



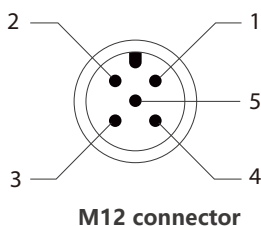
Product structure

The Trantech TTPSD51 differential pressure sensor uses a diffused silicon sensor element to measure accurate differential pressure. The signal is processed by a post-processing circuit and converted into a standard industrial electrical Milli-amp or Voltage analogue signal. The all-metal casing design, with a bright red LED digital display enables the product line to be used in a variety of industrial applications. The three-button design and menu make the product convenient to use and setup. A variety of process connections are available. The device electronics can rotate up to 330°, this guarantees the best screen viewing angle in different mounting positions.

Technical parameters

◇ Supply voltage: 12... 30Vdc	◇ Accuracy: $\leq \pm 0.5\%$ range
◇ No-load current consumption: maximum 40mA, 24Vdc power supply	◇ Stability (annual drift) : $\leq \pm 0.3\%$ range
◇ Switch output:	◇ Temperature:
Output type: PNP/NPN can be switched, normally open/normally closed can be set	Medium temperature: -20... 85 ° c.
SP1, SP2 load: <1A /24VDC	Ambient temperature: -20... 80 ° c.
Response time: <10ms	Storage temperature: -30... 80 ° c.
Switching accuracy: $\leq \pm 0.5\%$ range	◇ Materials:
Current model analog output: $\leq \pm 0.5\%$ range	Case: engineering plastic
Output type: 4... 20mA can be set	Flame retardant grade: UL-94 V-0
Load RA: $\leq 0.5K\Omega$	Housing: stainless steel 304
Linearity: $\leq 0.5\%$ range	Medium contact part: stainless steel 304
Communication output: IO-Link/RS485	◇ Protection level: IP67
Connection protection:	◇ Outlet mode: M12x1 connector
reverse phase, overload, short circuit protection	
◇ Display:	
Design: Red 4-bit 12mm high brightness LED	
Display range: -1999... 9999	

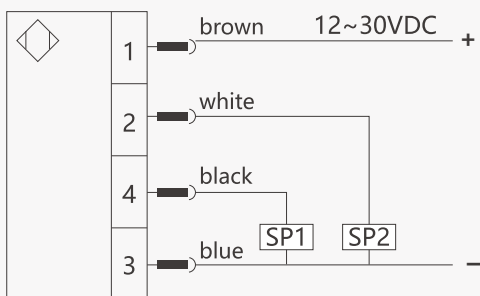
Wiring diagramm



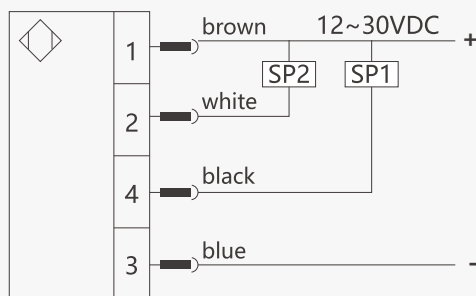
1	brown	Power supply +
2	white	Switch output SP2 (analog) (RS485 A)
3	blue	Power supply -
4	black	Switch output SP1 (IO-Link) (RS485 B)
5	grey	Analog output (voltage or current)

Two way switch

PNP

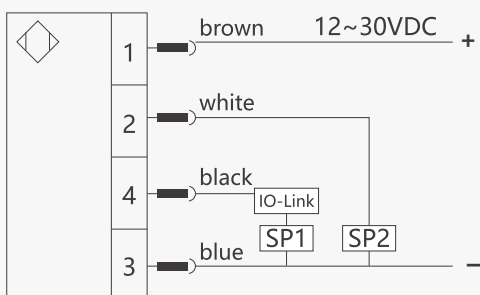


NPN

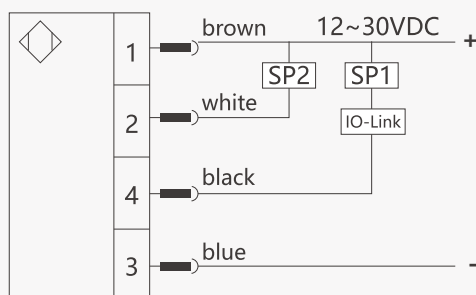


Two way switch+(IO-Link)

PNP

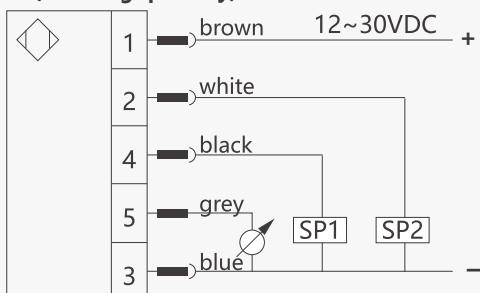


NPN

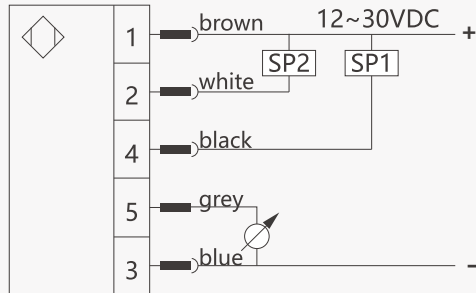


Two way switch+An Analog quantity

PNP(+Analog quantity)

