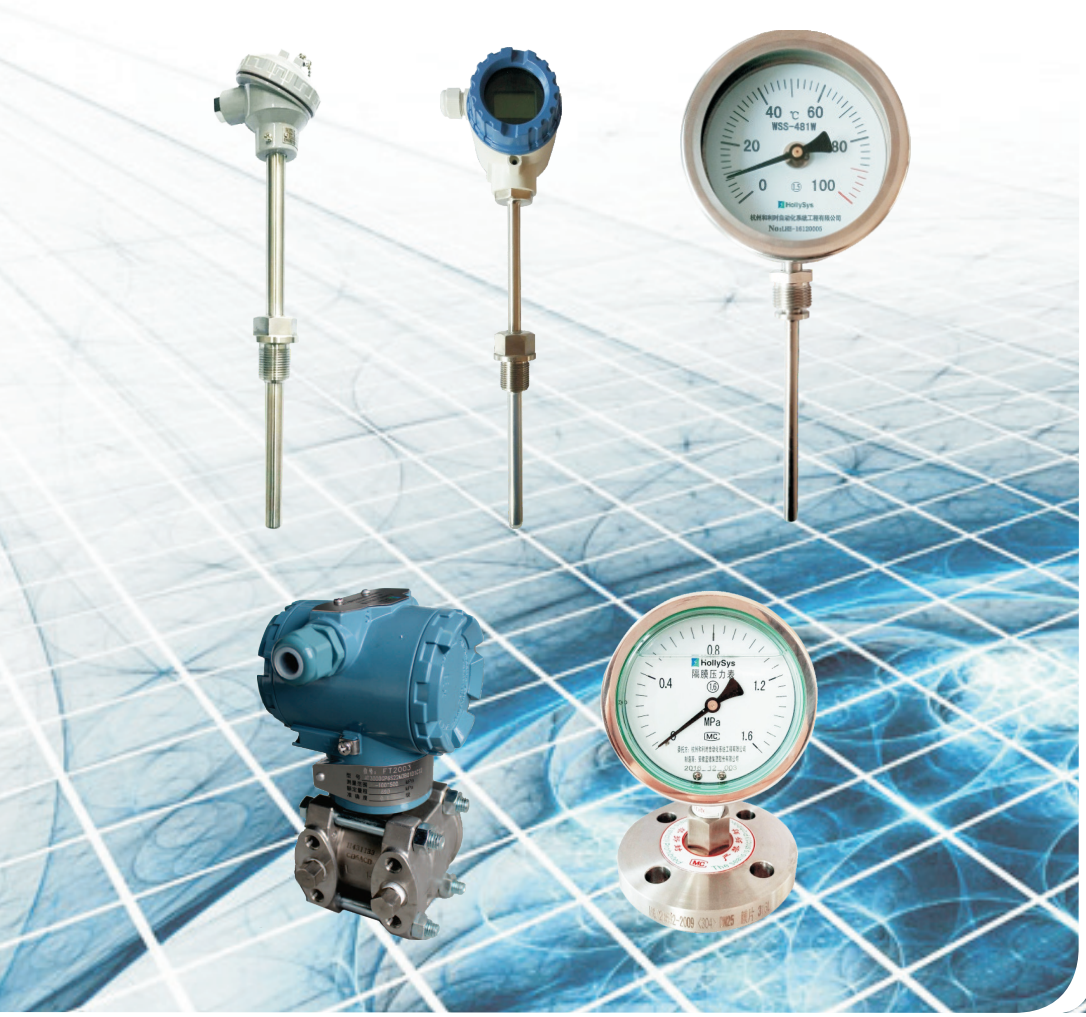
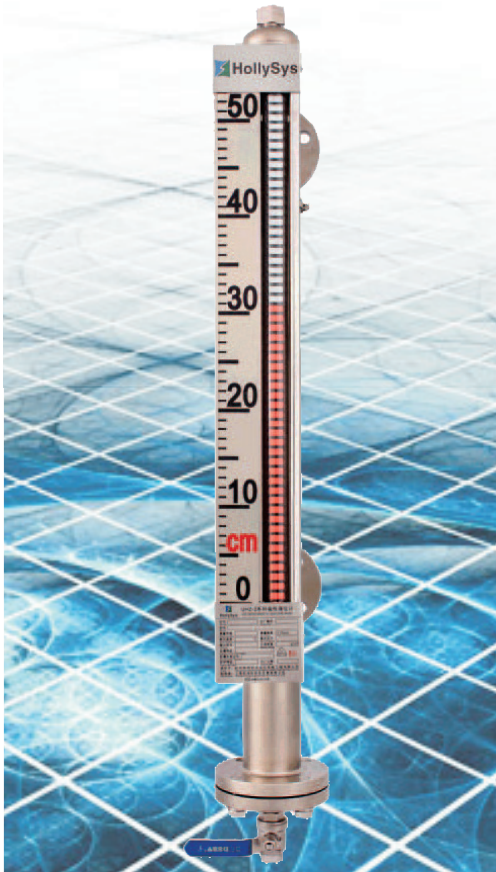
HollySys





Instrument Product Portfolio

CONTENTS

PRODUCTS

In HollySys, we provides a comprehensive range of instrument products which are widely used in industries such as electric power, petrochemicals, chemicals, construction materials, metallurgy, pulp and paper, pharmaceutical, environmental protection, and equipment manufacturing.

- Isolated Barrier
- Isolator
- Power Transmitter
- Surge Protector
- Intelligent Pressure Transmitter
- Pressure Instruments
- Temperature Instuments
- Throttling Elements
- Metal Tube Flowmeter
- Electromagnetic Flowmeter
- Magnetic Liquid Level

SERVICES

We seek improvement in the pursuit of customer satisfaction as well as the quality of services provided. In order to better meet the demands for our customers, we provides a full range of solutions and services based on safety, stability, comprehensive, energy saving, emission reduction and high efficiency to fulfill the criteria required for a successful production facility.

AM1000EX SERIES ISOLATED BARRIER

AM1011EX, AM1012EX, AM1013EX

Digital signal input isolated barrier can transfer the switch or proximity switch signal from hazardous area to safety area. This device has selectable line fault detect (LFD) indicating function and each channel of it can be setting output and input in-phase or reverse phase control mode.

AM1011EX	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 30mA @ 24V DC supply, 20mA output
Safe Area Output Relay Signal	Response Time: ≤ 10ms Drive Ability: 250V AC, 2A or 30V DC, 2A Load Type: Resistive Load
Hazardous Area Input	Input Signal: Switch, Proximity Detector Open Circuit Voltage: About 8V Short Circuit Current: About 8mA
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable Location	Mounting in non-hazardous area and connected to the IS apparatus in zone 0 hazardous area.
Suitable IS Apparatus	Compliance with DIN19234 of NAMUR proximity switches, switches and other field equipment.
AM1012EX	
No. of Channels	2
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 40mA @ 24V DC supply, 20mA output
Safe Area Output Relay Signal	Response Time: ≤ 10ms Drive Ability: 250V AC, 2A or 30V DC, 2A Load Type: Resistive Load
Hazardous Area Input	Input Signal: Switch, Proximity Detector Open Circuit Voltage: About 8V Short Circuit Current: About 8mA
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable Location	Mounting in non-hazardous area and connected to the IS apparatus in zone 0 hazardous area.
Suitable IS Apparatus	Compliance with DIN19234 of NAMUR proximity switches, switches and other field equipment.
AM1013EX	
No. of Channels	1/2
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 40mA @ 24V DC supply, 20mA output
Safe Area Output Relay Signal	Response Time: ≤ 10ms Drive Ability: 250V AC, 2A or 30V DC, 2A Load Type: Resistive Load
Hazardous Area Input	Input Signal: Switch, Proximity Detector Open Circuit Voltage: About 8V Short Circuit Current: About 8mA
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable IS Apparatus	Compliance with DIN19234 of NAMUR proximity switches, switches and other field equipment.

AM1021EX, AM1022EX

A loop powered module enables intrinsically safe devices such as solenoid valves, alarm transmitters and other lowpower loads located in the hazardous area to be controlled from the safe area. It allows the control switch to connect directly to the either side of power supply circuit.

AM1021EX	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 75mA @ 24V DC supply, 45mA output
Hazardous Area Input	Open Circuit Voltage: 22V ~ 24V Minimum Output Voltage: ≥ 12V @ 45mA
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable IS Apparatus	Solenoid valves, alarm transmitters and other lowpower loads
AM1022EX	
No. of Channels	2
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 160mA @ 24V DC supply, 45mA output
Hazardous Area Input	Open Circuit Voltage: 22V ~ 24V Minimum Output Voltage: ≥ 12V @ 45mA
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable IS Apparatus	Solenoid valves, alarm transmitters and other lowpower loads

AM1031EX, AM1032EX

2-wire HART transmitter, 3-wire transmitter and current source input isolated barrier provides isolated dc supplies for transmitters which located in hazardous area. It is able to transfer 4 to 20mA signal generated by the transmitter from hazardous area to safe area separately. It also allows bi–directional transmission of HART communication signals.

AM1031EX	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 65mA @ 24V DC supply, 20mA output
Safe Area Output	Current: 0/4 ~ 20mA, HART Digital Signal Load Resistance ≤ 550 Ω Load Resistance ≥ 250 Ω (HART) Voltage: 0/1 ~ 5V, HART Digital Signal Load Resistance ≥ 300k Ω
Hazardous-Area Input	Current: 0/4 ~ 20mA, HART Digital Signal Available Voltage: Open Circuit Voltage: ≤ 28V Voltage: ≥ 15.5V @ 20mA Normal Working Current: ≤ 25mA
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable IS Apparatus	2-wire HART transmitter, 3-wire transmitter and current source
AM1032EX	
No. of Channels	1/2
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 75mA @ 24V DC supply, 20mA output
Safe Area Output	Current: 0/4 ~ 20mA, HART Digital Signal Load Resistance ≤ 300 Ω Load Resistance ≥ 250 Ω (HART) Voltage: 0/1 ~ 5V, HART Digital Signal Load Resistance ≥ 330k Ω
Hazardous-Area Input	Current: 0/4 ~ 20mA, HART Digital Signal Available Voltage: Open Circuit Voltage: ≤ 28V Voltage: ≥ 15.5V @ 20mA Normal Working Current: ≤ 25mA
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable IS Apparatus	2-wire HART transmitter, 3-wire transmitter and current source

AM1041EX

An isolated barrier that transmits 4 to 20mA signals to the Ex area in an intrinsically safe manner. It accepts 4 to 20mA floating signals from a safe area controller to drive a valve positioned, electric converter and so on. The analog value can be overlayed with digital (HART) communication signals on the Ex or non-Ex side and transmitted bidirectionally.

AM1041EX	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 50mA @ 24V DC supply, 20mA output
Safe Area Input	Current: 0/4 ~ 20mA, HART Digital Signal Voltage Drop: ≤ 2V
Hazardous-Area Input	Current: 0/4 ~ 20mA, HART Digital Signal Load Resistance ≤ 800 Ω Load Resistance ≥ 250 Ω (HART) Voltage: 0/1 ~ 5V, HART Digital Signal Load Resistance ≥ 300k Ω
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable IS Apparatus	2-wire valve positioner electropneumatic converter

AM1051EX, AM1052EX

An isolated barrier that converts thermocouple signal and millivolt signal mounted in hazardous area into 4 to 20mA current for driving a safe-area load. It is an intelligent instrument with the function of auto cold-end compensation. The measure range and thermocouple division are programable through computer.

