



## Principle structure

The PS410 electronic differential pressure sensor is a device that measures two pressures and converts them into electrical signals for output. It is widely used in scenarios such as clogging detection in filtration systems.

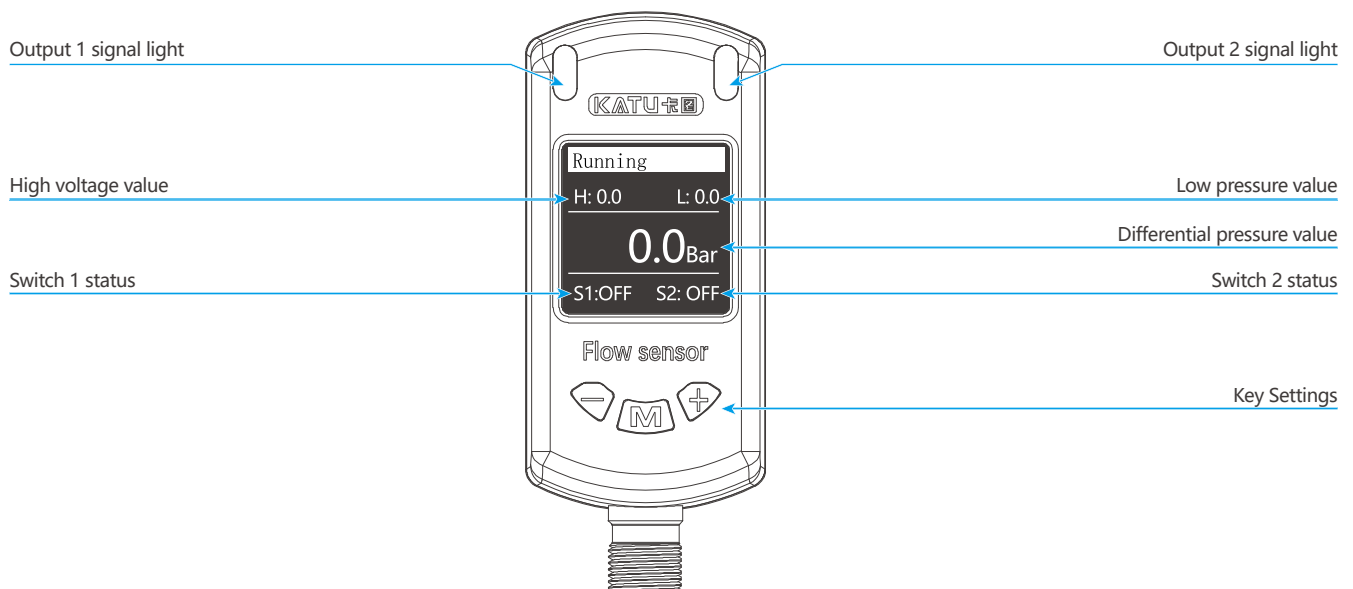
Core principle: Pressure difference → physical deformation → electrical signal

The core logic of an electronic differential pressure sensor is to sense the difference between two pressures through a sensitive element, convert it into mechanical deformation, and then convert the deformation into measurable electrical signals (such as voltage and current) through electronic components.

