



Principle structure

The diffused silicon sensor is used for pressure measurement, and the signal is converted into a standard industrial electrical signal after processing by a post-processing circuit and displayed. Designed with an integrated injection molded housing, this series of products can be used in a variety of industrial applications. Key setting, easy operation, high-light LED can digitally display real-time measurement values. A variety of connection methods can fully meet a variety of specific installation needs.

Technical parameter

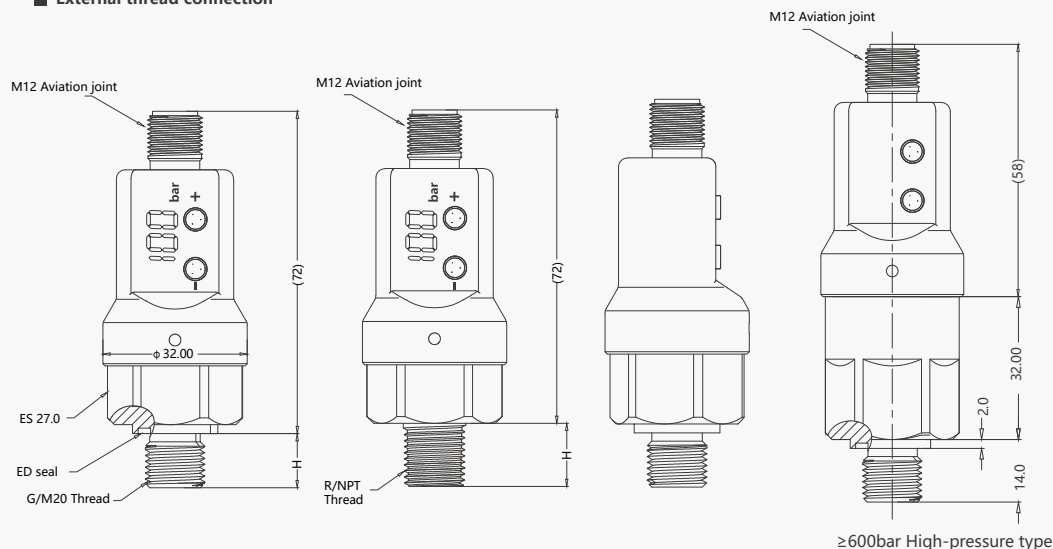
- ◇ Supply voltage: 12... 30Vdc
- ◇ No-load current consumption: maximum 30mA, 24Vdc power supply
- ◇ Output type: PNP/NPN can be set, normally open/normally closed can be set / Frequency (full scale 100Hz) Optional
- Switch load: <200mA
- Response time: <10ms
- Switching accuracy: $\leq \pm 0.5\%$ range
- ◇ Switch setting mode: button increase/decrease
- ◇ Switch point return difference: factory default return difference is 0.5% of the set value of the switch (configurable)
- ◇ Connection protection: reverse phase, overload, paragraph protection
- ◇ Accuracy: $\leq \pm 0.5\%$ range
- ◇ Stability (annual drift) : $\leq \pm 0.3\%$ range
- ◇ Temperature:
 - Medium temperature: -20... 85°C
 - Ambient temperature: -20... 80°C
 - Storage temperature: -30... 80°C
- ◇ Material:
 - Induction diaphragm: stainless steel 316L/ ceramic
 - Process connection: stainless steel 304
 - Sealing material: Butadiene rubber/fluorine rubber
- Housing: engineering plastic
- ◇ Protection grade: IP67
- ◇ Outlet: M12x1 connector

Parameter table

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

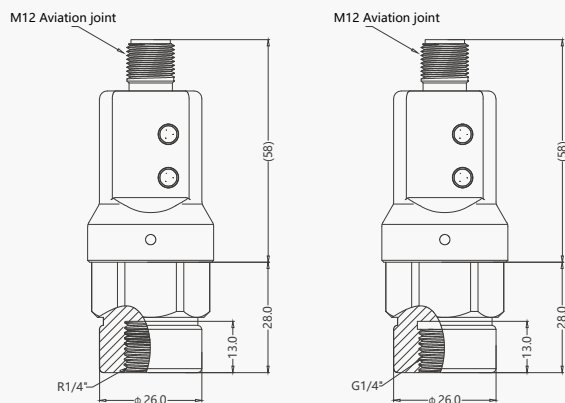
Dimension drawing (mm)

■ External thread connection

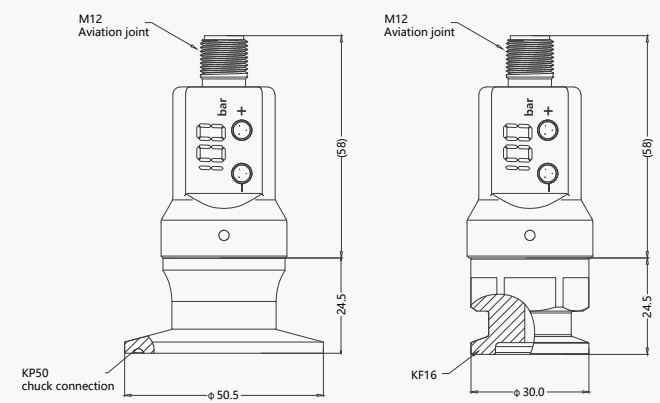


External thread	Thread height(H)	Sealing method
G1/4	12	ED seal
G1/2		
M20×1.5		
R1/4	14	no
R1/2		
N1/4		

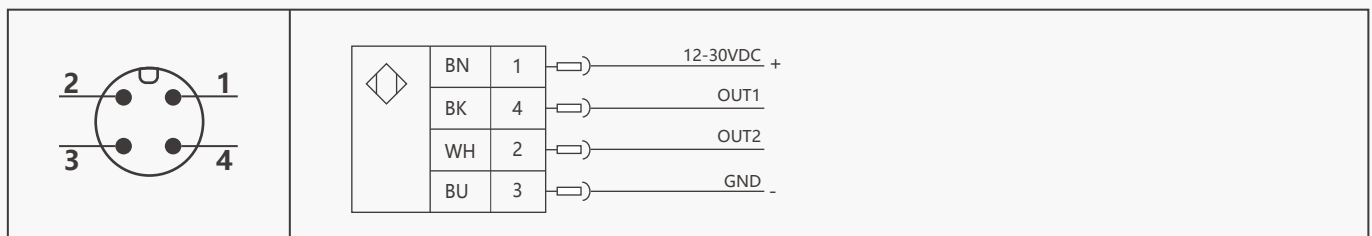
■ Internal thread connection



■ Chuck connection



Wiring diagram



switch/frequency

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 Frequency (full scale 100Hz)	WH	2 (OUT2)	/

Analog output: 4-20mA

color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	4-20mA	WH	2 (OUT2)	/

Analog output: 1-5V

color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	1-5V	WH	2 (OUT2)	/

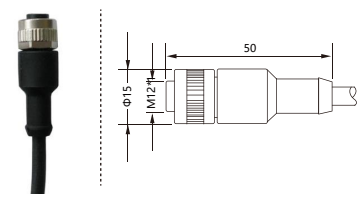
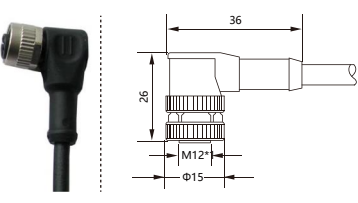
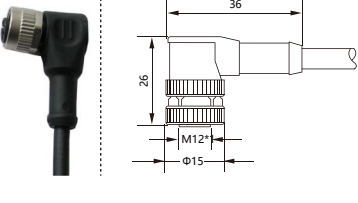
RS485

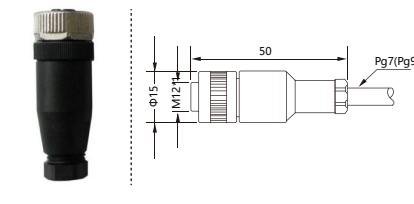
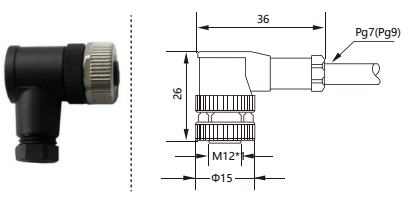
color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	RS485(B)	WH	2 (OUT2)	RS485(A)

Selection list

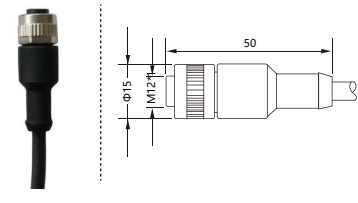
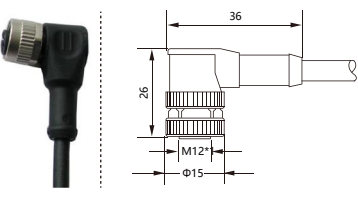
PS200-	B	100	G14M	-	Elaborate
PS200-					PS200 electronic pressure sensor
	B				Gauge pressure
	F				Negative pressure
		0001			Measurement range: -10... 10KPa or 0... 10KPa
		0006			Measurement range: -60... 60KPa or 0... 60KPa
		001			Measurement range: -1... 1bar or 0... 1bar
		002			Measurement range: -1... 2bar or 0... 2bar
		005			Measurement range: -1... 5bar or 0... 5bar
		010			Measurement range: 0... 10bar
		025			Measurement range: 0... 25bar
		060			Measurement range: 0... 60bar
		100			Measurement range: 0... 100bar
		160			Measurement range: 0... 160bar
		250			Measurement range: 0... 250bar
		400			Measurement range: 0... 400bar
		600			Measurement range: 0... 600bar
		1000			Measurement range: 0... 1000bar
			G14M		Process connection: G1/4 external thread
			G12M		Process connection: G1/2 external thread
			N14M		Process connection: NPT1/4 external thread
			R14M		Process connection: R1/4 external thread
			R12M		Process connection: R1/2 external thread
			M20M		Process connection: M20*1.5 external thread
			G14K		Process connection: G1/4 Internal thread
			R14K		Process connection: R1/4 Internal thread
			KP50		Process connection: 1.5-inch (outer diameter 50.5mm) chuck metal flat film type (standard pressure resistance 1.6MPa)
			KF16		Process connection: KF16 vacuum chuck type
				-	Output signal: Switch/frequency
				A	Output signal: Analog 4-20mA
				V	Output signal: Analog 1-5V
				RS	Output signal: RS485