AM1051EX	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 35mA @ 24V DC supply, 20mA output
Safe Area Output	Current: 4 ~ 20mA; Load Resistance: RL 300 Ω Voltage: 1 ~ 5V; Load Resistance: RL ≥ 20k Ω

Hazardous-Area Input	Signal Type		Signal Range	Min. Span	Accuracy
	TC	T	-200°C ~ +400°C	50°C	0.5°C/0.1%
		E	-200°C ~ +900°C	50°C	0.5°C/0.1%
		J	-200°C ~ +1200°C	50°C	0.5°C/0.1%
		K	-200°C ~ +1372°C	50°C	0.5°C/0.1%
		N	200°C ~ +1300°C	50°C	0.5°C/0.1%
		R	-40°C ~ +1768°C	500°C	1.5°C/0.1%
		S	-40°C ~ +1768°C	500°C	1.5°C/0.1%
		B	+320°C ~ +1820°C	500°C	1.5°C/0.1%
	mV		-100mV ~ +100mV	10mV	20uV/0.1%
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)				
Suitable IS Apparatus	T, E, J, K, N, R, S, B and mV signal				
AM1052EX					
No. of Channels	1/2				
Supply Voltage	20 ~ 35V DC				
Current Consumption	≤ 55mA @ 24V DC supply, 20mA output				
Safe Area Output	Current: 4 ~ 20mA; Load Resistance: RL 300 Ω Voltage: 1 ~ 5V; Load Resistance: RL ≥ 20k Ω				
Hazardous-Area Input	Signal Type		Signal Range	Min. Span	Accuracy
	TC	T	-200°C ~ +400°C	50°C	0.5°C/0.1%
		E	-200°C ~ +900°C	50°C	0.5°C/0.1%
		J	-200°C ~ +1200°C	50°C	0.5°C/0.1%
		K	-200°C ~ +1372°C	50°C	0.5°C/0.1%
		N	200°C ~ +1300°C	50°C	0.5°C/0.1%
		R	-40°C ~ +1768°C	500°C	1.5°C/0.1%
		S	-40°C ~ +1768°C	500°C	1.5°C/0.1%
		B	+320°C ~ +1820°C	500°C	1.5°C/0.1%
	mV		-100mV ~ +100mV	10mV	20uV/0.1%
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)				
Suitable IS Apparatus	T, E, J, K, N, R, S, B and mV signal				

AM1061EX, AM1062EX

Solated barrier that can convert signals from 2-wire, 3-wire RTDS signal mounted in hazardous area into 0/4 ~ 20mA current or 0/1 ~ 5V voltage. It can be configured by PC. The measure range and thermal resistance division are programable through computer.

AM1061EX				
No. of Channels	1			
Supply Voltage	20 ~ 35V DC			
Current Consumption	≤ 35mA @ 24V DC supply, 20mA output			
Safe Area Output	Current: 4 ~ 20mA; Load Resistance: R 300 Voltage: 1 ~ 5V; Load Resistance: RL ≥ 20k Ω			
Hazardous Area Input	Signal Type	Signal Range	Min. Span	Accuracy
	Pt100	-200°C ~ +850°C	20°C	0.2°C/0.1%
	Cu50	-50°C ~ +150°C	20°C	0.2°C/0.1%
	Cu100	-50°C ~ +150°C	20°C	0.2°C/0.1%
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)			
Suitable IS Apparatus	Pt100, Cu50, Cu100			
AM1062EX				
No. of Channels	1/2			
Supply Voltage	20 ~ 35V DC			
Current Consumption	≤ 55mA @ 24V DC supply, 20mA output			
Safe Area Output	Current: 4 ~ 20mA; Load Resistance: R 300 Voltage: 1 ~ 5V; Load Resistance: RL ≥ 20k Ω			
Hazardous Area Input	Signal Type	Signal Range	Min. Span	Accuracy
	Pt100	-200°C ~ +850°C	20°C	0.2°C/0.1%
	Cu50	-50°C ~ +150°C	20°C	0.2°C/0.1%
	Cu100	-50°C ~ +150°C	20°C	0.2°C/0.1%
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)			
Suitable IS Apparatus	Pt100, Cu50, Cu100			

AM2000EX SERIES ISOLATED BARRIER

AM2012EX

Digital signal input isolated barrier that transfers the switch or proximity switch signal from hazardous area to safety area. This device has selectable line fault detect (LFD) indicating function and each channel of it can be setting output & input in-phase or reverse phase control mode. It requires independent power supply.

AM2012EX	
No. of Channels	2
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 45mA @ 24V DC supply, 20mA output
Safe Area Output Relay Signal	Response Time: ≤ 10ms Drive Ability: 250V AC, 2A or 30V DC, 2A Load Type: Resistive Load
Hazardous Area Input	Current: 4 ~ 20mA, HART Digital Signal Load Resistance ≤ 800 Ω Load Resistance ≥ 249 Ω (HART)
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable IS Apparatus	Compliance with DIN19234 of NAMUR proximity switches, switches and other field equipment.

AM2031EX

An isolated barrier that transmits 4 to 20mA signals to the Ex area in an intrinsically safe manner. It accepts 4 to 20mA floating signals from a safe-area controller to drive a valve positioned, electric converter and so on. The analog value can be overlayed with digital (HART) communication signals on the Ex or non-Ex side and transmitted bidirectionally.

AM2031EX	
No. of Channels	2
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 45mA @ 24V DC supply, 20mA output
Safe Area Input	Current: 4 ~ 20mA, HART Digital Signal Voltage Drop: ≤ 2V
Hazardous Area Input	Input Sigal: Switch, Proximity Detector Open Circuit Voltage: About 8V Short Circuit Current: About 8mA
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable IS Apparatus	2-wire valve positioner electropneumatic converter

AM2041EX

2-wire HART transmitter, 3-wire transmitter, current source input isolated barrier that provides isolated dc supplies for transmitters which located in hazardous area. It is able to transfer 4 to 20mA signal which generated by the transmitter form hazardous area to safe area separately, it also allows bi–directional transmission of HART communication signals.

AM2041EX	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 60mA @ 24V DC supply, 20mA output
Safe Area Input	Current: 4 ~ 20mA, HART Digital Signal Load Resistance ≤ 450 Ω Load Resistance ≥ 249 Ω (HART)
Hazardous Area Input	Current: 4 ~ 20mA, HART Digital Signal Available Voltage: Open Circuit Voltage: ≤ 28V Voltage: ≥ 16V @ 20mA Normal Working Current: ≤ 25mA
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable IS Apparatus	2-wire HART transmitter, 3-wire transmitter, current source

AM2051EX

An isolated barrier that can convert thermocouple signal, millivolt signal mounted in hazardous area into 4 to 20mA current for driving a safe-area load. It is an intelligent instrument with the function of auto cold-end compensation. The measure range and thermocouple division are programable through computer.

AM2051EX	
No. of Channels	1
Supply Voltage	20 ~ 35V DC

Current Consumption	≤ 40mA @ 24V DC supply, 20mA output				
Safe Area Output	Current: 4 ~ 20mA; Load Resistance: RL 550 Ω				
Hazardous Area Input	**Signal Type**		**Signal Range**	**Min. Span**	**Accuracy**
	TC	T	-200°C ~ +400°C	50°C	0.5°C/0.1%
		E	-200°C ~ +900°C	50°C	0.5°C/0.1%
		J	-200°C ~ +1200°C	50°C	0.5°C/0.1%
		K	-200°C ~ +1372°C	50°C	0.5°C/0.1%
		N	200°C ~ +1300°C	50°C	0.5°C/0.1%
		R	-40°C ~ +1768°C	500°C	1.5°C/0.1%
		S	-40°C ~ +1768°C	500°C	1.5°C/0.1%
		B	+320°C ~ +1820°C	500°C	1.5°C/0.1%
	mV		-100mV ~ +100mV	10mV	20uV/0.1%
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)				
Suitable Location	Mounting in non-hazardous area, and connected to the IS apparatus in zone 0 hazardous area.				
Suitable IS Apparatus	T, E, J, K, N, R, S, B and mV signal				

AM2061EX

An isolated barrier that converts signals from 2-wire, 3-wire RTDS signal mounted in hazardous area into 4 to 20mA. It can be configured by PC. The measure range and thermal resistance division are programable through computer.

AM2061EX				
No. of Channels	1			
Supply Voltage	20 ~ 35V DC			
Current Consumption	≤ 40mA @ 24V DC supply, 20mA output			
Safe Area Output	Current: 4 ~ 20mA; Load Resistance: RL 550 Ω			
Hazardous Area Input	**Signal Type**	**Signal Range**	**Min. Span**	**Accuracy**
	Pt100	-200°C ~ +850°C	20°C	0.2°C/0.1%
	Cu50	-50°C ~ +150°C	20°C	0.2°C/0.1%
	Cu100	-50°C ~ +150°C	20°C	0.2°C/0.1%
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)			
Suitable Location	Mounting in non-hazardous area, and connected to the IS apparatus in zone 0 hazardous area.			
Suitable IS Apparatus	Pt100, Cu50, Cu100			

AMG1000 SERIES ISOLATOR

AMG1000 series ultra-thin signal isolator isolates power sources, inputs and outputs, and effectively addresses field interference issues faced by industrial automation control system, ensuring the stable and reliable operation of the system. It saves space as it is only 7.6mm thick, it is designed to save energy, and operate reliably for long periods of time after intensive installation.

AMG1031, AMG1031H, AMG1032

An isolator that supplies power to 2-wire or 3-wire transmitters and transfers 4 to 20mA signal from transmitter.

AMG1031	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 60mA @ 24V DC supply, 20mA output
Input	Current: 0/4 ~ 20mA Available Voltage: ≥ 19V Maximum Current: < 35mA
Output	Current: 0/4 ~ 20mA Maximum Current: < 35mA Load Resistance: ≤ 550 Ω Voltage: 0/1 ~ 5V Load Resistance ≥ 330k Ω
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable Apparatus	2-wire transmitter, 3-wire transmitter, current source
AMG1031H	
No. of Channels	1
Supply Voltage	20 ~ 35V DC

Current Consumption	≤ 60mA @ 24V DC supply, 20mA output
Input	Current: 0/4 ~ 20mA, HART Available Voltage: ≥ 19V Maximum Current: < 35mA
Output	Current: 0/4 ~ 20mA, HART Maximum Current: < 35mA Load Resistance: ≤ 550 Ω HART, Load Resistance ≤ 250 Ω Voltage: 0/1 ~ 5V Load Resistance ≥ 330k Ω
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable Apparatus	2-wire transmitter, 3-wire transmitter, current source
AMG1032	
No. of Channels	1/2
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 75mA @ 24V DC supply, 20mA output
Input	Current: 0/4 ~ 20mA Impedance: ≤ 50 Ω Available Voltage: ≥ 17.5 ~ 25V, Current < 35mA Maximum Current: < 35mA
Output	Current: 0/4 ~ 20mA Load Resistance: RL ≤ 300 Ω Voltage: 0/1 ~ 5V, 0/2 ~ 10V Load Resistance: RL ≥ 330k Ω (0/1 ~ 5V) Load Resistance: RL ≥ 660k Ω (0/2 ~ 10V)
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable Apparatus	2-wire transmitter, 3-wire transmitter, current source

AMG1041, AMG1041H

An isolator that supplies transfers a DC 0/4 to 20mA signal from the locale.

AMG1041	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 50mA @ 24V DC supply, 20mA output
Input	Current: 0/4 ~ 20mA Voltage Drop: ≤ 2V Maximum Current: < 30mA
Output	Current: 0/4 ~ 20mA Load Resistance: ≤ 680 Ω Maximum Current: < 30mA Voltage: 0/1 ~ 5V Load Resistance ≥ 330k Ω
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable Apparatus	2-wire HART transmitter, 3-wire transmitter, current source
AMG1041H	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 50mA @ 24V DC supply, 20mA output
Input	Current: 0/4 ~ 20mA, HART Voltage Drop: ≤ 2V Maximum Current: < 30mA
Output	Current: 0/4 ~ 20mA, HART Load Resistance: ≤ 680 Ω Maximum Current: < 30mA HART, Load Resistance ≤ 250 Ω Voltage: 0/1 ~ 5V Load Resistance ≥ 330k Ω
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable Apparatus	2-wire valve positioner, electrical converter

AMG1051D

Temperature transmitter that converts a low-level signal from RTD and TC mounted into 0/4 to 20mA current or 0/1 to 5V voltage. The signal isolated and transferred through output side. It is an intelligent instrument with the function of auto cold-end-compensation. The scale division and range of RTD and TC are set through PC configuration, as well as the upper/lower limit and current value of disconnection alarm setting.

