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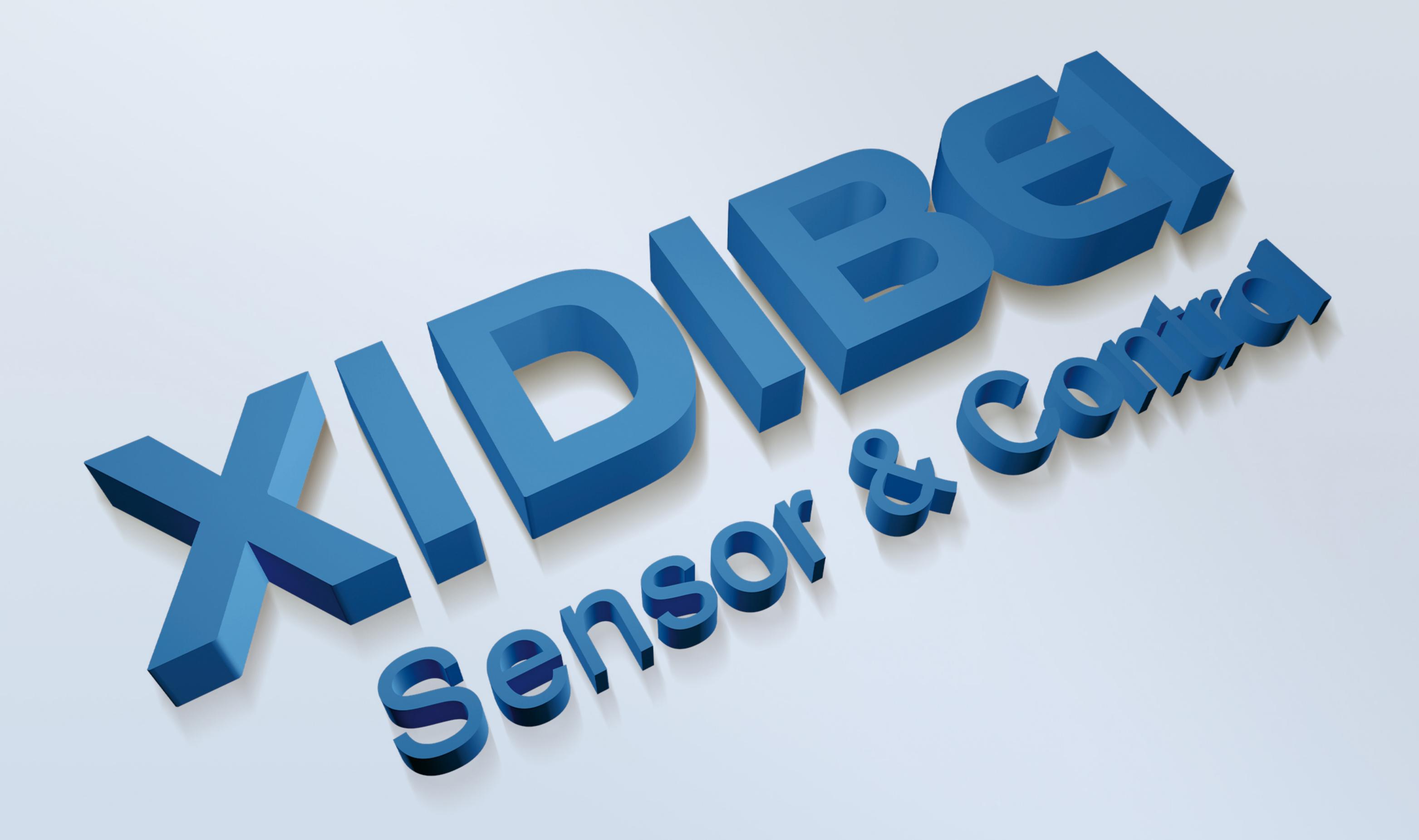
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XIDIBEI

Shanghai China

- Ceramic pressure sensor series
- Diffused silicon pressure sensor series
- Micro-melt pressure sensor series
- Temperature pressure sensor series



SHANGHAI ZHIXIANG SENSOR TECHNOLOGY CO.,LTD







Shanghai Zhixiang Sensor, also known as XIDIBEI, was founded in 2011 in Shanghai, China. Its mission is to lead the path of sustainable innovation. Over the past decade focusing on sensors research and exploration, XIDIBEI has become a renowned professional manufacturer of intelligent sensors and IoT integrated solutions provider, with its sensors being exported to over 100 countries.





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Pressure sensor cores (ceramic core, diffused silicon core, micro-melt core) XDB100 XDB101 XDB102 XDB103 XDB104



Pressure sensors

XDB300 XDB305 XDB305T XDB306T XDB307 XDB310 XDB311 XDB312 XDB313 XDB314 XDB315 XDB317 XDB401 XDB406 XDB407



P19-20

Level transmitters

XDB500 XDB501 XDB502 XDB503



Pressure switches and pressure gauges XDB319 XDB320 XDB321 XDB322 XDB323 XDB410 XDB411

Temperature transmitter **XDB705**



Micro differential pressure transmitters, temperature transmitters and accessories XDB600 XDB700 XDB702 XDB704 XDB706 XDB708 XDB900 XDB901 XDB904 XDB905 XDB906 XDB907 XDB908 XDB911



In response to digital opportunities worldwide, XIDIBEI reconsiders the sensors designs, and intelligently offers solutions to tackle various challenges and difficulties leading a path of sustainable innovation.