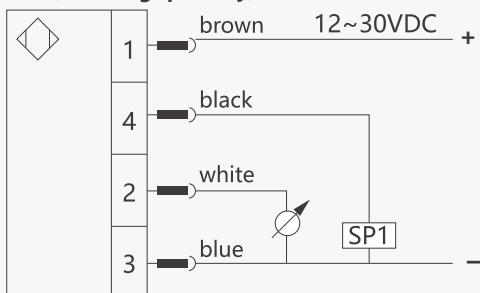


NPN(+Analog quantity)

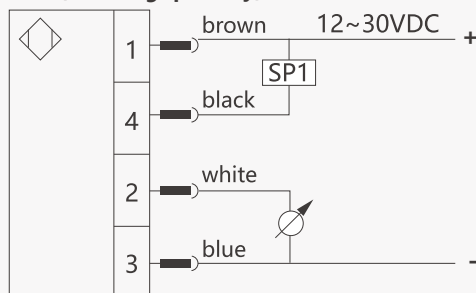


One switch + An Analog quantity

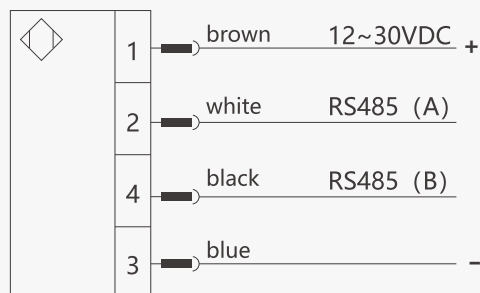
PNP(+Analog quantity)



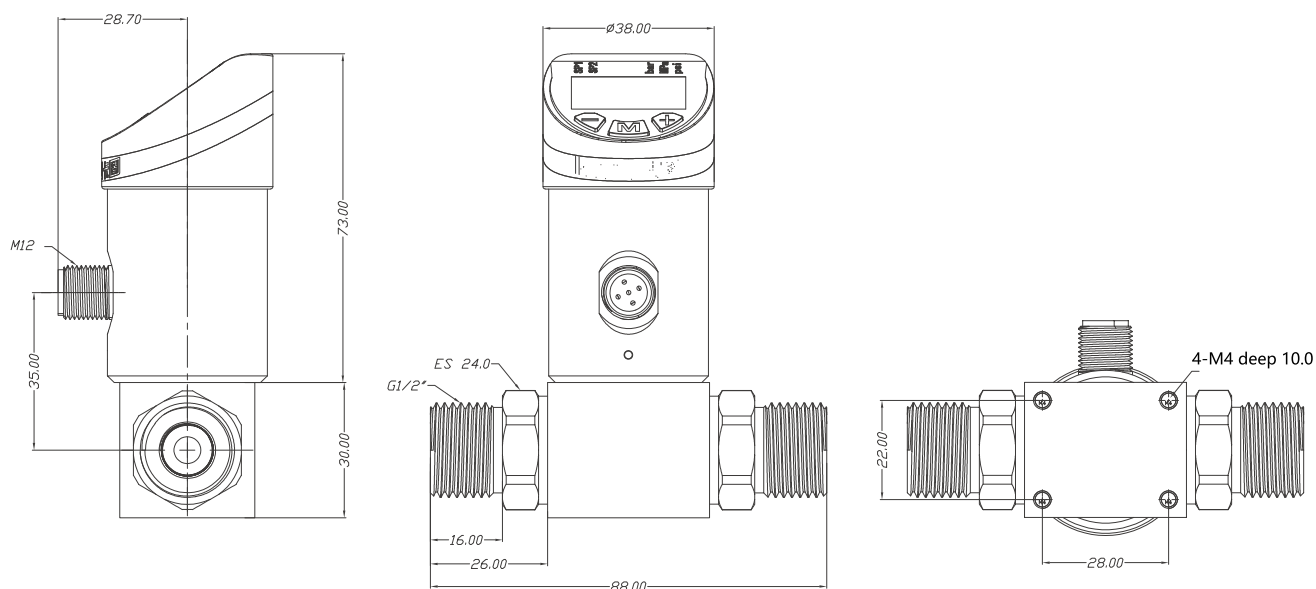
NPN(+Analog quantity)



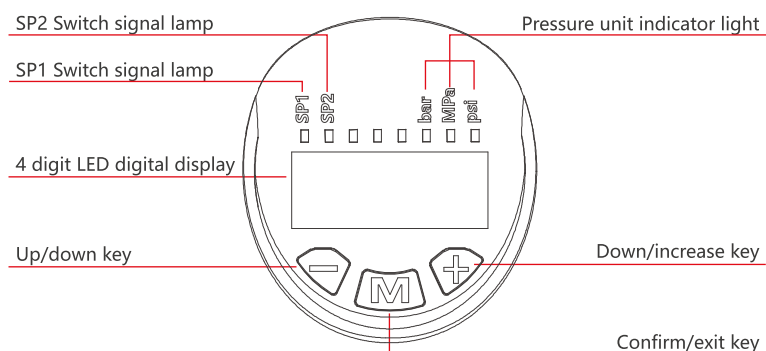
RS485 communication



Dimensional drawing(mm)



