Datasheet

Pressure transmitter

SUP-2051DP

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Pressure transmitter
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The circuit design of the transmitter adopts using a modular design with a microprocessor as the core and advanced digital isolation technology, the instrument. The meter has extremely high anti-interference and stability. At the same time, it monitors the transmitter through a built-in temperature sensor. Compensation improves measurement accuracy, reduces temperature drift, and has good long-term stability and reliability. It has the characteristics of high reliability and strong self-diagnosis ability. Structurally, it is very convenient for users to communicate via HART Calibrate, set up and configure the transmitter using the operator.

Applications

- Industrial control
- Chemical field
- Electricity
- Metallurgy
- Petroleum industry
- Forging industry
- Water affairs
- Brewing

SUP-2051DP

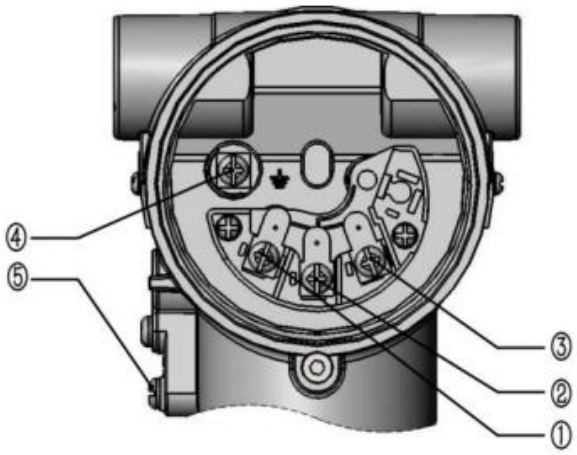
Features

- Advanced technology and packaging technology, with leading technology ultra-high performance
- One-way over voltage can reach up to 25MPa
- Microprocessor and advanced digital isolation technology design, making the instrument highly anti-interference and stable
- Powerful 24-bit ADC achieves high accuracy
- The latest one-key clear function, making it safer and faster.

Parameters	
Measuring medium	Gas, steam, liquid
Accuracy	±0.1% ； ±0.075%；(Only for some ranges of the whole machine) (Including linearity, hysteresis and repeatability from zero point)
Stability	±0.1%/3 years
Static pressure effect	±0.05%/10MPa
Power supply	(15~36) VDC
Power supply impact	±0.001% /10V, negligible
Ambient temperature	(-40~85)℃
Measuring medium temperature	(-40~120)℃
Storage temperature	(-40~85)℃
Display	LCD
Display shows module temperature	（-20~70）℃

