

CXT Series Smart Transmitter

Selection Manual

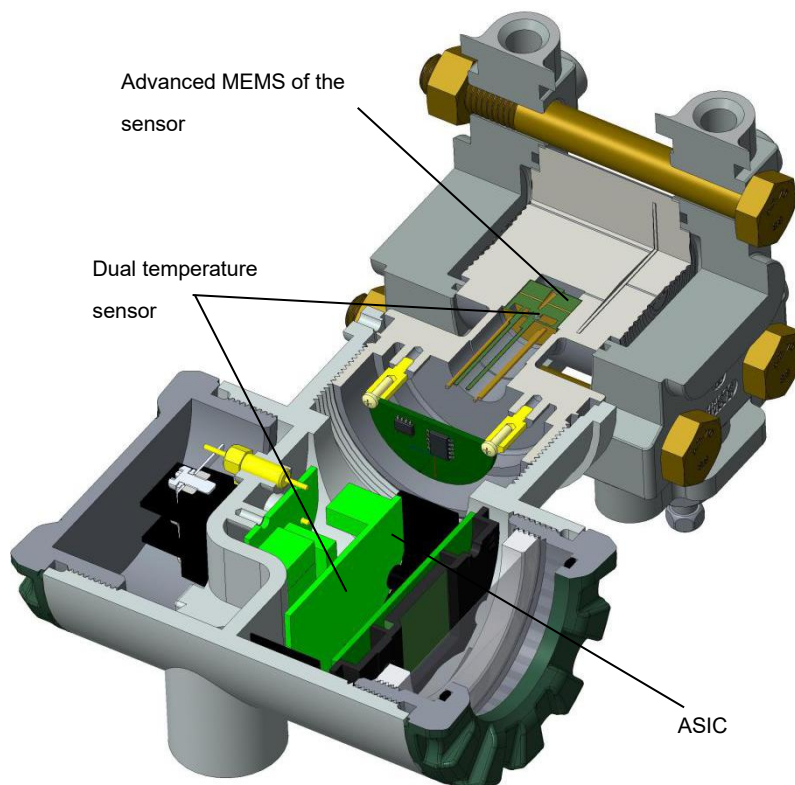
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Overview

The CXT smart pressure transmitter utilizes a unique composite monocrystalline piezoresistive sensor and the advanced cell design with MEMS (micro-electro-mechanical systems) technology, accuracy up to 0.035% , stability $\pm 0.1\%$ of upper range limit (URL) for 10 years, has a longer service life, the use of safe and reliable and convenient.

It is designed for various industries including Petroleum, Power, Chemical, Metallurgy, Pharmacy, Light industry and more.



- **Dual temperature sensor:**

For greatly improve the temperature characteristics of the product, the temperature sensors which are built in the sensor unit and the electronic device are used for the temperature compensation of the sensor and circuit respectively.

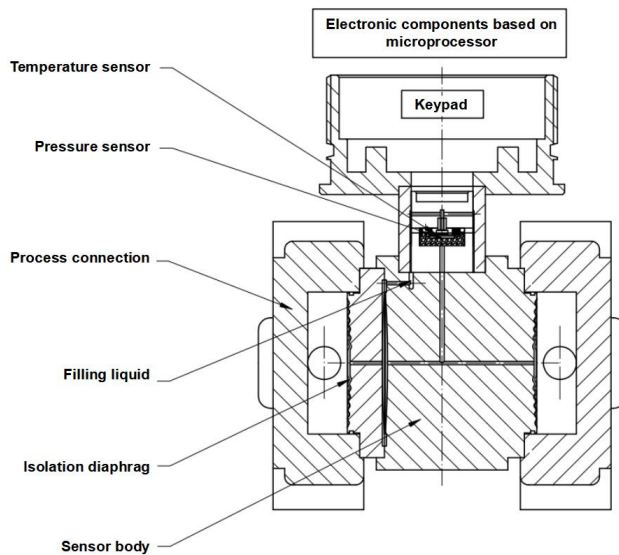
- **Advanced MEMS of the sensor:**

European technology for Core component; Silicon part with integrated temperature sensor; The overall design of the overload diaphragm; The material of the basic part is 316SST.

- **ASIC :**

With the technology of the microelectronic and micro-machining developing, we take advantage of the Mixed-signal ASIC technology to make the detection circuit of the sensor so that the measuring error can be lowered, the detection accuracy, long-term stability and reliability can be improved greatly with a high speed detection.

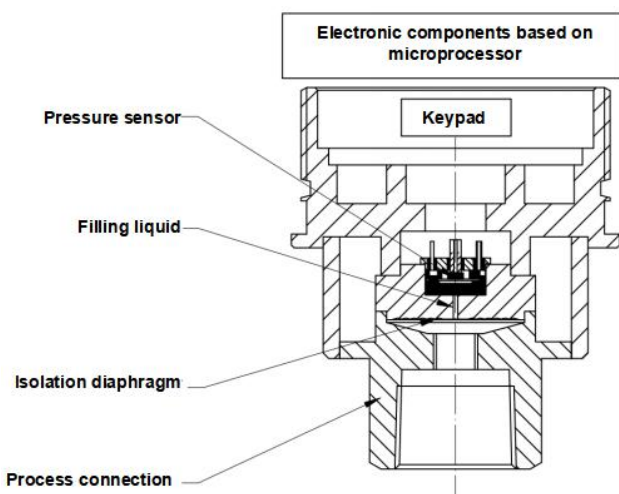
Principles



Differential Pressure Transmitter

The completely welded sensor module is with an integral overload diaphragm, a temperature sensor and the silicon differential pressure sensor. The temperature sensor as a temperature compensated reference value to compensate. The high pressure side of the differential pressure sensor is connected to the high pressure cavity of the sensor capsule, and the low pressure side of the differential pressure sensor is connected to the low pressure cavity of the sensor capsule. The differential pressure is transmitted to the silicon chip in the differential pressure sensor through the isolation diaphragm and the filling liquid. Then the electrical parameters of the chip of the differential pressure sensor are changed, which results in a change in the output voltage of the detection system. The output voltage is proportional to the pressure change, and is converted into a standardized signal output by the adapting unit and the amplifier.

Note: The differential pressure mounted pressure and absolute pressure transmitter does not require an overload diaphragm. The high pressure side is used for pressure measurement, and the low pressure side is connected to the reference cavity of the sensor capsule.



Direct Mount Transmitter

The process medium exerts pressure on the measuring diaphragm of the pressure sensor through the flexible, corrosion-resistant isolation diaphragm and the filling liquid. The other end of the measuring diaphragm of the pressure sensor is connected to the atmosphere (for gauge pressure measurement) or vacuum (for absolute pressure measurement). As a result, the electrical parameters of the silicon chip of the sensor change, leading to changes in the output voltage of the detection system. The output voltage is proportional to the pressure change, and then converted into a standardized signal output by the adapting unit and amplifier.

General Specification (With HART)

Service

Liquid, gas and vapor applications

Media Temperature

Filling Liquid	Media Temperature (1 Atmosphere)	Minimum pressure working temperature (2.7kPa abs)
Common Silicone Oil	(-40~205)°C	125°C
High Temperature Silicone Oil DC704	(0~315)°C	220°C
High Temperature Silicone Oil DC705	(20~350)°C	270°C
Low Temperature Silicone Oil	(-75~150)°C	30°C
Fluorine Oil	(-40~160)°C	/
Food Grade Filling Fluid	(-15~225)°C	/

Output

(4~20) mA is user-selectable for linear or square root output. Digital process variable superimposed on (4~20) mA signal, available to any host that conforms to the HART protocol.

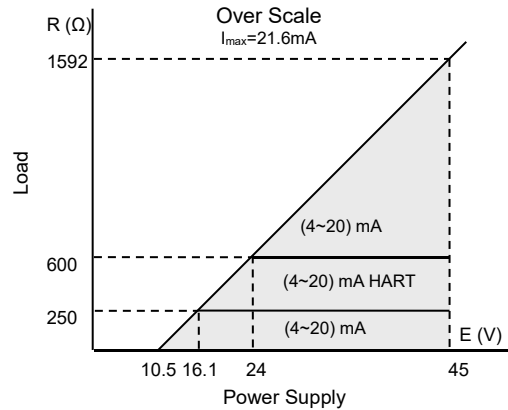
Power Supply

(10.5~45)VDC

(13.5~45)VDC (for digital indicator with backlight)

(10.5~30)VDC (for intrinsic safety or dust intrinsic safety units)

Load Limitation



$$R(\Omega) = \frac{E(V) - 10.5}{(I_{\max}(\text{mA}) + 0.9) \times 10^{-3}}$$

Communication

With hand held communicator (HHC) or other host adopting HART protocol, remotely setting, modifying and displaying can be realized.

FF and RS485 protocols are provided as options, and their parameter characteristics can be found in the attached pages and instructions of this manual.

Communication Lines

The length of the cable no more than 2km (0.75~1.25)mm², using twisted pair when more than 1km).

The load resistance: (250~600)Ω (24VDC, Contains the cable resistance)

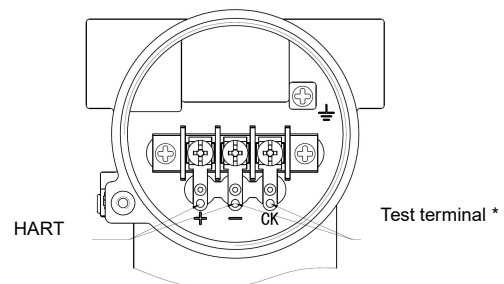
The load capacitance: ≤0.22μF


The load inductance: ≤3.3mH

Power line interval: ≥15cm (Please avoid parallel wiring)

Note: Intrinsically safe explosion-proof specifications refer to the operating instructions.

Terminal Side Wiring Diagram



Symbol	Description
+ , -	Connects the output cable
CK , -	Used for checking the output
	An external terminal used for grounding.

Note: When current is measured with an ammeter connected to CK and - terminals, the internal resistance of the ammeter should be 10Ω or less.

Damping

Adjustable from HHC

The time constant is adjustable between 0.06 to 32 seconds.

Zero and Span Adjustment

Adjust by one of following ways:

- By the adjust screw (only zero);
- By 3 buttons on the LCD display;
- By the HHC.

Zero Elevation and Suppression

-100% to +100% of URL

Normal/Reverse Action

Selectable from HHC

Alarm Output Range

Output hold

High alarm current: (20.8~21.6) mA (standard);

Low alarm current: (3.2~3.8) mA (standard).

Ambient Temperature

(-40~+85)°C, without LCD display unit

(-40~+60)°C, when explosion-proof, dust-proof enclosure protection type

(-40~+60)°C, when intrinsically safe explosion-proof, dust intrinsically safe type

(-40~+60)°C, when explosion-proof and intrinsically safe explosion-proof, dust enclosure protection and intrinsically safe

(-30~+80)°C, with LCD display unit

(-10~+60)°C, when filled with fluorine oil

Ambient Humidity

(5~100)%RH@40°C

Hazardous Locations Certifications (NEPSI)



Item	Certificate & Standards
Flameproof enclosure	Ex d IIC T4~T6 Gb GB3836.1,GB3836.2
Intrinsic safety	Ex ia IIC T4 Ga GB3836.1,GB3836.4, GB3836.20
Flameproof enclosure and intrinsic safety	Ex d IIC T4~T6 Gb, Ex ia IIC T4 Ga GB 3836.1, GB 3836.2, GB 3836.4, GB 3836.20
Dust-tight enclosure	Ex tD A21 IP66/IP67 T135°C/T100°C/T85°C GB 12476.1, GB 12476.5

Dust intrinsic safety	Ex iaD 20 T135/T100/T85 GB 12476.1, GB 12476.4
Dust-tight enclosure and dust intrinsic safety	Ex tD A21 IP66/67 T135°C/T100°C/T85°C or Ex iaD 20 T135/T100/T85 GB12476.1,GB12476.4, GB12476.5



Hazardous Locations Certifications (ATEX)

Item	Certificate & Standards
Flameproof enclosure	ATEX II 2G EEx d IIC T6 EN IEC 60079-0, EN 60079-1, EN 60079-31
Intrinsic safety	ATEX II 1/2G EEx ia IIC T6 EN IEC 60079-0, EN 60079-11
Flameproof enclosure and intrinsic safety	ATEX II EEx ia / EEx d EN IEC 60079-0, EN 60079-1, EN 60079-11, EN 60079-31
Dust-tight enclosure	ATEX II 1/2D d EN IEC 60079-0, EN 60079-1, EN 60079-31
Dust intrinsic safety	ATEX II 1/2D ia EN IEC 60079-0, EN 60079-11
Dust-tight enclosure and dust intrinsic safety	ATEX II 1/2D d+ia EN IEC 60079-0, EN 60079-1, EN 60079-11, EN 60079-31

EMC Conformity

EMC (2004/108/EC)
EN 61326-1, EN 61326-2-3
Applied to all types



Supply Voltage Effect

(16.1~45)VDC, the influence of voltage fluctuation on the measured value is less than ±0.005%/V of the measuring range.

Step Response

Model	Time constant (s)
SKC2/3	0.2
SKC4/5/6/7 SKG/SKA/SKP/SKH	0.08
SKD	About 0.5
SKB/SKQ/SKR	About 0.4
SKE	About 0.33

Note: For SKC/SKG/SKA/SKP/SKH/SKE, when ambient is 20°C. For SKD/SKB/SKQ/SKR, when ambient is 20°C, capillary length 1.5m and filled in silicone oil, the material of the diaphragm is 316L.

Dielectric Strength

500VAC, 50/60Hz, between the circuit and the ground, there is no breakdown or arcing in 1 minute.

Insulation Resistance

More than 100MΩ at 500V DC

Measurement Period

60ms

Digital Indicator

An optional 5-digit LCD meter with engineering unit is also available. Temperature Limits: (-30~+80)°C.

Arrester

A built-in arrester protects the electronics from lightning surges.

Lightning surge immunity: 4kV (1.2 × 50µs)

Intrinsically safe type is not optional.

Physical Specifications

Amplifier Housing Material

Aluminum die casting and polyurethane curing polyester resin powder coating (silver), or CF8M, as specified.

Amplifier Housing Cover Material

Aluminum die casting and polyurethane curing polyester resin powder coating (dark green), or CF8M, as specified.