Factory standard:ZL03-PC02G

name	Outline drawing/dimension drawing (mm)	material	model
M12*1-4Pin (2m cable)		PUR	ZL03-PU02G
M12*1-4Pin (5m cable)			ZL03-PU05G
M12*1-4Pin (10m cable)			ZL03-PU010G
M12*1-4Pin (2m cable)		PUR	ZL03-PC02G
M12*1-4Pin (5m cable)			ZL03-PC05G
M12*1-4Pin (10m cable)			ZL03-PC010G
M12*1-4Pin (2m cable)		PVC	ZL03-PU02W
M12*1-4Pin (5m cable)			ZL03-PU05W
M12*1-4Pin (10m cable)			ZL03-PU010W
M12*1-4Pin (2m cable)		PUR	ZL03-PC02W
M12*1-4Pin (5m cable)			ZL03-PC05W
M12*1-4Pin (10m cable)			ZL03-PC010W

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

Factory standard:ZL04-PC02G

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
M12*1-4Pin (2m cable)		PUR	ZL04-PU02W
M12*1-4Pin (5m cable)			ZL04-PU05W
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



Principle structure

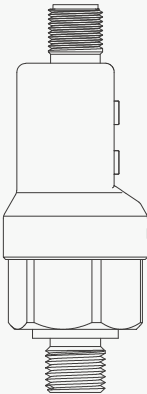
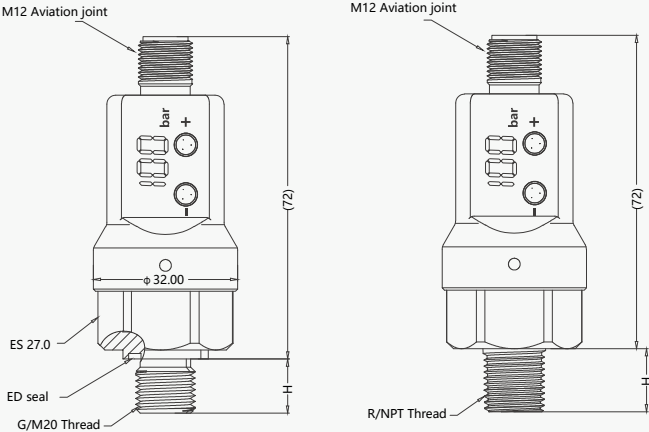
The ceramic piezoresistive sensor is used for pressure measurement, and the signal is converted into a standard industrial electrical signal after processing by a post-processing circuit and displayed. Designed with an integrated injection molded housing, this series of products can be used in a variety of industrial applications. Key setting, easy operation, high-light LED can digitally display real-time measurement values. A variety of connection methods can fully meet a variety of specific installation needs.

Technical parameter

- ◊ Supply voltage: 12... 30Vdc
- ◊ No-load current consumption: maximum 30mA,24Vdc power supply
- ◊ Output type: PNP/NPN can be set, normally open/normally closed can be set
/ Frequency (full scale 100Hz) Optional
- Switch load: <200mA
- Response time: <10ms
- Switching accuracy: $\leq \pm 0.5\%$ range
- ◊ Switch setting mode: button increase/decrease
- ◊ Switch point return difference: factory default return difference is 0.5%
of the set value of the switch (configurable)
- ◊ Connection protection: reverse phase, overload, paragraph protection
- ◊ Accuracy: $\leq \pm 1\%$ range
- ◊ Stability (annual drift) : $\leq \pm 0.3\%$ range
- ◊ Temperature:
Medium temperature: -20... 85°C
Ambient temperature: -20... 80°C
Storage temperature: -30... 80°C
- ◊ Material: Sensing diaphragm: ceramic
- Process connection: stainless steel 304
- Sealing material: fluorine rubber
- Housing: engineering plastic
- ◊ Protection grade: IP67
- ◊ Outlet: M12x1 connector

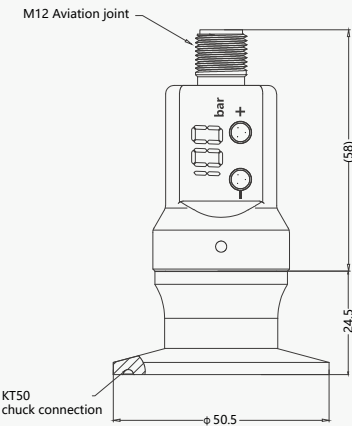
Dimension drawing (mm)

External thread connection

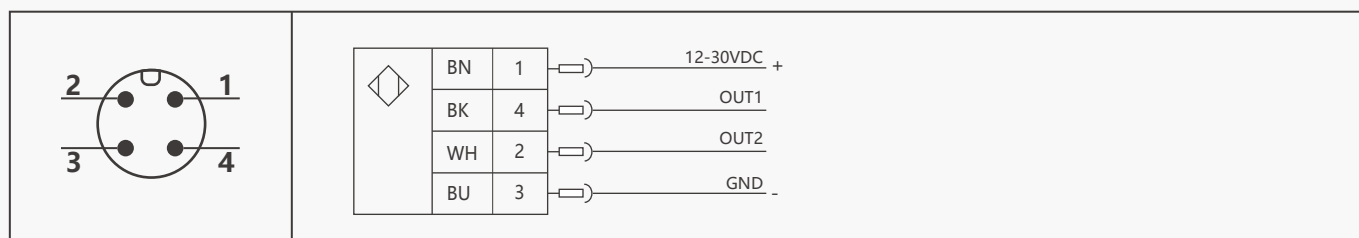


External thread	Thread height(H)	Sealing method
G1/4	12	ED seal
G1/2		
M20×1.5		
R1/4	14	no
R1/2		
N1/4		

Chuck connection



Wiring diagram



switch/frequency

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 Frequency (full scale 100Hz)	WH	2 (OUT2)	/

Analog output: 4-20mA

color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	4-20mA	WH	2 (OUT2)	/

Analog output: 1-5V

color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	1-5V	WH	2 (OUT2)	/

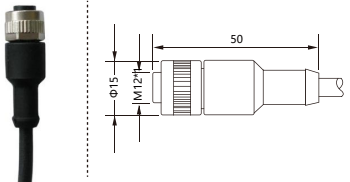
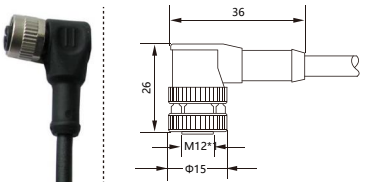
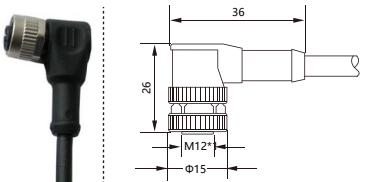
RS485

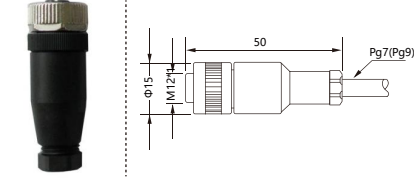
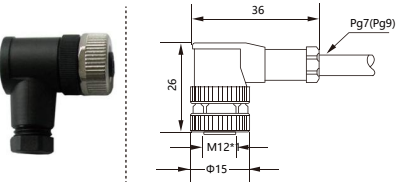
color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	RS485(B)	WH	2 (OUT2)	RS485(A)

Selection list

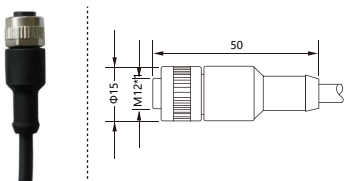
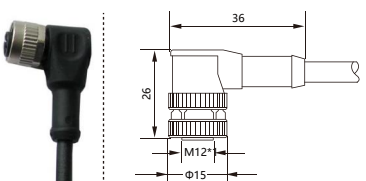
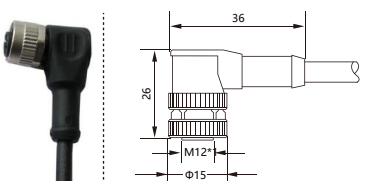
PS201-	B002	G14M	-	expatiate
PS201-				PS201 Ceramic electronic pressure switch (sensor)
	B002			Measuring range: 0... 2bar
	B010			Measuring range: 0... 10bar
	B050			Measuring range: 0... 50bar
	B100			Measuring range: 0... 100bar
	B200			Measuring range: 0... 200bar
		G14M		Process connection: G1/4 external thread
		G12M		Process connection: G1/2 external thread
		N14M		Process connection: NPT1/4 external thread
		R14M		Process connection: R1/4 external thread
		R12M		Process connection: R1/2 external thread
		M20M		Process connection: M20*1.5 external thread
		KT50		Process connection: 1.5-inch (outer diameter 50.5mm) chuck ceramic flat film type(Standard pressure resistance 1.6MPa)
			-	Output signal: switch/frequency
			A	Output signal: analog 4-20mA
			V	Output signal: analog 1-5V
			RS	Output signal: RS485

Factory standard:ZL03-PC02G

name	Outline drawing/dimension drawing (mm)	material	model
M12*1-4Pin (2m cable)		PUR	ZL03-PU02G
M12*1-4Pin (5m cable)			ZL03-PU05G
M12*1-4Pin (10m cable)			ZL03-PU010G
M12*1-4Pin (2m cable)		PVC	ZL03-PC02G
M12*1-4Pin (5m cable)			ZL03-PC05G
M12*1-4Pin (10m cable)			ZL03-PC010G
M12*1-4Pin (2m cable)		PUR	ZL03-PU02W
M12*1-4Pin (5m cable)			ZL03-PU05W
M12*1-4Pin (10m cable)			ZL03-PU010W
M12*1-4Pin (2m cable)		PVC	ZL03-PC02W
M12*1-4Pin (5m cable)			ZL03-PC05W
M12*1-4Pin (10m cable)			ZL03-PC010W

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

Factory standard:ZL04-PC02G

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
M12*1-4Pin (2m cable)		PUR	ZL04-PU02W
M12*1-4Pin (5m cable)			ZL04-PU05W
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



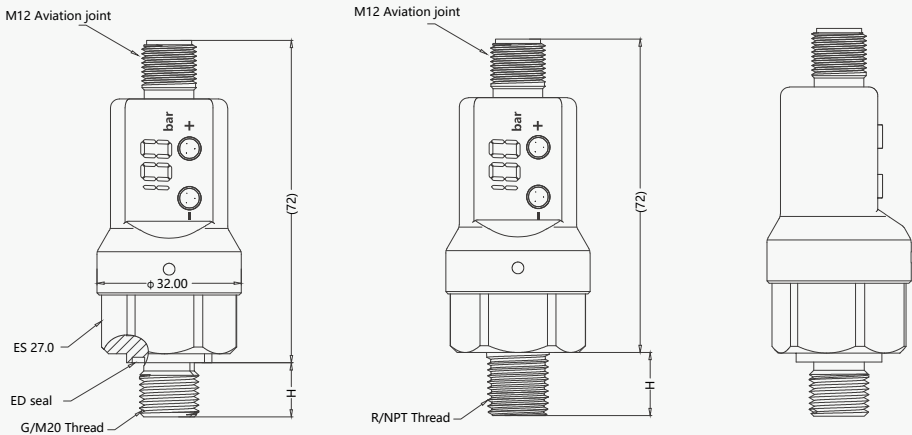
Principle structure

The strain gauge pressure core measurement principle is adopted. The signal is processed by the post-processing circuit and converted into a standard industrial electrical signal for output and display. The one-piece injection molded shell design enables this series of products to be used in various industrial Settings. Key setting, simple operation, high-brightness LED can digitally display real-time measurement values. Multiple connection methods can fully meet various specific installation requirements.

