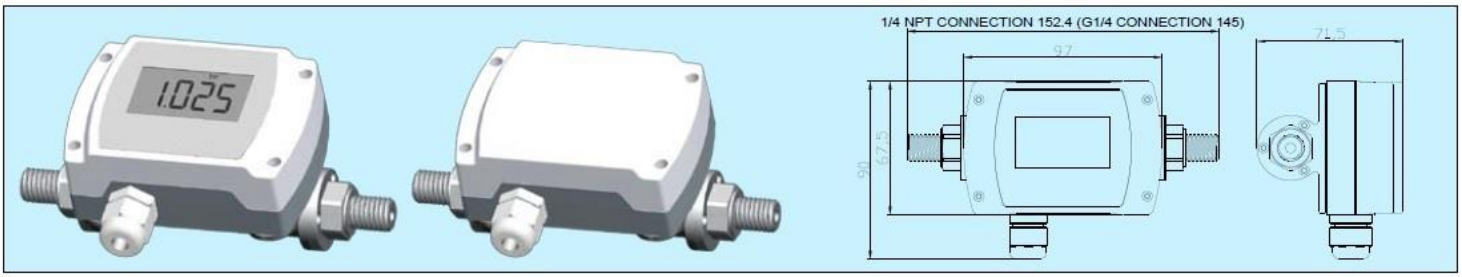
RSA-TDPW Differential Pressure Transmitter Fluid and Gas



Applications & Features

For diff. pressure measurement of compatible fluid and gas

Specifications

Sensor: glass micro fused silicon strain sensor
Power: Current : 18. 5~35VDC (R_L=500Ω) , 8. 5~35VDC (R_L=0Ω), Voltage output: 16~35VDC, 16~28VAC **Output:** 4~20mA (2 wires), 0~10VDC(3 wires) or RS485 **Output**
Load: ≤500Ω (current), ≥2kΩ (0-10VDC)
Accuracy: typical ±0.5%FS (BFSL), see range specifications
Range: see range specifications
Display: LCD, with unit indication (kPa/mbar/in WC/bar/MPa)*
Temperature limit: working -20~70°C; medium -20~85°C; compensation 0~55°C
Pressure Limits: see range specifications
Medium compatibility: 17-4PH stainless steel
Response time: ≤500ms
Housing: sensor 17-4PH stainless steel; sensor casing 304 stainless steel; enclosure ABS+PC (flame retardant)
Protection: IP65
Weight: 0.6kg (without mounting bracket)
Approval: CE
Mounting Bracket: RSA-TDPW-A, for surface mount, should be ordered separately

*The factory set engineering unit is bar. Customer can switch to others with the UNIT button on the PCB.

Models

Models	RSA-TDPW					Diff. Pressure Transmitter
Output		1 2 8				0~10V 4~20mA RS485/Modbus RTU
Range			X			see range specifications
Process Connection				2 4 7		1/4 NPT G1/4 Others
Display					0 1	N/A LCD

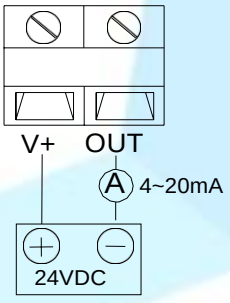
Range specifications

Range		Pressure limits in both side ports			Accuracy	Temperature
		Rated	Overload	Burst	(BFSL)	Coefficient
Code	bar	bar	bar	bar	%FS	%FS/°C
0	0~0.5	3.5	7	17.5	1.0	0.15
1	0~1	3.5	7	17.5	0.5	0.1
2	0~2	3.5	7	17.5	0.5	0.05
3	0~4	7	14	35	0.5	0.05
4	0~6	10	20	50	0.5	0.05
5	0~10	10	20	50	0.5	0.05
6	0~10	16	32	80	0.5	0.05
7	0~16	16	32	80	0.5	0.05

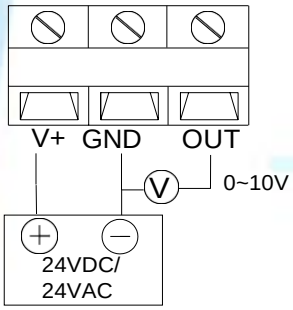
Connection

Different models have different electrical terminals. Please wire specific model according to the wiring diagram inside the front cover.