IP Rating

SKP, SKH : IP56/IP66

Others: IP56/IP66/IP67

Customer Tag Number

Customer tag number can be engraved on standard stainless steel nameplate. The default material is 304SST.

Ordering Instructions

Please specify when ordering the transmitter:

1. Model specification.
2. Measuring range.

Please specify when ordering the transmitter:

1. Tag No. Customer tag number can be engraved on standard stainless steel nameplate (up to 20 alphanumeric characters). If extra tag plate is required, select "Stainless steel independent tag".
2. Output orientation (burnout direction) when abnormality is occurred in the transmitter: Hold / Overscale (21.6mA) / Underscale (3.2mA). Unless otherwise specified, output hold function is supplied.
3. In both the differential pressure transmitter and remote seal type, the output current mode is set in linear unless it is designated.
4. Indicator: default to engineering, except SKE/SKD default percentages. Customers can modify by directly operating or HHC, also may state when ordering.
5. Special non-standard flange structure can be customized. Please consult for details.

Related Products

X207 HART handheld communicator.

SKC Micro Differential Pressure Transmitter

Span, Range

Range Code	Static Pressure (MPa)	Span (kPa)		Range (kPa)	
		Min.	Max.	LRL	URL
2	6	0.1	1	-1	+1

Performance Specifications for Linear Output

Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST isolating diaphragms and 4 to 20mA analog output in linear mode.

Accuracy (including linearity, hysteresis, and repeatability)

Span	Accuracy
≥ 0.4kPa	±0.2% (Standard) ±0.1% (High)
< 0.4kPa	±(0.05+0.06×URL/Span)% (Standard) ±(0.05+0.02×URL/Span)% (High)

±(0.1%+0.15%URL/Span)

Static Pressure Effect

Zero shift: ±0.1% of URL/ 1MPa

Mounting Position Effect

Zero shift: less than 0.12kPa for a 10° tilt in any place.No effect on span. This error can be corrected by adjusting zero.

Temperature Effect

Effect per 28°C change between the limits of -40°C and +85°C:

Performance Specifications for Square Root Output

Output	Accuracy
(50~100)%	The same as linear output type
50%~Fall point	50%×Accuracy of linear output type/ Percentage of square root output

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, Hastelloy® C-276, 316L SST
+ Au coating
Wetted sensor body: 316 SST, Hastelloy® C-276
Wetted o-rings: Fluororubber, PTFE

Non-wetted Materials

Filled fluid: Silicone oil
Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately 3.1 to 3.6kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process Connections

¼-18NPT female thread, ½-14 NPT female thread oval flange or
½-14NPT female thread oval flange, ½-14NPT connector and
Induced Pressure Tube Welded

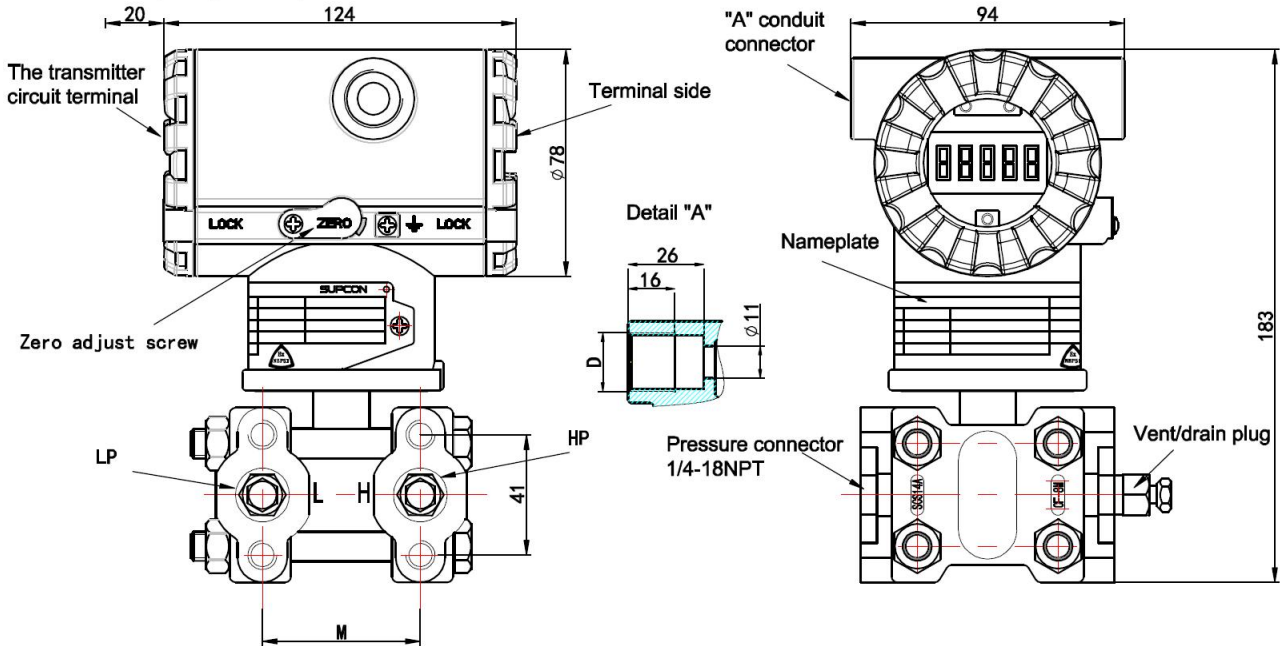
Mounting Bracket

Bend bracket, pipe mounted (2 in.); Flat bracket, pipe mounted (2 in.); Bend bracket, panel mounted.

The material can be carbon steel or 304 stainless steel.

Outline Diagram (Unit: mm)

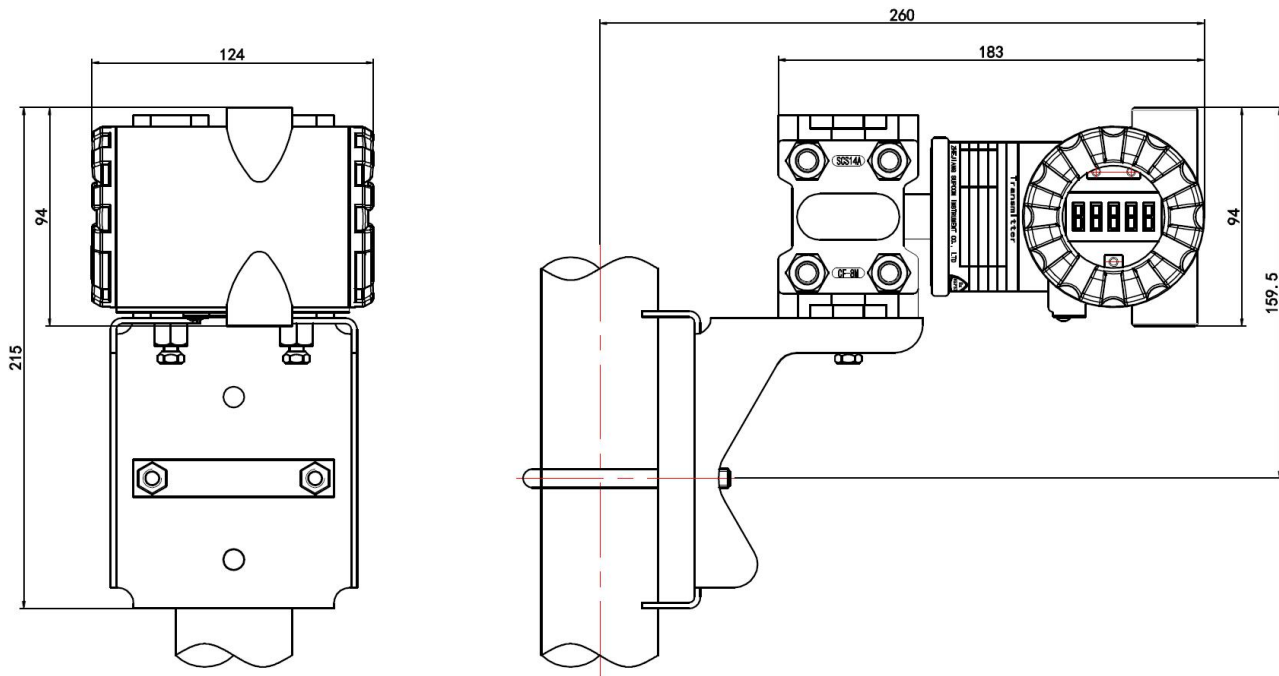
The end cap when unscrewing the reserved space (minimum)



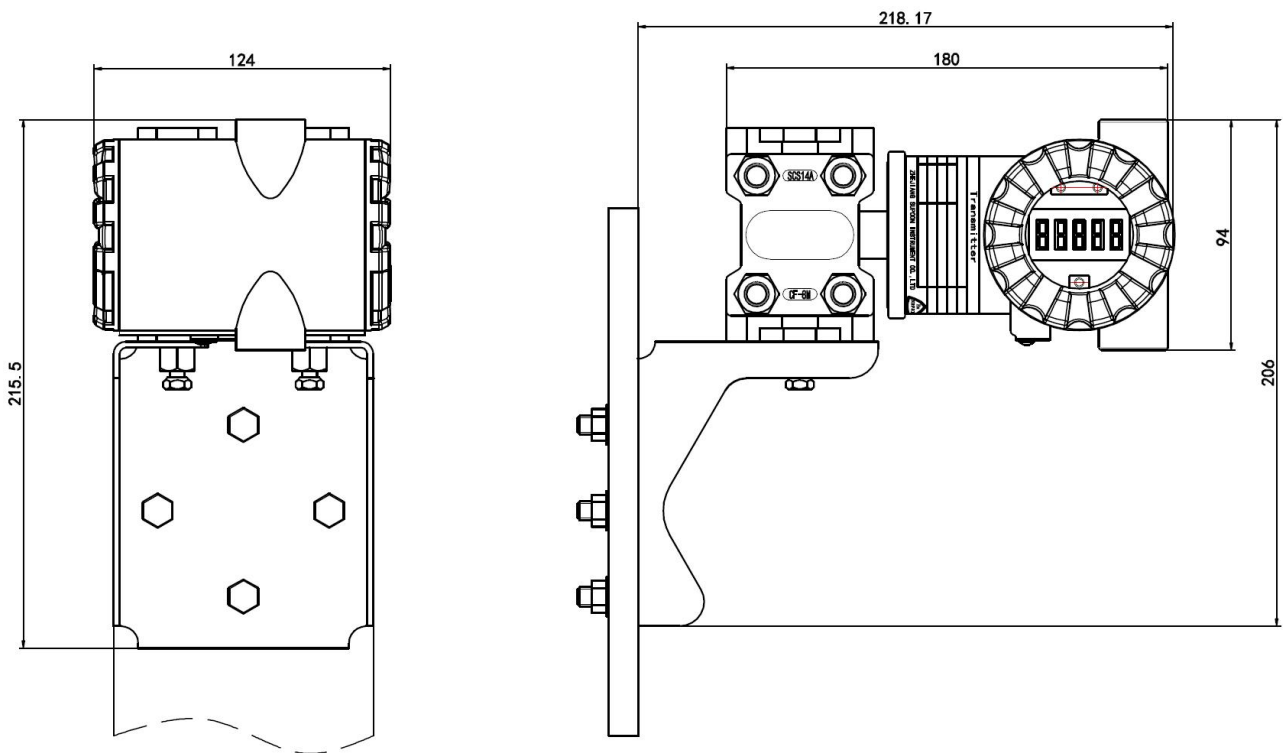
4th Code	Conduit Connector D	Pressure Connector	Oval Flange Screw
B/D	1/2-14NPT	1/4-18NPT	M10
A/C	M20x1.5	1/4-18NPT	M10

Typical Mounting

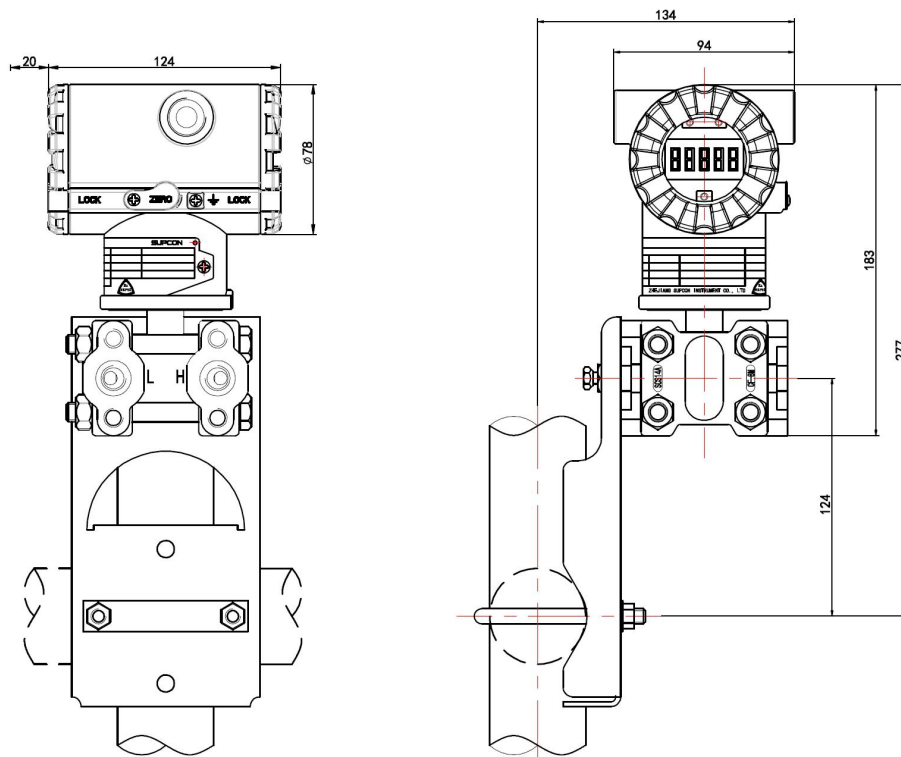
Bend bracket, pipe mounted



Bend bracket, panel mounted



Flat bracket, pipe mounted



SKC Differential Pressure Transmitter

Span, Range

Range code	Static Pressure (MPa)	Span (kPa)		Range (kPa)	
		Min.	Max.	LRL	URL
3	16	0.2	6	-6	+6
4		0.4	40	-40	+40
5		2.5	250	-250	+250
6		8	800	-800	+800
7		30	3000	-1000	+3000

Performance Specifications for Linear Output

Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST isolating diaphragms and 4 to 20mA analog output in linear mode.