Panel diagram

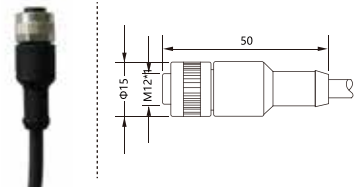
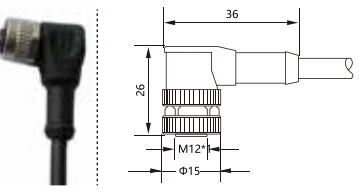


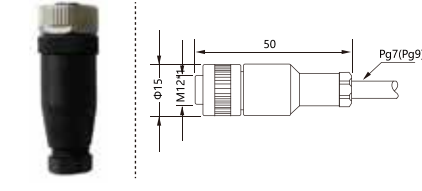
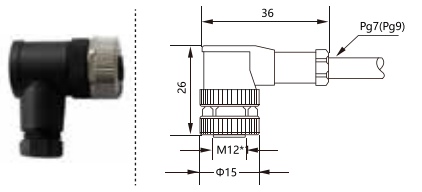


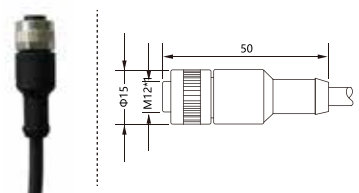
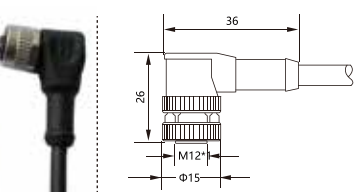
Selection Table

TTPSD51	001	G 14K	G 14K	S2	detail	
TTPSD51					TTPSD51 series electronic digital display differential pressure sensor	
	001				Set range: 0... 0.1 the bar	
	002				Set range: 0... 0.2 the bar	
	005				Set range: 0... 0.5 the bar	
	010				Set range: 0... 1bar	
	050				Set range: 0... 5bar	
	060				Set range: 0... 6bar	
	100				Set range: 0... 10bar	
	160				Set range: 0... 16bar	
	250				Set range: 0... 25bar	
		G 14K			H High pressure end interface thread: G1/4 internal thread	
		G 14M			H High pressure end interface thread: G1/4 external thread	
		G 12M			H High voltage end interface thread: G1/2 external thread	
		M 20M			H High pressure end interface thread: M 20*1.5 external thread	
			G 14K		L Low pressure end interface thread: G1/4 internal thread	
			G 14M		L Low pressure end interface thread: G1/4 external thread	
			G 12K		L Low pressure end interface thread: G1/2 internal thread	
			M 20M		L Low pressure end interface thread: M 20*1.5 external thread	
				S2	Two switch output	
				SL	Two switch output +(IO-Link)	
				A2	A switch output + analog output (0/4... 20m A)	Current pattern
				A3	Two switch outputs + analog output (0/4... 20mA)	
				V2	A switch output + analog output (0/1... 5V)	5V voltage type
				V3	Two switch outputs + analog output (0/1... 5V)	
				V4	A switch output + analog output (0/1... 10V)	10V voltage type
				V5	Two switch outputs + analog output (0/1... 10V)	
				RS	RS485 communication	

Optional accessories - electrical accessories

name	Outline drawing/dimension drawing (mm)	material	model
M12*1-5Pin (2m cable)		PUR	ZL05-PU02G
M12*1-5Pin (5m cable)			ZL05-PU05G
M12*1-5Pin (10m cable)			ZL05-PU010G
M12*1-5Pin (2m cable)		PVC	ZL05-PC02G
M12*1-5Pin (5m cable)			ZL05-PC05G
M12*1-5Pin (10m cable)			ZL05-PC010G
		PUR	ZL05-PU02W
			ZL05-PU05W
		PVC	ZL05-PC02W
			ZL05-PC05W
			ZL05-PC010W

M12* 1-4pin /5Pin self-connector/size drawing (mm)	model
	GL04 (4Pin joint)
	GL05 (5Pin joint)
	WL04 (4Pin joint)
	WL05 (5Pin joint)

name	Outline drawing/dimension drawing (mm)	material	model
M12*1-4Pin (2m cable)		PUR	ZL04-PU02G
M12*1-4Pin (5m cable)			ZL04-PU05G
M12*1-4Pin (10m cable)			ZL04-PU010G
M12*1-4Pin (2m cable)		PVC	ZL04-PC02G
M12*1-4Pin (5m cable)			ZL04-PC05G
M12*1-4Pin (10m cable)			ZL04-PC010G
		PUR	ZL04-PU02W
			ZL04-PU05W
		PVC	ZL04-PC02W
			ZL04-PC05W
			ZL04-PC010W