AMG1051D	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Current Consumption	≤ 35mA @ 24V DC supply, 20mA output

Safe Area Output	Current: 4 ~ 20mA; Load Resistance: RL 550 Ω				
Input	**Signal Type**		**Signal Range**	**Min. Span**	**Accuracy**
	TC	T	-200°C ~ +400°C	50°C	0.5°C/0.1%
		E	-200°C ~ +900°C	50°C	0.5°C/0.1%
		J	-200°C ~ +1200°C	50°C	0.5°C/0.1%
		K	-200°C ~ +1372°C	50°C	0.5°C/0.1%
		N	200°C ~ +1300°C	50°C	0.5°C/0.1%
		R	-40°C ~ +1768°C	500°C	1.5°C/0.1%
		S	-40°C ~ +1768°C	500°C	1.5°C/0.1%
		B	+320°C ~ +1820°C	500°C	1.5°C/0.1%
	mV		-100mV ~ +100mV	10mV	20uV/0.1%
	RTD	Pt100	-200°C ~ +850°C	20°C	0.2°C/0.1%
		Cu50	-50°C ~ +150°C	20°C	0.2°C/0.1%
		Cu100	-50°C ~ +150°C	20°C	0.2°C/0.1%
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)				
Suitable Apparatus	2-wire RTD, 3-wire RTD, TC				

AMG1051H

Loop-powered temperature transmitter that converts thermal resistance, thermal couple and mV signal field into 4 to 20mA current for driving load. It has sensor breakage alarm indicator function and the TC input has cold junction compensation function. It is intelligent and indexing number of TC and range can be configured through computer.

AMG1051H					
No. of Channels	1				
Supply Voltage	9 ~ 30V DC				
Input	**Signal Type**		**Signal Range**	**Min. Span**	**Accuracy**
	TC	T	-200°C ~ +400°C	50°C	0.5°C/0.1%
		E	-200°C ~ +900°C	50°C	0.5°C/0.1%
		J	-200°C ~ +1200°C	50°C	0.5°C/0.1%
		K	-200°C ~ +1372°C	50°C	0.5°C/0.1%
		N	200°C ~ +1300°C	50°C	0.5°C/0.1%
		R	-40°C ~ +1768°C	500°C	1.5°C/0.1%
		S	-40°C ~ +1768°C	500°C	1.5°C/0.1%
		B	+320°C ~ +1820°C	500°C	1.5°C/0.1%
	mV		-100mV ~ +100mV	10mV	20uV/0.1%
	RTD	Pt100	-200°C ~ +850°C	20°C	0.2°C/0.1%
		Cu50	-50°C ~ +150°C	20°C	0.2°C/0.1%
		Cu100	-50°C ~ +150°C	20°C	0.2°C/0.1%
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)				
Suitable Apparatus	2-/3-wire thermal resistance, thermal couple and mV signal				

AMG1055

An isolator that frequency signal will be set according to the user to convert the linear range 4 to 20mA (or 0 to 20mA) output. The product has one relay alarm output.

AMG1055	
No. of Channels	1
Supply Voltage	20 ~ 35V DC
Input	Signal Type: 1) 3-wire PNP/NPN Sensor Output: Sensor Distribution: 14V DC, Current: < 20mA Input Frequency: 0.1Hz ~ 100KHz 2) Frequency Input Signal: Input Frequency: 0.1Hz ~ 100KHz Maximum Input Voltage: 30Vp - p Minimum Input Level: 2V, (2Hz ~ 100KHz) 2V, (0.1Hz ~ 100KHz) 3) Proximity Switch, Dry Contact Switch Input: Sensor Distribution: ≈ 8V; Short - Circuit Current: ≈ 8mA Input Frequency: 0.1Hz ~ 100kHz
Output	Current: 0 ~ 20mA, 4 ~ 20mA Load Resistance: ≤ 400 Ω Voltage: 0 ~ 5V / 1 ~ 5V Load Resistance ≥ 300k Ω
Electromagnetic Compatibility	According to IEC 61326-1 (GB/T 18268)
Suitable Apparatus	Dry contact or DIN19234 standard NAMUR proximity switch input field devices (including the intrinsically safe type pressure switch, temperature switches, liquid level switch). Level pulse signal, 3-wire system PNP/NPN sensor output, incrementa encoder.

AD10 SERIES POWER TRANSMITTER

Performance	
Input Signal	Current: 0 ~ 60A AC/DC Voltage: 0 ~ 500VAC / 1000VDC
Output	4 ~ 20mA / 0 ~ 20mA / 1 ~ 5V / 0 ~ 5V / 0 ~ 10V
Power Supply	20 ~ 30VDC / 90 ~ 260VDC
Electromagnetic Compatibility	Meet GB / T18268 Requirements (equivalent to IEC61326-1)
Operating Temperature	-20°C~60°C

AML100 SERIES SURGE PROTECTOR

Performance	
Type	Signal type, DC power supply type, AC power type
Loading Method	DIN35mm standard guide rail
Maximum Discharge Current	Signal type, DC power supply type up to 10kA, AC power type up to 20kA
Protection Equipment	Thermocouple, thermal resistance, RS485 signal, two-wire / three-wire transmitter, switch, frequency, 24VDC electrical equipment, telephone / network / video interface;
Operating Temperature	-20°C~60°C

AT3000 INTELLIGENT PRESSURE TRANSMITTER

AT3000 Intelligent Pressure Transmitter is an on-site measuring instrument with micro-processor and it is applicable for communication with HART protocol. AT3000 with advanced digital technology and frequency shift keying (FSK) technology used has improved the integral performance and the liability, which ease the connection between the site and the control room.

Performance	
Pressure	Up to 40MPa, differential pressure measurement range of 300Pa ~ 6MPa
Accuracy Class	Up to 0.1 level
Far Differential Transmitter	Measure medium temperature, up to -40°C~ +315°C
Rich Filling Liquid	Silicone oil, fluorine oil, high temperature silicone oil
Variety of isolation diaphragm optional	316L, Hastelloy C, Tantalum, PFA coating, F46 coating, gold plating, etc. Isolated electronic components, anti-electromagnetic interference, anti-over-voltage capability, communication performance greatly improved integrated sensor module with temperature sensor, anti-vibration, anti-moisture, anti-ambient temperature change ability

Pressure / Differential Pressure Transmitter

Direct Pressure / Absolute Pressure Transmitter

Double Flange Far Differential Pressure Transmitter

Flange Level Transmitter

AT4000 INTELLIGENT PRESSURE TRANSMITTER

Performance	
Pressure	Up to 40MPa, differential pressure measurement range of 50Pa ~ 1MPa
Accuracy Class	Up to 0.05 level
Far Differential Transmitter	Measure medium temperature, up to -40°C~ +315°C
Rich Filling Liquid	Silicone oil, fluorine oil, high temperature silicone oil
Variety of isolation diaphragm optional	316L, Hastelloy C, tantalum, PFA coating, F46 film, gold and so on isolated electronic components, anti-electromagnetic interference, anti-over-voltage capability, communication performance greatly improved integrated sensor module with temperature sensor, anti-vibration, anti-moisture, anti-ambient temperature change ability. Optional stainless steel housing. Optional LCD display header for backlighting

Differential Pressure Transmitter

Direct Pressure / Absolute Pressure Transmitter

Flange Level Transmitter

Double Flange Far Differential Pressure Transmitter

NORMAL PRESSURE GAUGE, PRESSURE VACUUM GAUGE, VACUUM GAUGE

The system is made up of junction and spring tube because the change of measured pressure effect the movement to free ends of spring tube, drives needle on turnable gear circling by the connection rod, then the dial will display the corresponding pressure value.

Main Technical Indicator						
Model		Y-60 YZ-60 Z-60	Y-100 YZ-100 Z-100	Y-150 YZ-150 Z-100	Y-200 YZ-200 Z-200	Y-250 YZ-250 Z-250
Norminal Diameter		60	100	150	200	250
Connection Thread		M14 × 1.5	M20 × 1.5			
Accuracy Class		2.5	1.6	1.0; 1.6		
Measuring Range	**Y-**	0 ~ 0.1; 0 ~ 0.16; 0 ~ 0.25; 0 ~ 0.4; 0~ 0.6; 0 ~ 1; 0 ~ 1.6; 0 ~ 2.5; 0 ~ 4; 0 ~ 6; 0 ~ 10; 0 ~ 16; 0 ~ 25; 0 ~ 40; 0 ~ 60;				
	YZ-	-0.1 ~ 0.06; -0.1 ~ 0:15; 0.1 ~ 0.3; -0.1 ~ 0.5 -0.1 ~ 0.9; -0.1~1.5; -0.1 ~ 2.4				
	Z-	-0.1 ~ 0				
Operation Circumstance		-40 ~ 70°C, the relative humidity is 85% or smaller.				
Temperaure Affection		The error of using temperature is 20±5°C				

Y-B SERIES S.S PRESSURE GAUGE

Main Technical Indicator		
Model	**Measuring Range**	**Accuracy Class**
Y-60BF Y-60ZBF	0 ~ 0.6, 1, 1.6, 2.5, 4, 6, 10, 16, 25, 40, 60 -0.1 ~ 0.5, 0.9, 1.5, 2.4	2.5
Y-100BF Y-100ZBF Y-150BF Y-1S0ZBF	0 ~ 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5, 4, 6, 10, 16 25, 40, 60 -0.1 ~ 0, 0.06, 0.15, 0.3, 0.5, 0.9, 1.5, 2.4	1.0 1.6
Operation Circumstance	-25 ~ 70°C (filling liquid in sheath) -40 ~ 70 (non filling liquid in sheath)	
Temperaure Affection	The error of using temperature is 20±5°C	

The gauge is made up of pressure-conducting system, gear turning parts, display parts and sheath. The structure of sheath is sealed style and it can protect the inner parts from circumstance affection and dirt.

YN SERIES S.S PRESSURE GAUGE

This series is suitable for the working circumstance with mechanical vibration and medium pulse. It can be used to measure the liquid, gas and steam mediums without explosion danger and crystallization.

Main Technical Indicator				
Model	YN-60	YN-100	YN-150	YN-200
Norminal Diameter	60	100	150	200
Connection Thread	M14 × 1.5	M20 × 1.5		
Accuracy Class	2.5	1.6	1.0: 1.6	
Measuring Range	0 ~ 0.1; 0 ~ 0.16; 0 ~ 0.25; 0 ~ 0.4; 0 ~ 0.6; 0 ~ 1, 0 ~ 1.6; 0 ~ 2.5; 0 ~ 4; 0 ~ 6; 0 ~ 10; 0 ~ 16; 0 ~ 25; 0 ~ 40; 0 ~ 60;			
Vibration Resisting Class	V.H.4			
Operation Circumstance	Temperature: -40 ~ 70°C Relative Humidity: ≤ 85%			
Working Pressure	Static Load: Measure the upper limit Alternating Load: Measure 0.9 times of upper limit			
Temperaure Affection	The error of using temperature is 20±5°C			

Yx, YXC SERIES ELECTRIC CONTACT PRESSURE GAUGE

Main Technical Indicator			
Model		YX-100 YXC-100 YXN-100	YX-150 YXC-150 YXN-150
Norminal Diameter		100	150
Connection Thread		M20 × 1.5	M20 × 1.5
Accuracy Class		1.6	1.6
Measuring Range	**YX-**	0 ~ 0.1; 0 ~ 0.16; 0 ~ 0.25; 0 ~ 0.4; 0 ~ 0.6; 0 ~ 1, 0 ~ 1.6; 0 ~ 2.5; 0 ~ 4; 0 ~ 6; 0 ~ 10; 0 ~ 16; 0 ~ 25; 0 ~ 40; 0 ~ 60;	
	YXC	-0.1 ~ 0.06; -0.1 ~ 0:15; 0.1 ~ 0.3; -0.1 ~ 0.5 -0.1 ~ 0.9; -0.1 ~ 1.5; -0.1 ~ 2.4	
	YXN	-0.1 ~ 0	
Performance of Vibration Resisting		YX, YXC Series: V.H.3 Class YXN Series: V.H.4 Class	
Operation Circumstance		YX, YXC Series: -40 ~ 70°C YXN Series: -25 ~ 55°C	

Under the pressure, the needle of basic pressure gauge will raise, when the needle contact to the upper limit, a signal will be transferred to control system, this will make the resource pressure stop working. On the contrary, when the active need contact to the lower limit, signal will be transferred to control system, this will make resource pressure system add pressure to the system again.