Accuracy (including linearity, hysteresis, and repeatability)

For range code 3:

Turn down	Accuracy
≤ 2:1	±0.05%
> 2:1	±(0.01+0.02×URL/Span)%

For range code 4:

Turn down	Accuracy
≤ 5:1	±0.05%
> 5:1	±(0.01+0.008×URL/Span)%

For range code 5, 6 and 7:

Turn down	Accuracy
≤ 10:1	±0.05% (Standard) ±0.04% (High accuracy)
> 10:1	±(0.005+0.0045×URL/Span)% (Standard) ±(0.005+0.0035×URL/Span)% (High accuracy)

Stability

The zero point change does not exceed ±0.1% of upper range limit (URL) for 10 years

Temperature Effect

Effect per 28°C change between the limits of -40°C and +85°C

For range code 3: ±(0.1%+0.15%URL/Span)

For range code 4, 5, 6 and 7: ±(0.05%+0.01%URL/Span)

Static Pressure Effect

For range code 3: ±(0.2%Span/URL)/3.4MPa

For range code 4, 5, 6 and 7: ±(0.1%Span/URL)/6.9MPa

Mounting Position Effect

Zero shift: less than 0.12kPa for a 10° tilt in any place.No effect on span. This error can be corrected by adjusting zero.

Performance Specifications for Square Root Output

Output	Accuracy
(50~100)%	The same as linear output type
50%~Fall point	Accuracy of linear output type×50%/Percentage of square root output

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, Hastelloy® C-276, 316L SST
+ Au coating, 316L SST + PFA coating, Tantalum
Wetted sensor body: 316 SST, Hastelloy® C-276
Wetted o-rings: Fluororubber, PTFE

Non-wetted Materials

Filled fluid:Silicone oil, Fluorinated oil
Electronics housing:Aluminum alloy

Mass (weight)

Transmitter approximately 3.1 to 3.6kg without options

Conduit Connections

1/2-14NPT or M20x1.5 conduit

Process Connections

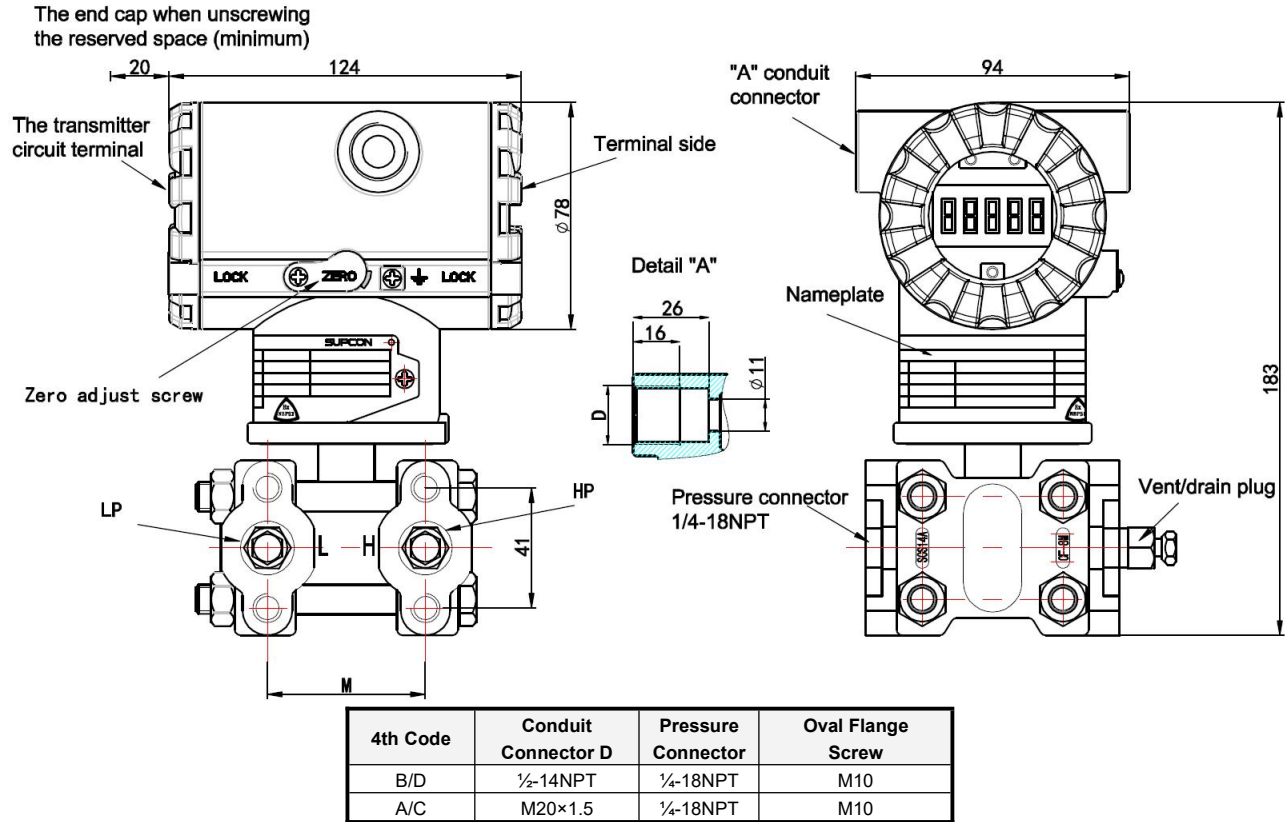
1/4-18NPT female thread, 1/2-14 NPT female thread oval flange or 1/2-14NPT female thread oval flange, 1/2-14NPT connector and Induced Pressure Tube Welded

Mounting Bracket

Bend bracket, pipe mounted (2 in.); Flat bracket, pipe mounted (2 in.); Bend bracket, panel mounted.

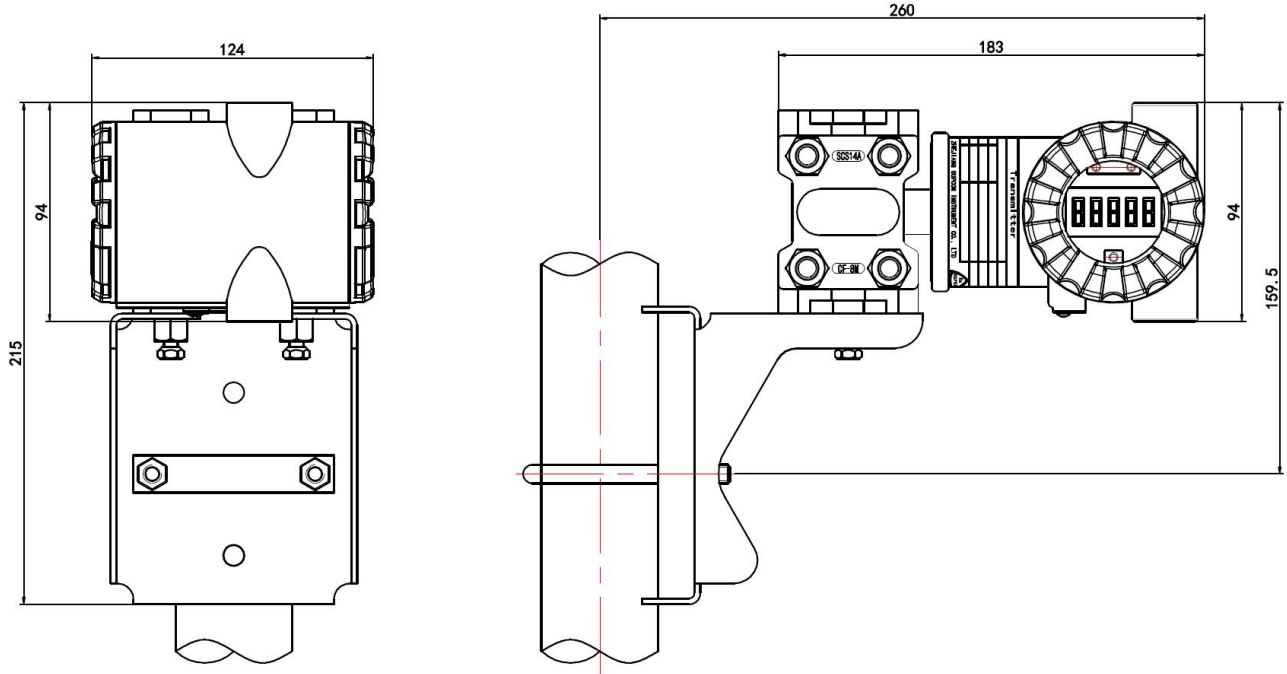
The material can be carbon steel or 304 stainless steel.

Outline Diagram (Unit: mm)

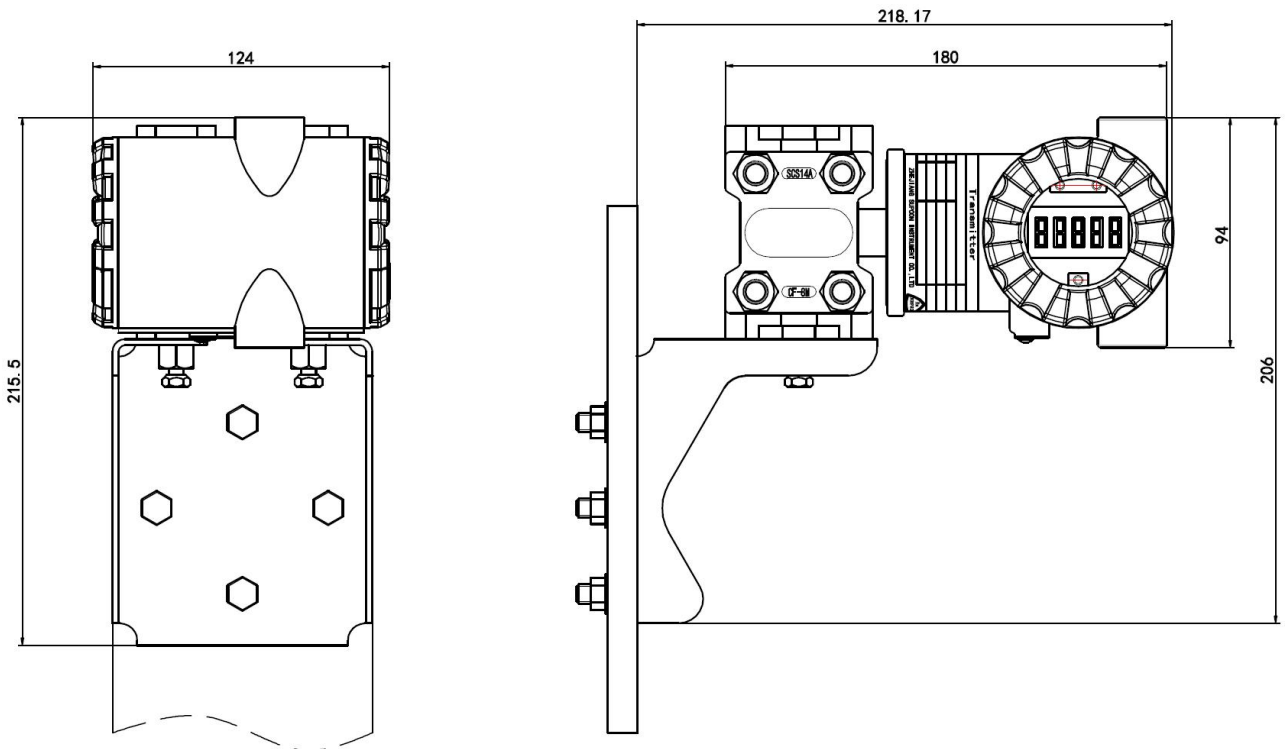


Typical Mounting

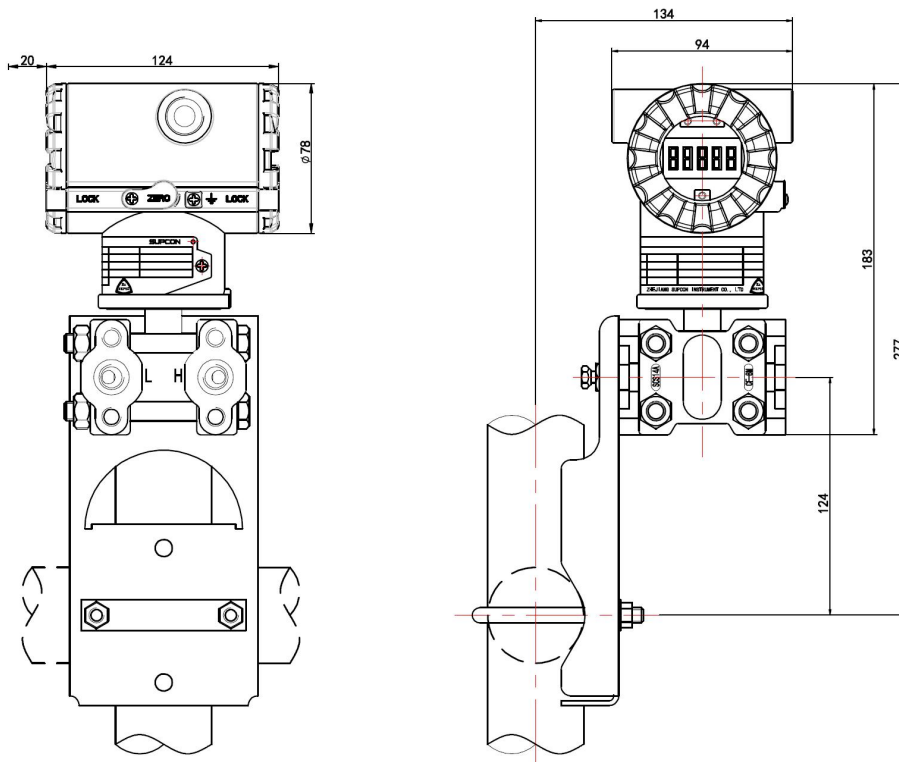
Bend bracket, pipe mounted



Bend bracket, panel mounted



Flat bracket, pipe mounted



Ordering Code (CXT-SKC□□□□□□□□□□□□□□□□)