Technical parameter

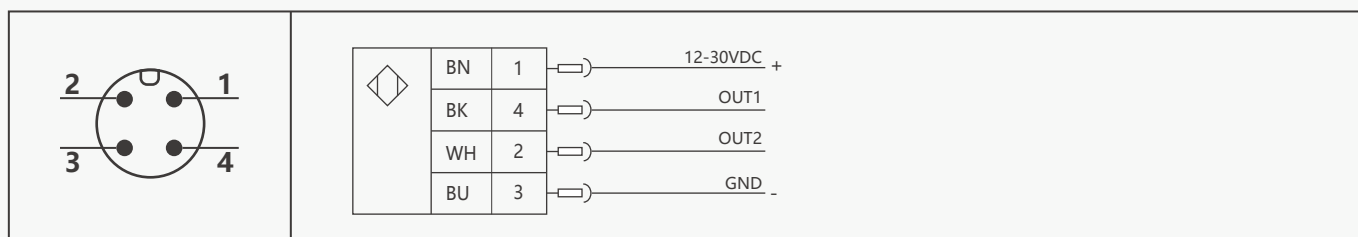
- ◇ Supply voltage: 12... 30Vdc
- ◇ No-load current consumption: maximum 30mA, 24Vdc power supply
- ◇ Output type: PNP/NPN can be set, normally open/normally closed can be set / Frequency (full scale 100Hz) Optional
- Switch load: <200mA
- Response time: <10ms
- Switching accuracy: $\leq \pm 0.5\%$ range
- ◇ Switch setting mode: button increase/decrease
- ◇ Switch point return difference: factory default return difference is 0.5% of the set value of the switch (configurable)
- ◇ Connection protection: reverse phase, overload, paragraph protection
- ◇ Accuracy: $\leq \pm 0.5\%$ range
- ◇ Stability (annual drift) : $\leq \pm 0.3\%$ range
- ◇ Temperature:
 - Medium temperature: -20... 85°C
 - Ambient temperature: -20... 80°C
 - Storage temperature: -30... 80°C
- ◇ Material:
 - Induction diaphragm: stainless steel 316L/ ceramic
 - Process connection: stainless steel 304
 - Sealing material: Butadiene rubber/fluorine rubber
 - Housing: engineering plastic
- ◇ Protection grade: IP67
- ◇ Outlet: M12x1 connector

Dimension drawing (mm)



External thread	Thread height(H)	Sealing method
G1/4	12	ED seal
G1/2		
M20×1.5		
R1/4	14	no
R1/2		
N1/4		

Wiring diagram



switch/frequency

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 Frequency (full scale 100Hz)	WH	2 (OUT2)	/

Analog output: 4-20mA

color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	4-20mA	WH	2 (OUT2)	/

Analog output: 1-5V

color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	1-5V	WH	2 (OUT2)	/

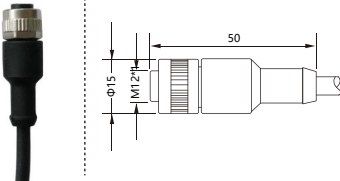
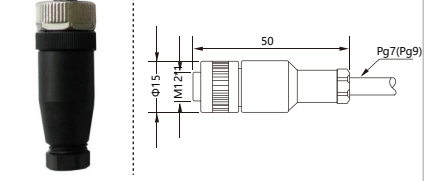
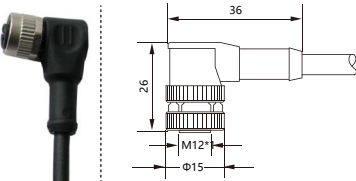
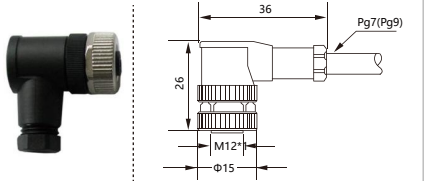
RS485

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

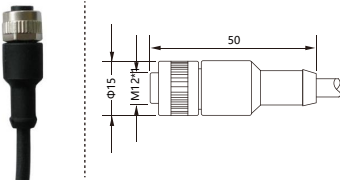
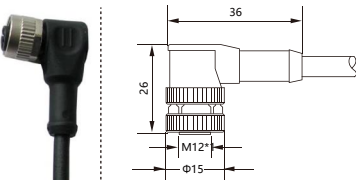
Selection list

PS203-	100	G14M	-	Elaborate
PS203-				PS203 Strain gauge electronic pressure switch (sensor)
	100			Measurement range: 0... 100bar
	160			Measurement range: 0... 160bar
	250			Measurement range: 0... 250bar
	400			Measurement range: 0... 400bar
	600			Measurement range: 0... 600bar
		G14M		Process connection: G1/4 external thread
		G12M		Process connection: G1/2 external thread
		N14M		Process connection: NPT1/4 external thread
		R14M		Process connection: R1/4 external thread
		R12M		Process connection: R1/2 external thread
		M20M		Process connection: M20*1.5 external thread
			-	Output signal: Switch/frequency
			A	Output signal: Analog 4-20mA
			V	Output signal: Analog 1-5V
			RS	Output signal: RS485

Factory standard:ZL03-PC02G

name	Outline drawing/dimension drawing (mm)	material	model	M12* 1-4pin self-connector/size drawing (mm)	model
M12*1-4Pin (2m cable)		PUR	ZL03-PU02G		GL04 (4Pin joint)
M12*1-4Pin (5m cable)			ZL03-PU05G		
M12*1-4Pin (10m cable)			ZL03-PU010G		
M12*1-4Pin (2m cable)		PVC	ZL03-PC02G		WL04 (4Pin joint)
M12*1-4Pin (5m cable)			ZL03-PC05G		
M12*1-4Pin (10m cable)			ZL03-PC010G		
M12*1-4Pin (2m cable)		PUR	ZL03-PU02W		
M12*1-4Pin (5m cable)			ZL03-PU05W		
M12*1-4Pin (10m cable)			ZL03-PU010W		
		PVC	ZL03-PC02W		
			ZL03-PC05W		
			ZL03-PC010W		

Factory standard:ZL04-PC02G

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
M12*1-4Pin (2m cable)		PUR	ZL04-PU02W
M12*1-4Pin (5m cable)			ZL04-PU05W
M12*1-4Pin (10m cable)			ZL04-PU010W
		PVC	ZL04-PC02W
			ZL04-PC05W
			ZL04-PC010W



Principle structure

The diffused silicon sensor is used for pressure measurement, and the signal is converted into a standard industrial electrical signal after processing by a post-processing circuit and displayed. Designed with an integrated injection molded housing, this series of products can be used in a variety of industrial applications. Key setting, easy operation, high-light LED can digitally display real-time measurement values. A variety of connection methods can fully meet a variety of specific installation needs.

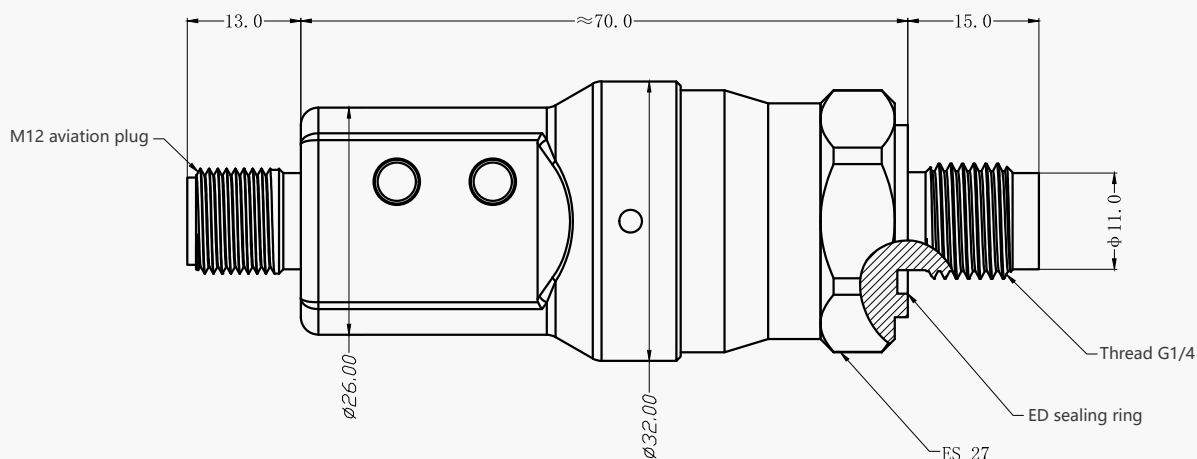
Technical parameter

- | |
|---|
| ◇ Supply voltage: 12... 30Vdc |
| ◇ No-load current consumption: maximum 30mA,24Vdc power supply |
| ◇ Output type: PNP/NPN can be set, normally open/normally closed can be set |
| / Frequency (full scale 100Hz) Optional |
| Switch load: <200mA |
| Response time: <10ms |
| Switching accuracy: $\leq \pm 0.5\%$ range |
| ◇ Switch setting mode: button increase/decrease |
| ◇ Switch point return difference: factory default return difference |
| is 0.5% of the set value of the switch (configurable) |
| ◇ Connection protection: reverse phase, overload, |
| paragraph protection |
| ◇ Accuracy: $\leq \pm 0.5\%$ range |
| ◇ Stability (annual drift) : $\leq \pm 0.3\%$ range |
| ◇ Temperature: |
| Medium temperature: -20... 85°C |
| Ambient temperature: -20... 80°C |
| Storage temperature: -30... 80°C |
| ◇ Material: |
| Induction diaphragm: stainless steel 316L/ ceramic |
| Process connection: stainless steel 304 |
| Sealing material: Butadiene rubber/fluorine rubber |
| Housing: engineering plastic |
| ◇ Protection grade: IP67 |
| ◇ Outlet: M12x1 connector |