Piezoresistive Ceramic Pressure Sensor YH18P, YH14P Series



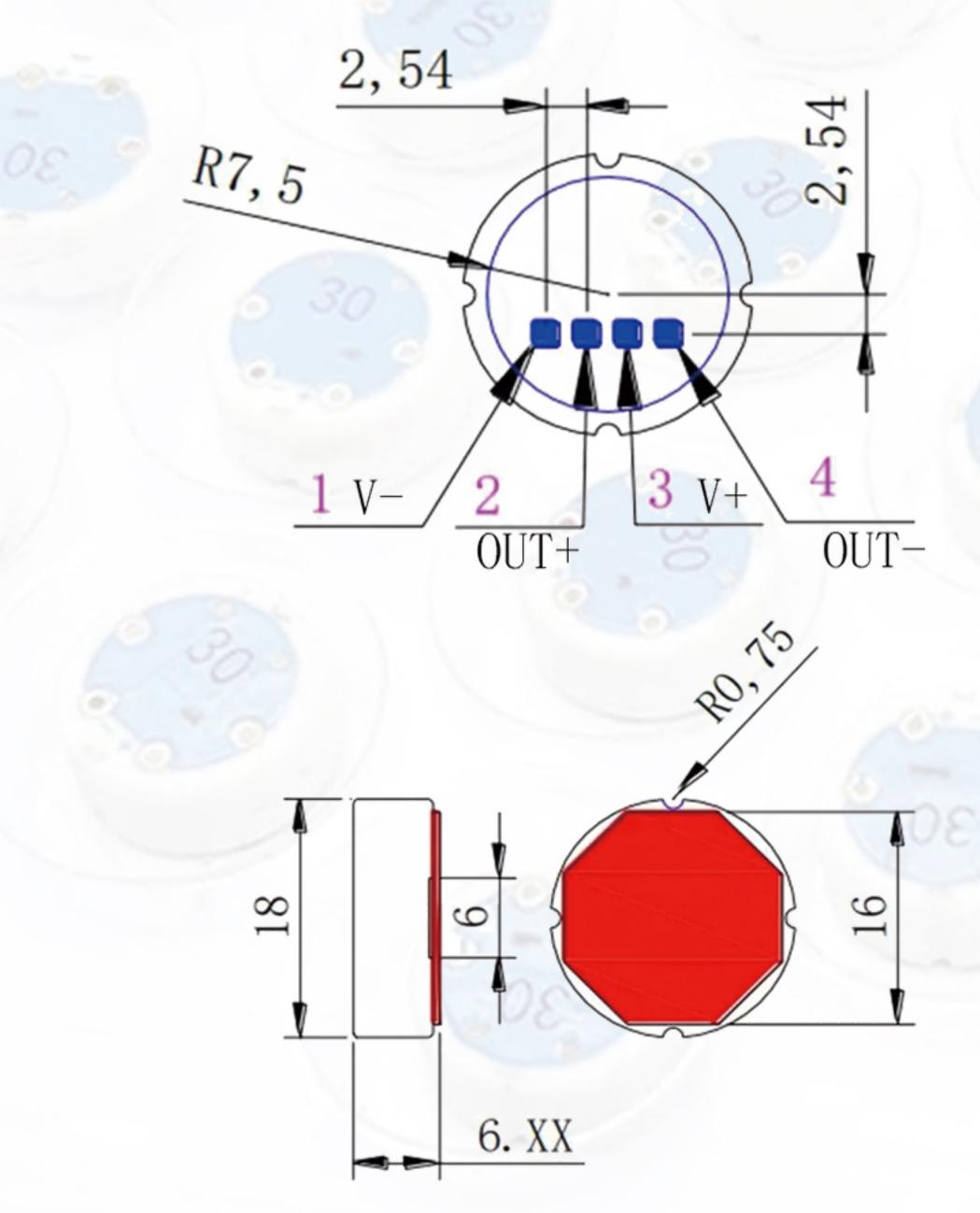
Description

YH18P and YH14P series flush diaphragm piezoresistive ceramic pressure sensors are made of 96% alumina, suitable for direct contact with most acidic and alkaline media except hydrofluoric acid. These cost-effective sensors offer temperature compensation, a temperature drift of less than 0.03% FS/°C, and an operating range of -40~135°C. Their structure withstands extreme damage pressure, ensuring high safety and minimal leakage. Ideal for industries with strict safety and hygiene requirements, these sensors can be integrated with conditioning circuits and calibrated for optimal performance, simplifying the production process.

Features

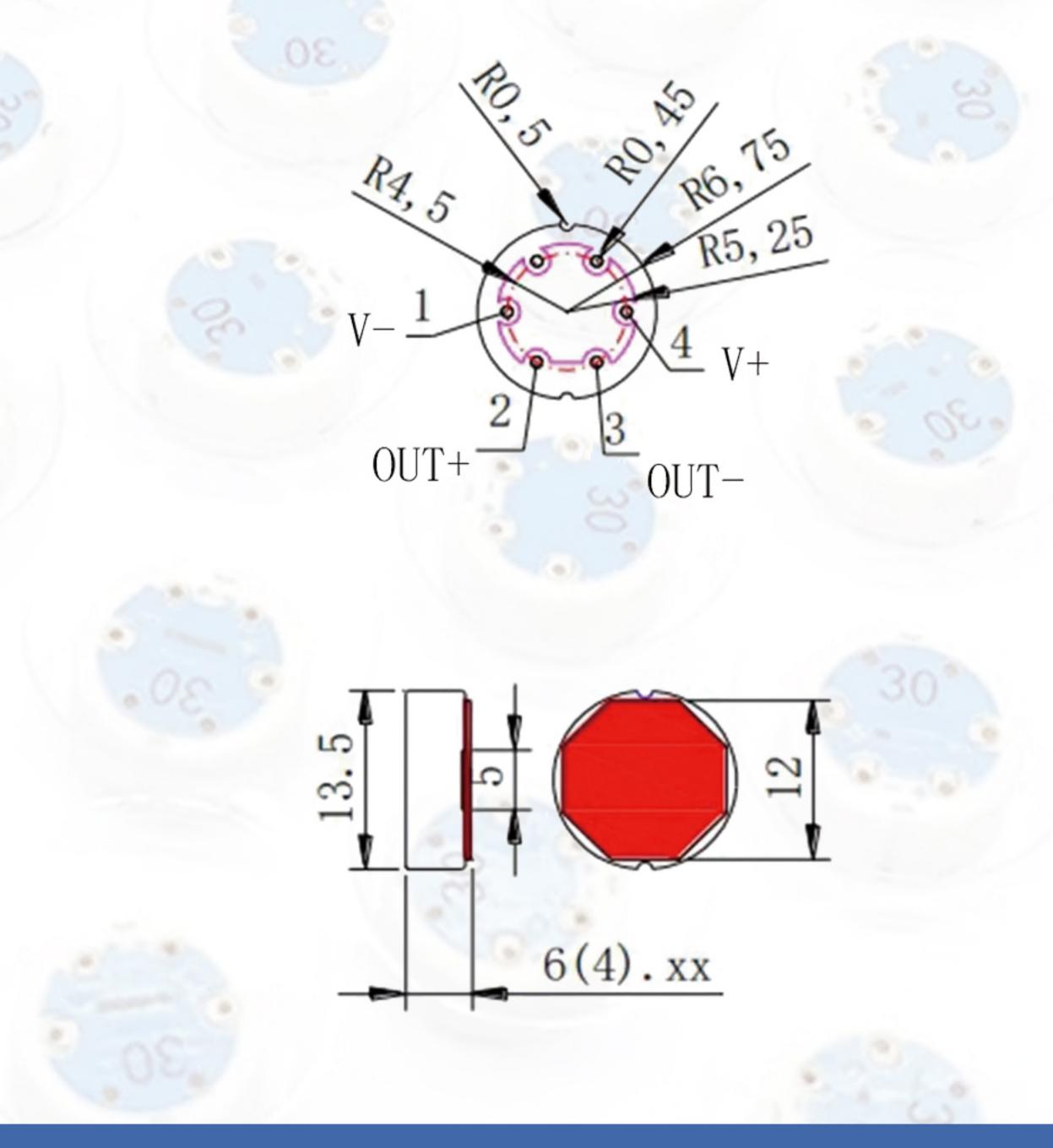
- Low cost
- Excellent long-term stability
- Effective temperature compensation

Dimension (unit:mm)



- ♦ Operating temperature range -40 ~ +135°C
- ♦ Direct contact with the measured medium, resistant to general acids and alkalis (except hydrofluoric acid)

Electrical connection





Pressure range	2~500 bar	Overall accuracy (linear + hysteresis)	≤±0.3% FS
Product model	YH18P, YH14P	Repeatability	≤±0.2% FS
Size mm(diameter × height)	φ18×H, φ13.5×H	Zero offset	≤±0.2 mV/V
Supply voltage	0~30VDC, maximum(30V)	Burst pressure	≥2 times range (by range)
Bridge road impedance	10KΩ±30%	Insulation resistance	≥2 KV
Full range output	≥2 mV/V	Zero-point long-term stability @20°C	±0.25% FS
Operating temperature	-40~135℃	Relative humidity	0~99%
Storage temperature	-50~+150℃	Direct contact with liquid materials	96% AI2O3
Long-term stability	≤±0.2% FS/year	Sensor weight	≤7g(Non-customized products)
Temperature drift (zero & sensitivity)	≤±0.03% FS/°C		

Applications

Automatic, water pump, diesel, engine, compressor, refrigerating machine, Jet Coder, air-condition, water heater, eurostar;

Valve, transmit, chemicals, industrial automation, petrochemical engineering, clinical gauge and many other fields.