1	Code	Range (kPa)	Static pressure (MPa)		
	3	0.2~6	16		
	4	0.4~40			
	5	2.5~250			
	6	8~800			
	7	30~3000			
	Z	Customization			/
2	Code	Output			
	S	HART, (4~20)mA linear output			
*1	J	HART, (4~20)mA square root output			
	F	FF			
	R	485			
*2	D	Electrical Remote Sensor (ERS)			
	W	Wireless HART			
	Z	Customization			
3	Code	Accuracy			
	A	Standard accuracy			
*3	H	High accuracy			
	Z	Customization			
4	Code	Electronics housing	Conduit connection	Arrester	
	A	Aluminum alloy	M20*1.5(F)	None	
	B	Aluminum alloy	½-14NPT(F)	None	
	C	Aluminum alloy	M20*1.5(F)	Yes	
	D	Aluminum alloy	½-14NPT(F)	Yes	
5	Code	Indicator			
	M0	None			
	M3	Digital indicator			
	M4	Digital indicator with backlight (Not for intrinsic safety)			
	MZ	Customization			
6	Code	Approvals for hazardous locations			
	00	None (for ordinary locations)			
	N1	NEPSI, flameproof enclosure			
	*4	N2	NEPSI, intrinsic safety		
	*4	N3	NEPSI, combined of flameproof enclosure and intrinsic safety		
	*4	N4	NEPSI, dust-tight enclosure		
	*4	N5	NEPSI, dust intrinsic safety		
	*4	N6	NEPSI, combined of dust-tight enclosure and dust intrinsic safety		
	*4	A1	ATEX, flameproof enclosure		
	*4	A2	ATEX, intrinsic safety		
	*4	A3	ATEX, combined of flameproof enclosure and intrinsic safety		
	*4	A4	ATEX, dust-tight enclosure		
	*4	A5	ATEX, dust intrinsic safety		
	*4	A6	ATEX, combined of dust-tight enclosure and dust intrinsic safety		
7	Code	Process connection	Vent/drain		
	A0	½-18NPT female thread	Standard		
	A2	½-18NPT female thread	Side above		
	A3	½-18NPT female thread	Side below		
	B0	½-14NPT female thread oval flange	Standard		
	B2	½-14NPT female thread oval flange	Side above		
	B3	½-14NPT female thread oval flange	Side below		
	C0	½-14NPT female thread oval flange, ½-14NPT connector and Induced Pressure Tube Welded	Standard		
	C2	½-14NPT female thread oval flange, ½-14NPT connector and Induced Pressure Tube Welded	Side above		
	C3	½-14NPT female thread oval flange, ½-14NPT connector and Induced Pressure Tube Welded	Side below		
	Z	Customization			
	8	Code	Wetted materials	Diaphragm	
		2A	316	316L	
2H		316	Hastelloy® C-276		
2J		316	316L + Au coating		
*5		2P	316L + PFA coating		

*5	2T	316	Tantalum
	3H	Hastelloy® C-276	Hastelloy® C-276
*5	3T	Hastelloy® C-276	Tantalum
	ZZ	Customization	
9	Code	Filled fluid	
	A	Silicone oil	
	B	Fluorinated oil	
Z	Customization		
10	Code	Sensor O-ring	
	A	Fluororubber	
	B	PTFE	
Z	Customization		
11	Code	Mounting bracket	
	00	None	
	11	Bend bracket, 2 in. pipe mounted (carbon steel)	
	12	Bend bracket, panel mounted (carbon steel)	
	13	Flat bracket, 2 in. pipe mounted (carbon steel)	
	21	Bend bracket, 2 in. pipe mounted (304 SST)	
	22	Bend bracket, panel mounted (304 SST)	
	23	Flat bracket, 2 in. pipe mounted (304 SST)	
12	Code	Tag plate	
	0	None.	
	B	Extra SST tag plate	
Z	Customization		
13	Code	Explosion-proof options	
	*6	A	None
B	Explosion-proof connection		
*7	C	Plastic cable connection	
	D	Metal cable connection	
	Z	Customization	
14	Code	Language	
	A	Chinese	
	E	English	
15	- Code	Additional options	
	/	None	
	F1	Factory calibration Report	
	F2	Certificate of origin	
	F3	CE certificate	
	F4	SIL certificate	
	F5	Overpressure leak test report (1.5 times max work pressure)	
	F6	Coating of cell	
	F7	Coating of cell and elec. housing (for strong corrosion environment)	
	FB	FAT	
	FC	Degreasing	
	FD	Oxygen service	
FE	Chlorine service		
FG	Required for Electrical Remote Sensor (ERS) selection		

Note1: (*1) Please consult the delivery time with us.

Note2: (*2) See the appendix "Wireless HART Pressure Transmitter" for the relevant parameters of wireless hart.

Note3: (*3) Available for 1st digit code "5", "6", "7".

Note4: (*4) Not available for 4th digit code "C", "D".

Note5: (*5) Not available for 1st digit code "3". Please consult the delivery time with us

Note6: (*6) Metal plug+ Dust cap: Available for 6th digit code "N1", "N3", "N4", "N6", "A1", "A3", "A4" and "A6". Plastic plug+ Dust cap: Available for 6th digit code "00", "N2", "N5", "A2" and "A5".

Note7: (*7) Only applicable when the 4th digit code is A and C.

SKC Hydrostatic Differential Pressure Transmitter

Span, Range

Range Code	Static Pressure (MPa)	Span (kPa)		Range (kPa)	
		Min.	Max.	LRL	URL
4	42	0.4	40	-40	+40
5		2.5	250	-250	+250
6		8	800	-800	+800
7		30	3000	-1000	+3000

Performance Specifications for Linear Output

Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST isolating diaphragms and 4 to 20mA analog output in linear mode.

Accuracy (including linearity, hysteresis, and repeatability)

For range code 4:

Turn down	Accuracy
≤ 5:1	±0.05%
> 5:1	±(0.005+0.009×URL/Span)%

For range code 5, 6 and 7:

Turn down	Accuracy
≤ 10:1	±0.05% (Standard)
	±0.04% (High)
> 10:1	±(0.005+0.0045×URL/Span)% (Standard)
	±(0.005+0.0035×URL/Span)% (High)

Stability

±0.1% of upper range limit (URL) for 10 years

Temperature Effect

Effect per 28°C change between the limits of -40°C and +85°C
±(0.05%+0.01%URL/Span)

Static Pressure Effect

Zero shift :±(0.05%URL/Span)/6.9MPa

Mounting Position Effect

Zero shift: less than 0.12kPa for a 10° tilt in any place.No effect on span. This error can be corrected by adjusting zero.When fluorine-filled oil is used, the influence of the installation position is twice the above.

Performance Specifications for Square Root Output

Output	Accuracy
(50~100)%	The same as linear output type
50%~Fall point	50%×Accuracy of linear output type/ Percentage of square root output

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, Hastelloy® C-276, 316L SST
+ Au coating, 316L SST + PFA coating, Tantalum
Wetted sensor body: 316 SST, Hastelloy® C-276
Wetted o-rings: Fluororubber, PTFE

Non-wetted Materials

Filled fluid: Silicone oil, Fluorinated oil
Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately 3.1 to 3.6kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process connections

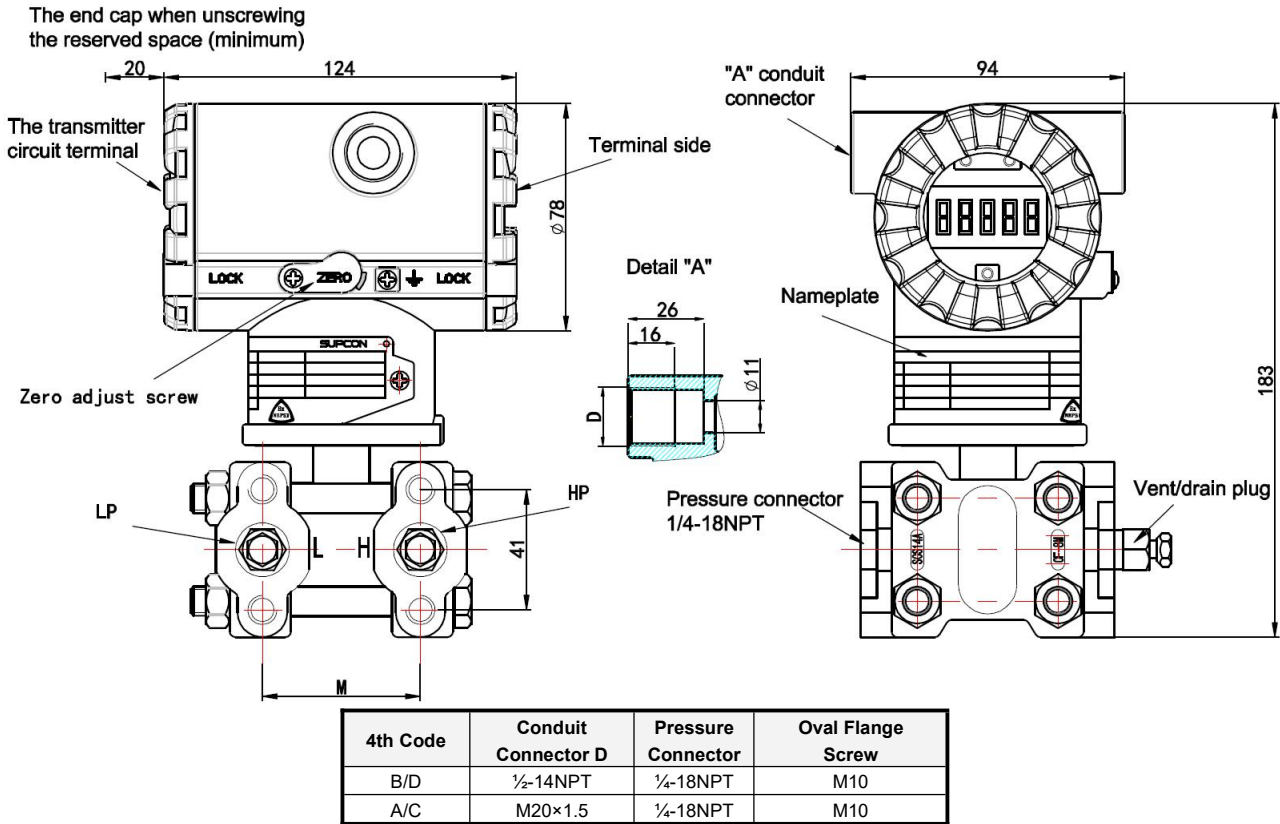
¼-18NPT female thread, ½-14 NPT female thread oval flange or
½-14NPT female thread oval flange, ½-14NPT connector and
Induced Pressure Tube Welded

Mounting

Bend bracket, pipe mounted (2 in.);
Flat bracket, pipe mounted (2 in.);

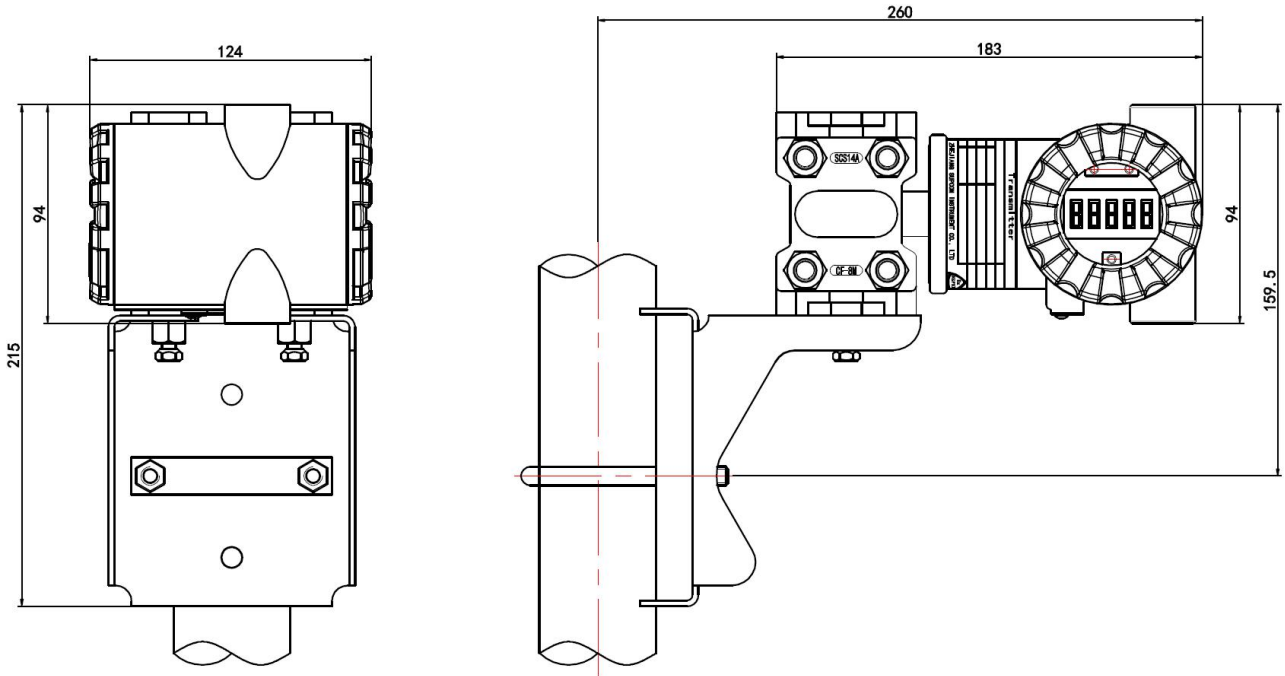
Bend bracket, panel mounted;
The material can be carbon steel or 304 stainless steel.