YTZ-150 SERIES REMOTE CONTROL PRESSURE GAUGE

The gauge is made up of a spring tube pressure and a slip line resistance transmitter. The resistance transmitter is fixed on a turnable gear, when the fan-shaped gear appear deflexion, the electric brush of resistance transmitter will reflex accordingly. This will transfer the change of measured pressure to the change of resistance and transmit the data to the second gauge, display the corresponding data accordingly.

Main Technic Indicator		
Model		YTZ-150
Norminal Diameter		150
Connection Thread		M14 × 1.5
Accuracy Class		2.5
Measuring Range	**YTZ**	-0.1 ~ 0.06; -0.1 ~ 0.15; -0.1 ~ 0.3; -0.1 ~ 0.5; -0.1 ~ 0.9; -0.1 ~ 1.5; -0.1 ~ 2.4
Circumstance		Temperature: -40 ~ 70°C Relative Humidity: ≤ 85%
Electric Parameter		Full Resistance FullSpan: 0 ~ 400 Ω Standard Range: ≤ 30 Ω Full Upper Limit: ≤ 370 Ω Outer Added Voltage: ≤ 6V
Accuracy Class		1.5

YP SERIES DIAPHRAGM PRESSURE GAUGE, YPF SERIES CAUTERIZATION-RESISTING DIAPHRAGM PRESSURE GAUGE

The gauge is made up of measurement system, turnable display parts and crust. The crust is made up of bespatterment proof structure, it has good seal performance and protect the inside from bespattering.

Main Technical Indicator	
Accuracy Class	2.5
Operation Circumstance	Temperature -40 ~ 70°C Relative Humidity: ≤ 85%
Temperature Affection	When the difference is 20 ± 5°C, the additional error should be 0.4% / 10°C or smaller.

YE SERIES GAUGES WITH CAPSULE ELEMENTS

Under the pressure from measured medium, the free end will raise transfiguration accordingly, referring to the connection rod to make the turnable part circle and blow up, then the needle will display the data.

Main Technical Indicator				
Type	**Scale Range**			**Accuracy Class**
	Positive Pressure	**Negative Pressure**	**Both**	
YE-75 YE-100 YE-150	0 ~ 1.6 0 ~ 2.5 0 ~ 4 0 ~ 6* 0 ~ 10· 0 ~ 16* 0 ~ 25* 0 ~ 40*	-1.6 ~ 0 -2.5 ~ 0 -4 ~ 0 -6 ~ 0 -10 ~ 0 -16 ~ 0 -25 ~ 0 -40 ~ 0	-0.8 ~ +0.8 -1.2 ~ +1.2 -2 ~ +2 -3 ~ +3 -5 ~ +5 -8 ~ +8 -12 ~ +12 -20 ~ +20	2.5

YE-100 SERIES S.S CAPSULE GAUGE

Main Technical Indicator	
Accuracy Class	2.5
Measuring Range	0 ~ 2.5; 0 ~ 4; 0 ~ 6; 0 ~ 10; 0 ~ 16; 0 ~ 25; 0 ~ 40; -2.5 ~ 0; -4 ~ 0; -6 ~ 0; -10 ~ 0; -16 ~ 0; -25 ~ 0; -40 ~ 0; -2 ~ 2; -3 ~ 3; -5 ~ 5; -8 ~ 8; -12 ~ 12; -20 ~ 20
Operation Circumstance	Temperature -25 ~ +55°C Relative Humidity: ≤ 80%
Temperature Affection	When the difference is 20 ± 5°C, the additional error should be 0.4% / 10°C or smaller.

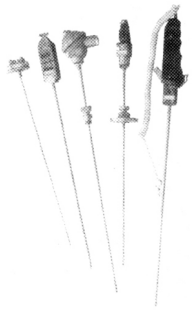
Under the pressure from measured medium, the free end will raise transfiguration accordingly, referring to the connection rod to make the turnable part circle and blow up, and the needle will display the data. There is protection device to prevent the capsule from transfiguration when over loading and there is zero adjustment device which can adjust zero point conveniently.

YM SERIES DIAPHRAGM SEAL PRESSURE GAUGE

When the pressure of measured medium affect the diaphragm, which make the diaphragm transfiguration, and then compress the sealed liquid in pressure measuring system, pressure is formed. When the rigidity of diaphragm is small enough, it will be very small as well, the pressure which the pressure measuring system formed will be very near to the pressure of measured mediums.

SHEATHED THERMOCOUPLE

The sheathed thermocouple is made up of conductor, high temperature insulation oxidized magnesium tube and 1Cr18Ni9Ti stainless steel protection tube, through many integral pullings. The basic structure is mainly made up of connector box, connection and sheathed thermocouple, connected with various installation fixing devices.



Measuring Range & Tolerance

Type	Graduation	Tolerance Class			
		I		II	
		Tolerance Value	Measuring Range	Tolerance Value	Measuring Range
WRNK	K	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WRMK	N	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WREK	E	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 800	±0.0075|t|	333 ~ 900
WRFK	J	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 750	±0.0075|t|	333 ~ 750
WRCK	T	±0.5°C	-40 ~ +125	±1°C	-40 ~ +133
		±0.004|t|	125 ~ 350	±0.0075|t|	133 ~ 1000
WRPK	S	±1°C	0 ~ +1100	±1.5°C	0 ~ 600
		±[1+0.003 (t-1100)]	1100 ~ 1600	±0.0025|t|	600 ~ 1600

Measuring Range & Tolerance

Type	Graduation	Tolerance Class			
		I		II	
		Tolerance Value	Measuring Range	Tolerance Value	Measuring Range
WRN	K	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WRM	N	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WRE	E	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 800	±0.0075|t|	333 ~ 900
WRF	J	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 750	±0.0075|t|	333 ~ 750
WRC	T	±0.5°C	-40 ~ +125	±1°C	-40 ~ +133
		±0.004|t|	125 ~ 350	±0.0075|t|	133 ~ 1000

ASSEMBLY THERMOCOUPLE

The basic structure is mainly made up of connection box, connection and sheathed thermocouple, connected with various installation fixing devices.

SHEATHED THERMAL RESISTANCE

The basic structure of is mainly made up of connection box, connection and sheathed thermocouple, connected with various installation fixing devices.

Measuring Range & Tolerance

Type	Graduation	Measuring Range	Accurancy Class	Tolerance
WZPK	Pt100	- 200 ~ +450	Class A	±(0.15+0.002|t|)
			Class B	±(0.30+0.005|t|)

Measuring Range & Tolerance

Type	Graduation	Measuring Range	Accurancy Class	Tolerance
WZP	Pt100	-200 ~ +450	Class A	±(0.15+0.002|t|)
			Class B	±(0.30+0.005|t|)
WZC	Cu50 Cu100	-50 ~ +150	-	±(0.30+0.00|t|)

ASSEMBLY THERMAL RESISTANCE

When the temperature of object changes, the resistance will change accordingly. When the resistance value changes, the working meter will display relevant temperature.

EXPLOSION-PROOF THERMOCOUPLE / THERMAL RESISTANCE

Explosion-proof thermocouple / thermal resistance is making use of the clearance principle to design the connection box and other components with enough strength, and it seal all components which has dangers as fire arc, and dangerous temperature in the connection box.

Measuring Range & Tolerance of Thermocouple					
Type	Graduation	Tolerance Class			
		I		II	
		Tolerance Value	Measuring Range	Tolerance Value	Measuring Range
WRN	K	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WRM	N	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WRE	E	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 800	±0.0075|t|	333 ~ 900
WRF	J	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 750	±0.0075|t|	333 ~ 750
WRC	T	±0.5°C	-40 ~ +125	±1°C	-40 ~ +133
		±0.004|t|	125 ~ 350	±0.0075|t|	133 ~ 350

Measuring Range & Tolerance of Thermal Resistance				
Type	Graduation	Measuring Range	Accurancy Class	Tolerance
WZP	PT100	-200 ~ +500	Class A	±(0.15+0.002|t|)
			Class B	±(0.30+0.005|t|)

Measuring Range & Tolerance of Thermocouple					
Type	Graduation	Tolerance Class			
		I		II	
		Tolerance Value	Measuring Range	Tolerance Value	Measuring Range
WRN	K	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WRE	E	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 800	±0.0075|t|	333 ~ 900

Measuring Range & Tolerance of Thermal Resistance				
Type	Graduation	Measuring Range	Accurancy Class	Tolerance
WZP	PT100	-200 ~ +500	Class A	±(0.15+0.002|t|)
			Class B	±(0.30+0.005|t|)

WZC	Cu50 Cu100	-50 ~ +150	-	±(0.30+0.006|t|)

POWER STATION THERMOCOUPLE / THERMAL RESISTANCE

The two electrodes of sheathed thermocouple are made of different conductor materials. When there is temperature difference betweeen measuring and reference end, there will be hydroelectric potential, then the meter shows the corresponding temperature of the hydroelectric potential.

THERMOCOUPLE / THERMAL RESISTANCE WITH THERMOWELL

It is applied to steam pipe, furnace and other occasions that have request on temperature, pressure and flow speed.

Measuring Range & Tolerance of Thermocouple					
Type	Graduation	Tolerance Class			
		I		II	
		Tolerance Value	Measuring Range	Tolerance Value	Measuring Range
WRN	K	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WRE	E	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 800	±0.0075|t|	333 ~ 900

Measuring Range & Tolerance of Thermal Resistance				
Type	Graduation	Measuring Range	Accurancy Class	Tolerance
WZP	PT100	-200 ~ +500	Class A	±(0.15+0.002|t|)
			Class B	±(0.30+0.005|t|)
WZC	Cu50 Cu100	-50 ~ +150	-	±(0.30+0.006|t|)

FURNACE TOP THERMOCOUPLE

It is applied to the top of power plant furnace and other occasions in which temperature is measured from distance or high voltage.

Type & Specification						
Type	Graduation	Temperature Range	NP	Flow Speed	Specification	
					L	l
WRN-0313 WRNR$_2$-0313	K	0 ~ 800	≤30 MPa	≤100m/s	1000 2000 3000 4000 5000 6000 8000 10000 12000 20000 25000	50 100 150
WRE-0313 WRE$_2$-0313	E	0 ~ 600				
WRN-0913 WRN$_2$-0913	K	0 ~ 800				
WRE-0913 WRE$_2$-0913	E	0 ~ 600				

Type & Specification						
Type	Graduation	T. Range °C	TRT	Measurement Type	Specification	
					L	L_1
WRNK-191M WRNK$_2$-191M WRNT-11 WRNT$_2$-11	K	0 ~ 800	≤2.5	Insulation Type	1000 2000 3000 4000 5000 6000 8000 10000 12000 20000 25000	1000 2000 3000 4000 5000 6000 8000 10000 12000 20000 25000
WREK-191M WREK$_2$-191M WRET-11 WRET$_2$-11	E	0 ~ 600				

FURNACE WALL THERMOCOUPLE

It is used to surface temperature measurement in furnace pipe wall, furnace wall and cylinder surfaces.