Mechanical specifications

Model (YH18P)	Pressure range (bar)	Safe overload pressure (bar)	
YH18P-2	02	4	
YH18P-10	010	20	
YH18P-20	020	40	
YH18P-40	040	80	
YH18P-80	080	160	
YH18P-100	0100	200	

Model (YH14P)	Pressure range (bar)	Safe overload pressure (bar)
YH14P-3	03	6
YH14P-10	010	20
YH14P-15	015	30
YH14P-30	030	60
YH14P-50	050	100
YH14P-100	0100	200
YH14P-150	0150	300
YH14P-300	0300	450
YH14P-400	0400	550
YH14P-500	0500	700

Pressure sensor cores

(ceramic core, diffused silicon core, micro-melt core)







XDB102-1



XDB102-3



XDB102-5







XDB102-2A



XDB103-1



XDB103-3-new



XDB103-5



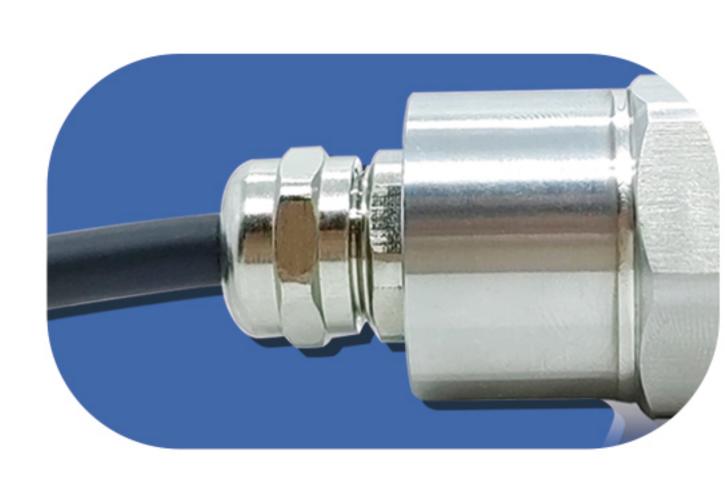


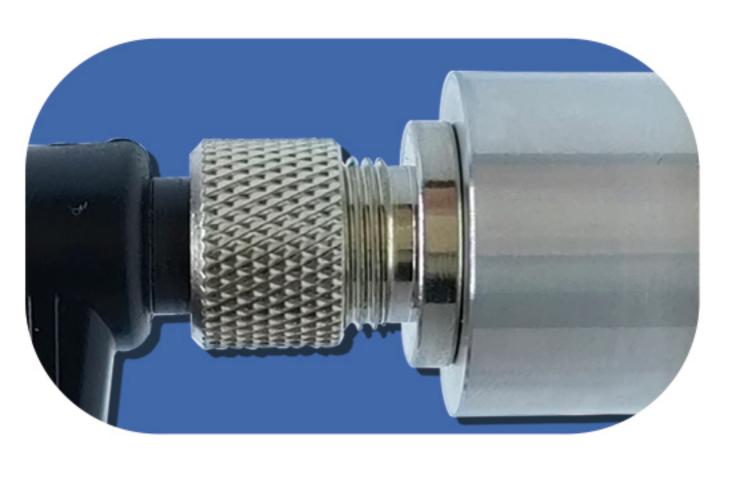
XDB104-1

XDB401 pro description

XDB401 pro is a pressure sensor specifically designed for coffee machines, which can detect, regulate, and monitor pressure, and convert its perceived physical data into electronic signals. Generally, it reminds users to add water when the level is low, preventing the machine from dry burning and sudden water depletion during coffee brewing and detects high-level alarms, primarily to prevent water overflow. Made from 316L stainless steel, this material is more compatible with food, ensuring a perfect espresso through precise pressure and temperature control.











Features

- High accuracy
- Compact, small size
- Cost-efficient, low consumption
- Long-term stability and reliability
- ◆ SS316L thread and hexagon part, suitable for food industry
- Customization-design available: thread, input, output, logo laser-engraving

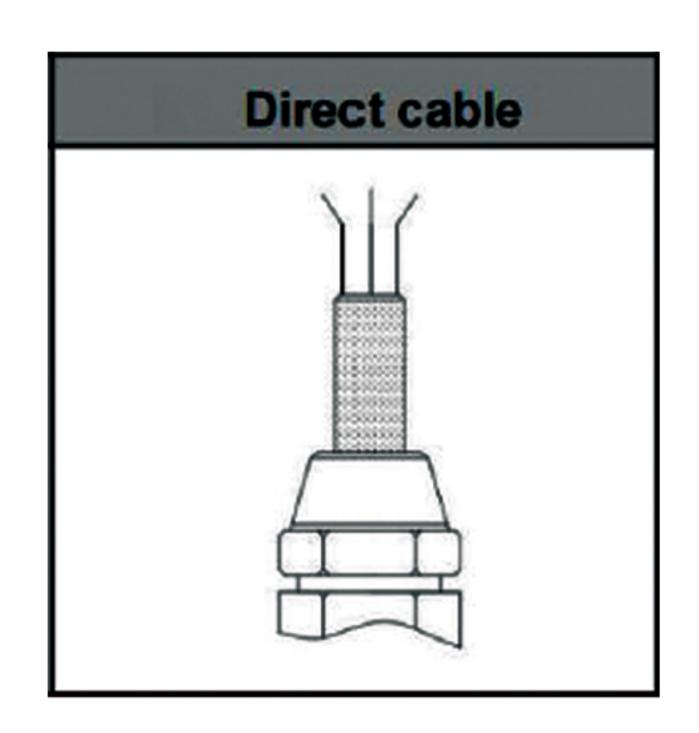
Applications

- Support water pressure detection of living environmental water systems, such as houses, gardens, and farms.
- Support water pressure detection of the outdoor environments, such as rivers, lakes, and the sea.
- Support water pressure detection of tanks.
- Support liquid level detection in special situation detection in specified liquid.