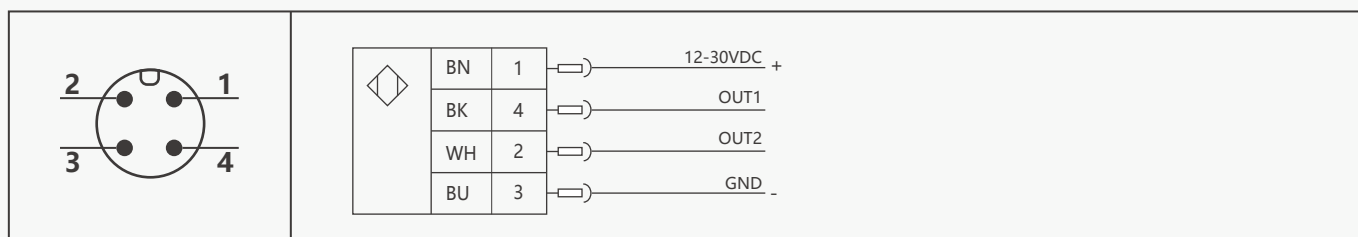
Parameter table

Pressure range	bar	1	2	5	10	16	25	60	100
	psi	15	30	75	145	230	370	900	1500
Max overload pressure		×5			×3			×2	
Min damage pressure		×6			×4			×3	

Dimension drawing (mm)



Wiring diagram



switch/frequency

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 Frequency (full scale 100Hz)	WH	2 (OUT2)	/

Analog output: 4-20mA

color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	4-20mA	WH	2 (OUT2)	/

Analog output: 1-5V

color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	1-5V	WH	2 (OUT2)	/

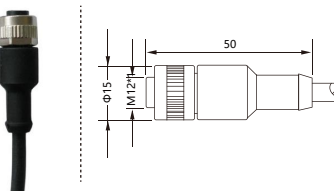
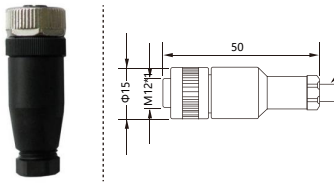
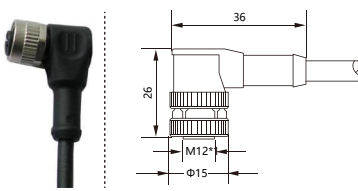
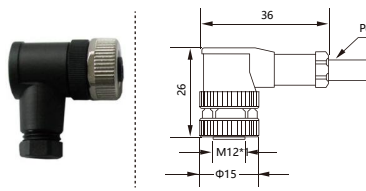
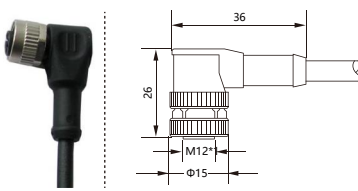
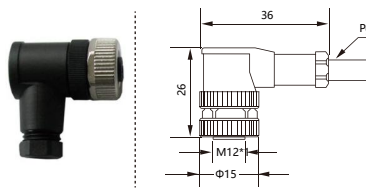
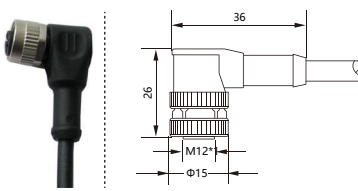
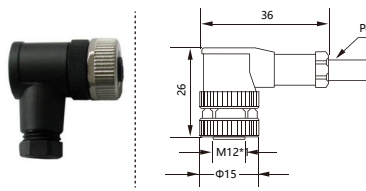
RS485

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

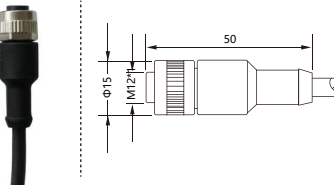
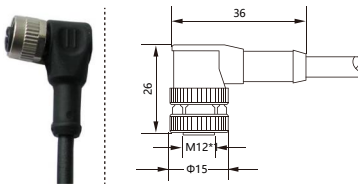
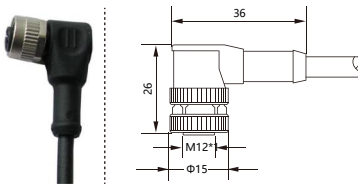
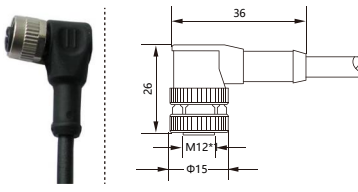
Selection list

PS205-	100	G 14 M	-	Detailed description
PS205-				PS205 Flat membrane type electronic pressure switch (sensor)
	001			Measurement range: 0... 1bar
	002			Measurement range: 0... 2bar
	005			Measurement range: 0... 5bar
	010			Measurement range: 0... 10bar
	025			Measurement range: 0... 25bar
	060			Measurement range: 0... 60bar
	100			Measurement range: 0... 100bar
		G 14 M		Process connection: G 1/4 external thread
			-	Output signal: Switch/frequency
			A	Output signal: Analog 4-20m A
			V	Output signal: Analog quantity 1-5V
			RS	Output signal: RS485

Factory standard:ZL03-PC02G

name	Outline drawing/dimension drawing (mm)	material	model	M12* 1-4pin self-connector/size drawing (mm)	model
M12*1-4Pin (2m cable)		PUR	ZL03-PU02G		GL04 (4Pin joint)
M12*1-4Pin (5m cable)			ZL03-PU05G		
M12*1-4Pin (10m cable)			ZL03-PU010G		
M12*1-4Pin (2m cable)		PUR	ZL03-PC02G		WL04 (4Pin joint)
M12*1-4Pin (5m cable)			ZL03-PC05G		
M12*1-4Pin (10m cable)			ZL03-PC010G		
M12*1-4Pin (2m cable)		PUR	ZL03-PU02W		WL04 (4Pin joint)
M12*1-4Pin (5m cable)			ZL03-PU05W		
M12*1-4Pin (10m cable)			ZL03-PU010W		
M12*1-4Pin (2m cable)		PVC	ZL03-PC02W		WL04 (4Pin joint)
M12*1-4Pin (5m cable)			ZL03-PC05W		
M12*1-4Pin (10m cable)			ZL03-PC010W		

Factory standard:ZL04-PC02G

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
M12*1-4Pin (2m cable)		PUR	ZL04-PU02W
M12*1-4Pin (5m cable)			ZL04-PU05W
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



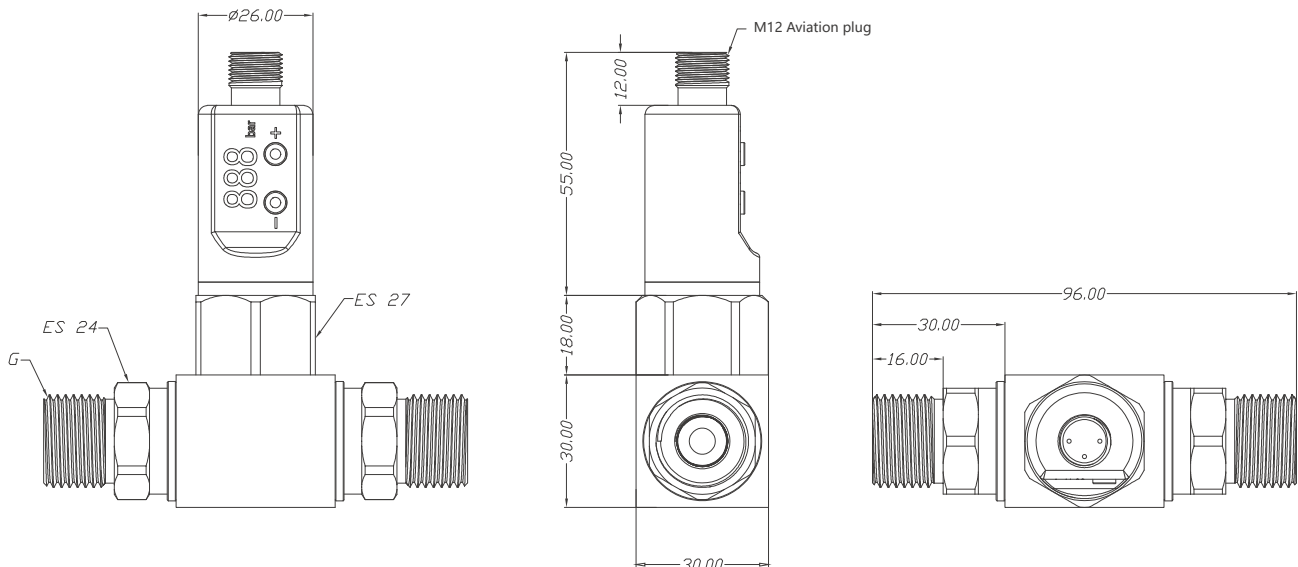
Principle structure

Diffused silicon sensor is used for differential pressure measurement, and the signal is converted into standard industrial electrical signal output and display after processing by post-processing circuit. The all-metal housing design, with a high-light LED digital display, enables the series to be used in a variety of industrial applications. The two-button design and menu make the product more convenient to use, and a variety of connection methods can fully meet various specific installation needs.