BEARING THERMOCOUPLE

It is applied to temperature meaurement in power plant with bearing equipment and other shock resistant occasions.

Type & Specification					
Type	Graduation	T. Range °C	TRT	Specification	
				d	L
WRNT-31	K	0 ~ 300	≤6S	6	100 150 200 250 300
WRNT-31	E				
WZP-31T	Pt100	0 ~ 100	≤6S		

Temperature Range & Tolerance of Thermocouple					
Type	Graduation	Tolerance Class			
		I		II	
		Tolerance Value	Measuring Range	Tolerance Value	Measuring Range
WRN	K	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WRE	E	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 800	±0.0075|t|	333 ~ 900

Measuring Range & Tolerance of Thermal Resistance				
Type	Graduation	Measuring Range	Accurancy Class	Tolerance
WZP	Pt100	-200 ~ +450	Class A	±(0.15+0.002|t|)
			-	±(0.30+0.005|t|)
WZC	Cu50 Cu100	-50 ~ +150	Class B	±(0.30+0.006|t|)

PETROLEUM & CHEMICAL INDUSTRY THERMOCOUPLE

Designed for petroleum chemical industry, it can measure the surface temperature of liquid, steam, and gas medium from 200°C to 1600°C.

HIGH TEMPERATURE & PRESSURE THERMOCOUPLE

It is used to temperature measurement and control during production process under high temperature and pressure. It is a temperature measuring device for refinery and HVPE production.

Type & Specification					
Type	Graduation	T. Range °C	TRT	Thermowell Material	Specification L × I
WRNG-430 WRN_2G-430	K	0~800	<180S	1Cr18Ni9Ti	380 × 150 430 × 200 480 × 250 530 × 300 580 × 350 630 × 400 680 × 450
WREG-430 WRE_2G-430	E	0~600			
WRNG-440 WRN_2G-440	K	0~800			
WREG-440 WRE_2G-440	E	0~600			

Type & Specification					
Type	Graduation	T. Range °C	TRT	Thermowell Material	Specification L × I
QMWRR-430 $QMWRR_2$-430	S	0 ~ 1300	<180S	GH2140	450 × 300 500 × 350 550 × 400 600 × 450 650 × 500 750 × 600 950 × 750 1150 × 1000
QMWRN-430 $QMWRN_2$-430	K	0 ~ 1000		GH3030	
		0 ~ 800		1Cr18Ni9Ti	
QMWRE-430 $QMWRE_2$-430	E	0 ~ 600		1Cr18Ni9Ti	
QMWRR-440 $QMWRR_2$-440	S	0 ~ 1300		GH2140	
QMWRN-440 $QMWRN_2$-440	K	0 ~ 1000		GH3030	
		0 ~ 800		1Cr18Ni9Ti	
QMWRE-440 $QMWRE_2$-440	E	0 ~ 600		1Cr18Ni9Ti	

WEAR-RESISTING THERMOCOUPLE

It is used for ball mill machine and coal mill machine in power plant or other environment with serious wear on thermowell. It is applied to the temperauture measurement for boiling-bed roaster coal incoming furnace.

WEAR-RESISTING & LEAKAGE-PROOF THERMOCOUPLE / THERMAL RESISTANCE

It is used for production with high abrasive solid granule or fluid on spot, it is necessary temperature measuring devide for refineries.

Type & Specification					
Type	Graduation	T. Range °C	Thermowell Material	TRT	Specification L × I
WRN-430M WRN_2-430M	K	0 ~ 800	1Cr18Ni9Ti	<180S	450 × 300 500 × 350 550 × 400 600 × 450 650 × 500 750 × 600 950 × 750 1150 × 1000
WRE-430M WRE_2-430M	E	0 ~ 600			
WRN-440M WRN_2-440M	K	0 ~ 800			
WRE-440M WRE_2-440M	E	0 ~ 600			

Type & Specification						
Type	Graduation	T. Range °C	Thermowell Material	TRT	Specification	
					d	L × I
WZPF-230 WZP_2F-230	Pt100	-200 ~ 250	1Cr18Ni9Ti	<180S	16	300 × 150 350 × 200 400 × 250 450 × 300 500 × 350 550 × 400 650 × 500 750 × 600 1150 × 1000
WZCF-230 WZC_2F-230	Cu50 Cu100	0 ~ 150				
WZPF-430 WZP_2F-430	Pt100	-200 ~ 250				
WZCF-430 WZC_2F-430	Cu50 Cu100	0 ~ 150				

CORROSION-RESISTANT THERMAL RESISTANCE

It is used to measure temperature of various corrosive medium in petroleum & chemical industry. It is a special thermometer for soda chloride industry.

CORROSION-RESISTANT THERMOCOUPLE UNDER HIGH TEMPERATURE

It is widely used to measure temperature during various production processes with high temperature and corrosion in petrochemical, metallurgy, glass and ceramic industries.

Type & Specification

Type	Graduation	T. Range °C	Thermowell Material	TRT	Specification	
					d	L × I
WRPF-330G WRP$_2$F-330G	S	0 ~ 1300	3YC52	<180S	16	300 × 150 350 × 200 400 × 250 450 × 300 500 × 350 550 × 400 650 × 500 750 × 600 1000 × 850
WRQF-330G WRQ$_2$F-330G	R	0 ~ 1300				
WRRF-330G WRR$_2$F-330G	B	0 ~ 1600	$MoSi_2$			
WRPF-430G WRP$_2$F-430G	S	0 ~ 1300	3YC52			
WRQF-430G WRQ$_2$F-430G	R	0 ~ 1300				
WRRF-430G WRR$_2$F-430G	B	0 ~ 1600	$MoSi_2$			

Type & Specification

Type	Graduation	T. Range °C	Measurement Points	Thermowell Material
WRNK-230D	K	0~1000	2~14	GH3030
		0~800		1Cr18Ni9Ti
WREK-230D	E	0~600		1Cr18Ni9Ti
WRNK-430D	K	0~1000		GH3030
		0~800		1Cr18Ni9Ti
WREK-430D	E	0~600		1Cr18Ni9Ti
WZPK-430D	Pt100	-200~+450		

MULTI-POINT THERMOCOUPLE / THERMAL RESISTANCE

It is used for production locales which have no clear grads of temperature or temperature measurement of multi points. It is widely used in chemical fertilizer synthesizing tower and reserving tank devices.

MULTI-POINT EXPLOSION-SEPARATION THERMOCOUPLE / THERMAL RESISTANCE

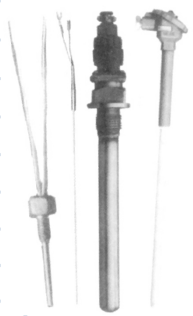
It is used for production locales with flammable and explosive chemicals as well need multi points measurement.

Type & Specification

Type	Graduation	T. Range °C	Measurement Points
WRNK-240D	K	0 ~ 1000	2 ~ 14
		0 ~ 800	
WREK-240D	E	0 ~ 600	
WRNK-440D	K	0 ~ 1000	
		0 ~ 800	
WREK-440D	E	0 ~ 600	
WZPK-440D	Pt100	-200 ~ +450	

SPECIAL THERMOCOUPLE

Special structure design for different occasions, can measure the surface temperature of liquid, steam and gas mediums ranging from 200°C to 1600°C directly.



Measuring Range & Tolerance of Thermocouple

Type	Graduation	Tolerance Class			
		I		II	
		Tolerance Value	Measuring Range	Tolerance Value	Measuring Range
WRN	K	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WRE	E	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 800	±0.0075|t|	333 ~ 900
WRP	S	±1°C	0 ~ +1100	±1.5°C	0 ~ 600
		±(1+0.003(t-1100))	1100~ +1600	±0.0025|t|	600 ~ 1600
WRQ	R	±1°C	0~+1100	±1.5°C	0 ~ +1100
		±(1+0.003(t-1100))	1100 ~+1600	±0.0025|t|	1100 ~ +1600
WRR	B	-	-	-	-
		-	-	±0.0025|t|	600 ~ 1700

Measuring Range & Tolerance of Thermal Resistance

Type	Graduation	Measuring Range	Accurancy Class	Tolerance
WZP	Pt100	-200 ~ +500	Class A	±(0.15+0.002|t|)
			Class B	±(0.30+0.005|t|)
WZC	Cu50 Cu100	-50 ~ +100	Class B	±(0.30+0.006|t|)

MINI-THERMOCOUPLE

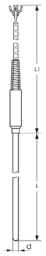
It is used for temperature measurement & control in narrow place. It is necessary measuring device for textile and polyester fiber industries etc.

Type & Specification					
Type	Graduation	T. Range °C	Thermowell Material	TRT	Specification
WRE-203S	E	-40 ~ 250	1Cr18Ni9Ti	<5S	500 1000 1500 2000 2500 3000
WRE-205S				<8S	
WRE-206S				<10S	
WZP-203S	Pt100	-200 ~ 250		<5S	
WZP-205S				<8S	
WZP-206S				<10S	

Type & Specification					
Type	Graduation	T. Range °C	Thermowell Material	TRT	Specification
WRNK-191S	K	0 ~ 600	1Cr18Ni9Ti	<3S	100 × 800 200 × 800 300 × 800 500 × 800 750 × 800
WREK-191S	E	0 ~ 400			

TINY SHEATHED THERMOCOUPLE

It is used for temperature measurement & control in narrow place and bending place. It is a measuring device for textile and polyester fiber industries etc.



SPRING FIXED THERMOCOUPLE

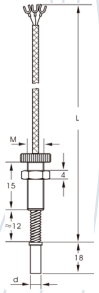
We adopt spring fixed device on thermocouple to make the measuring end closely contact on the surface on measured object. It is used to measure temperature in plastic, light textile and foodstuff industries etc.

Type & Specification			
Type	Graduation	T. Range °C	Thermowell Material
WRET-01	E	0 ~ 400	1Cr18Ni9Ti

Type & Specification						
Type	Graduation	T. Range °C	TRT	Specification		L
				d	M	
WZCM-201	Cu50 Cu100	-50 ~ 100	≤15S	6	M8 × 075	500 1000 1500 2000 2500
WZPM-201	Pt100	-100 ~ 150	≤10S	6	M8 × 075	
WZPM-201B	Pt100	-100 ~ 150	≤10S	87	M10 × 1	
WZPM-201	Pt100	-100 ~ 150	≤10S	6 × 18 Resistance Tube		
WZPM-201Y	Pt100	-100 ~ 150	≤10S	6 × 18 Resistance Tube Spring Compression Slice 2-M3 × 8		

SURFACE MEASURING THERMAL RESISTANCE

It is used to measure surface temperature for steam turbine, axis bush of motor in power plant or other machine body.



PT SURFACE MEASURING THERMAL RESISTANCE FOR WATER SUPPLY PUMP

It is used to measure the temperature of each kind of water supply pump.

Type & Specification			
Type	Graduation	T. Range °C	TRT
WZPMP-201	Pt100	-50 ~ 100	≤10S
$WZPM_2P$-231	Pt100	-50 ~ 100	≤10S
$WZPM_2P$-236S	Pt100	-100 ~ 300	≤15S

THERMAL RESISTANCE WITH SOCKET-SHAPED

Easy for installation by using socket components. It is used to measure the surface temperature of liquid, gas and solid ranging from -200°C to 450°C.