Electrical connection

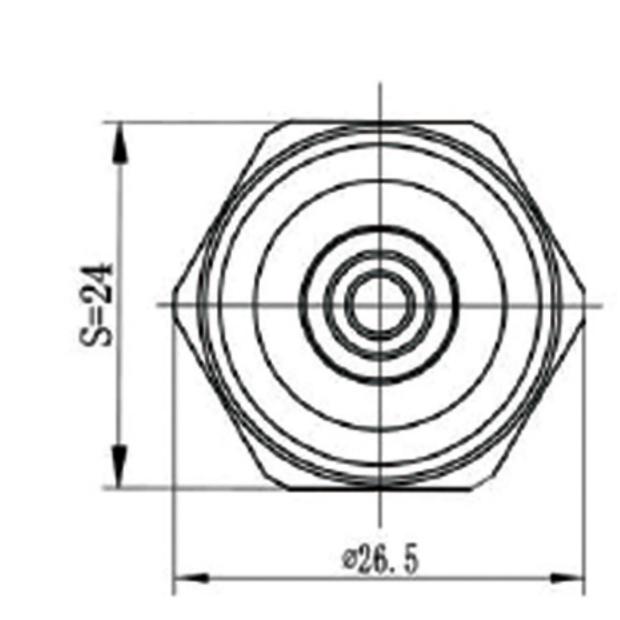
RED: +SUPPLY
YELLOW: +OUTPUT
BLACK: GND

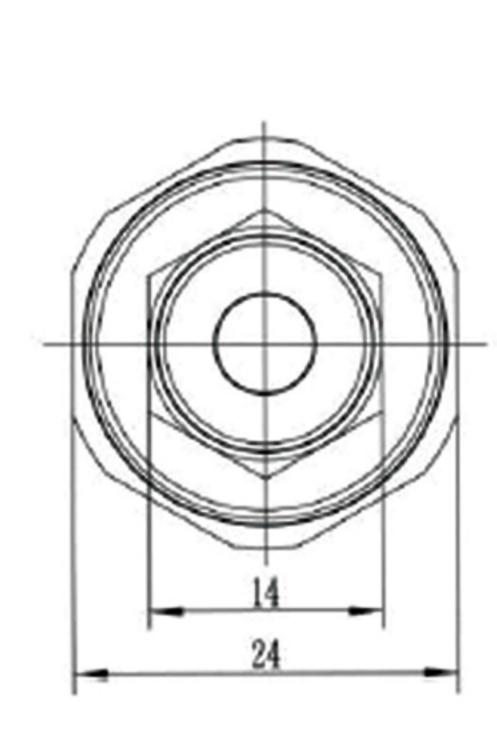
Specifications

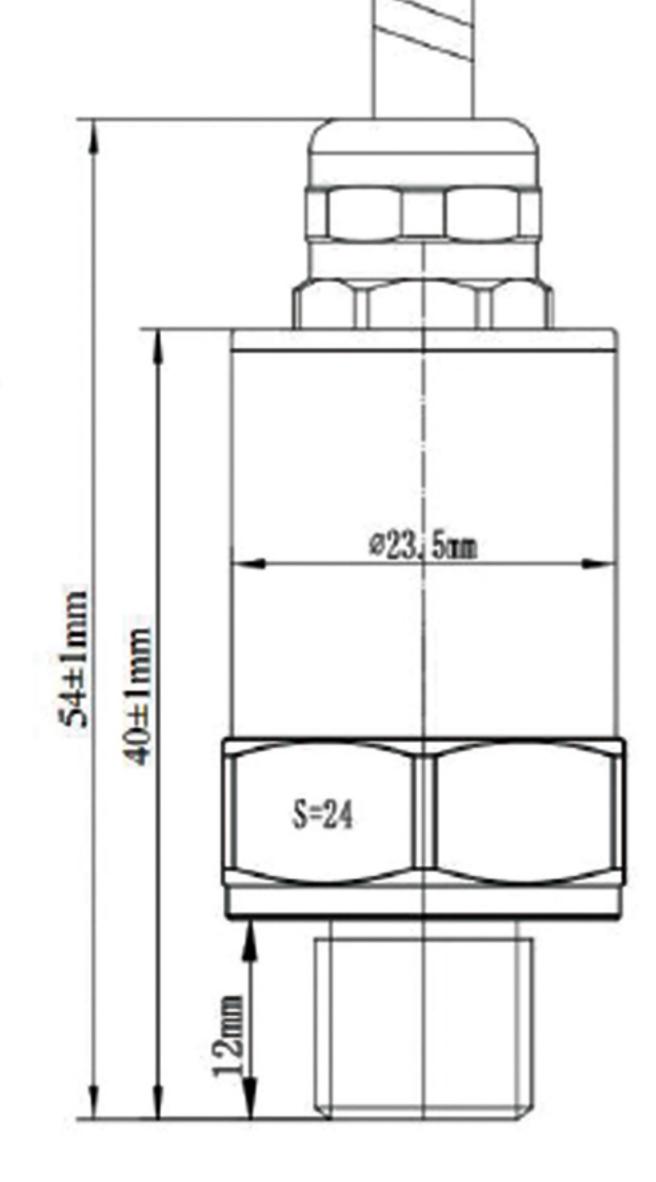


Pressure range	-1~ 40 bar (optional)
Accuracy	1%FS
Input voltage	DC 5~12V
Output signal	0.5~4.5V, 1~5V, 0~5V, I ² C, etc.
Thread	G1/4, G1/2, G1/8
Electrical connector	Gland plastic cable
Operating temperature	-40 ∼105°C
Compensation temperature	-20 ∼80°C
Operating current	≤3mA
Temperature drift (zero&sensitivity)	≤±0.03 % FS/°C
Long-term stability	≤±0.2%FS/year
Response time	≤3ms
Overload pressure	150%FS
Burst pressure	300%FS
Cycle life	500,000 times

Dimension













Pressure transducer





XDB305



XDB305T

























Features

- ♦ Solid structure, no moving parts, high reliability and long service life
- ▶ Both water and oil can be measured with high precision, which is affected by the density of the measured medium
- Can bring on-site instructions
- Small size, exquisite appearance and high cost performance
- ♦ 0-10V, 4-20mA, various voltage outputs
- Provide OEM, flexible customization

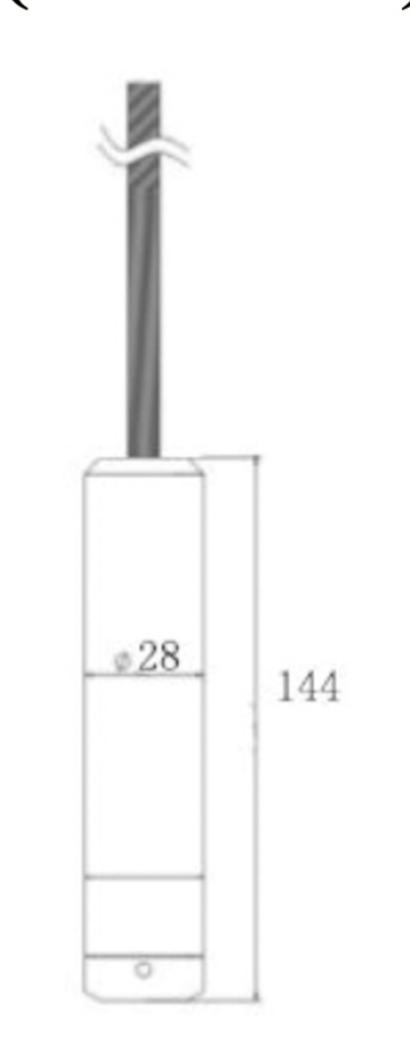
Applications

- Industry field process liquid level detection and control
- Navigation and shipbuilding
- Aviation and aircraft manufacturing
- Energy management system
- ♦ Liquid level measurement and water supply system