Outline Diagram (Unit: mm)

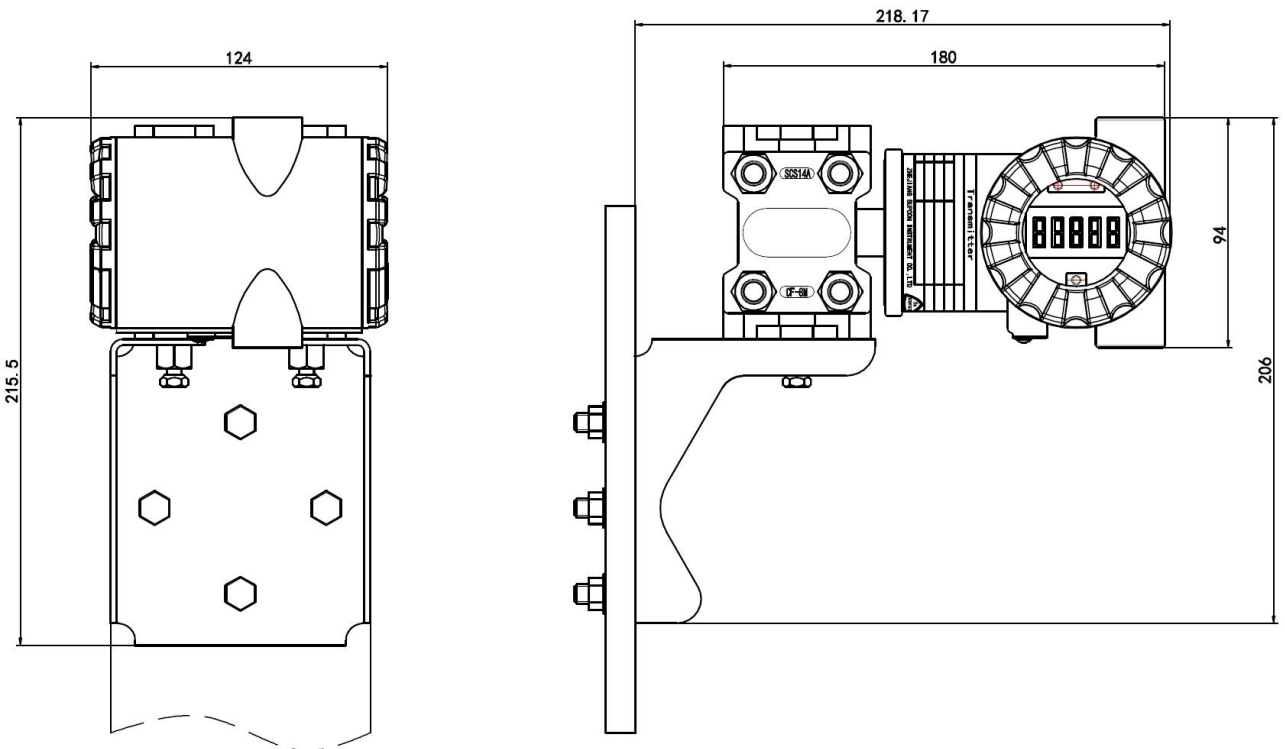


Typical Mounting

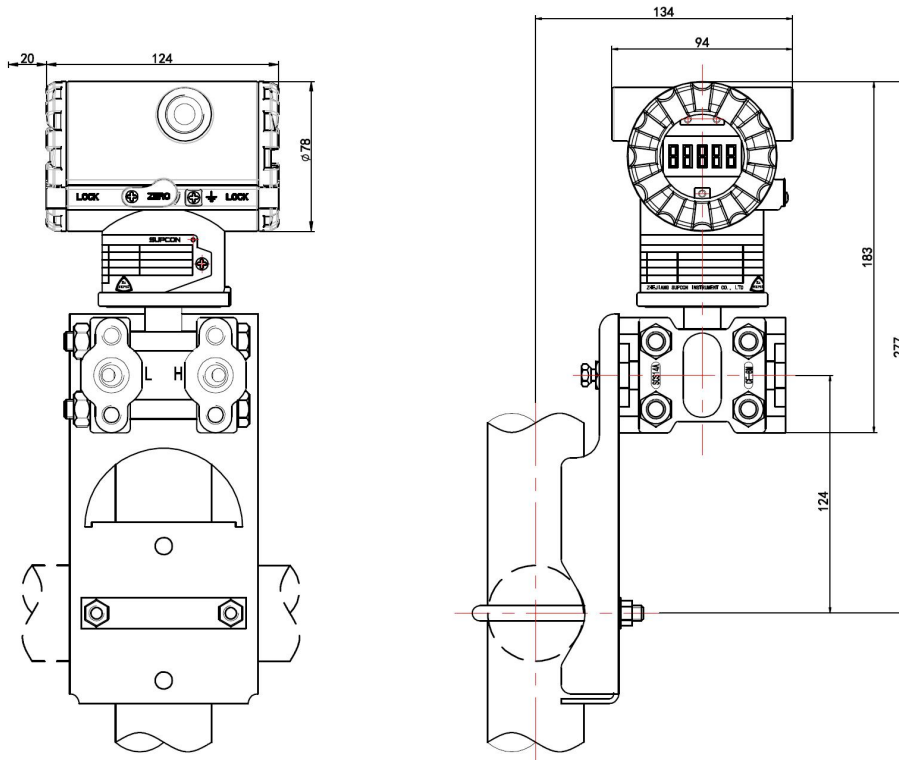
Bend bracket, pipe mounted



Bend bracket, panel mounted



Flat bracket, pipe mounted



SKG Pressure Transmitter

Span, Range

Range Code	Span (kPa)		Range URL (kPa)		Over Range (MPa)
	Min.	Max.	LRL	URL	
4	4	40	-40	40	0.2
5	4	250	-100	250	0.75
6	8	800	-100	800	2.4
7	30	3000	-100	3000	9
8	100	10000	-100	10000	15
9	200	20000	-100	20000	60
0	400	40000	-100	40000	60

Performance Specifications

Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST isolating diaphragms and 4 to 20mA analog output in linear mode.

Accuracy (including linearity, hysteresis, and repeatability)

For range code 4:

Turn down	Accuracy
≤ 5:1	±0.05%
> 5:1	±(0.005+0.009×URL/Span)%

For range code 5, 6, 7 and 8:

Turn down	Accuracy
≤ 10:1	±0.05% (Standard) ±0.04% (High accuracy)
> 10:1	±(0.005+0.0045×URL/Span)% (Standard) ±(0.005+0.0035×URL/Span)% (High accuracy)

For range code 9 and 0:

Turn down	Accuracy
≤ 10:1	±0.05%
> 10:1	±(0.005+0.0045×URL/Span)%

Temperature Effect

Effect per 28°C change between the limits of -40°C and +85°C
±(0.05%+0.01%URL/Span)

Over Range Effect

Zero shift: ±0.2% of URL for any over range to maximum limit

Stability

±0.1% of upper range limit (URL) for 10 years

Mounting Position Effect

Zero shift: less than 0.12kPa for a 10° tilt in any place.No effect on span. This error can be corrected by adjusting zero.When fluorine-filled oil is used, the influence of the installation position is twice the above.

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, Hastelloy® C-276, 316L SST
+ Au coating, 316L SST + PFA coating, Tantalum, Monel

Wetted sensor body: 316 SST

Wetted o-rings: Fluororubber, PTFE

Non-wetted Materials

Filled fluid: Silicone oil, Fluorinated oil

Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately 3.1 to 3.4kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process Connections

¼-18NPT female thread, ½-14 NPT female thread oval flange or ½-14NPT female thread oval flange, ½-14NPT connector and Induced Pressure Tube Welded

Mounting Bracket

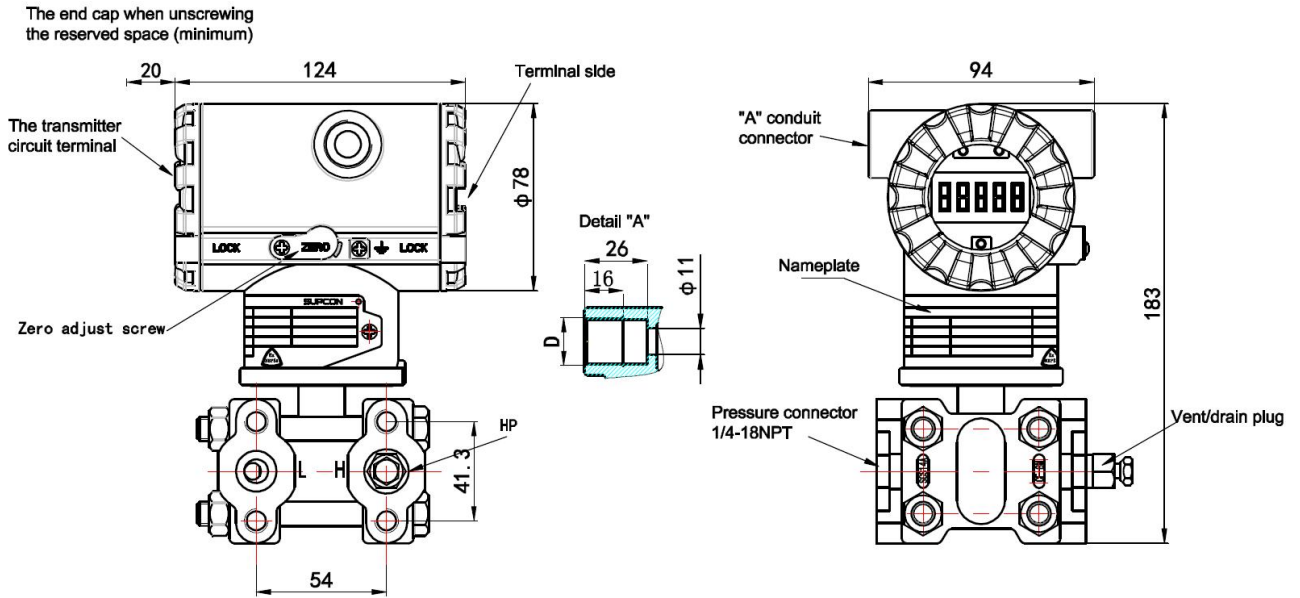
Bend bracket, pipe mounted (2 in.);

Flat bracket, pipe mounted (2 in.);

Bend bracket, panel mounted;

The material can be carbon steel or 304 stainless steel.

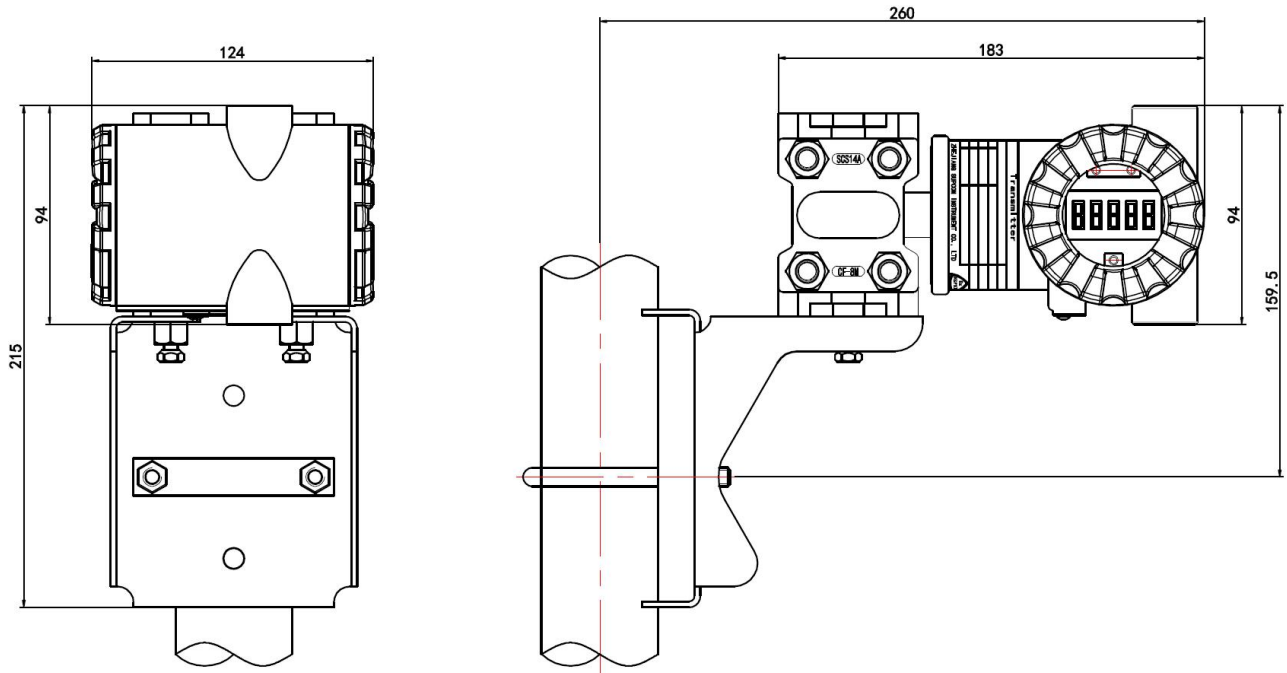
Outline Diagram (Unit: mm)



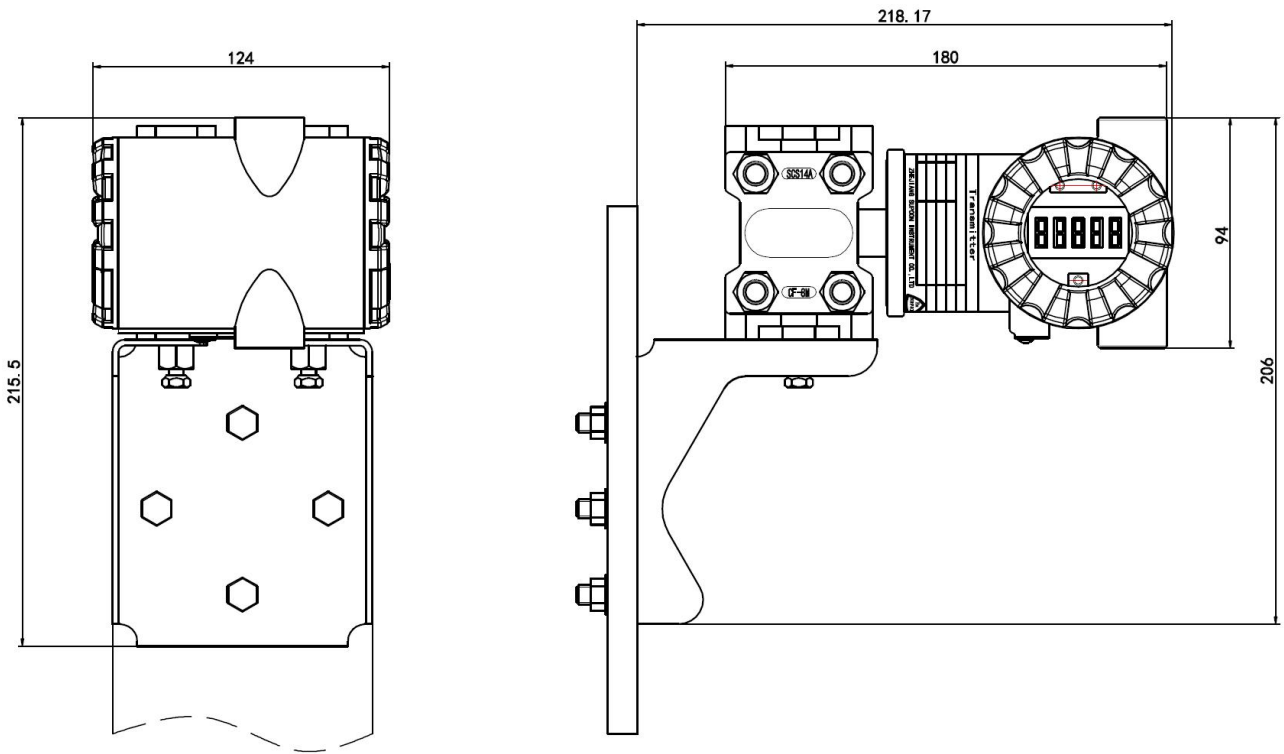
4th Code	Conduit Connector D	Pressure Connector	Oval Flange Screw
B/D	1/2-14NPT	1/4-18NPT	M10
A/C	M20x1.5	1/4-18NPT	M10