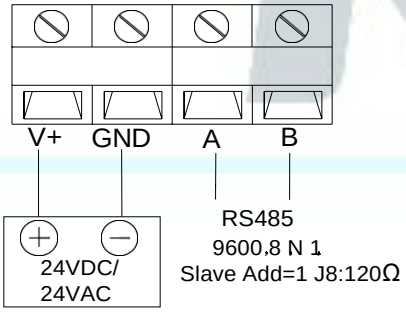
Current（4~20mA）output



Voltage（0~10V）output



RS485 output



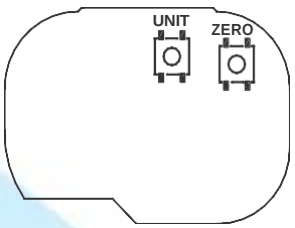
RS485 terminal resistance jumper J8 description:
Terminal resistance 120 Ω: left short J8 pin1 and pin2.
Terminal resistance None (default): right short J8 pin2 and pin3.
As follow figure:

Terminal resistance：120 Ω Terminal resistance：None Default

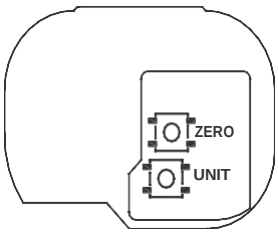
Button

ZERO button**:** connect the "+" and "-" ports to the atmosphere simultaneously, push the button for 3 seconds, the transmitter's output will reset to ZERO.

UNIT button**:** for products with LCD display module, by pushing the UNIT button, customer can switch the LCD display's engineering unit to kPa, mbar, in WC, bar and MPa alternatively. This switch does NOT relate to the transmitter output, which is always on the unit bar.



Voltage /Current output model Key



RS485 output model Key

Installation

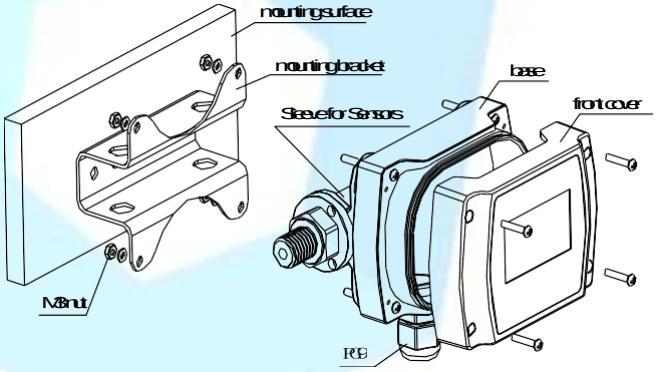


Fig. 1

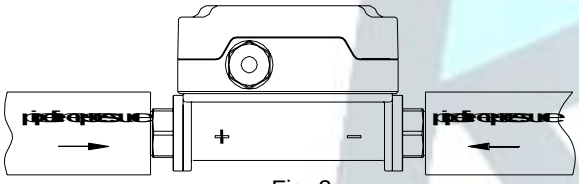


Fig. 2

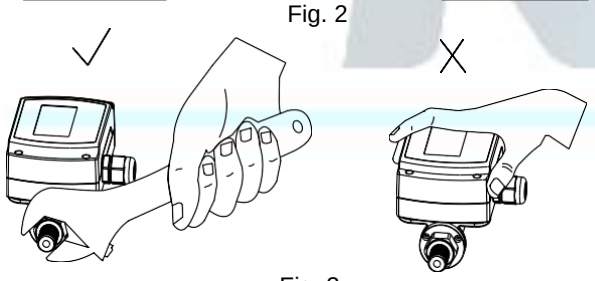


Fig. 3

Pay attention that the "+" and "-" ports should be connected properly. As Fig. 3, be sure to use tools like wrench to tighten the connection. It is prohibited to use hand to screw the product for connecting the system.

1. Installation

(1).Mounting bracket (sold separately) auxiliary installation method: as Fig.1, this installation method is flat installation. Open the front cover, take the four longer M3 screws in the attached accessories, replace the four screws fixed with the base and the sensor sleeve, and tighten the screw for use. Firmly install the mounting bracket on the prepared surface and assemble the transmitter into the bracket with the four M3 nuts and washers in the attached accessories.

(2).Direct pipeline installation method: as Fig. 2, directly connect the transmitter into the measured pipeline system.

2. Terminal wiring

Open the front cover, feed the external cable through the gland into the base, and wire the electrical terminals as the wiring diagrams and cautions. It should be noted that the outer diameter of the cable should match the gland and be sure to air tighten the waterproof seal. Finally, install the cover with the base, also be sure to seal the two properly so that the whole enclosure could meet up to IP65 protection rate.

Attention

1. Pls wiring strictly according to the diagram. And power off when installing and wiring. Be sure to air tighten all seals to prevent water or moisture. If the output is abnormal, it should be powered off immediately and check: whether the power supply is normal, whether there is an open circuit or short circuit. If it is a product quality problem, please return to the factory for repair, the user shall not disassemble the product for maintenance.

2. The product is precision instrument, pls prohibit falling, shocking, improperly disassembling, etc. It should be installed on the site with good ventilation, dry and clean indoor environment. The torque should be less than 40Nm when connecting with the process system. The measuring medium must comply with the measuring medium range specified in the instructions.

Warranty

It has limited warranty for eighteen (18) months after the production date.