Type & Specification					
Type	Graduation	T. Range °C	TRT	TMT	Specification
WZP-260	Pt100	0 ~ +100	≤30S	iCr18Ni9Ti	100 150 200 250 300
WZP_2-260			≤45S		
WZP-267M	Pt100	-50 ~ +150	≤30S		
WZP-269	Pt100	-200 ~ +300	≤30S		75 100 150 200 250
WZP_2-269			≤45S		
WZC-269	Cu50	-50 ~ +100	≤120S		
WZP-270	Pt100	-200 ~ +420	≤120S		50 75 100 150 200
WZC-270	Cu50	-50 ~ +150	<45S		
WZP-280	Pt100	-50 ~ +150	<30S		
WZP-26S	Pt100	-200 ~ +300	<5S		50 75 100 125 150

Type & Specification					
Type	Graduation	T. Range °C	TRT	TMT	Specification
WRN-530 WRN_2-530	K	0 ~ +100	≤90S	iCr18Ni9Ti	300 × 150 350 × 200 400 × 250 450 × 300 500 × 350 550 × 500 600 × 450
WRE-530 WRE_2-530	E	-50 ~ +150			
WRM-530 WRM_2-530	N	-200 ~ +300			
WRC-530	T	-50 ~ +100			
WRJ-530 WRJ_2-530	J	-200 ~ +420			650 × 500
		-50 ~ +150			

THERMAL RESISTANCE WITH RIGHT ANGLE ELBOW

It is used for production on locales where there is high temperature and harmful gas which has affection to connection box of thermocouple.

THERMOCOUPLE WITH PRECIOUS METAL FOR HIGH TEMPERATURE

It is used to measure temperature during various production processes with high temperature in glass, ceramic and industry salt-bashing furnace.

Type & Specification					
Type	Graduation	T. Range °C	TRT	Specification	
				d	L × I
WRP-130 $WRP_2$130	S	0 ~ 1300	<120S	16	300 × 150 350 × 200 400 × 250 450 × 300 500 × 350 550 × 400 650 × 500 750 × 600 1000 × 850
WRP-131 WRP_2-131			<360S	25	
WRQ-130 WRQ_2-131	R	0 ~ 1300	<120S	16	
WRQ-130 WRQ_2-131			<360S	25	
WRR-130 $WRR_2$131	B	0 ~ 1600	<120S	16	
WRR-130 $WRR_2$131			<360S	25	

Type & Specification						
Type	Graduation	T. Range °C	Thermowell Material	TRT	Specification	
					D	L × I
WRNK-231D	K	0 ~ 1100	GH3030 31 6SS	≤10S	8 27	1000 1500 2000 3000
		0 ~ 800	1Cr18Ni9Ti			

THERMOCOUPLE WITH EDGE ON FURNACE TUBE

It is suitable for the temperature measurement of industrial furnace tube, and surface temperature of tower wall in petroleum industries. It is a measuring devices for fractionating tower in refinery.

BLOWING THERMOCOUPLE

Forming certain blowing circuit between thermal element and thermowell and inject some inert gases to eliminate or reduce reversed gas penetrating into thermocouple under condition of high temperature and pressure.

Type & Specification					
Type	Graduation	T. Range °C	Thermowell Material	Specification	
				D	L × l
WRPC-430 $WRPC_2$-430	S	800 ~ 1300	Corundum	20	650 × 500
WRRC-430 WRR_2C-430	B	800 ~ 1600			850 × 700 900 × 750 1000 × 850 1150 × 1000

Type & Specification					
Type	Graduation	T. Range °C	TMT	Specification	
				D	L × l
WRP-430 WRP_2-430	B + S + R	0 ~ +1600	SIC recrystallized	35	1400 × 1250 1750 × 1600

THERMOCOUPLE FOR ARCH TOP OF FURNACE

Designed and manufactured to suit to measure the temperature of arch top of furnace. It made use of imported SIC re-crystallized materials to meet special demands of high furnace temperature measurement.

THERMOCOUPLE FOR ELECTRIC

This product is mainly used to measure the temperature of stator core, the advantages are resisting vibration and enduring pressure. The thermowell is made up of non-metallic isolated material.

Type & Specification				
Type	Graduation	T. Range °C	TRT	L × l
WZCT-201	T	0 ~ 150	<30S	60 × 2500 294 × 4000 390 × 4500 570 × 4500 590 × 4800 797 × 12700

Type & Specification				
Type	Graduation	T. Range °C	TRT	L × l
WRN-440J WRN_2-440J	K	0 ~ 1000	<180S	430 × 200 280 × 250

SPECIAL THERMOCOUPLE FOR HEATING CRACKER

We adopt special structure for thermowell, make it access to inside of cracker tube closely and have effect brought by the flow of materials. It is suitable for temperature measuring and control in heating cracker during the ethylene production process.

SPECIAL THERMOCOUPLE FOR WRPG SERIES SALT BATH FURNACE

It is mainly used to continue measuring for salt bath furnace with high temperature in mechanical industry. This product is corrosion-resistant of high temperature melting salt, high reliability, long using expectancy.

Type & Specification				
Type	Graduation	T. Range °C	TRT	L × l
WRPG-1323	S	0 ~ 1350	<90S	500 × 500 750 × 750 1000 × 1000
WRPG-5323				

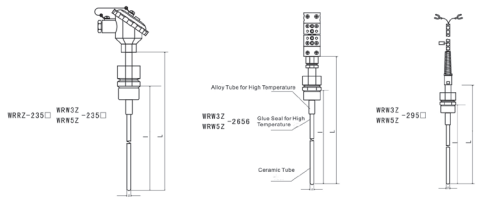
Type & Specification			
Type	Graduation	T. Range °C	Tolerance
BXW-I	K	0 ~ 1000	±0.4%t or ±0.75%t
BXW-II			
BXW-III			

BXW SERIES PORTABLE IMMERGED TEMPERATURE MEASUREMENT METER

This is an all-in-one electromechanical product, combining thermocouple, display meter and measurement gun together; Display meter is 31/2 digit display with peak performance.

SPECIAL THERMOCOUPLE FOR VACUUM FURNACE

This series made used of high temperature resisting material for thermowell, so they can work stably and chronically from 1800 to 2000°C. We must hold the air into vacuum furnace to avoid the parts contact to air in the vacuum thermal process.



Type & Specification				
Type	Graduation	T. Range °C	Tolerance	L × I
WRRZ-235 -265 -295 -435 -465 -495	B	600 ~ 1800	±0.5t or ±0.25%t	400 × 250 450 × 300 550 × 400 650 × 500 900 × 750 1150 × 1000 1650 × 1500
WRW3Z-235 -265 -295 -435 -465 -495	WRe3- WRe25	200 ~ 2000	±0.5t or ±1.0%t	
WRW5Z-235 -265 -295 -435 -465 -495	WRe5- WRe25			

THERMOCOUPLE WITH TEMPERATURE TRANSMITTER

It is usually used with display-meter, recording-meter and computer etc., outputting 4 to 20Ma, to directly measure temperature of liquid, vapor, gas medium and solid surface ranging from 0 to 1600°C during various production processes.

Measuring Range & Tolerance of Thermocouple					
Type	Graduation	Tolerance Class			
		I		II	
		Tolerance Value	Measuring Range	Tolerance Value	Measuring Range
WRNB	K	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1300
WRMB	N	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WREB	E	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 800	±0.0075|t|	333 ~ 900
WRFB	J	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 750	±0.0075|t|	333 ~ 750
WRCB	T	±1.5°C	-40 ~ +125	±2.5°C	-40 ~ +133
		±0.004|t|	125 ~ 350	±0.0075|t|	133 ~ 350

Measuring Range & Tolerance of Thermal Resistance				
Type	Graduation	Measuring Range	Accurancy Class	Tolerance
WZPB	Pt100	-200 ~ +450	Class A	±(0.15+0.002|t|)
			Class B	±(0.30+0.005|t|)
WZCB	Cu50 Cu100	-50 ~ +150	-	±(0.30+0.006|t|)

Measuring Range & Tolerance of Thermocouple					
Type	Graduation	Tolerance Class			
		I		II	
		Tolerance Value	Measuring Range	Tolerance Value	Measuring Range
WRNB	K	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1300
WRMB	N	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 1000	±0.0075|t|	333 ~ 1200
WREB	E	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 800	±0.0075|t|	375 ~ 900
WRFB	J	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +333
		±0.004|t|	375 ~ 750	±0.0075|t|	333 ~ 750
WRCB	T	±1.5°C	-40 ~ +375	±2.5°C	-40 ~ +133
		±0.004|t|	125 ~ 350	±0.0075|t|	125 ~ 1000
Measuring Range & Tolerance of Thermal Resistance					
Type	Graduation	Measuring Range	Accurancy Class	Tolerance	
WZPB	Pt100	-200 ~ +450	Class A	±(0.15+0.002|t|)	
			Class B	±(0.30+0.005|t|)	
WZCB	Cu50 Cu100	-50 ~ +150	-	±(0.30+0.006|t|)	

EXPLOSION-PROOF THERMOCOUPLE WITH TEMPERATURE TRANSMITTER DISPLAY TUBE

It is usually used with display-meter, recording-meter and computer etc., outputting 4~20Ma, to directly measure temperature of liquid, vapor, gas medium and solid surface ranging from -200 to 1300°C during various production processes with output of 4 to 20Ma.

TEMPERATURE TRANSMITTER

It features as novelty structure, safety reliable, convenient for users and observing the temperature change on spot. It is widely used in petroleum, natural gas, chemical industry, metallurgy, hydroelectric, cement, glass industries etc. It is connected with various electronic meter, intelligent digital-display meter and computer control system etc.

Type & Specification			
Once Measuring Element		Graduation	Measuring Range
Thermocouple	NiCr-CuNi	E	0 ~ 800°C
	NiCr-CuSi	K	0 ~ 1100°C
	$PtRh_{10}$-Pt	S	0 ~ 1300°C
	$PtRh_{30}$-$PtRh_6$	B	0 ~ 1600°C
	Cu-CuNi	T	0 ~ 400°C
	Fe-CuNi	J	0 ~ 750°C
Thermal Resistance	Cu Thermal Resistance	Cu50	-50 ~ 150°C
	Cu Thermal Resistance	Cu100	-50 ~ 150°C
	Pt Thermal Resistance	Pt100	-200 ~ 500°C

Measuring Range	Application Range	
	Industry / Commercial	Small Lab
-80 ~ +40	E	0 ~ 800°C
-40 ~ +80	K	0 ~ 1100°C
0 ~ 50	S	0 ~ 1300°C
0 ~ 100	B	0 ~ 1600°C
0 ~ 150	T	0 ~ 400°C
0 ~ 200	J	0 ~ 750°C
0 ~ 300	Cu50	-50 ~ 150°C
0 ~ 400	Cu100	-50 ~ 150°C
0 ~ 500	Pt100	-200 ~ 500°C

BIMETALLI THERMOMETER

It is a kind of testing meter used to measure middle & low temperature on spot. It directly to measure temperature of liquid, vapor and gas medium ranging -80°C to +600°C during various production processes.

ELECTRIC JUNCTION BIMETALLIC THERMOMETER

It is used on production spot with demand of automatic control and alarming on temperature to directly measure temperature of liquid, vapor and gas medium ranging from -80°C to 500°C during various production processes.

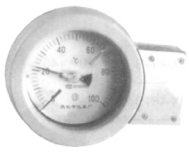
Electric Parameters		
Rated Power	Max Working Voltage	Max Allowed Current
10	220 A.C	0.7A
	24 D.C	

Insulation Resistance		
Rated Power	Testing Voltage D.C	Insulation Resistance
24 D.C	100	7
220 A.C	500	20

Type & Specification			
Type	Measuring Range °C	PTM	L
WSSX-410B	~80 ~ +40 -40 ~ +80 0 ~ +50 0 ~ +100 0 ~ +150 0 ~ +200 0 ~ +300 0 ~ +400 0 ~ +500	iCr18Ni9Ti 304 316 316L C-276	75 100 150 200 300 400 500 750 1000
WSSX-480B			
WSSX-411B			
WSSX-481B			
WSSX-412B			
WSSX-482B			
WSSX-413B			
WSSX-483B			
WSSX-414B			
WSSX-484B			
WSSX-415B			
WSSX-485B			
WSSX-416B			
WSSX-486B			

EXPLOSION-SEPARATION BIMETALLIC THERMOMETER

It is used to directly measure temperature of liquid, vapor and solid surface ranging from -80°C to +350°C during production on spot with explosives such as hydrocarbon.