- Urban water supply and sewage treatment
- Hydrological monitoring and control
- ♦ Food and beverage equipment
- Chemical medical equipment
- Dam and water conservancy construction

Parameters

Measuring range	0~200m
Accuracy	±0.5%FS
Output signal	4-20mA (two wires)
Supply voltage	24VDC
Operating temperature	-30∼50°C
Compensation temperature	-30∼50°C
Long-term stability	≤±0.2%FS/year
Overload pressure	200%FS
Load resistance	≤500Ω
Measuring medium	liquid
Relative humidity	0~95%
Cable material	polyurethane steel wire cable
Cable length	0-200m
Diaphragm material	316L
Protection class	IP68
Shell material	304 stainless steel



	Pin	Function	Color
Integrated input	1	Supply+	Red
	2	Output+	Blue

Installation

- ♦ Choose a place that is easy to operate and maintain for installation.
- ♦ It should be installed as far as possible from the vibration source.
- Install as far away from the heat source as possible.

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- ♦ When installing, you should check whether the field interface is consistent with the product interface according to the product connection method and thread type. When connecting, you should tighten it slowly. The torque cannot be directly added to the transmitter housing, but only on the pressure interface (six parties).
- ♦ The measuring medium should be compatible with the structural material of the transmitter.

Level transmitter



♦ Level transmitterXDB501

Measuring range	0~200m
Accuracy	±0.5%FS
Supply voltage	9~36(24)VDC
Diaphragm material	316L Stainless steel
Protection class	IP68
Output signal	4-20mA, 0-10V, etc.
Cable material	Polyurethane steel wire cable
Operating temperature	-20~50℃

♦ Level transmitterXDB502



Measuring range	0~200m
Accuracy	±0.5%FS
Supply voltage	9~36(24)VDC
Diaphragm material	316L Stainless steel
Protection class	IP68
Output signal	4-20mA, 0-10V, etc.
Probe material	0~600℃
Operating temperature	0~600°C

♦ Level transmitterXDB503



Measuring range	0~200m
Supply voltage	9~36(24)VDC
Output signal	4-20mA, 0-10V
Features	Anti clogging liquid level & Detachable probe
	8+12 holes
Through-hole	6mm+3mm