Wiring

1 Terminal Block

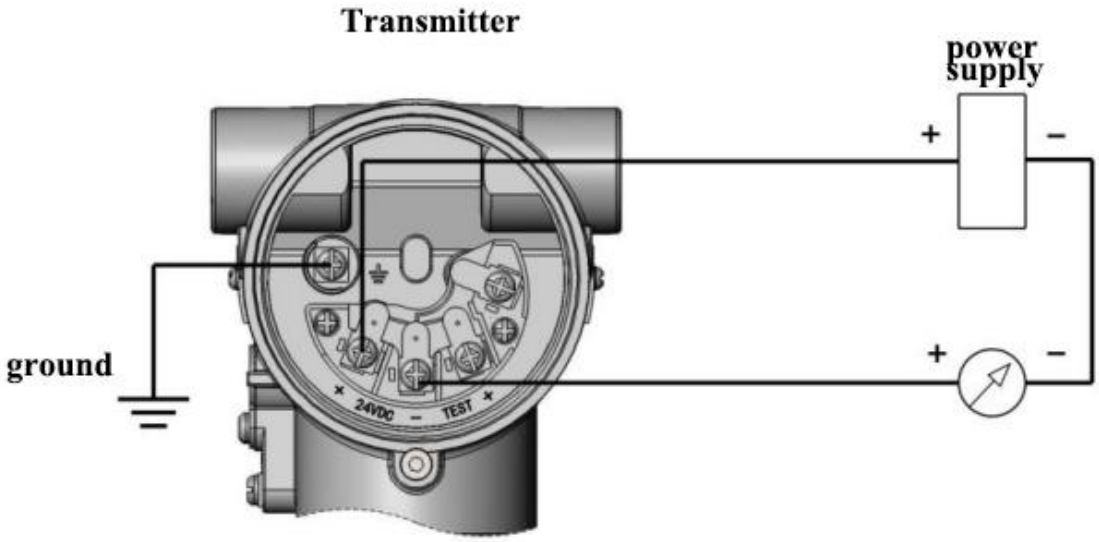


① Transmitter power supply positive
② Transmitter power supply negative
(4～20)mA test terminal negative
③ (4～20)mA test terminal positive
④ Internal ground screw
⑤ External ground screw

Transmitter terminals

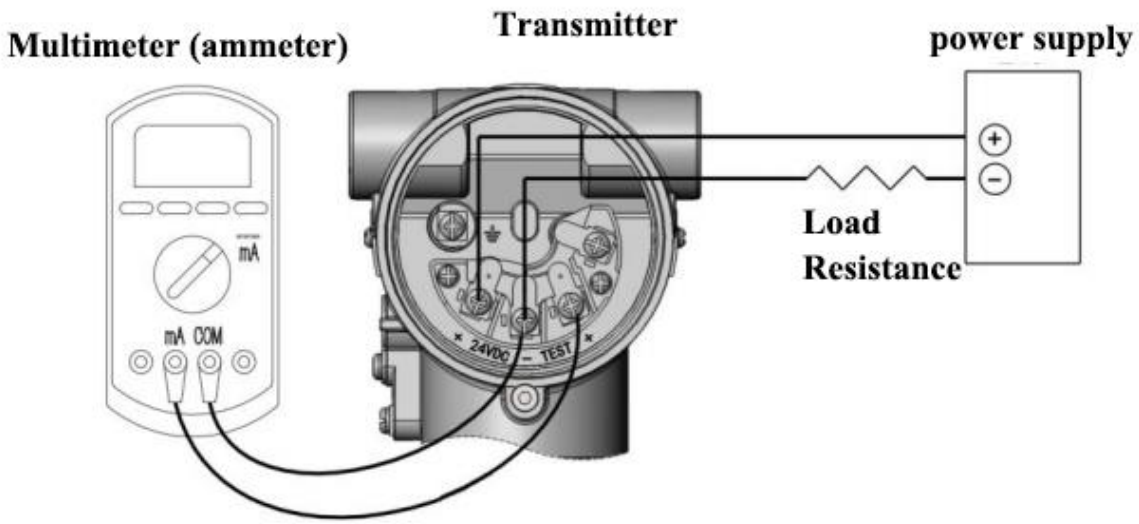
Note: Do not connect the power supply signal line to the test terminal, otherwise the test terminal will be destroyed diode inside. If the diode is unfortunately damaged, short-circuiting the test terminals will allow the transmitter to continue working.It's just that this machine cannot be connected to an external test meter. Signal wires do not need to be shielded, but twisted wires are more effective good. Do not route signal wires together with other power wires or close to strong electrical equipment.