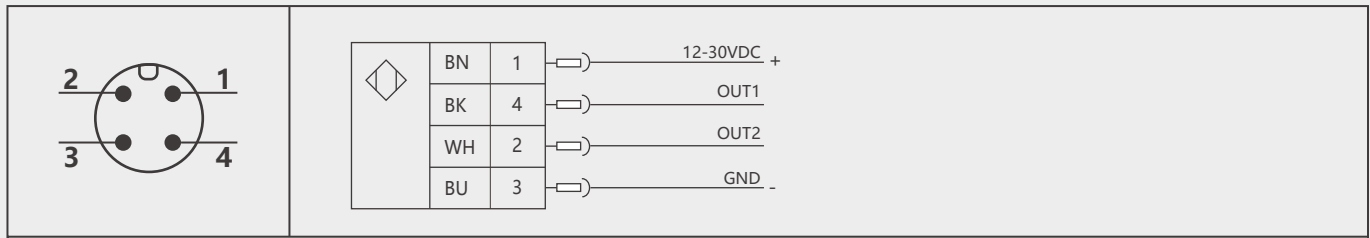
Technical parameter

◇ Supply voltage: 12... 30Vdc	◇ Stability (annual drift) : $\leq \pm 0.3\%$ range
◇ No-load current consumption: maximum 40mA, 24Vdc power supply	◇ Temperature:
◇ Switch output:	Medium temperature: -20... 85°C
Output type: PNP/NPN can be switched, normally open/normally closed can be set	Ambient temperature: -20... 80°C
Switching load: < 200mA /24VDC	Storage temperature: -30... 80°C
Response time: 0.01~2s (factory default)	◇ Overload capacity: unilateral overload full scale *2.5 times
Switching accuracy: $\leq \pm 0.5\%$ range	Bilateral synchronous pressure < 10MPa
◇ Current type analog output: $\leq \pm 0.5\%$ range	◇ Material:
Output type: 4-20mA/1-5V/0-10V	Watch head housing: engineering plastic
Load RA: $\leq 500\Omega$	Housing: stainless steel 304
Linearity: $\leq 0.5\%$ range	Medium contact part: stainless steel 304
◇ Communication output: IO-Link/RS485	◇ Protection grade: IP67
◇ Wiring protection: reverse phase, overload, short circuit protection	◇ Outlet: M12x1 connector
◇ Display:	
Design: Red 3-bit 12mm high brightness LED	
Display range: -199... 999	
◇ Accuracy: $\leq \pm 0.5\%$ range	

Dimension drawing (mm)



Wiring diagram



switch/frequency					
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 Frequency (full scale 100Hz)	WH	2 (OUT2)	/

Analog output: 4-20mA					
color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	4-20mA	WH	2 (OUT2)	/

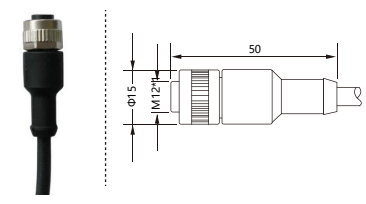
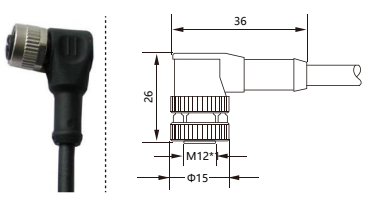
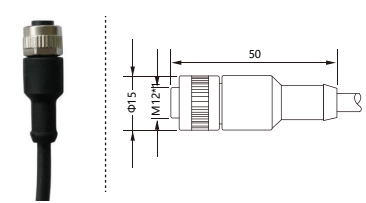
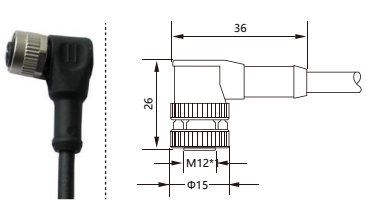
Analog output: 1-5V					
color	stitch	Instructions	color	stitch	Instructions
BN	1	power supply (+)	BU	3	power supply (-)
BK	4 (OUT1)	1-5V	WH	2 (OUT2)	/

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)

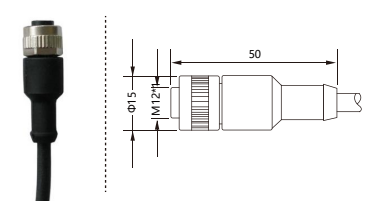
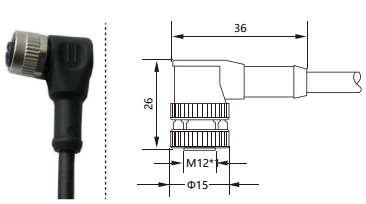
Selection list

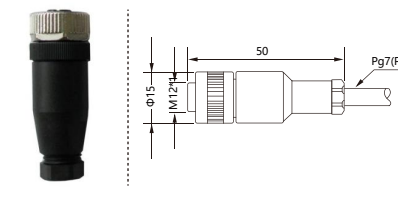
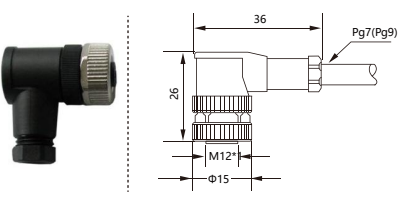
PS210-	001	G14K	G14K	-	expatiate
PS210					PS210 Electronic differential pressure switch (sensor)
	001				Setting range: 0... 0.1 the bar
	002				Setting range: 0... 0.2 the bar
	005				Setting range: 0... 0.5 the bar
	010				Setting range: 0... 1bar
	050				Setting range: 0... 5bar
	060				Setting range: 0... 6bar
	100				Setting range: 0... 10bar
	160				Setting range: 0... 16bar
	250				Setting range: 0... 25bar
		G14K			H High voltage end interface thread: G1/4 internal thread
		G14M			H High voltage end interface thread: G1/4 external thread
		G12M			H High voltage end interface thread: G1/2 external thread
		M20M			H High voltage end interface thread: M20*1.5 external thread
			G14K		L Low pressure end interface thread: G1/4 internal thread
			G14M		L Low pressure end interface thread: G1/4 external thread
			G12M		L Low pressure end interface thread: G1/2 external thread
			M20M		L Low pressure end interface thread: M20*1.5 external thread
				-	Output signal: switch/frequency (3-core cable)
				A	Output signal: Analog 4-20mA (3-core cable)
				V	Output signal: Analog 1-5V (3-core cable)
				RS	Output signal: RS485 (4-core cable)

Factory standard:ZL03-PC02G

name	Outline drawing/dimension drawing (mm)	material	model
M12*1-4Pin (2m cable)		PUR	ZL03-PU02G
M12*1-4Pin (5m cable)			ZL03-PU05G
M12*1-4Pin (10m cable)			ZL03-PU010G
M12*1-4Pin (2m cable)		PUR	ZL03-PC02G
M12*1-4Pin (5m cable)			ZL03-PC05G
M12*1-4Pin (10m cable)			ZL03-PC010G
M12*1-4Pin (2m cable)		PVC	ZL03-PU02W
M12*1-4Pin (5m cable)			ZL03-PU05W
M12*1-4Pin (10m cable)			ZL03-PU010W
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
M12*1-4Pin (2m cable)		PUR	ZL04-PU02W
M12*1-4Pin (5m cable)			ZL04-PU05W
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

Factory standard:ZL04-PC02G

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
M12*1-4Pin (2m cable)		PUR	ZL04-PU02W
M12*1-4Pin (5m cable)			ZL04-PU05W
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

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

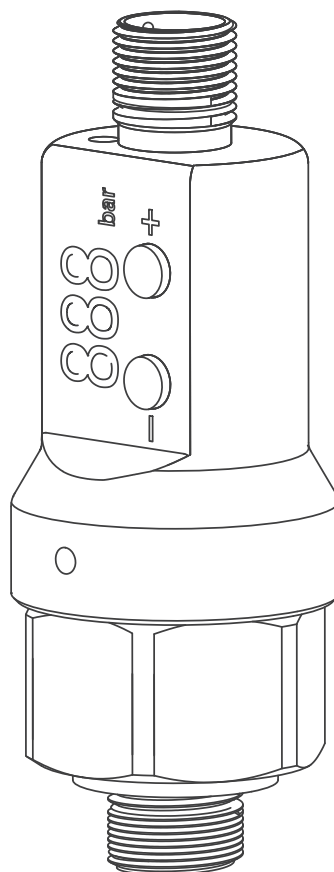
—— Sensor and controller ——
■ Flow ■ pressure ■ temperature ■ level ■ position

KATU 卡图

Operation instruction

Digital display pressure switch

200 series



Purpose of product application



danger

The sensor (switch) can only be used in the specified application range.

The temperature range must be within the permissible range. Do not exceed the rated pressure and power load value.

Assembly, commissioning and operation must be carried out in accordance with applicable national and local safety instructions.

The switch is designed to be used as a safety device for pressurizing the system in accordance with "Pressure Equipment Directive 97/23 / EC(PED)".

Standard

The standards applied during development, manufacturing and configuration are listed in the CE Compliance and manufacturer declarations.

Quality assurance

Our scope of delivery and service is subject to legal warranties and warranty periods.

Warranty clause

We guarantee that the functions and materials of the dual pressure switch meet the statutory requirements under normal operation and maintenance conditions.

Security of loss

Such as:

- Incorrect use,
- Incorrect installation
- Incorrect operation or operation in violation of the provisions of this operation manual.

No liability shall be assumed for any damage resulting therefrom or consequential.

Safety instruction

Safety instructions are intended to protect users from dangerous situations and /or prevent material damage.

In the operating instructions, the severity of the potential risk can be indicated by the following signal words:



danger

An imminent danger to the user. Failure to comply may result in fatal injury.



warning

An identifiable hazard.

Failure to comply may result in fatal injury and damage to equipment or plant parts.



caution

It means a danger.

Non-compliance may result in minor injury and material damage to the sensor (switch) and/or plant.



important

Information that is important to the user.