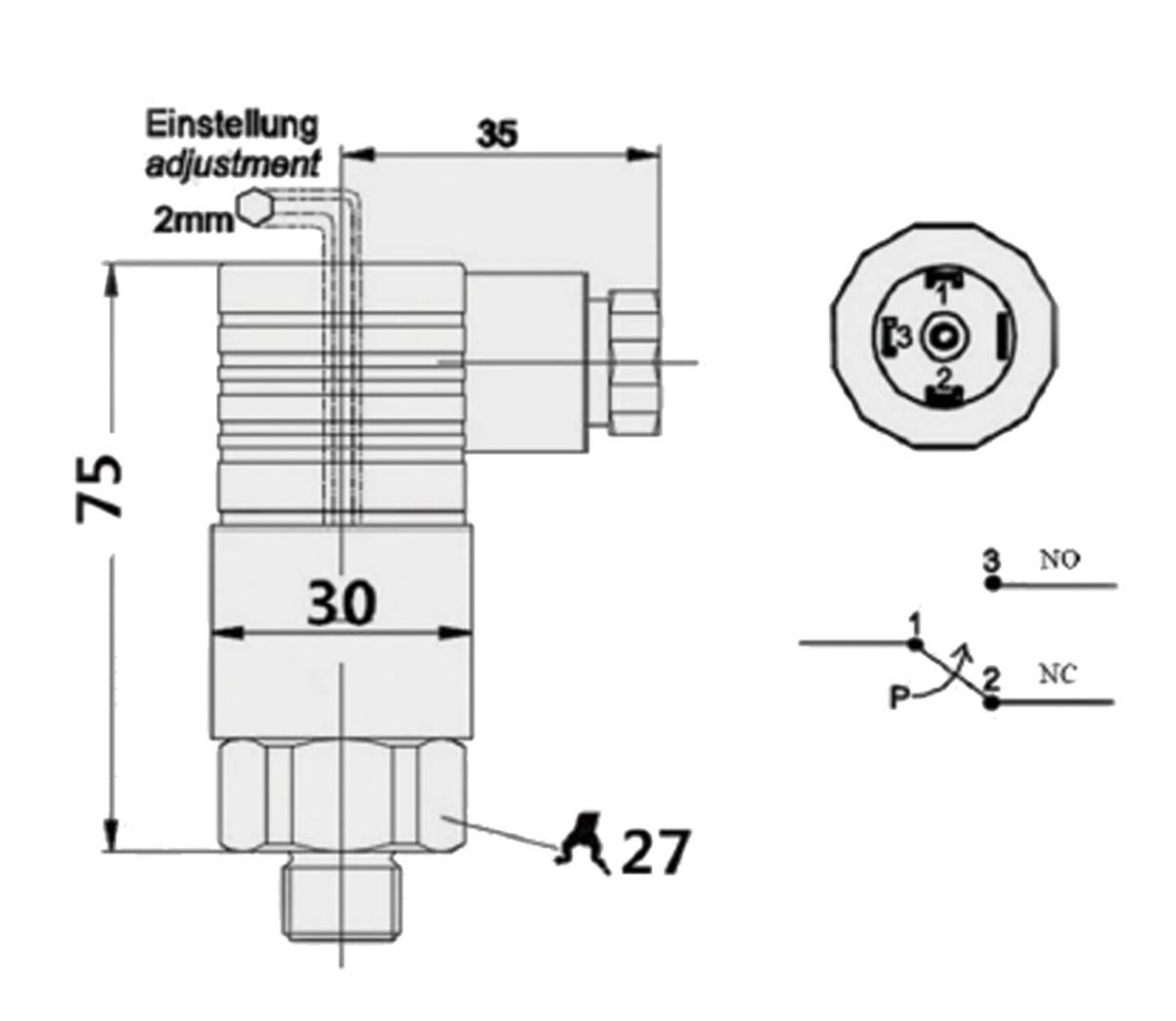






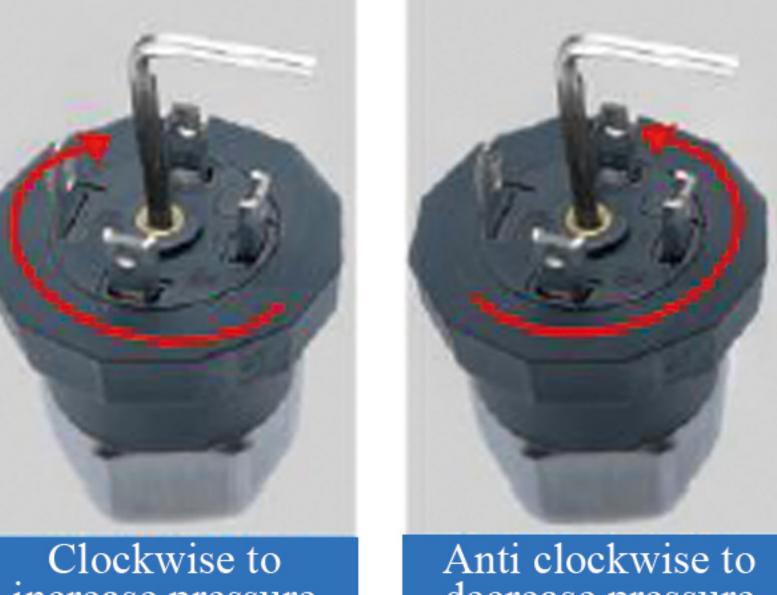
Pressure switch XDB320 series

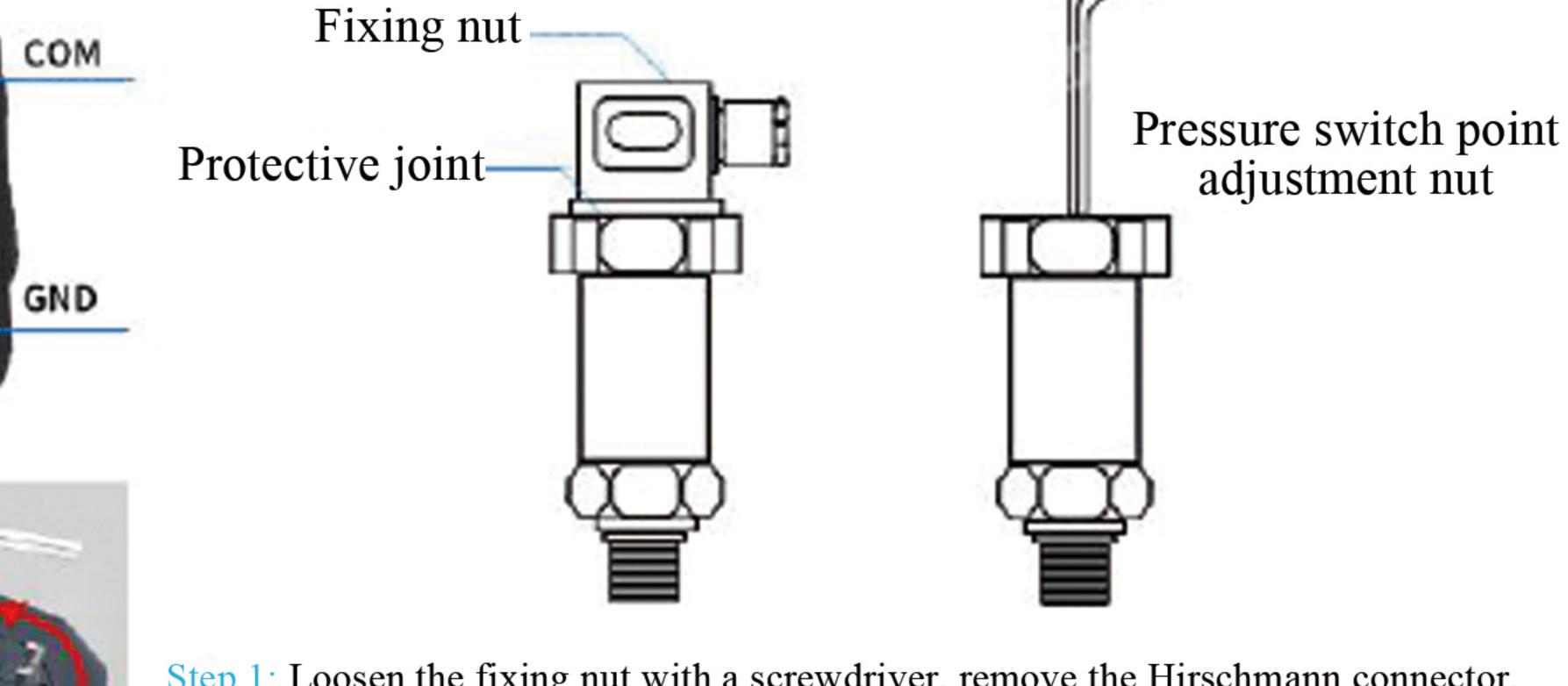




Wiring guidance & adjustment methods







: Loosen the fixing nut with a screwdriver, remove the Hirschmann connector.

Step 2: Adjust the pressure open & close point with the hexagonal wrench we provided (DO NOT rotate the connector when remove it to avoid the internal circuit from being turned off).

The pressure can be increased in clockwise direction, while decreased in anti clockwrise

Description

Unscrew the screw

- 1. XDB320 pressure switch uses a built-in micro switch and sensing hydraulic system pressure and it conveys the electrical signal to electromagnetic directional valve or electric motor to make it change directions or warn and closed circuit so as to achieve the effect of system protection.
- 2. XDB320 pressure switch uses liquid pressure to open or close electrical contact hydraulic electrical interface element. When the system pressure achieves the value of the pressure switch setting, it signals and makes electrical components work. It makes the oil pressure release, reverse and execute components realize order action, or closed motor to stop the system from working to provide safety protection.

Technical parameters

Piston	Max.pressure(bar)	Damage pressure(bar)	Set range(bar)	Error(bar)	Set hysteresis(bar)	N.W.(kg)
	25	55	0.2-2.5			
Membrane Piston	25	55	0.8-5			
	25	55	1-10			
	25	55	1-12	3% set	10% ~20% 25%~30% (optional)	0.1
	200	900	5-50	value	1%~5% (optional)	0.1
	300	900	10-100			
	300	900	20-200			
	300	1230	50-400			

Pressure range	0.25~400 bar	
Body	27*27mm hex stainless steel	
Installation	Anywhere	
Medium	Water, oil, air	
Medium temperature	-2085°C (-40160°C optional)	
Connector	Hirschmann DIN43650A	
Protection grade	IP65	
Hysteresis	1020% setting value (25%~35%, 1%~5% optional)	
Error	3%	
	SPDT, NO & NC	
	≤DC 42V, 1A	
	≤DC 115V, 0.15V	
Output	≤DC 42V, 3A	
	≤DC 125V, 3A	
	≤DC 250V, 0.5A	
Piston > 12 bar	Stainless steel piston with NBR sealing	
Membrane ≤12 bar	NBR	
Shell	Engineering plastic	

XDB322 Intelligent pressure switch



Electrical connection SP1 IMAX=1. 2A SP2 IMAX=1.2A 8~32VDC PNP output SP1 IMAX=1.2A NPN output wiring diagram 4~20mA wiring diagram SP2 IMAX=1. 2A ◎ 中 中 (1)4~20mA M12*5P M12*4P 1:VCC (brown) 1:VCC (brown) 2:SP2 (white) 2:SP2 (white) 3:GND (blue) 3:GND (blue)

In order to prevent the effects of electromagnetic interference should be noted as follows:

- Line connection as short as possible
- Shielded wire is used

4:SP1 (black)

- Avoid wiring near electrical and electronic devices that are prone to interference
- If installed with miniature hoses, the housing must be separately grounded