2 Power cord connection



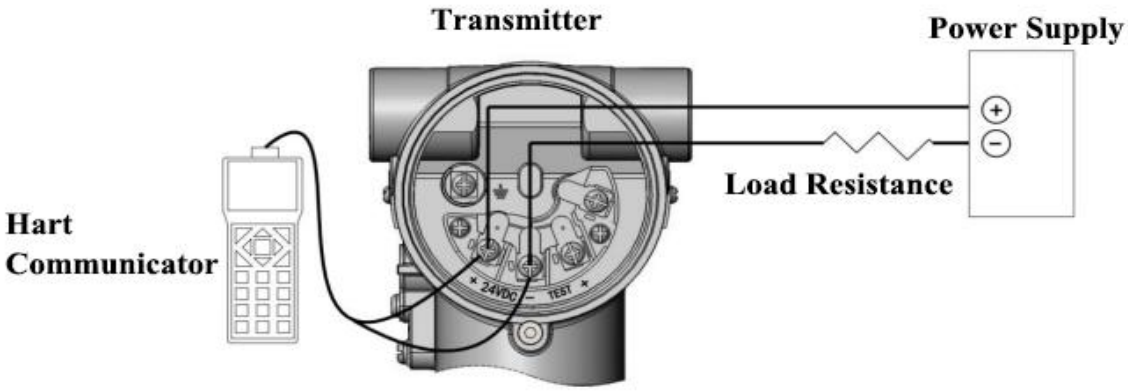
Transmitter power connection diagram

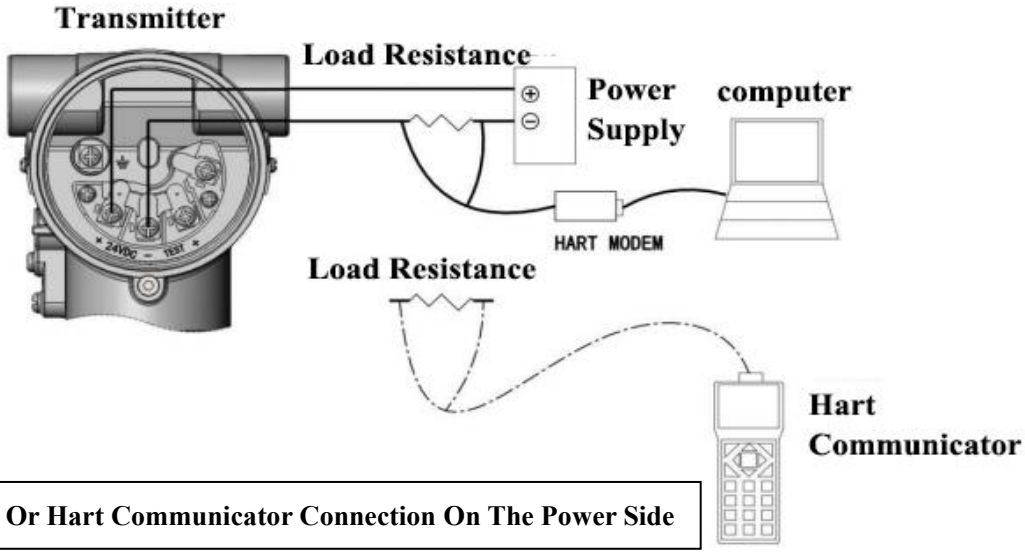
3 Current test instrument connection



Current test instrument connection

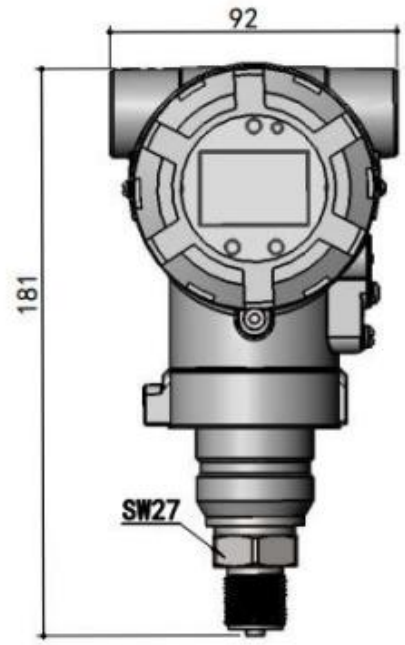
4 Hart communication connection

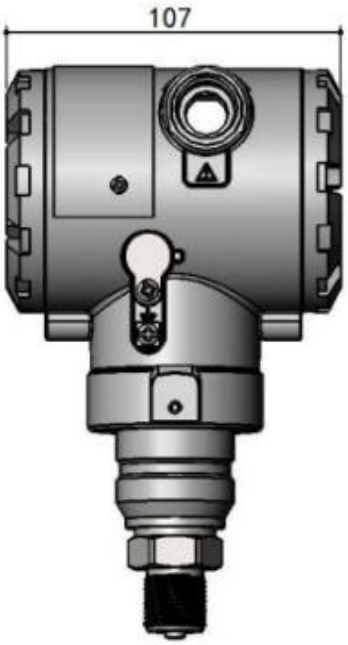


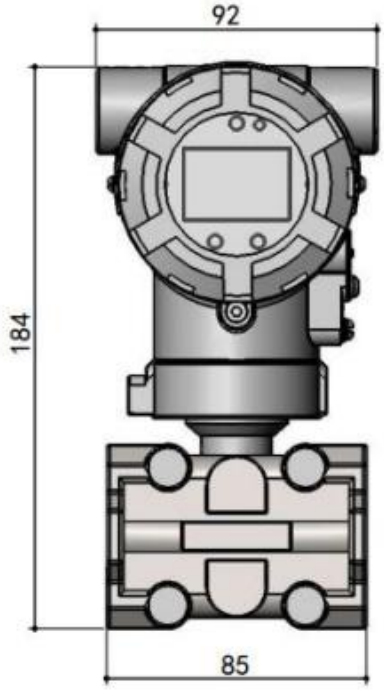


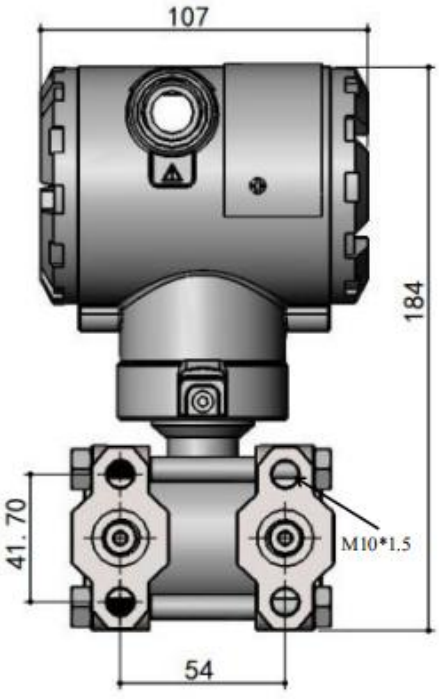
Computer Or Hart Communicator Connection On The Power Side

Dimension









Ordering code

SUP-2051DP-3E-D-H2-50-M1-0-A1-W1-M3-A-02-PF													Description
SUP-2051DP	-	-	-	-	-	-	-	-	-	-	-	-	
Measurement Range	3E												10kPa
	3G												30kPa
	3J												50kPa
	3L												100kPa
	3M												250kPa
	3P												1MPa
	3R												3MPa
	XX												Other
Accuracy		F											0.2Class
		E											0.1Class
		D											0.075Class
Flange Specification			H2										HG/T20592 PN10/40
			H4										HG/T20592 PN63
			K1										ANSI Class 150
			K2										ANSI Class 300
			XX										Other
Flange Size				50									DN50(2")
				80									DN80(3")
				1C									DN100(4")