Typical Mounting

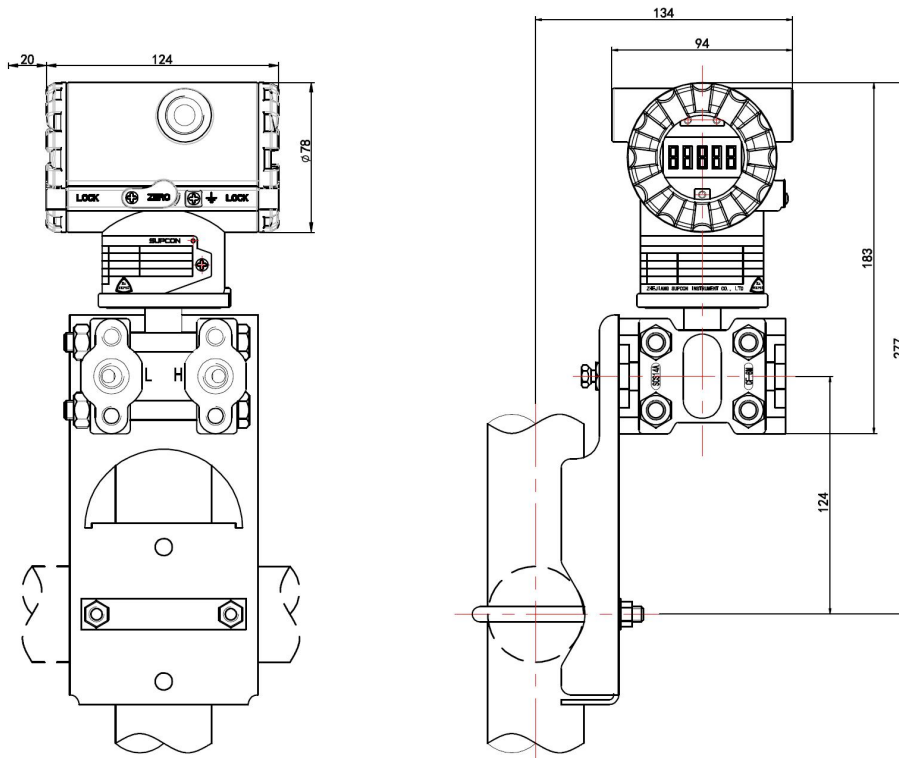
Bend bracket, pipe mounted



Bend bracket, panel mounted



Flat bracket, pipe mounted



Ordering Code (CXT-SKG□□□□□□□□□□□□□□□□□□)

1	Code	Range (kPa)	Over range (MPa)	
	4	4~40	0.2	
	5	4~250	0.75	
	6	8~800	2.4	
	7	30~3000	9	
	8	100~10000	15	
	9	200~20000	60	
	0	400~40000	60	
	Z	Customization	/	
2	Code	Output		
	S	HART, (4~20)mA linear output		
	*1	F	FF	
		R	485	
*2	D	Electrical Remote Sensor (ERS)		
	W	Wireless HART		
	Z	Customization		
3	Code	Accuracy		
	A	Standard accuracy		
	*3	H	High accuracy	
Z		Customization		
4	Code	Electronics housing	Conduit connection	Arrester
	A	Aluminum alloy	M20*1.5(F)	None
	B	Aluminum alloy	½-14NPT(F)	None
	C	Aluminum alloy	M20*1.5(F)	Yes
	D	Aluminum alloy	½-14NPT(F)	Yes
Z	Customization			
5	Code	Indicator		
	M0	None		
	M3	Digital indicator		
	M4	Digital indicator with backlight (Not for intrinsic safety)		
	MZ	Customization		
6	Code	Approvals for hazardous locations		
	00	None (for ordinary locations)		
	N1	NEPSI, flameproof enclosure		
	*4	N2	NEPSI, intrinsic safety	
		N3	NEPSI, combined of flameproof enclosure and intrinsic safety	
	*4	N4	NEPSI, dust-tight enclosure	
		N5	NEPSI, dust intrinsic safety	
	*4	N6	NEPSI, combined of dust-tight enclosure and dust intrinsic safety	
	*4	A1	ATEX, flameproof enclosure	
		A2	ATEX, intrinsic safety	
	*4	A3	ATEX, combined of flameproof enclosure and intrinsic safety	
	*4	A4	ATEX, dust-tight enclosure	
	*4	A5	ATEX, dust intrinsic safety	
	*4	A6	ATEX, combined of dust-tight enclosure and dust intrinsic safety	
7	Code	Process connection	Vent/drain	
	A0	¼-18NPT female thread	Standard	
	A2	¼-18NPT female thread	Side above	
	A3	¼-18NPT female thread	Side below	
	B0	½-14NPT female thread oval flange	Standard	
	B2	½-14NPT female thread oval flange	Side above	
	B3	½-14NPT female thread oval flange	Side below	
	C0	½-14NPT female thread oval flange, ½-14NPT connector and Induced Pressure Tube Welded	Standard	
	C2	½-14NPT female thread oval flange, ½-14NPT connector and Induced Pressure Tube Welded	Side above	
	C3	½-14NPT female thread oval flange, ½-14NPT connector and Induced Pressure Tube Welded	Side below	
ZZ	Customization			
8	Code	Wetted materials	Diaphragm	
	2A	316	316L	

*1	2H	316	Hastelloy® C-276	
	2J	316	316L + Au coating	
	2P	316	316L + PFA coating	
	2T	316	Tantalum	
	2M	316	Monel	
	ZZ	Customization		
9	Code	Filled fluid		
	A	Silicone oil		
	B	Fluorinated oil		
Z	Customization			
10	Code	Sensor O-ring		
	A	Fluororubber		
	B	PTFE		
Z	Customization			
11	Code	Mounting bracket		
	00	None		
	11	Bend bracket, 2 in. pipe mounted (carbon steel)		
	12	Bend bracket, panel mounted (carbon steel)		
	13	Flat bracket, 2 in. pipe mounted (carbon steel)		
	21	Bend bracket, 2 in. pipe mounted (304 SST)		
	22	Bend bracket, panel mounted (304 SST)		
23	Flat bracket, 2 in. pipe mounted (304 SST)			
12	Code	Tag plate		
	0	None.		
	B	Extra SST tag plate		
Z	Customization			
13	Code	Explosion-proof options		
	*5	A	None	
		B	Explosion-proof connection	
	*6	C	Plastic cable connection	
		D	Metal cable connection	
Z		Customization		
14	Code	Language		
	A	Chinese		
	E	English		
15	- Code	Additional options		
	/	None		
	F1	Factory calibration Report		
	F2	Certificate of origin		
	F3	CE certificate		
	F4	SIL certificate		
	F5	Overpressure leak test report (1.5 times max work pressure)		
	F6	Coating of cell		
	F7	Coating of cell and elec. housing (for strong corrosion environment)		
	FB	FAT		
FC	Degreasing			
FD	Oxygen service			
FE	Chlorine service			
FG	Required for Electrical Remote Sensor (ERS) selection			

Note1: (*1) Please consult the delivery time with us.

Note2: (*2) See the appendix "Wireless HART Pressure Transmitter" for the relevant parameters of wireless hart.

Note3: (*3) Available for 1st digit code "5", "6", "7", "8".

Note4: (*4) Not available for 4th digit code "C", "D".

Note5: (*5) Metal plug+ Dust cap: Available for 6th digit code "N1", "N3", "N4", "N6", "A1", "A3", "A4" and "A6". Plastic plug+ Dust cap: Available for 6th digit code "00", "N2", "N5", "A2" and "A5".

Note6: (*6) Only applicable when the 4th digit code is A and C.

SKA Absolute Pressure Transmitter

Span, Range

Code	Span (kPa abs)		Range (kPa abs)		Over Range (MPa)
	Min.	Max.	LRL	URL	
4	10	40	0	40	0.12
5	25	250	0	250	0.75
7	30	3000	0	3000	9

Performance Specifications

Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST isolating diaphragms and 4 to 20mA analog output in linear mode.

Accuracy (including linearity, hysteresis, and repeatability)

For range code 4:

Turn down	Accuracy
≤ 2:1	±0.1%
> 2:1	±(0.005+0.0475×URL/Span)%

For range code 5:

Turn down	Accuracy
≤ 5:1	±0.1% (Standard) ±0.075% (High)
> 5:1	±(0.005+0.019×URL/Span)% (Standard) ±(0.005+0.014×URL/Span)% (High)

For range code 7:

Turn down	Accuracy
≤ 10:1	±0.1% (Standard) ±0.075% (High)
> 10:1	±(0.005+0.0095×URL/Span)% (Standard) ±(0.005+0.007×URL/Span)% (High)

Temperature Effect

Effect per 28°C change between the limits of -40°C and +85°C
For range code 4 and 5: ±(0.1%+0.15%URL/Span)
For range code 7: ±(0.1%+0.1%URL/Span)

Over Range Effect

Zero shift: ±0.2% of URL for any over range to maximum limit

Stability

±0.2% of upper range limit (URL) for 10 years

Mounting Position Effect

Zero shift: less than 0.1kPa for a 10° tilt in any place. No effect on span. This error can be corrected by adjusting zero.

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, Hastelloy® C-276, 316L SST
+ Au coating, 316L SST + PFA coating, Tantalum, Monel
Wetted sensor body: 316 SST
Wetted o-rings: Fluororubber, PTFE

Non-wetted Materials

Filled fluid: Silicone oil, Fluorinated oil
Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately 3.1 kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process Connections

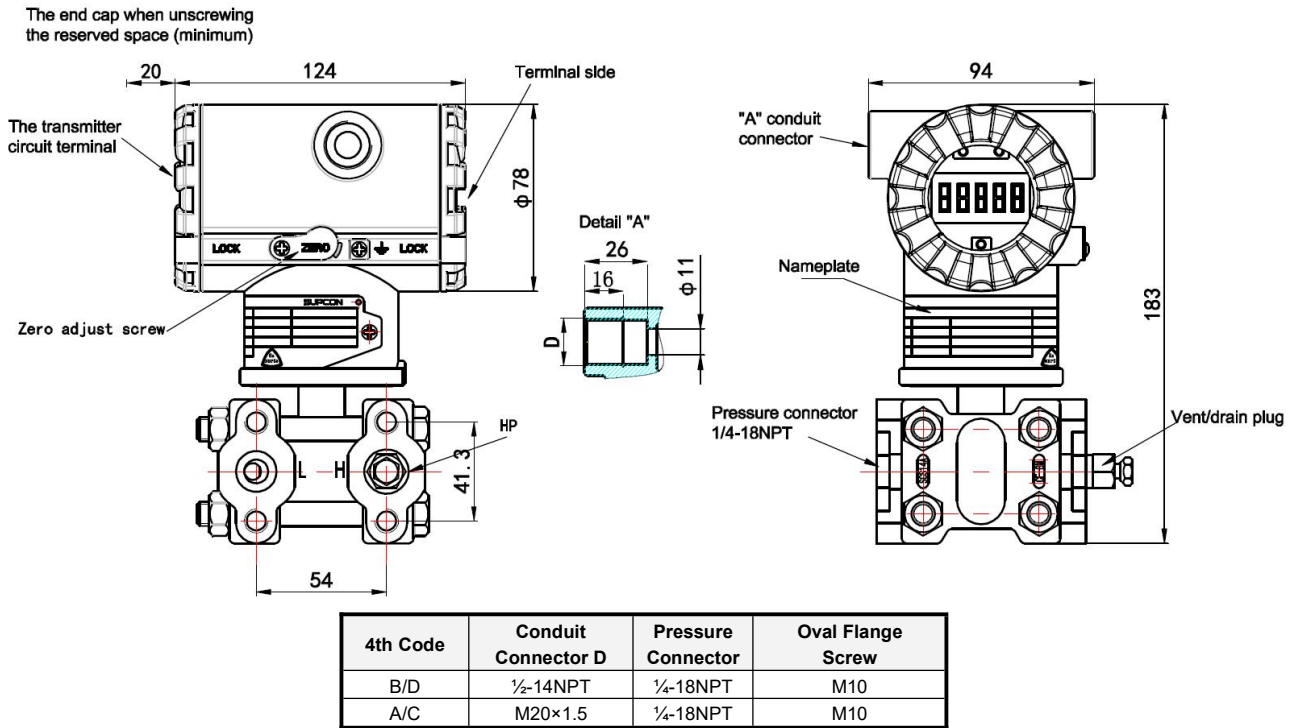
¼-18NPT female thread, ½-14 NPT female thread oval flange or
½-14NPT female thread oval flange, ½-14NPT connector and
Induced Pressure Tube Welded

Mounting Bracket

Bend bracket, pipe mounted (2 in.); Flat bracket, pipe mounted (2 in.); Bend bracket, panel mounted.

