Electronic Digital Display Pressure Sensor PS500




Standard ED sealed type


Flat seal threaded type


Blocking hole G1/2 thread type


External taper seal


Internal thread connection


Flat film chuck type

Principle structure

The diffused silicon sensor is used for pressure measurement, and the signal is processed by a post-processing circuit and converted into a standard industrial electrical signal for output and display. The all-metal casing design, with a highlighted 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 more convenient to use, and a variety of connection methods can fully meet various specific installation needs. The device, which can rotate at 330°, guarantees the best viewing Angle in different mounting modes.

Technical parameter

- ◇ Supply voltage: 12... 30Vdc
- ◇ No-load current consumption: maximum 40mA,24Vdc power supply
- ◇ Switch output:

Output type: PNP/NPN can be switched, normally open/normally closed can be set

switch load: <200mA /24VDC

Response time: 0.01~2s (Factory default)

Switching accuracy: ≤±0.5% range

Current model analog output: ≤±0.5% range

Output type: 4-20mA/1-5V/0-10V can be set

Load RA: ≤500Ω

Linearity: ≤0.5% range

Communication output: IO-Link/RS485

Connection protection: reverse phase, overload, short circuit protection

- ◇ Display:

Design: Red 4-bit 12mm high brightness LED

Display range: -1999... 9999

- ◇ Accuracy: ≤±0.5% range
- ◇ Stability (annual drift) : ≤±0.3% range
- ◇ Temperature:

Medium temperature: -20... 85 ° c.

Ambient temperature: -20... 80 ° c.

Storage temperature: -30... 80 ° c.

- ◇ Materials:

Case: engineering plastic

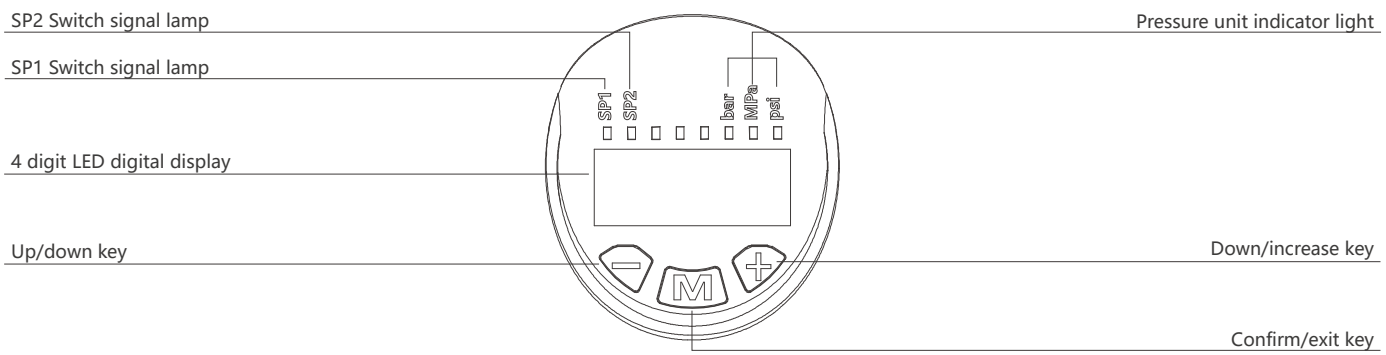
Flame retardant grade: UL-94 V-0

Housing: stainless steel 304

Medium contact part: stainless steel 304

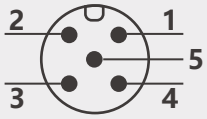
- ◇ Protection level: IP67
- ◇ Outlet mode: M12x1 connector