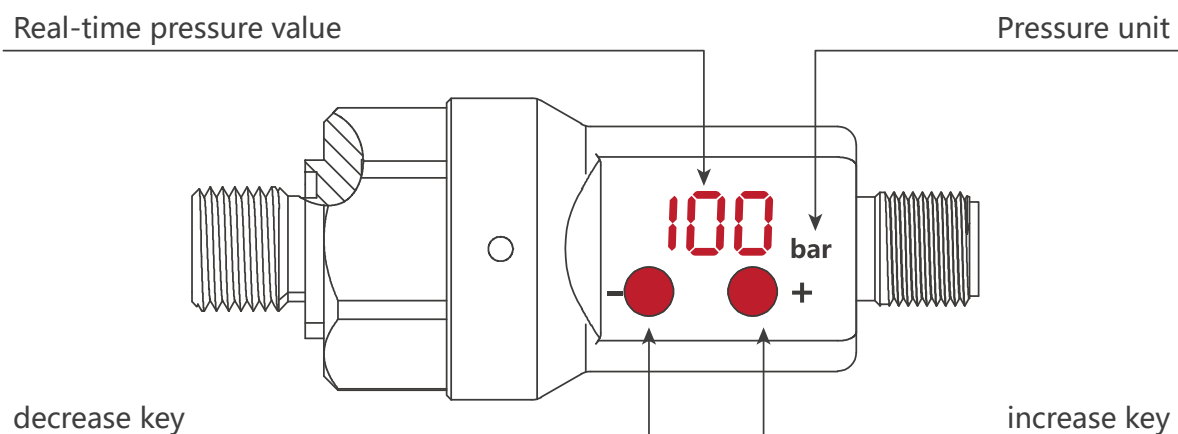


Deal with

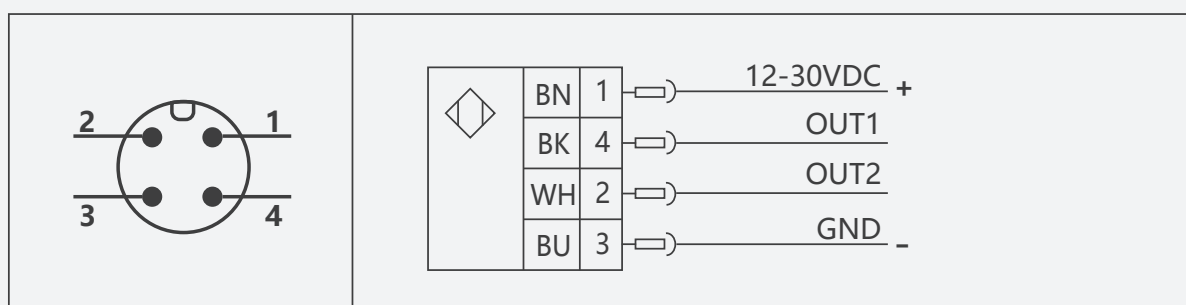
Sensors (switches) must be handled correctly in accordance with national or local regulations for electrical/electronic equipment.

Sensors (switches) cannot be disposed of with household waste!

Panel description



Electrical connection



Switch/frequency

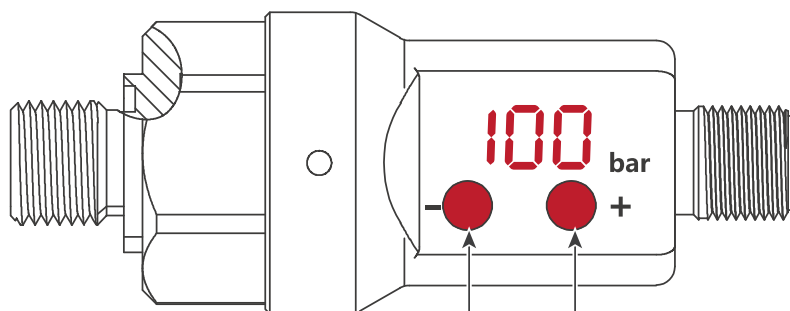
colour	stitch	Instructions
BN	1	power supply (+)
BU	3	power supply (-)
BK	4 (OUT1)	SP1 switch PNP (factory default) SP1 switch NPN Frequency (full scale 100Hz)

Analog output: 4-20mA		
colour	stitch	Instructions
BN	1	power supply (+)
BU	3	power supply (-)
BK	4 (OUT1)	4-20mA

Analog output: 1-5V		
colour	stitch	Instructions
BN	1	power supply (+)
BU	3	power supply (-)
BK	4 (OUT1)	1-5V

RS485 communication		
colour	stitch	Instructions
BN	1	power supply (+)
BU	3	power supply (-)
BK	4 (OUT1)	RS485 (B)
WH	2 (OUT2)	RS485 (A)

■ Switch action point convenient operation mode



press the left key:
The switch action value decreases

press the right key:
The switch action value is increased

After setting, the display interface stops blinking.
The switch action value is successfully modified.

LED display status description: When the LED display blinks, the switch setting value is displayed.
When the display is not blinking, the current measurement value is displayed.

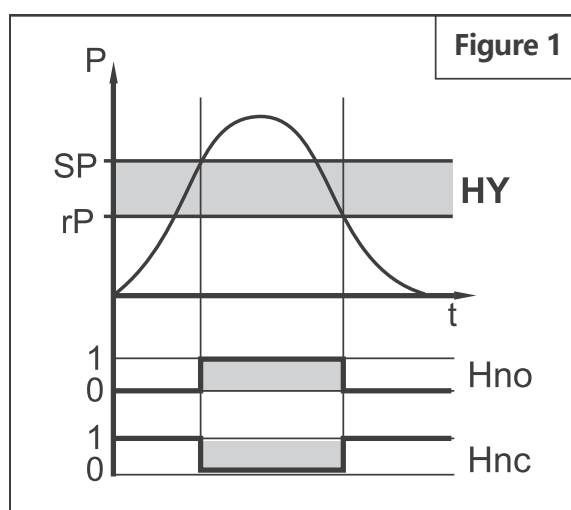
■ Switching function

If the switch is higher or lower than the set switching limit (SP, rP), its switching state is changed.
The following switch functions can be selected:

- Hysteresis function normally open: = [Hno] (→ Figure 1)
- Hysteresis function normally closed: = [Hnc] (→ Figure 1)

First set the switch point: (SP), Then set the reset point: (rP).

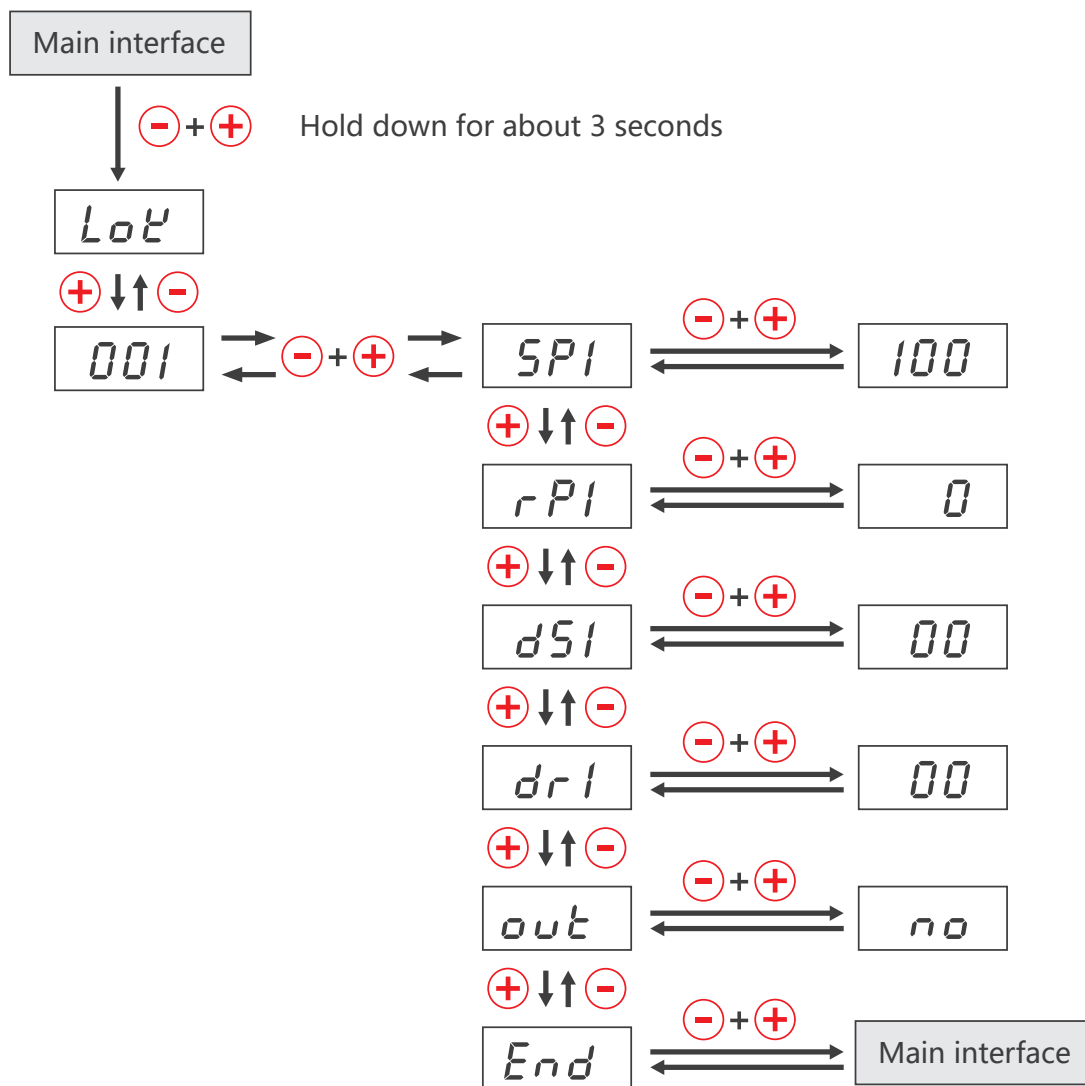
If SP changes again, the hysteresis will change with it.