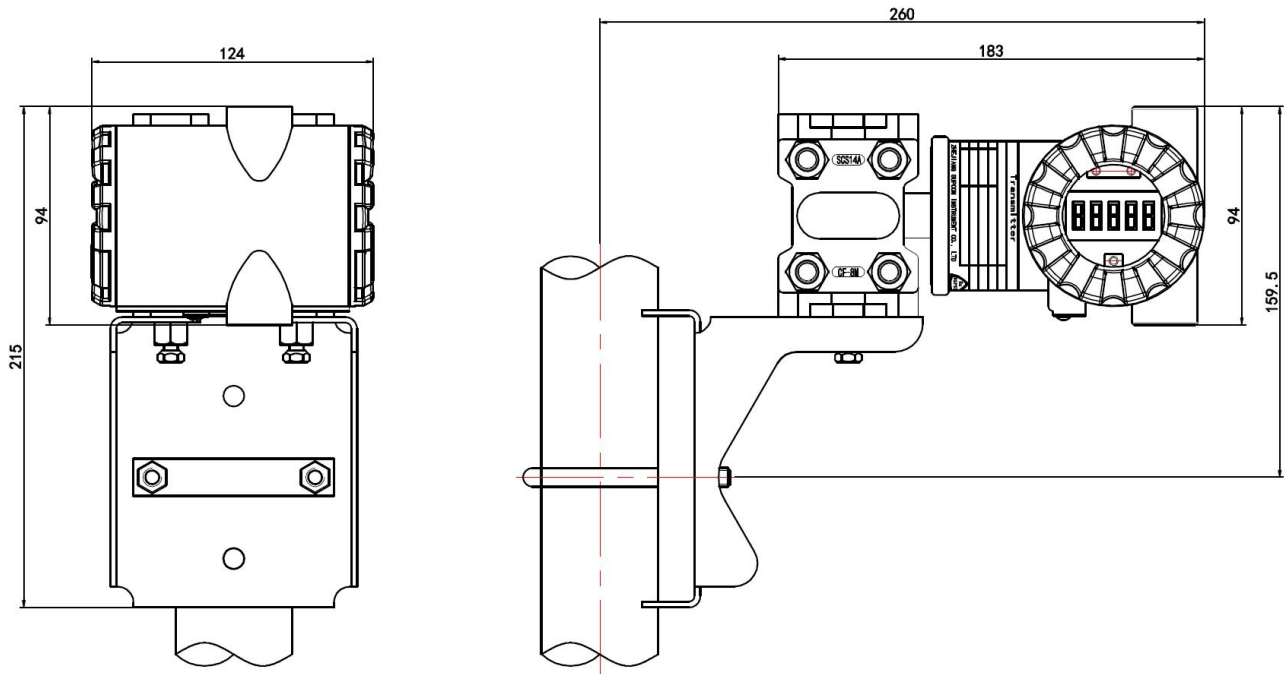
The material can be carbon steel or 304SST.

Outline Diagram (Unit: mm)

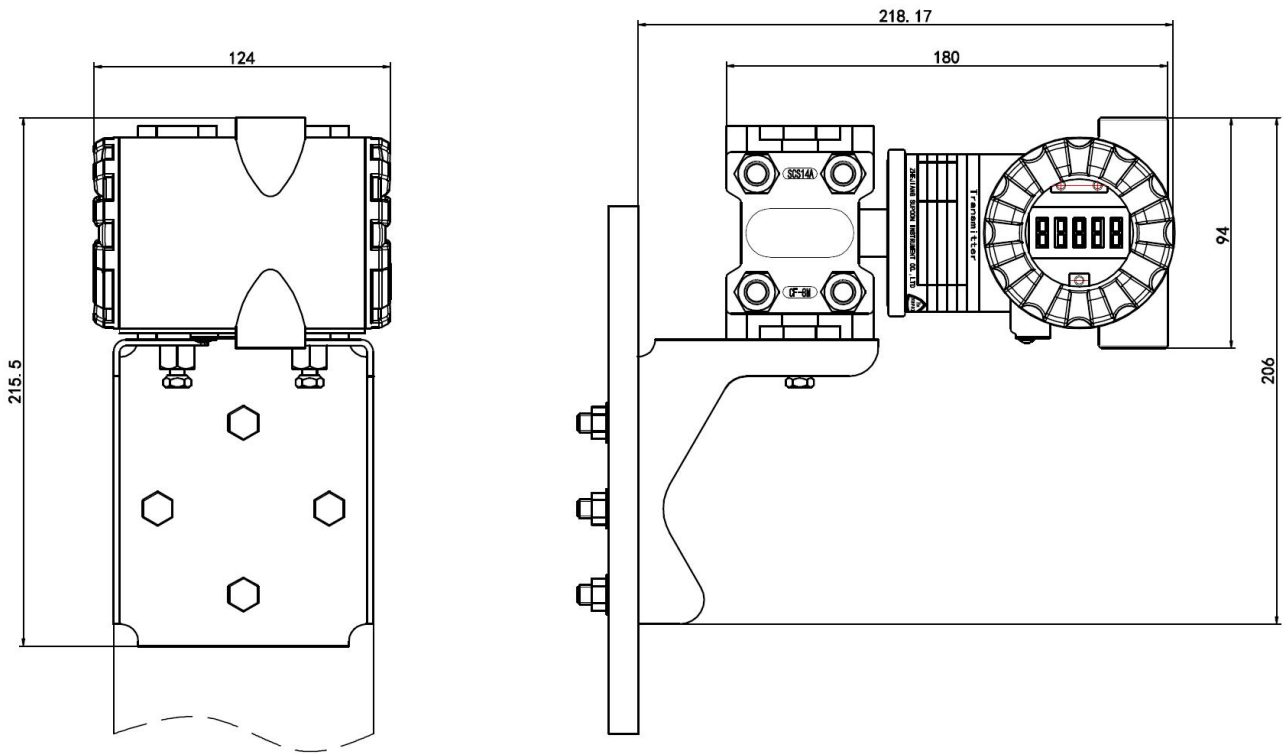


Typical Mounting

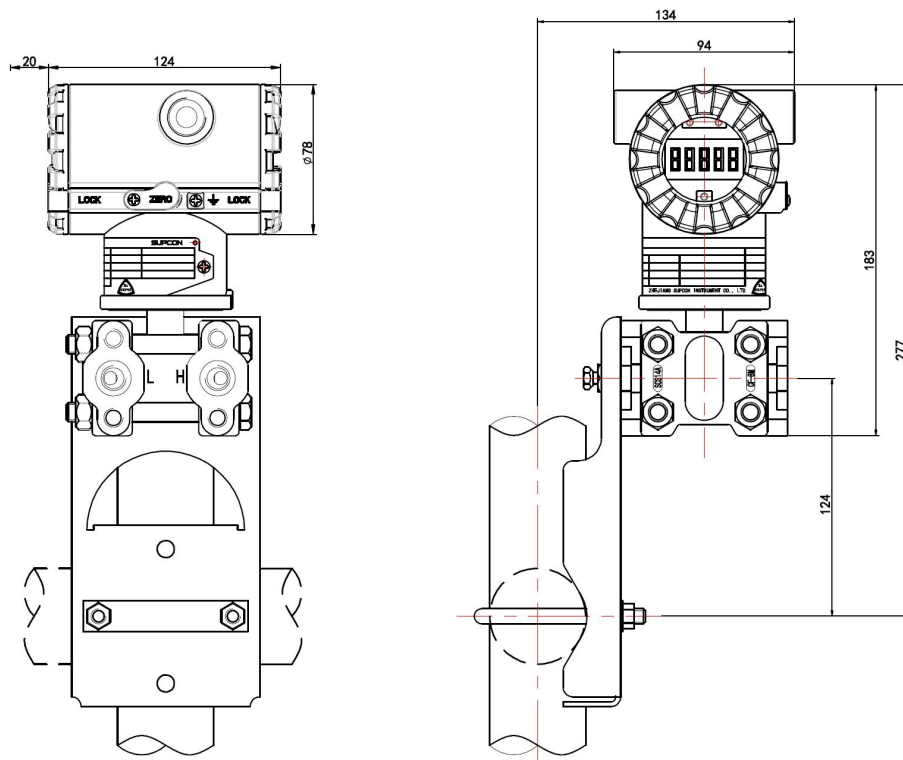
Bend bracket, pipe mounted



Bend bracket, panel mounted



Flat bracket, pipe mounted



SKP Pressure Transmitter (Direct Mount Type)

Span, Range

Range Code	Span (kPa)		Range (kPa)		Over Range (MPa)
	Min.	Max.	LRL	URL	
4	6	40	-40	40	0.12
5	25	250	-100	250	0.75
6	50	1000	-100	1000	3
7	100	3000	-100	3000	5
8	500	10000	-100	10000	15
0	4000	40000	-100	40000	60

Performance Specifications

Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST isolating diaphragms and 4 to 20mA analog output in linear mode.

Accuracy (including linearity, hysteresis, and repeatability)

For range code 4:

Turn down	Accuracy
≤ 2:1	±0.075% (Standard) ±0.05% (High)
> 2:1	±(0.005+0.035×URL/Span)% (Standard) ±(0.005+0.0225×URL/Span)% (High)

For range code 5:

Turn down	Accuracy
≤ 5:1	±0.075% (Standard) ±0.05% (High)
> 5:1	±(0.005+0.014×URL/Span)% (Standard) ±(0.005+0.009×URL/Span)% (High)

For range code 6, 7, 8 and 0:

Turn down	Accuracy
≤ 10:1	±0.075% (Standard) ±0.05% (High)
> 10:1	±(0.005+0.007×URL/Span)% (Standard) ±(0.005+0.0045×URL/Span)% (High)

Temperature Effect

For range code 4: ±(0.05%+0.1%URL/Span)

For range code 5, 6, 7, 8 and 0: ±(0.05%+0.05%URL/Span)

Over Range Effect

Zero shift: ±0.3% of URL for any over range to maximum limit

Stability

±0.1% of upper range limit (URL) for 10 years

Mounting Position Effect

Zero shift: less than 0.1kPa for a 10° tilt in any place(0.2kPa for filling fluorinated oil) .No effect on span. This error can be corrected by adjusting zero.

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, Hastelloy® C-276, 316L SST

+ Au coating

Wetted sensor body: 316 SST

Wetted o-rings: Fluororubber, PTFE

Non-wetted Materials

Filled fluid: Silicone oil, Fluorinated oil, Food oil

Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately 2.2kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process Connections

½-14NPT (female thread), ½-14NPT (male thread), M20×1.5 (male thread), G½ (male thread), M20×1.5 (male thread) and female thread connector with Φ14 Induced Pressure Tube

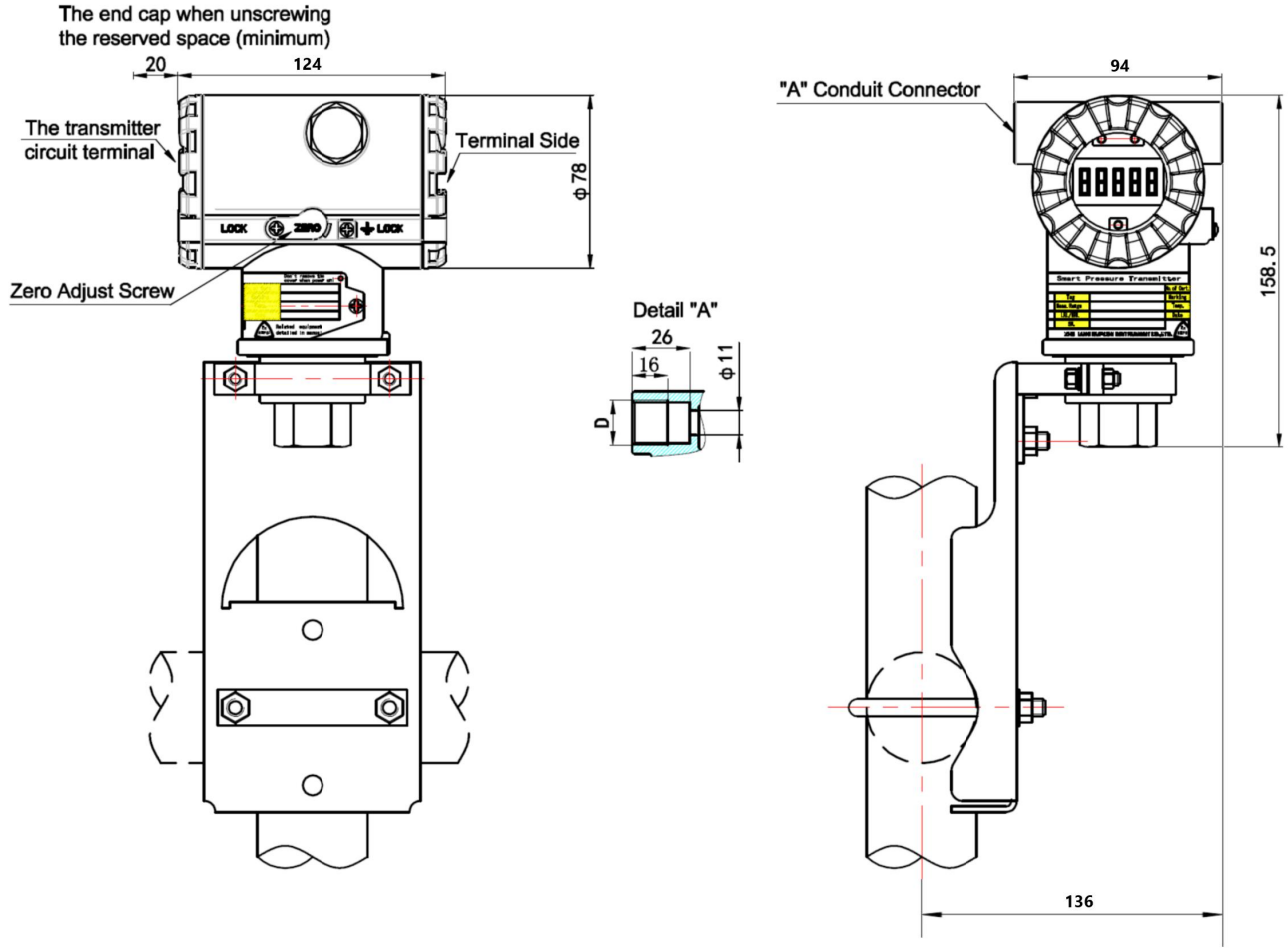
Welded, tri-clamp DN25/1" (PN4.0MPa /Class300LB), tri-clamp DN40/1½" (PN4.0MPa /Class300LB), tri-clamp DN50/2" (PN2.5MPa /Class150LB)

Mounting

Flat bracket, pipe mounted (2 in.)