BIMETALLIC THERMOMETER WITH THERMOWELL

It is used to directly measure temperature of liquid, vapor, gas medium and solid surface ranging from -80°C to +350°C during various production processes.

Type & Specification				
Type	T. Range °C	PTM	L	NP
WSS-403S	-80 ~ +40 -40 ~ +80 0 ~ +50 0 ~ +100 0 ~ +150 0 ~ +200 0 ~ +300 0 ~ +400 0 ~ +500	iCr18Ni9Ti 304 316 316L C-276	75 100 150 200 300 400 500 750 1000	≤30 MPa
WSS-503S				
WSS-513S				
WSS-483S				
WSS-583S				
WSSX-403S				
WSSX-413S				
WSSX-480S				
WSS-403L				≤1.5-40 MPa
WSS-503L				
WSS-413L				
WSS-513L				
WSS-483L				
WSS-583L				
WSSX-403S				
WSSX-413L				
WSSX-483L				

Type & Specification				
Type	Graduation	T. Range °C	PTM	L
WSSE-401	E	-80 ~ +40 -40 ~ +80 0 ~ +50 0 ~ +100 0 ~ +150 0 ~ +200 0 ~ +300 0 ~ +400 0 ~ +500	iCr18Ni9Ti 304 316 316L C-276	150 200 300 400 500 750 1000
WSSE-501				
WSSE-411				
WSSE-511				
WSSE-481				
WSSE-581				
WSSP-401	Pt100			
WSSP-501				
WSSP-411				
WSSP-511				
WSSP-481				
WSSP-581				
WSSXE-401	E			
WSSXP-401	Pt100			
WSSXE-411	E			
WSSXP-411	Pt100			
WSSXE-481	E			
WSSXP-481	Pt100			

BIMETALLIC THERMOMETER WITH THERMOCOUPLE

It is used to measure temperature of liquid, vapor, gas medium and solid surface ranging from -80°C to +5000°C during various production processes.

THERMOWELL

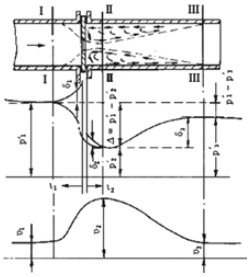
It is matched with thermocouple and bimetallic thermometer to ensure their normal operation. It can be also used for environment under high pressure and with high flow speed.

THROTTLING ELEMENTS

HollySys produced various kinds of throttling elements such as orifice plates, ISA 1932 Nozzle, Long Radius Nozzle, Classic Venturi Tubes and Venturi Nozzle etc. with Angular Contact, flange, and D-D/2 taps pressure taking mode. We also supplies special throttling elements such as airfoil type volume measuring elements, 1/4 circle orifice plate (nozzle), excenric orifice plate, segmental orifice plate and over 30 kinds and more 1000 specifications of products may be offered for pipe size from DN6 to 5000mm (max), pressure PN42.0MPa (2500 Class) and temperature from -196°C to 1200°C.

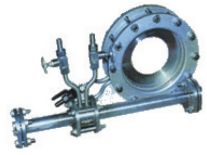
1. BASIC PRINCIPLE

When the fluid is flowing through the throttling element within the pipeline, the flux will be narrowed partially in throttling throat to increase the flow rate and reduce the static pressure. Therefore, the deviation of static pressure between the front part and the rear part of the throttling element shall be formed.



Flow Rate And Pressure Distribution

2. MAIN PRODUCTS



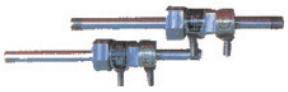
ISA1932 Nozzle with Downward Welding Flange Component

Long Radius Nozzle

Tightening Type 8 Slots Orifice Plate or Nozzle

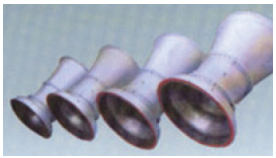
High Pressure Orifice Plate with Lens Washer

Welding Type 8 Slots Orifice Plate or Nozzle

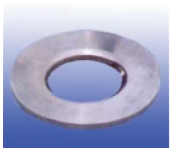


Inner Small Orifice Plate

Classic Venturi Tube



Venturi Nozzle



1/4 Circle Orifice Plate (Nozzle)

Airfoil Type Volume Measuring Device

3.1 THROTTLING DEVICE LIST FOR SELECTION

Name	Model	Tappings	d	Pressure	d Ratio	Reynolds	Description	Standards
Standard Orifice Plate	LGBH	Ring Chamber Tappings	50 ~ 400	≤32	0.2 ~ 0.75	≥5000(0.2≤ß≤0.45) ≥10000(ß≥0.45)	For all kinds of fluids, mainly suitable for power plant, textile, metallurgy, light industry etc. Use mainly 8 solt orifice plate under high temperature and pressure.	ISO5167-1 GB/T2624-2006 GD87-1101 HG/T21581-95
	LGBZ	Single Drill Tappings	400 ~ 3000	≤6.4				
	LGBF	Flange Tappings	50 ~ 3000	≤42		≥1260ß2D	For all kinds of fluids, main suitable for petrochemical.	
	LGBJ	D-D/2 Tappings	50 ~ 3000	≤25		≥1260ß2D	For all kinds of fluids, main suitable for metallurgy.	

Name	Model	Tappings	d	Pressure	d Ratio	Reynolds	Description	Standards
Long Radius Nozzle	LGCJ	D-D/2 Tappings	50 ~ 630	≤42	0.2 ~ 0.8	$10^4 \sim 10^7$	Low pressure loss, long life, mainly used for main feed water & main steam.	ISO5167-1 GB/T2624-2006 GD87-1101
ISA1932 Nozzle	LGPH	Ring Chamber Tappings	50 ~ 500	≤42	0.2 ~ 0.8	$2 \times 10^3 \sim 10^7$	Low pressure loss, long life, use mainly 8 solt nozzle ubder high temperature and pressure.	
	LGPZ	Single Drill Tappings						
Rough Molten Venturi Tube	LGXT	Special Tappings	100 ~ 800	≤2.5	0.3 ~ 0.75	$2 \times 10^5 \sim 2 \times 10^6$	Lower pressure loss, mainly used for larger pipe and larger flow.	ISO5167-1 GB/T2624-2006 HG/T21581-95
Mechanical Processed Venturi Tube	LGTT	Special Tappings	50 ~ 250	≤42.0	0.4 ~ 0.75	$2 \times 10^5 \sim 2 \times 10^6$	Lower pressure loss, suitable for high temperature and pressure.	
Rough Welding Iron Plate Venturi Tub	LGWT	Special Tappings	200 ~ 3000	≤6.4	0.4 ~ 0.7	$2 \times 10^5 \sim 2 \times 10^6$	Lower pressure loss, mainly used for larger pipe and larger flow.	
Venturi Nozzle	LGLT	Special Tappings	65 ~ 500	≤6.4	0.316 ~ 0.775	$1.5 \times 10^5 \sim 2 \times 10^6$	Lower pressure loss, mainly used for larger pipe, larger flow.	
High Pressure Orifice Plate With Lens Washer	LGGZ	Single Drill Tappings	15 ~ 200	20 ~ 32	0.2 ~ 0.75	≥5000(0.2≤β≤0.45) ≥10000(β≥0.45)	High pressure, mainly suitable for petrochemical, refinery.	
Wide Edge Orifice Plate	LGKZ	Single Drill Tappings	50 ~ 400	≤25			For all kinds of fluids, mainly suitable for petrochemical.	
Segmental Orifice Plate	LGQZ	Single Drill Tappings	50 ~ 2000	≤25	0.1 ~ 0.8	$10^4 \sim 10^6$	For dirty fluid such as coal gas, the fluid contained of sediment and suspension shall pass easily through orifice, not form accumulation in front of the orifice and affect measurment. Not suitable for vertical pipe.	BS1042 ISO/TR15377 HGJ516-87
	LGQJ	D-D/2 Tappings						
	LGQF	Flange Tappings						
Excenric Orifice Plate	LGOZ	Single Drill Tappings	100 ~ 1000	≤25	0.46 ~ 0.84	$2.5 \times 10^5\beta^2 \sim 10^6\beta$ (d≥50)	For dirty fluid such as coal gas, the fluid contained of sediment and suspension shall pass easily through orifice, not form accumulation in front of the orifice and affect measurment. Not suitable for vertical pipe.	BS1042 ISO/TR15377 HG/T21581-95
Excenric Orifice Plate	LGOZ	Single Drill Tappings	100 ~ 1000	≤25	0.46 ~ 0.84	$2.5 \times 10^5\beta^2 \sim 10^6\beta$ (d≥50)	For dirty fluid such as coal gas, the fluid contained of sediment and suspension shall pass easily through orifice, not form accumulation in front of the orifice and affect measurment. Not suitable for vertical pipe.	BS1042 ISO/TR15377 HG/T21581-95
	LGOJ	D-D/2 Tappings						
	LGOF	Flange Tappings						
Orifice (Nozzle) Without Upstream Or Downstream Pipe	LGDH	Ring Chamber Tappings	50 ~ 400	≤6.4	0.2 ~ 0.75	$\geq 5.5 \times 10^3$	Suitable for pipe inlet or outlet.	ISO/TR15377 HG/T21581-95
	LGDZ	Single Drill Tappings	400 ~ 3000					
1/4 Circle Orifice Plate (Nozzle)	LGEH	Ring Chamber Tappings	50 ~ 500	≤25	0.245 ~ 0.6	$\leq 10^5\beta$ (d≥15)	For low Reynolds number, high viscosity fluid, suitable for fuel oil in plant.	BS1042 ISO/TR15377 HG/T21581-95
	LGEZ	Single Drill Tappings	25 ~ 500					
	LGEF	Flange Tappings	40 ~ 500					
Fastigiate Entry Orifice Plate	LGRH	Ring Chamber Tappings	50 ~ 500	≤25	0.1 ~ 0.316	$80 \sim 2 \times 10^5\beta$ (d > 6)	For lower Reynolds number, suitable for fuel oil in plant.	BS1042 ISO/TR15377
	LGRZ	Single Drill Tappings	25 ~ 500					
Double-Tier Orifice Plate	LGYH	Ring Chamber Tappings	50 ~ 400	≤25	0.2 ~ 0.75	$3 \times 10^3 \sim 3 \times 10^6$	For lower Reynolds number	HG/T21581-95
	LGYZ	Single Drill Tappings	25 ~ 400					
Small Orifice Plate	LGMH	Ring Chamber Tappings	15~50	≤42.0	0.2 ~ 0.75	≥1000	For small pipe	GB2624-81 ISO/TR15377
	LGMZ	Single Drill Tappings						
	LGMF	Flange Tappings						
Inner Small Orifice Plate	LGNF	Flange Tappings	10~50	≤42.0	0.1 ~ 0.75	≥1000	For small pipe. main suitable for petrochemical.	
Double-Tier Venturi Tube	LGST	Special Tappings	360~3000	≤6.4		$10^4 \sim 10^7$	Lower pressure loss, mainly used for larger pipe, short straight pipe requirement.	
Airfoil Type Volume Measuring Device	LGJT	Special Tappings	≥300	≤6.4	0.3 ~ 0.65	$2.5 \times 10^5 \sim 10^7$	Mainly used for wind rate measurement, short straight pipe requirement.	-
Restriction Orifice	LGA	No Tappings	∞	≤42.0			Not for flow measurement, to restrict the fluid pressure.	-
ASME Throat Pressure Long Radius Nozzle	LGCT	Throat Tappings	50~630	≤42.0	0.2 ~ 0.8	$10^4 \sim 10^7$	Good repeatability and long term stability. Long life, High precision. For power plant condenser water measurement and other important occasions and high precision measurement.	-

4. ACCESSORIES

In the process of field use, we provides supporting accessories for throttling elements in order to measure up to various requirement.