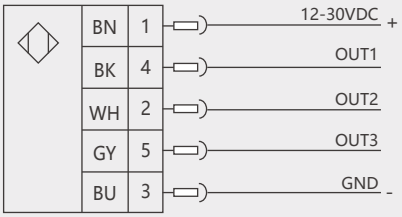
Panel diagram



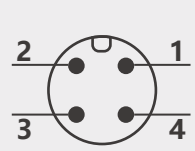
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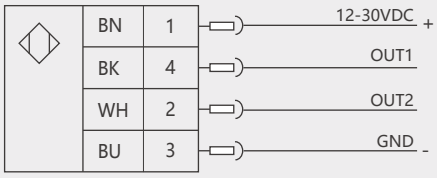
Wiring diagram





A3: Two way switch + one way analog								
color	**stitch**	**Instructions**	**color**	**stitch**	**Instructions**	**color**	**stitch**	**Instructions**
BN	1	power supply (+)	BU	3	power supply (-)	GY	5 (OUT3)	4-20mA (Factory default) 1-5V 0-10V
BK	4 (OUT1)	SP1 switch PNP (Factory default) SP1 switch NPN	WH	2 (OUT2)	SP2 switch PNP (Factory default) SP2 switch NPN			





S2: Two-way switch/IO-Link					
color	**stitch**	**Instructions**	**color**	**stitch**	**Instructions**
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	SP1 switch PNP (Factory default) SP1 switch NPN IO-Link	WH	2 (OUT2)	SP2 switch PNP (Factory default) SP2 switch NPN

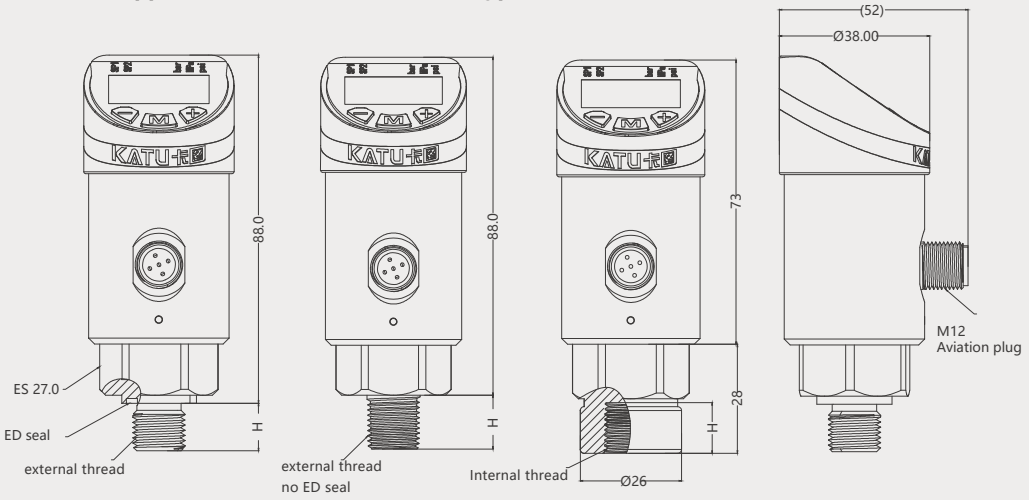
SA: One switch /IO-Link + analog					
color	**stitch**	**Instructions**	**color**	**stitch**	**Instructions**
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	SP1 switch PNP (Factory default) SP1 switch NPN IO-Link	WH	2 (OUT2)	4-20mA (Factory default) 1-5V 0-10V

RS: RS485					
color	**stitch**	**Instructions**	**color**	**stitch**	**Instructions**
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	RS485(B)	WH	2 (OUT2)	RS485(A)

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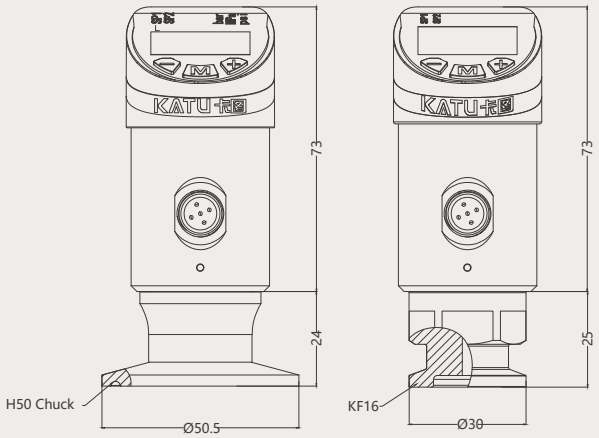
Dimensional drawing (mm)