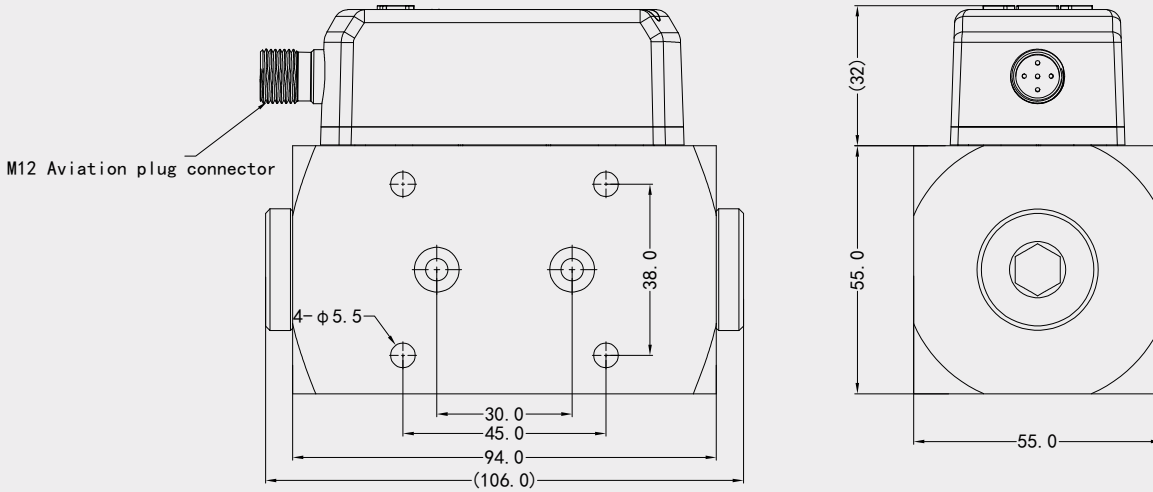
## Technical parameters

◇ Supply voltage: 18... 30Vdc	◇ Stability (annual drift) : $\leq \pm 0.3\%$ range
No-load current consumption: Maximum 40mA, powered by 24Vdc	◇ Temperature
◇ Switch output:	Medium temperature: -20... 85°C
Output type: PNP/NPN switchable, normally open/normally closed adjustable	Ambient temperature: -20... 80°C
Switching load: < 200mA /24VDC	Storage temperature: -30... 80°C
Response time: 0.01 to 2 seconds (factory default)	Overload capacity: 2 times full scale
Switch accuracy: $\leq \pm 0.5\%$ range	◇ Materials:
Current-type analog output: $\leq \pm 0.5\%$ range	Case of the dial: ABS
Output type: 4-20mA/1-5V/0-10V are selectable	Shell: ABS
Load RA: $\leq 500\Omega$	Medium contact part: stainless steel 304/ alumina
Linearity: $\leq 0.5\%$ range	◇ Protection grade: IP67
◇ Communication output: RS485	◇ Cable exit method: M12x1 connector
◇ Wiring protection: Reverse phase, overload, short circuit protection	
◇ Display: 1.44TFT color crystal display screen	
Accuracy: $\leq \pm 0.5\%$ range	

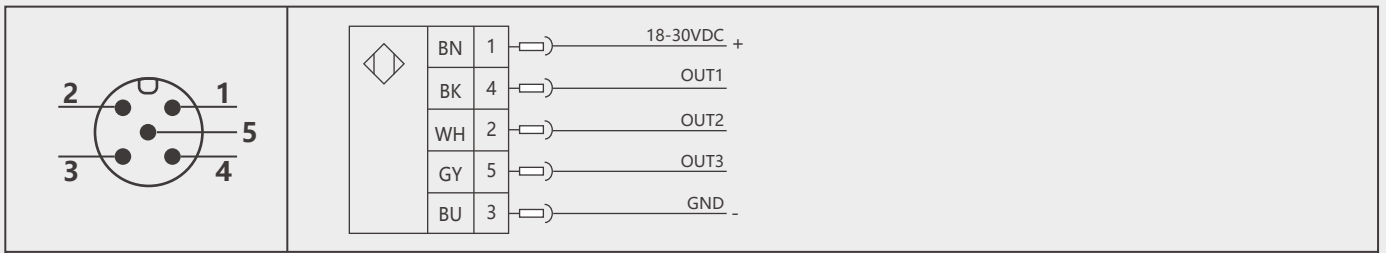
## Panel schematic diagram



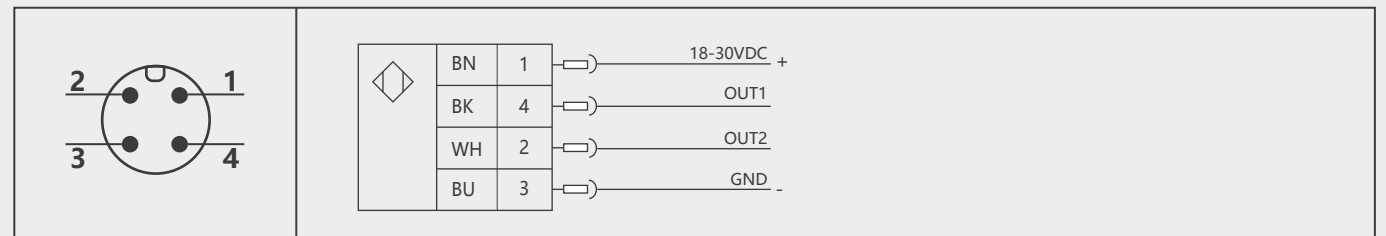
Dimension drawing (mm)



Wiring diagram



Two way switch /IO-Link/Frequency + 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			



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)

## Option table

PS 410 -	001	A 3	Detailed description
PS 410			PS410 series electronic differential pressure sensor
	001		Set range: 0... 0.1 bar
	005		Set range: 0... 0.5 bar
	010		Set range: 0... 1 bar
	050		Set range: 0... 5 bar
	100		Set range: 0... 10 bar
	160		Set range: 0... 16 bar
	250		Set range: 0... 25 bar
		A 3	Two switch outputs + analog output (5-core cable)
		RS	RS485 communication (4-core cable)

## 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)		PVC	ZL05-PC02G
M12*1-5Pin (2m cable)			ZL05-PC05G
M12*1-5Pin (5m cable)		PUR	ZL05-PU02W
M12*1-5Pin (10m cable)			ZL05-PU010G
M12*1-5Pin (2m cable)		PVC	ZL05-PC02W
M12*1-5Pin (5m cable)			ZL05-PC05W
M12*1-5Pin (10m cable)			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)		PVC	ZL04-PC02G
M12*1-4Pin (2m cable)			ZL04-PC05G
M12*1-4Pin (5m cable)		PUR	ZL04-PU02W
M12*1-4Pin (10m cable)			ZL04-PU010W
M12*1-4Pin (2m cable)		PVC	ZL04-PC02W
M12*1-4Pin (5m cable)			ZL04-PC05W
M12*1-4Pin (10m cable)			ZL04-PC010W