				XX									Other
Flange Material					M1								304SS
					M3								SS316L
Display Type						0							None
						1							Available
Output and Power supply							A1						Two-Wire 4-20mA(12-42VDC)
							A7						Two-Wire 4-20mA+HART(15-42VDC)
							A5						RS485，24VDC(12-42VDC)
Electrical Interface, Housing Material, and Ingress Protection								W1					M20×1.5 Cable Gland, Aluminum Alloy, IP65
								XX					Other
Diaphragm Material									M3				SS316L
									MG				Hastelloy C
									T2				Tantalum
									XX				Other
Filling Liquid										A			Silicone Oil
										B			High-Temperature Silicone Oil
										F			Fluorinated Oil (Suitable for

			oxygen media)
	C		Ultra-High-Temperature Silicone Oil (Up to 600° C)
	Q		Vegetable Oil
Capillary Length		02	2m
		05	5m
		10	10m
		XX	Other
Accessories			PF Galvanized Carbon Steel Pipe-Mounted Flat Bracket + UNF7/16 Bolt
			PE 304SS Pipe Mounted Flat Bracket + UNF7/16 Bolt
			PH Galvanized Carbon Steel Pipe Mounted Bent Bracket + UNF7/16 Bolt
			PG 304SS Pipe Mounted Bent Bracket + UNF7/16 Bolt

Note:Capillary tubes of equal length on both positive and negative pressure sides.