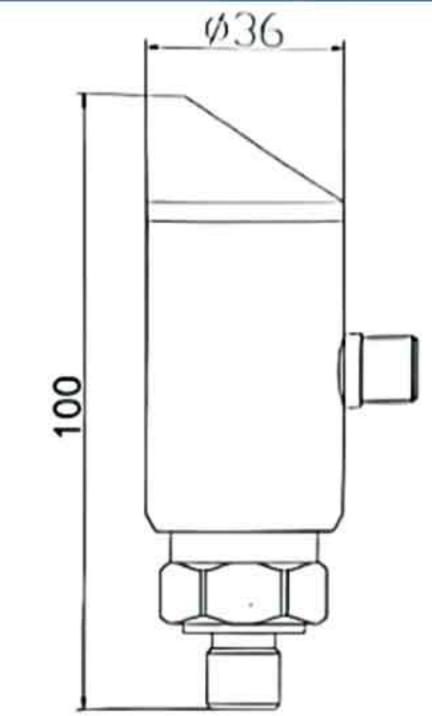
Functional characteristics

- 4-digit display of real-time pressure value
- Pressure preset switching point and hysteresis switching output
- Switching can be set anywhere between zero and full
- Housing with node action light-emitting diodes for easy observation
- Easy to operate with push button adjustment and spot setups
- 2-way switching output with load capacity 1.2A (PNP) / 2.2A (NPN)
- Analog output (4 to 20mA)
- Pressure port can be rotated 330 degrees

External dimensions

4:SP1 (black)

5:4~20mA (gray)



Technical parameters

Control range	-0.1~0~100Mpa	Control accuracy	≤±0.5%FS
Stability	≤0.2%/year	Temperature drift	±0.02%FS/°C
Display method	4-digit digital tube	Display range	-1999~9999
Power supply range	24VDC±20%	Current consumption	<60mA
Load capacity	24V-3.7A,1.2A	Switch type	PNP,NPN
Response time	<4ms	Switch life	<1 million times
Protection level	IP65	Media temperature	-25~80°C
Ambient temperature	-25~80°C	Storage temperature	-40~100°C
Vibration resistant	10g/0~500Hlz	Impact resistance	50g/1ms
Weight	0.3kg	Interface material	304 stainless steel

XDB323 Digital pressure transmitter



Overview

Digital pressure transmitter, using imported sensor pressure sensitive components, using computer laser resistance adjustment for temperature compensation, and integrated junction box design. Equipped with dedicated wiring terminals and digital display. Easy installation, calibration, and maintenance.

It is suitable for petroleum, water conservancy, chemical engineering, power, light industry, etc., achieving measurement of fluid pressure and suitable for various corrosive fluids in various occasions.

Electrical connection

1 (red): Power +; 2 (black): Power -

Note of preventing the effects of electromagnetic interference

- Line connections as short as possible
- Use shielded wire
- Try to avoid direct access to user devices or wiring of electrical and electronic devices that cause interference
- If installed with miniature hoses, the housing must be separately grounded

Main features

NEPSI O1100002

Multiple range options;

Digital, LCD pressure display;

Reverse polarity protection and current limiting protection;

Resistant to lightning strikes and shocks;

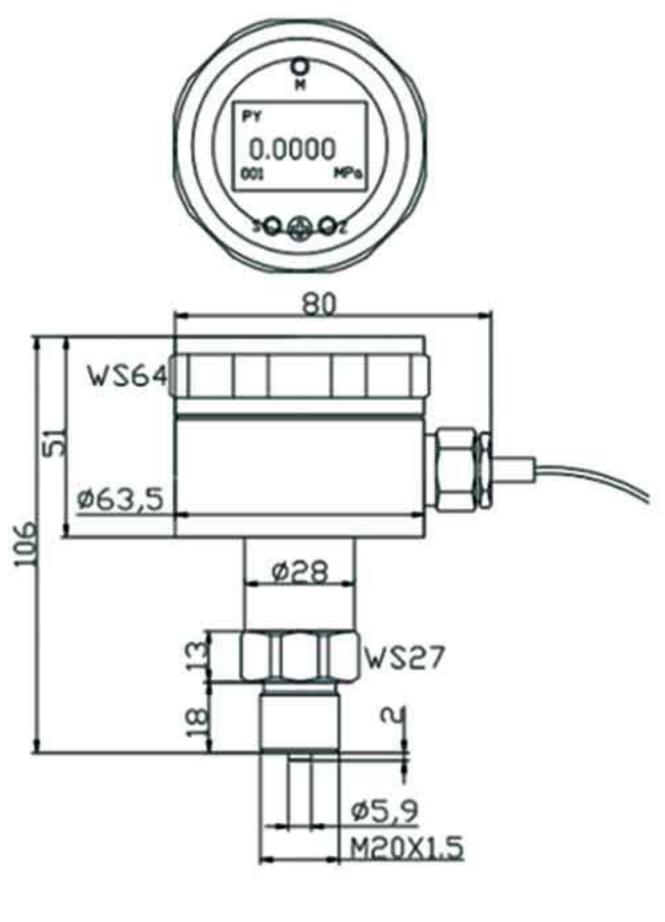
Intrinsically safe and explosion-proof; small size, beautiful appearance and high cost performance;

High precision, stability and reliability

Technical parameters

Measurement range	-0.1~0~100MPa	Accuracy	0.2%, 0.5%
Overload capacity	200%	Output signal	4~20mA
Stability	≤0.1% / year	Supply voltage	18~30VDC
Display method	4-digit LCD	Display range	-1999~9999
Ambient temperature	-20°C~70°C	Relative humidity	≤80%
Mounting thread	M20*1.5	Interface material	Stainless steel

Dimension



EX O1100002 CR CQM



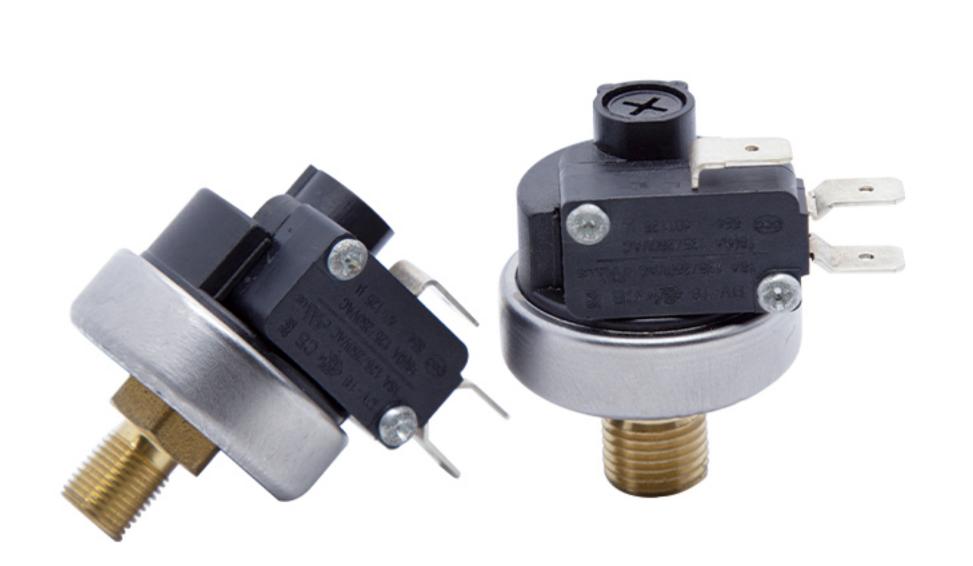
Pressure switches and pressure gauges



♦ Smart pressure switch **XDB319**

Pressure range	-100KPa~100MPa/1MPa~300MPa
Power supply voltage	24V DC(10-30V DC)
Accuracy	±0.25%, ±0.5%(optional)
Output signal	4-20mA(by default),0-5V,0-10V,0.5-4.5V DC,RS485 Modbus-RTU protocol (optional)

Control range	-0.1~0~100Mpa	
Control precision	≤±0.5%FS	
Electrical connection	Hirschmann DIN, M12-4 pin, M12-5 pin	
Process connection	G1/4, G1/2, M20*1.5	



♦ Vaccum pressure switch **XDB321**

Type	postive pressure and negative pressure
Pressure range	positive: 1.5MPa, negative: -100Kpa
Control type	SPDT: On/Off
Medium	non-hazardous steam, pressure, liquid body pressure, oil pressure.