- Condenser
- Balancer
- Isolator
- Sediment & Gas Chamber

AFM2000 METAL TUBE FLOWMETER

Metal tube flowmeter is suitable for measuring gases, vapours and liquids. Meter can be used to measure the continuous cleaning of gases and liquids, especially for flow measurement and control of low flow, low flow rate, harsh media conditions and process control. The devices are particularly suitable for the measurement of water, hydrocarbons, corrosion protection agents, lubricants, chemicals, additives, solvents, superheated steam, air and industrial gases etc.

Key Features

- Simple, practical and low-cost installation
- Explosion-proof and intrinsically safe isolation integration
- All-metal structure, small, modular design, easy maintenance
- Flow: horizontal, down-up, up-down, side-side, bottom-side
- All-metal structure, seismic, pressure, temperature, corrosion resistance

Model No / Tech Parameters	HT50	HT51, HT52, HT53	HT54	HT55	HT56	
Meter Diameter	DN15 ~ DN150		DN15 ~ DN100	DN15 ~ DN100	DN15 ~ DN50	DN80 ~ DN150
Measuring Range	Water (20°C) 16 ~ 150000L/h Air (20°C) 0.1013MPa 0.5 ~ 5000m3/h		Water (20°C) 16 ~ 100000L/h Air (20°C) 0.1013MPa 0.5 ~ 3000m3/h	Water (20°C) 16 ~ 100000L/h Air (20°C) 0.1013MPa 0.5 ~ 3000m3/h	Water (20°C) 16 ~ 25000L/h Air (20°C) 0.1013MPa 0.5 ~ 1000m3/h	Water (20°C) 16 ~ 150000L/h Air (20°C) 0.1013MPa 1 ~ 4000m3/h
Range Ratio	Standard: 10:1; Particular: 20:1					
Accuracy	1.0; 1.5					
Mounting Height	250mm					250mm / 350 ~ 400mm
Wetted Materials	R0 (316); R1 (304); RL (316L); RP (PTFE Lining); RC (Hastelloy C); RT (Titanium Liner)	R0 (316); R1 (304); RL (316L)				
Pressure Level	Standard: DN15~DN50, 4.0MPa; DN80~DN200, 1.6MPa; Particular: DN15~DN50, 5~42MPa; DN80~DN150, 2.5~16MPa Jacketed Pressure Rating: 1.6MPa	Standard: DN15~DN50, 4.0MPa; DN80~DN200, 1.6MPa; Particular: DN15~DN50, 5~42MPa; DN80~DN100, 2.5~25MPa DN150, 2.5~16MPa	Standard: DN15~DN50, 4.0MPa;	Standard: DN15~DN100, 1.6MPa;	Standard: DN15~DN50, 4.0MPa; Particular: DN15~DN50, 6.3MPa	Standard: DN80~DN150, 1.6MPa; Particular: DN80~DN50, 6.3MPa
Connection	Standard Flanges: HG/T20592-2009		Pipe Thread; Threaded SMS	Jacket	Standard Flanges: HG/T20592-2009	
Ambient Temperature	-40°C ~ 120°C, Flameproof: -20°C ~ +40°C, Intrinsically Safe: -20°C ~ +40°C					
Medium Temperature	Standard -40°C ~ +120°C; Particular -80°C ~ +350°C; PTFE Lining ≤80°C		Standard -40°C ~ +120°C; Particular -80°C ~ +350°C;			
Signal Output	Two-wire4~20mA output; Hart Communication; Two-wire Sensor Threshold Switch, 8VDC Power Supply;					
Power Supply	Standard: 24VDC (10.8VDC ~ 28VDC) AC type: 220VAC (85 ~ 265VAC) Battery Type: 3.6V - 9Ah Lithium Battery					
Explosion Levels	Intrinsically Safe: Exia II CT6 Ga; Flameproof: Exd II CT6 Gb					
Protection Class	IP65					
Medium Viscosity	DN15: ≤5mpa.s (H15.1 ~ 15.3); ≤30mpa.s (H15.4 ~ 15.9) DN25: ≤250mpa.s DN50 ~ DN150: ≤300mpa.s					
Display Method	Scene Pointer Display; LCD					
Electrical Connections	1/2"NPT; M20 × 1.5					

AF2000 SERIES ELECTROMAGNETIC FLOWMETER

Electromagnetic flowmeter (EMF) is the ideal flowmeters for metering the flow of all liquids, slurries and sludges that have a specific minimum electrical conductivity. It measures accurately, create no additional pressure drop, contain no moving or protruding parts, are wear free and corrosion resistant. Installations are possible in any existing piping system.

It can be applied in the chemical, pharmaceutical and cosmetic industries, municipal water and waste water treatment facilities and in the food and paper industries.

Performance	
Nominal Diameter	DN10 ~ DN1000 (special customization to consult technical staff)
Accuracy Class	Up to 0.5 level
Structure Type	One type, split type
Pressure Level	(1.0 ~ 4.0) MPa, up to 25MPa
Lining Material	Rubber, PTFE, PFA, F46, fluorine-containing silicone and other electrode materials
Electrode Material	Stainless steel, HCB2 / B4, platinum - iridium, tantalum, titanium
Shell Material	Cast aluminum (DN10 ~ DN300), carbon steel (DN350 ~ DN1000) connection
Form	Flanged, clamped
External control zero \ external accumulator back to zero, positive \ reverse flow self-test, on-site instructions \ cumulative function	
Operation Method	Panel button electricity
Gas Interface	M20 × 1.5
Explosion-Proof Grade	Ex embibIICT3~T6

AF1000 SERIES ELECTROMAGNETIC FLOWMETER

Performance	
Nominal Diameter	DN10 ~ DN1000 (special customization to consult technical staff)
Accuracy Class	Up to 0.5 level
Structure Type	One type, split type
Pressure Level	(1.0 ~ 4.0) MPa
Lining Material	Rubber, PTFE, PFA, F46 etc.
Electrode Material	Stainless steel, HCB2 / B4, platinum - iridium, tantalum, titanium
Shell Material	Cast aluminum (DN10 ~ DN100), carbon steel (DN125 ~ DN1000) connection
Form	Flanged, clamped
External control zero \ external accumulator back to zero, positive \ reverse flow self-test, on-site instructions \ cumulative function	
Operation Method	Infrared remote control
Electrical Interface	Aviation Plug

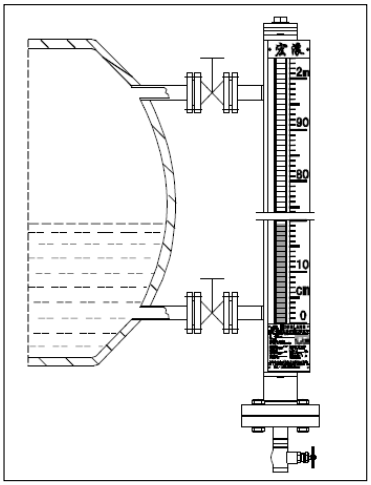
AL2000 SERIES MAGNETIC LIQUID LEVEL

The product coupled with the level control, alarm switch, enabling liquid level control, alarm and chain, coupled with built-in integrated level transmitter. The liquid level (interface) signal can be converted into a 2-wire 4 ~ 20mADC standard signal to achieve long-range liquid level detection and control.

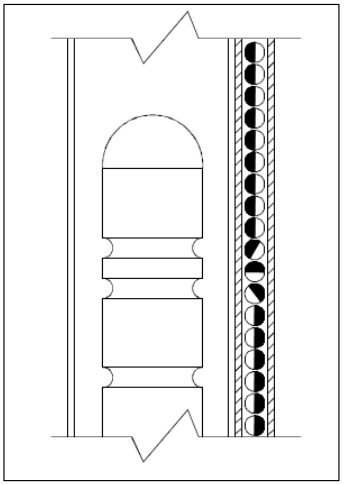
Performance	
Range	0~15000mm
Accuracy	±10mm
Structure Type	Basic type, medium temperature type, high temperature and pressure type, hygienic type, low density type, corrosion-resistant, heating jacket type, with heat-type, vacuum jacket type, balance transmission type, low temperature anti-frost type, magnetic type (LED double color light beam)
Stainless steel panel and scale, measuring tube diameter of 63mm, beautiful appearance, timber solid Indicator (flap chamber) for the sealing structure (vacuum can be required) B200 series can be equipped with remote transmitter level, dry reed pipe using the United States Hamlin (HAMLIN) brand.	

Structure Principle

When liquid level in measured vessal changes, the float in guide tube moves correspondingly. The permanent magnet in float act the reversing cloumn. While liquid level increases. Column reverses from white to red, while level decreases, column reverses from red to white. The red/white interface of indicator is level of liquid in vessel.



Installation Illustration



Float Instruction

Technical Indicators

Install Type	Model Structure	Characteristic	Contacting	Measuring Range	Design Temp	Design Pressure
Side-Mounted Type	AL2001	Basic Type	304, 316L	0–300~15000mm	0~150 °C	–0.1~2.5 MPa
	AL2002	Middle Temperature & Middle Pressure Type	304, 316L	0–300~6000mm	0~200 °C	2.5~4.0 MPa
	AL2003	High Temperature & High Pressure Type	304, 316L	0–300~6000mm	0~420 °C	4.0~16.0 MPa
	AL2004	Sanitary Type	316L	0–300~6000mm	0~150 °C	–0.1~2.5 MPa
	AL2005	Low Density Type	304, 316L	0–300~6000mm	-15~100 °C	–0.1~6.3 MPa
	AL2006	PP Corrosion-Proof	PP	0–300~6000mm	0~80 °C	0~0.6 MPa
	AL2007A	PTFE Corrosion-Proof	PTFE	0–500~6000mm	0~150 °C	0~2.5 MPa
	AL2007B					–0.1~0 MPa, 0~10 Mpa
	AL2008A	Jacket-Heating Type	304, 316L	0–300~6000mm	0~200 °C	-0.1~4.0 MPa
	AL2008B	With Electric Heat	304, 316L	0–300~6000mm	0~100 °C	-0.1~4.0 MPa
	AL2009	Vacumm Jacket Type	304, 316L	0–300~6000mm	-15~200 °C	-0.1~6.3 MPa
	AL2010	Balance-move Type	304, 316L	0–300~15000mm	0~200 °C	0 MPa
	AL2011	PP Type	PP	0–300~3000mm	0~80 °C	0~0.6 MPa
	AL2012	Low Temperature Frost-Proof Type	304, 316L	0–300~6000mm	-60~0 °C	-0.1~6.3 MPa
Top-Mounted Type	AL2020	Normal Top-install Type	304, 316L	0–500~4000mm	-15~420 °C	–0.1~2.5 MPa
	AL2021	Top-Install Type Without Protect Tube	304, 316L	0–800~4000mm	-15~420 °C	–0.1~4.0 MPa
	AL2022	Top-Install type With PP Corrosion-Proof	PP	0–800~4000mm	0~80 °C	0~0.6 MPa
	AL2023A	Top-Install Type With PTFE Corrosion-Proof	PTFE	0–800~3500mm	0~150 °C	0~1.6 MPa
	AL2023B					–0.1~0 MPa, 0~1.6 Mpa
Side-Mounted Type	AL2500	Sensitive Type	304, 316L	0–300~10000mm	0~200 °C	–0.1~16.0 Mpa

AL2300 SERIES MAGNETIC FLOAT LEVEL GAUGE

Performance	
Range	0~000mm
Accuracy	±10mm
Output Signal	Two-wire system 4 ~ 20mA
Electrical Interface	M20×1.5
Operating Temperature	-15 °C~120 °C
Working Pressure	-0.1MPa~4.0MPa
Power Supply	24VDC
Wetted Material	304,316 L, PP, PTFE etc

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