P = System pressure; HY = lag;

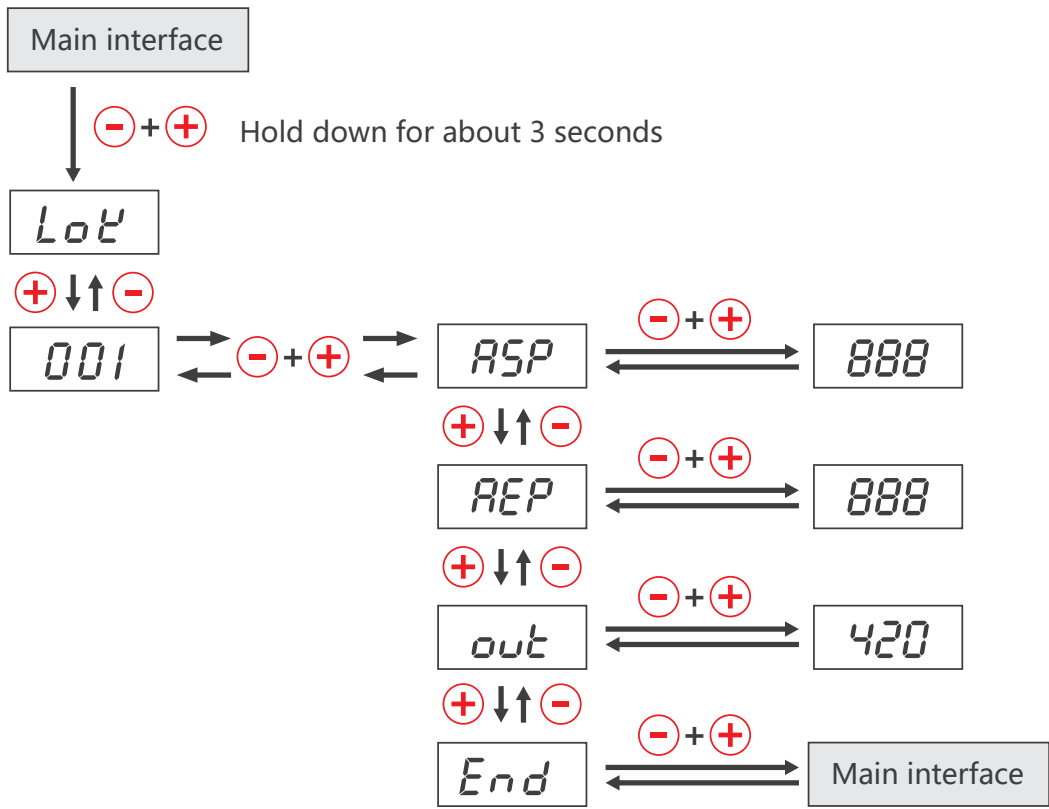
001 menu	
sp1	Switch alarm value (factory default value is 0.2% of the range)
rp2	Switch reset value (factory default is SP1-0.5%)
ds1	OUT1 turn-on delay (factory default is 0s)
dr1	OUT1 shutdown delay (factory default is 0s)
out	Switch output signal NO: Normally open NC: Normally closed FNO: Always open window FNC: Always closed window F: Frequency
end	Confirm to save and exit

■ 001 Menu debugging (non-professional personnel do not operate)



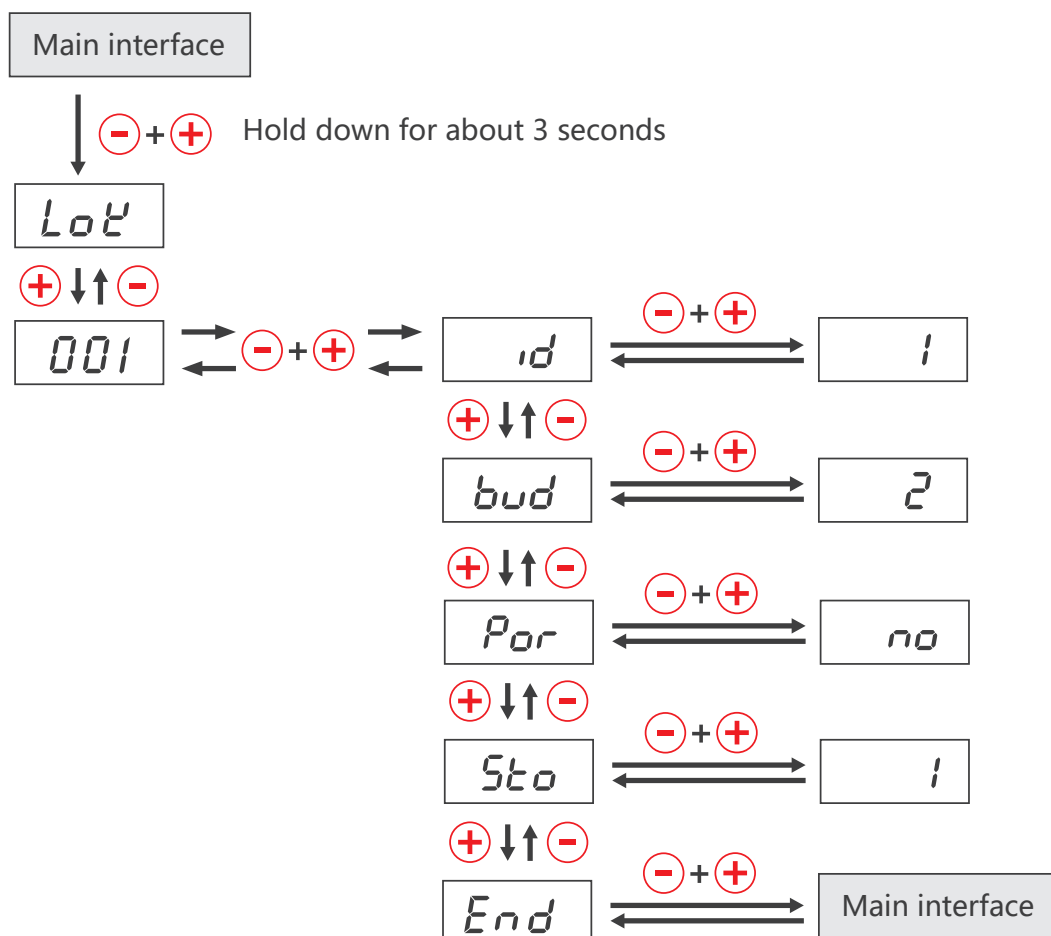
001 Menu	
ASP	Lower limit of analog range
AEP	Upper limit of analog range
OUT	Analog output signal (factory default 420)
	420: 4-20mA
	020: 0-20mA
	204: 20-4mA
end	200: 20-0mA
	Confirm to save and exit

■ **001 Menu debugging - Analog (non-professional personnel do not operate)**



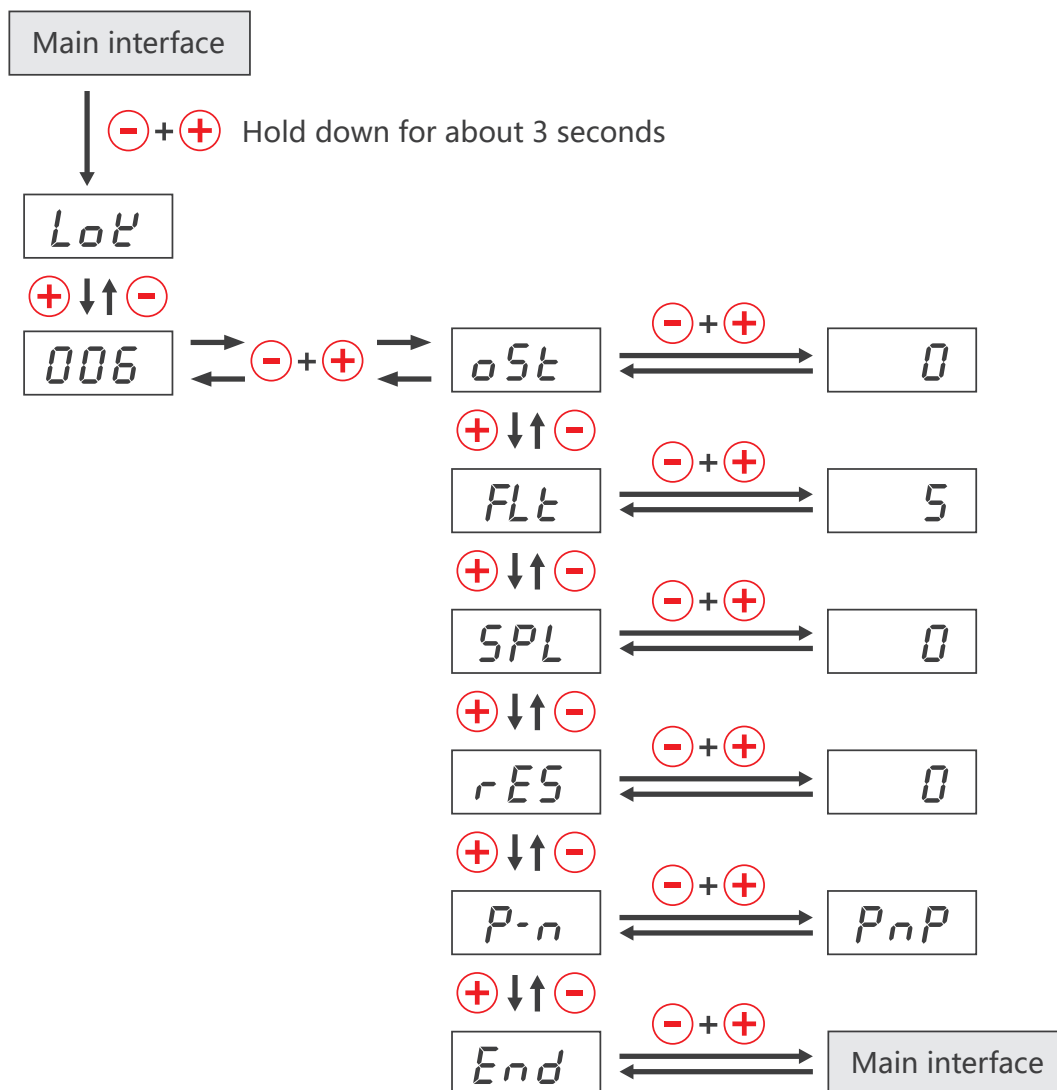
001 Menu	
id	Meter address (Factory default 1)
bud	Baud rate (Factory default 2)
	0: 2400
	1: 4800
	2: 9600
	3: 19200
	4: 115200
Por	Check bit
	no: No check (default setting at factory)
	EVE: Even check
Sto	odd: Odd check
	Stop bit
	1: 1-bit stop bit (factory default)
end	2: 2-bit stop bit
	Confirm to save and exit

■ 001 Menu debugging -RS485 (non-professional personnel do not operate)



006 menu	
ost	Display value compensation, the default is 0, increase and decrease the value, the actual display value corresponds to the increase or decrease of the corresponding value
flt	The filter coefficient is adjustable from 0 to 100. The default value is 5
spL	Display value The reaction rate increases/decreases
res	factory data reset.
p-n	PNP/NPN switchover
end	Confirm to save and exit

■ 006 Menu debugging (non-professional personnel do not operate)



Maintenance/cleaning

Sensors (switches) do not require maintenance.



warning

Periodically check whether the switch is working properly.

If the switch does not work properly, stop the operation immediately.



caution

Use of improper cleaning agent may damage the switch.