Electrical parameters	16(4)A 250VAC T125
Electrical parameters	16A 125/250VAC 5E4
Thread	G1/8, G1/4
Electrical life	10,000 times/100,000 times



◆ Digital pressure gauge **XDB410**

Pressure type	gauge/absolute pressure
Pressure range	-1~1000bar
Overload pressure	1.5 times full
Dispaly unit	MPa, bar, Kpa, mH2O, kg/cm², psi, mmH2O, mbar

Accuracy	0.1%, 0.2%, 0.25%, 0.4%, 0.5%
Display mode	up to 5 dynamic pressure display
Power supply	4.5V battery
Thread	G1/4, G1/2, M20*1.5



♦ Digital pressure switch **XDB411**

Pressure type	gauge pressure
Pressure range	-1~50 bar
Power supply	DC24V, AC240V, AC380V
Model	1001K, 1003, 1005

Hysteresis	≤150ms
Power consumption	≤2W
Contact capacity	2A
Output method	dry contact



Description:

XDB705 series waterproof armored temperature transmitter is composed of platinum resistance element, metal protective tube, insulating filler, extension wire, junction box and temperature transmitter. It is simple in structure and widely used, and can be made into explosion-proof, anti-corrosion, waterproof, wear-resistant, high temperature resistant and other types.

XDB705 waterproof armored temperature transmitter

Features:

100% German intelligent chip with high accuracy and stability, high quality stainless steel with good durability,waterproof junction port/junction box, effective waterproof and dust-proof; effective insertion depth can be customized. The thread can be M20 * 1.5, M27 * 2, G1/2 etc; seamless steel pipe, suitable for high temperature water, oil, steam, etc; perfect compensation resistance of the 3-wire system wiring. It can be 2-wire, 4-wire and 6-wire.

Applications:

Food industry;

Medical industry;

Water treatment industry;

New energy power industry.

Specifications:

Thread: M20 * 1.5/M27 * 2/G1/2, movable thread: M16*1.5 (default)

Pipe material: SS304
Probe diameter: 6mm

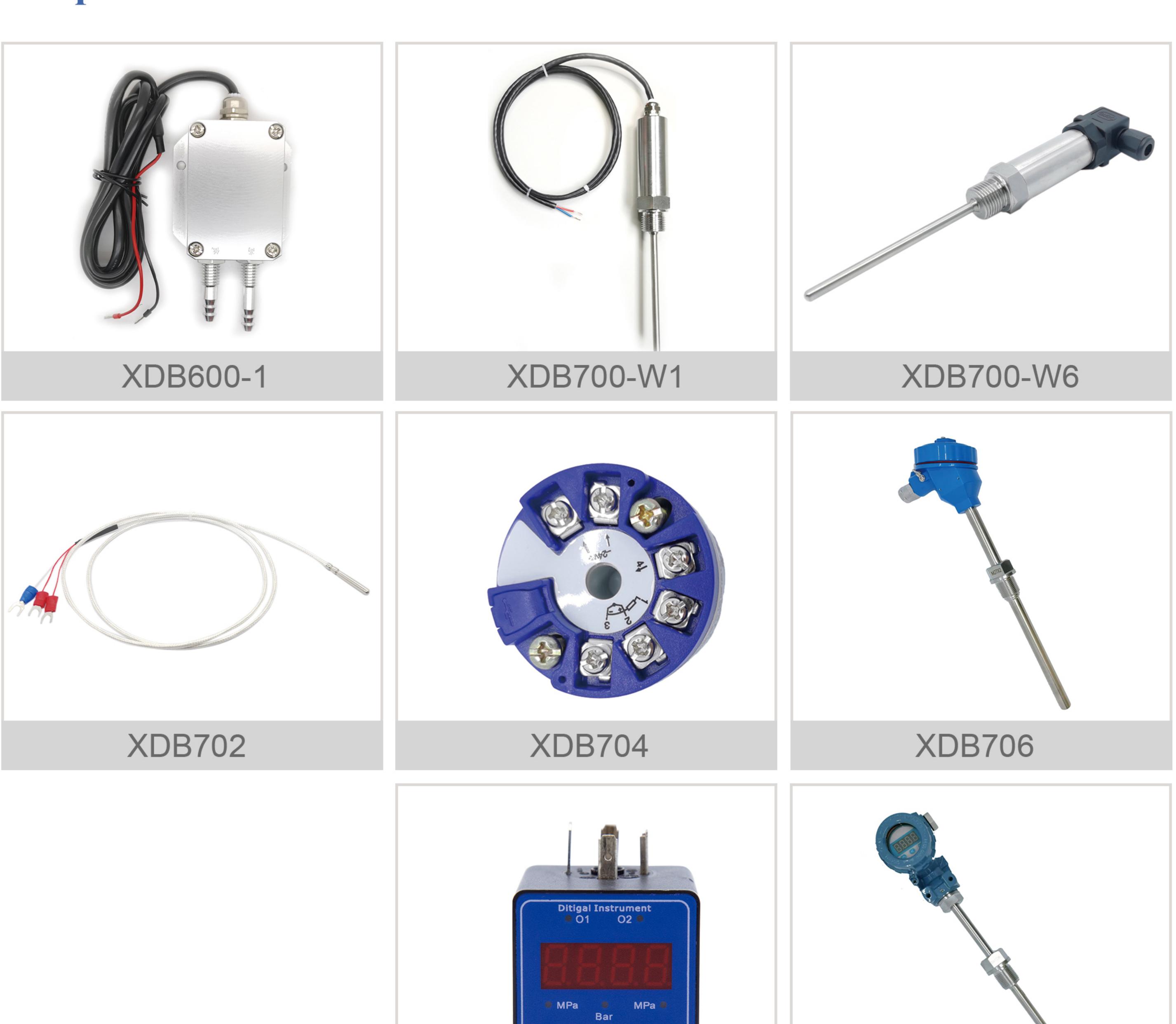
Output: 4~20mA/0~10V

Input: PT100, PT1000, CU50, BEJKNRST

RTD accuracy: 0.2%, temperature transmitter accuracy: 0.5%



Micro differential pressure transmitter Temperature transmitter and accessories



XDB900



XDB907



XDB906

XDB708

XDB908