< 600bar Appearance dimension of thread type

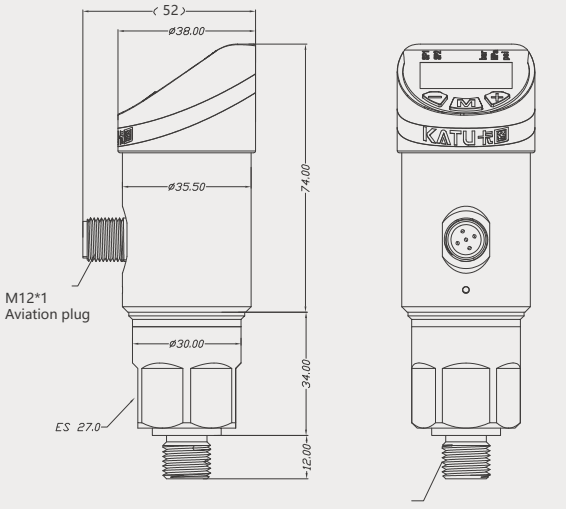


Screw thread		Thread height(H)	seal
external thread	G1/4	12	Sealed with ED
	G1/2	12	
	M20*1.5	12	
	R1/4	14	No ED seal
	R1/2	14	
	NPT1/4	14	
Internal thread	R1/4	13	
	G1/4	13	

< 600bar Chuck type appearance dimensions



≥600bar Appearance size



The process connection specification is the same as < 600bar

Parameter list

Pressure range	bar	1	2	5	10	16	25	60	100	160	250	400	600
	psi	15	30	75	145	230	370	900	1500	2300	3600	6000	9000
Maximum overload pressure		×5			×3			×2			×1.5		×1.3
Minimum damage pressure		×6			×4			×3			×2		×1.6

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Selection table

PS500-	B	100	G14M	S2	expatiate
PS500-					PS500 series electronic digital display pressure sensor
	B				Manometer pressure
	F				Negative pressure
		0001			Measuring range: -10... 10KPa or 0... 10KPa
		0006			Measuring range: -60... 60KPa or 0... 60KPa
		001			Measuring range: -1... 1bar or 0... 1bar
		002			Measuring range: -1... 2bar or 0... 2bar
		005			Measuring range: -1... 5bar or 0... 5bar
		010			Measuring range: -1... 10bar or 0... 10bar
		025			Measuring range: 0... 25bar
		060			Measuring range: 0... 60bar
		100			Measuring range: 0... 100bar
		160			Measuring range: 0... 160bar
		250			Measuring range: 0... 250bar
		400			Measuring range: 0... 400bar
		600			Measuring range: 0... 600bar
		1000			Measuring range: 0... 1000bar
			G14M		Process connection: G1/4 external thread
			G12M		Process connection: G1/2 external thread
			G14K		Process connection: G1/4 internal thread
			N14M		Process connection: NPT1/4 external thread
			R12M		Process connection: R1/2 external thread
			R14M		Process connection: R1/4 external thread
			M20M		Process connection: M20*1.5 external thread
			KP50		Process connection: 1.5 inch (outer diameter 50.5mm) chuck metal flat film type (standard pressure 1.6MPa)
			KF16		Process connection: KF16 vacuum chuck type
				S2	Output signal: Two switch output/IO-link (4-core cable)
				SA	Output signal: One switch output /IO-link + analog output (4-core cable)
				A3	Output signal: two switch output + analog output (5-core cable)
				RS	Output signal: RS485 communication (4-core cable)