The following cleaning agents can be used to clean polycarbonate: mild soap or detergent Isopropyl alcohol

Immediately after cleaning, rinse with water. Do not leave cleaner on the surface of the product. Do not clean products in high heat or direct sunlight.

The following cleaning agents are known to affect the integrity of polycarbonate components and should not be used: ZEP Fast 505, Pinesol, Formula 409

Halogenated solvents (benzene, gasoline, acetone or carbon tetrachloride)

Strong alkalinity

Methyl ethyl ketone

Abrasive substance

disassemble



danger

Only remove the switch in case of power failure (electrical, hydraulic/pneumatic).

Switch disconnection from pressure and power supply must be performed by trained or directed personnel in accordance with the most advanced standards.



warning

Be aware that the surface of the shell may become very hot if the operating temperature is higher!

200 series pressure-RS485 Communication protocol (MODBUS-RTU)

1.RTU Data format description

1.1 Communication mode

This instrument adopts the MODBUS RTU format. The protocol is used for data communication in the master-slave query mode.

1.2 Data format

The format of each byte (10 bits) in RTU mode is:

The encoding system is: 8-bit binary

The bits of each byte: 1 start bit, 8 data bits (the least significant bit is sent first), and 1 stop bit

Five baud rates are available for selection: 2400、4800、9600、19200、115200

Modbus Message

Starting	Address	Function code	Data	CRC Verification	End
≥3.5 Character	8 bit	8 bit	n*8 bit	16 bit	≥3.5 Character

note:

In RTU mode, idle intervals of at least 3.5 characters in duration distinguish message frames.

(2) The entire message frame must be sent in a continuous stream of characters.

(3) The idle interval between two characters should not exceed 1.5 characters.

1.3 Address

The agreement stipulates that the address of the instrument is "0-255". The "0" address is used for broadcasting. This agreement does not support broadcasting, and the remaining addresses are reserved.

2.Configuration Description

200 series pressure sensor, no coupling test, 8 data bits, 1 stop bit

200 series pressure sensor		
Parity check	no	Fixed and unchangeable
Data bit	8 bit	Fixed and unchangeable
Stop position	1 bit	Fixed and unchangeable

Screen display code	Parameter definition	Range	Explanation
id	Sensor address code (default: 1)	1-250	The sensor address must not conflict with the addresses of other sensors
baud	Sensor baud rate (default 2)	0-5	0: The baud rate is 2400 bps 1: The baud rate is 4800 bps 2: The baud rate is 9600 bps 3: The baud rate is 19200 bps 4: The baud rate is 115200 bps

3. Instruction description

03H (Read instruction)

Send data: 01 03 00 00 00 03 05 CB (Hexadecimal)

Instruction	01	03	00	00	00	03	05	CB
Explanation	Sensor address	Read instruction	The high bit of the register's starting address	The lower bit of the register's starting address	High read quantity	Read the lower digit	CRCL	CRCH
Explanation: Send a read instruction to sensor 01, starting from register 0000 and reading through registers 0003								

Return data: 01 03 06 00 00 01 23 00 01 10 83 (Hexadecimal)

Instruction	01	03	06	00	00	01	23	00	01	10	83
Explanation	Sensor address	Read instruction	Return 6 bytes	Register 1 high bit	Register 1 bit	Register 2 high bit	Register 2 little bit	Register 3 high bit	Register 3 bit	CRCL	CRCH
Explanation: 01 The sensor responds to the read instruction and returns 6 pieces of data 0000:0000H, with a decimal value of 0, indicates that the positive or negative sign of pressure is 0. Currently, it represents positive pressure. At 01:23:0123h, the decimal value is 291, meaning the pressure value is 291. 00:01:0001H, the decimal number is 1, that is, the pressure has one decimal place. Pressure value: 29.1.											

4. Address (register) and its meaning

Decimal, hexadecimal, and modbus registers are different ways of writing the same parameter. Different upper computer software have different writing methods. When one method is not recognized, you can try the other two.

(It is recommended that the polling time be greater than 100ms. After reading the previous sensor, wait for 100ms before reading this sensor)

Decimal address	Hexadecimal address	MODBUS register	Parameter definition	Data type	Explanation
0	0	40001	Positive or negative pressure	A 16-bit unsigned integer	Positive and negative (0 is positive, 1 is negative)
1	1	40002	Pressure value	A 16-bit unsigned integer	Read the value (units displayed on the same screen)
2	2	40003	Decimal places of the pressure value	A 16-bit unsigned integer	1 is one decimal point (the number is displayed on the same screen)

5. Modbus-poll Communication reference

(1) Open modbus-poll, and click on Settings - Read/Write Definitions in the menu

The slave ID is 1, the function is 03 read, the address is 0, and the quantity is 3

读/写定义

从站ID: 1 确定

功能: 03 读取保持性寄存器(4x) 取消

地址模式
☒ Dec ☐ Hex

地址: 0 PLC address = 40001

数量: 3

扫描速率: 1000 [ms] 应用

禁用
☐ 读写禁用
☐ 错误时禁用

视图
行数
☒ 10 ☐ 20 ☐ 50 ☐ 100 ☐ 合适的数量
☐ 隐藏列名 ☐ PLC地址 (Base 1)
☐ 单元格显示地址 ☐ Enron/Daniel Mode

请求
RTU
01 03 00 00 00 03 05 CB
ASCII
3A 30 31 30 33 30 30 30 30 30 30 33 46 39 0D 0A

(2) Click "Connect" on the menu

Connection method: Serial Port, select serial port, baud rate: 9600, 8-bit data bit, no parity, 1-bit stop bit, mode: RTU, delay time: 100ms.

连接设置

连接
Serial Port 确定 取消

串口设置
USB Serial Port (COM4)
9600 波特率 ☐ 用户自定义波特率
8个数据位 9600
无校验(N)
1个停止位 高级...

模式
☒ RTU ☐ ASCII

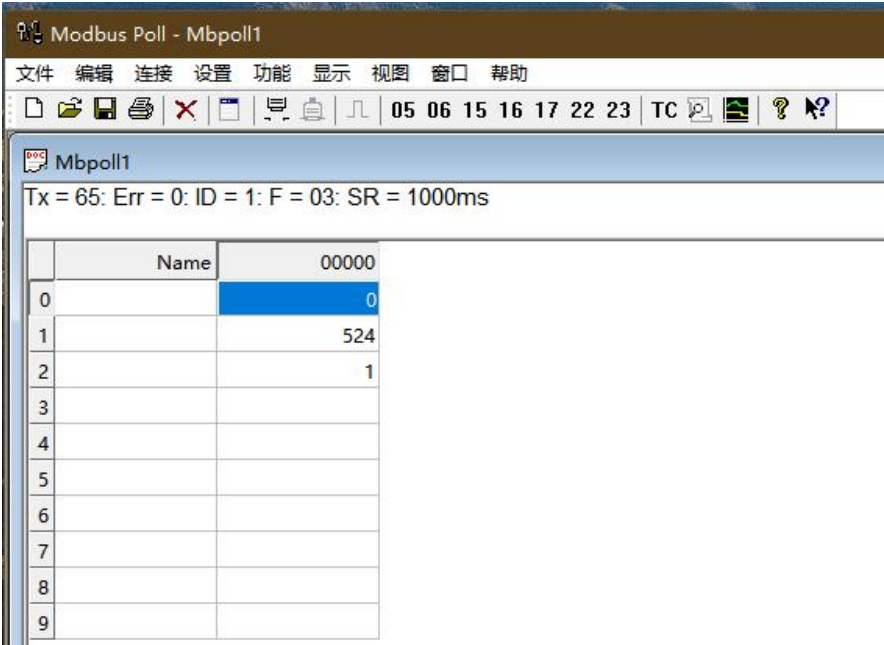
响应超时
1000 [ms]

延时时间
20 [ms]

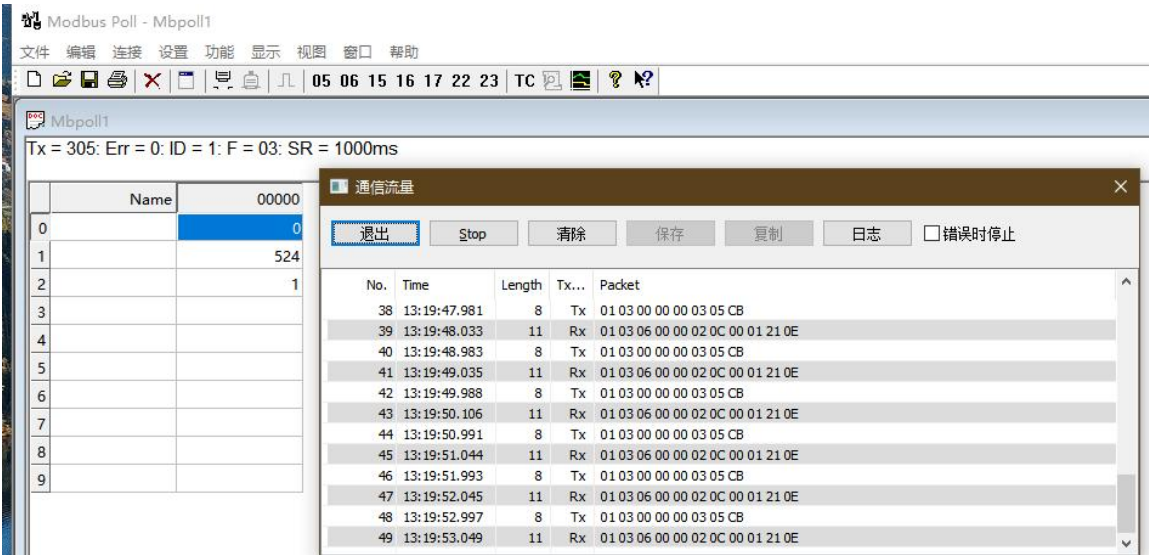
远程Modbus服务器
IP地址或节点名称
127.0.0.1
服务器端口 连接超时 ☒ IPv4
502 3000 [ms] ☐ IPv6

(3) The current read value can be seen

Address 0 is 0, the current normal pressure, address 1 is 524, address 2 is 1, one decimal point, that is, the pressure is 52.4.



(4) Click on "Display - Communication" on the menu to view real-time sending and receiving instructions.



History of document revision

Revision	Description	Date
V1.0	Initial version	
V1.1	Add 5.Modbus-poll communication reference	2025.12.18

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