The material can be carbon steel or 304 stainless steel.

Outline Diagram (Unit: mm)



4th Code	Conduit Connector D
B/D	½-14NPT
A/C	M20×1.5

Ordering Code (CXT-SKP□□□□□□□□□□□□□□□□□□)

1	Code	Range (kPa)	Over range (MPa)		
	4	6~40	0.1		
	5	25~250	0.75		
	6	50~1000	3		
	7	100~3000	5		
	8	500~10000	15		
	0	4000~40000	60		
	Z	Customization	/		
2	Code	Output			
	S	HART, (4~20)mA linear output			
*1	F	FF			
	R	485			
*2	D	Electrical Remote Sensor (ERS)			
	W	Wireless HART			
	Z	Customization			
3	Code	Accuracy			
	A	Standard accuracy			
	H	High accuracy			
	Z	Customization			
4	Code	Electronics housing	Conduit connection	Arrester	
	A	Aluminum alloy	M20*1.5(F)	None	
	B	Aluminum alloy	½-14NPT(F)	None	
	C	Aluminum alloy	M20*1.5(F)	Yes	
	D	Aluminum alloy	½-14NPT(F)	Yes	
	Z	Customization			
5	Code	Indicator			
	M0	None			
	M3	Digital indicator			
	M4	Digital indicator with backlight (Not for intrinsic safety)			
	MZ	Customization			
6	Code	Approvals for hazardous locations			
	00	None (for ordinary locations)			
	N1	NEPSI, flameproof enclosure			
	*3	N2	NEPSI, intrinsic safety		
	*3	N3	NEPSI, combined of flameproof enclosure and intrinsic safety		
		N4	NEPSI, dust-tight enclosure		
	*3	N5	NEPS Ex iaD 20 T135/T100/T85I, dust intrinsic safety		
	*3	N6	NEPSI, combined of dust-tight enclosure and dust intrinsic safety		
		A1	ATEX, flameproof enclosure		
	*3	A2	ATEX, intrinsic safety		
	*3	A3	ATEX, combined of flameproof enclosure and intrinsic safety		
		A4	ATEX, dust-tight enclosure		
	*3	A5	ATEX, dust intrinsic safety		
	*3	A6	ATEX, combined of dust-tight enclosure and dust intrinsic safety		
	7	Code	Process connection		
		A	½-14NPT female thread		
		B	½-14NPT male thread		
C		G½" male thread			
D		M20×1.5 female thread			
E		M20×1.5 (male thread) and female thread connector with Φ14 Induced Pressure Tube Welded			
F		Tri-clamp DN25/1" (PN4.0MPa /Class300LB)			
G		Tri-clamp DN40/1½" (PN4.0MPa /Class300LB)			
H		Tri-clamp DN50/2" (PN2.5MPa /Class150LB)			
I		G½" flush-mounted diaphragm			
J		G1" flush-mounted diaphragm			
K		G2" flush-mounted diaphragm			
Z		Customization			

8	Code	Wetted materials	Diaphragm
	2A	316	316L
	2H	316	Hastelloy® C-276
	2J	316	316L + Au coating
	*1	2T	316
	ZZ	Customization	
9	Code	Filled fluid	
	A	Silicone oil	
	B	Fluorinated oil	
	F	Food oil	
	Z	Customization	
10	Code	Mounting bracket	
	00	None	
	13	Flat bracket, 2 in. pipe mounted (carbon steel)	
	23	Flat bracket, 2 in. pipe mounted (304 SST)	
11	Code	Tag plate	
	0	None.	
	B	Extra SST tag plate	
	Z	Customization	
12	Code	Explosion-proof options	
	*4	A	None
		B	Explosion-proof connection
	*5	C	Plastic cable connection
		D	Metal cable connection
	Z	Customization	
13	Code	Language	
	A	Chinese	
	E	English	
14	- Code	Additional options	
	/	None	
	F1	Factory calibration Report	
	F2	Certificate of origin	
	F3	CE certificate	
	F4	SIL certificate	
	F5	Overpressure leak test report (1.5 times max work pressure)	
	F6	Coating of cell	
	F7	Coating of cell and elec. housing (for strong corrosion environment)	
	FB	FAT	
	FC	Degreasing	
	FD	Oxygen service	
	FE	Chlorine service	
FG	Required for Electrical Remote Sensor (ERS) selection		

Note1: (*1) Please consult the delivery time with us.

Note2: (*2) See the appendix "Wireless HART Pressure Transmitter" for the relevant parameters of wireless hart.

Note3: (*3) Not available for 4th digit code "C", "D".

Note4: (*4) Metal plug+ Dust cap: Available for 6th digit code "N1", "N3", "N4", "N6", "A1", "A3", "A4" and "A6". Plastic plug+ Dust cap: Available for 6th digit code "00", "N2", "N5", "A2" and "A5".

Note5: (*5) Only applicable when the 4th digit code is A and C.

SKH Absolute Pressure Transmitter (Direct Mount Type)

Span, Range

Range Code	Span (kPa abs)		Range (kPa)		Over Range (MPa)
	Min.	Max.	LRL	URL	
4	10	40	0	40	0.12
5	25	250	0	250	0.75
6	50	1000	0	1000	3
7	200	3000	0	3000	5

Performance Specifications

Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST isolating diaphragms and 4 to 20mA analog output in linear mode.

Accuracy (including linearity, hysteresis, and repeatability)

For range code 4:

Turn down	Accuracy
≤ 2:1	±0.1%
> 2:1	±(0.005+0.0475×URL/Span)%

For range code 5:

Turn down	Accuracy
≤ 5:1	±0.1% (Standard) ±0.075% (High)
> 5:1	±(0.005+0.019×URL/Span)% (Standard) ±(0.005+0.014×URL/Span)% (High)

For range code 6 and 7:

Turn down	Accuracy
≤ 10:1	±0.1% (Standard) ±0.05% (High)
> 10:1	±(0.005+0.0095×URL/Span)% (Standard) ±(0.005+0.0045×URL/Span)% (High)

Temperature Effect

For range code 4: ±(0.05%+0.1%URL/Span)

For range code 5, 6 and 7: ±(0.05%+0.05%URL/Span)

Over Range Effect

Zero shift: ±0.3% of URL for any over range to maximum limit

Stability

For range codes "5", "6", "7": ±0.2% of upper range limit (URL) for 10 years .

Mounting Position Effect

Zero shift: less than 0.1kPa for a 10° tilt in any place.No effect on span. This error can be corrected by adjusting zero.

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, Hastelloy® C-276, 316L SST
+ Au coating

Wetted sensor body: 316 SST

Wetted o-rings: Fluororubber, PTFE

Non-wetted Materials

Filled fluid: Silicone oil, Fluorinated oil, Food oil

Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately 2.2kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process Connections

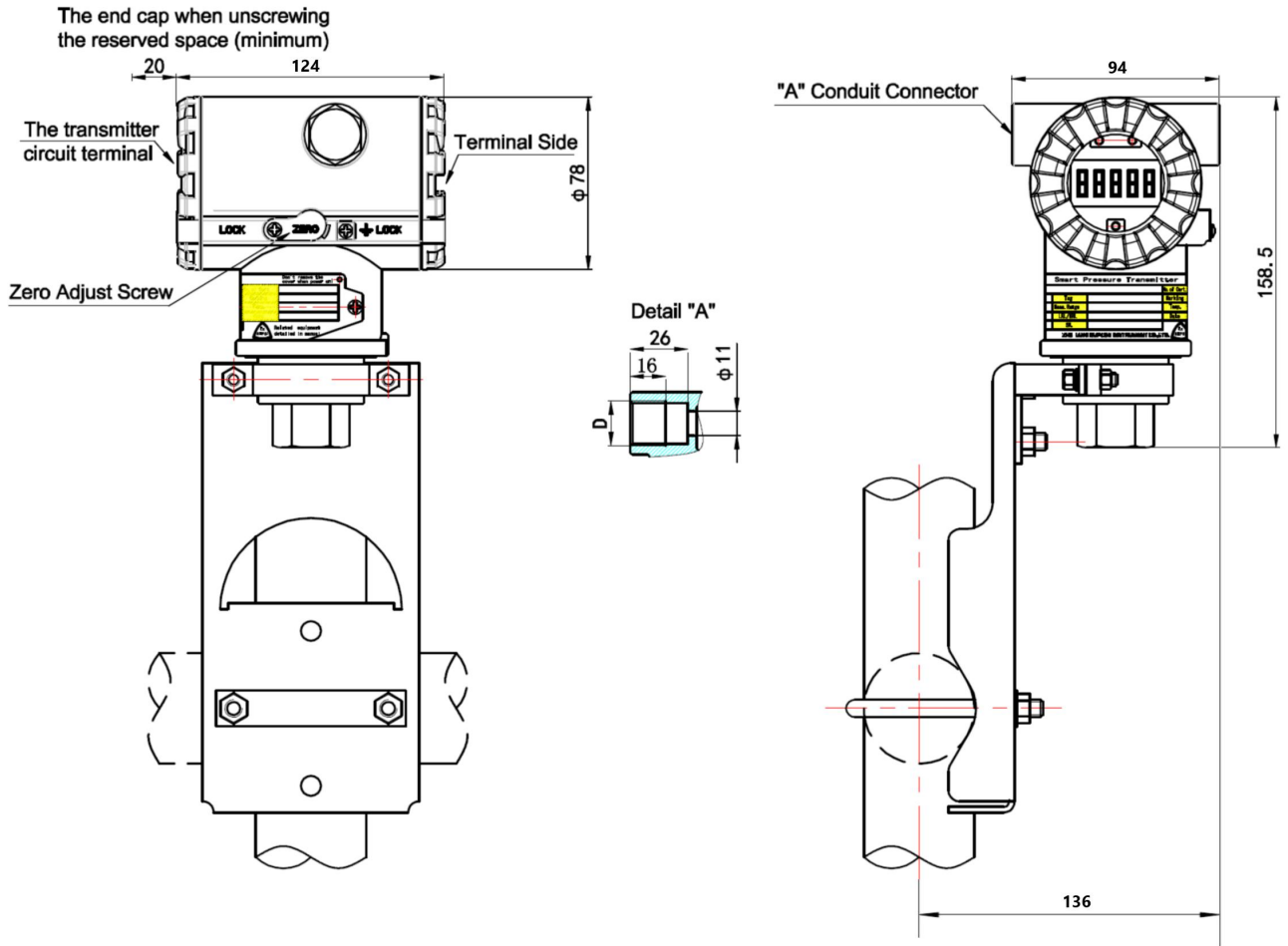
½-14NPT (female thread), ½-14NPT (male thread), M20×1.5 (male thread), G½ (male thread), M20×1.5 (male thread) and female thread connector with Φ14 Induced Pressure Tube Welded, tri-clamp DN25/1" (PN4.0MPa /Class300LB), tri-clamp DN40/1½" (PN4.0MPa /Class300LB), tri-clamp DN50/2" (PN2.5MPa /Class150LB)

Mounting

Flat bracket, pipe mounted (2 in.)

The material can be carbon steel or 304 stainless steel.

Outline Diagram(Unit: mm)



4th Code	Conduit Connector D
B/D	1/2-14NPT
A/C	M20×1.5

Ordering Code (CXT-SKH□□□□□□□□□□□□□□□□□□)

1	Code	Range (kPa)	Over range (MPa)	
	4	10~40	0.1	
	5	25~250	0.75	
	6	50~1000	3	
	7	200~3000	5	
	Z	Customization	/	
2	Code	Output		
	S	HART, (4~20)mA linear output		
	*1 F	FF		
	R	485		
	*2 W	Wireless HART		
	Z	Customization		
3	Code	Accuracy		
	A	Standard accuracy		
	*3 H	High accuracy		
	Z	Customization		
4	Code	Electronics housing	Conduit connection	Arrester
	A	Aluminum alloy	M20*1.5(F)	None
	B	Aluminum alloy	½-14NPT(F)	None
	C	Aluminum alloy	M20*1.5(F)	Yes
	D	Aluminum alloy	½-14NPT(F)	Yes
	Z	Customization		
5	Code	Indicator		
	M0	None		
	M3	Digital indicator		
	M4	Digital indicator with backlight (Not for intrinsic safety)		
	MZ	Customization		
6	Code	Approvals for hazardous locations		
	00	None (for ordinary locations)		
	N1	NEPSI, flameproof enclosure		
	*4 N2	NEPSI, intrinsic safety		
	*4 N3	NEPSI, combined of flameproof enclosure and intrinsic safety		
	N4	NEPSI, dust-tight enclosure		
	*4 N5	NEPSI, dust intrinsic safety		
	*4 N6	NEPSI, combined of dust-tight enclosure and dust intrinsic safety		
	A1	ATEX, flameproof enclosure		
	*4 A2	ATEX, intrinsic safety		
	*4 A3	ATEX, combined of flameproof enclosure and intrinsic safety		
	A4	ATEX, dust-tight enclosure		
	*4 A5	ATEX, dust intrinsic safety		
	*4 A6	ATEX, combined of dust-tight enclosure and dust intrinsic safety		
	7	Code	Process connection	
A		½-14NPT female thread		
B		½-14NPT male thread		
C		G½" male thread		
D		M20×1.5 female thread		
E		M20×1.5 (male thread) and female thread connector with Φ14 Induced Pressure Tube Welded		
F		Tri-clamp DN25/1" (PN4.0MPa /Class300LB)		
G		Tri-clamp DN40/1½" (PN4.0MPa /Class300LB)		
H		Tri-clamp DN50/2" (PN2.5MPa /Class150LB)		
I		G½" flush-mounted diaphragm		
J		G1" flush-mounted diaphragm		
K		G2" flush-mounted diaphragm		
Z	Customization			

8	Code	Wetted materials	Diaphragm
	2A	316	316L
	2H	316	Hastelloy® C-276
	2J	316	316L + Au coating
	ZZ	Customization	
9	Code	Filled fluid	
	A	Silicone oil	
	B	Fluorinated oil	
	F	Food oil	
	Z	Customization	
10	Code	Mounting bracket	
	00	None	
	13	Flat bracket, 2 in. pipe mounted (carbon steel)	
	23	Flat bracket, 2 in. pipe mounted (304 SST)	
11	Code	Tag plate	
	0	None.	
	B	Extra SST tag plate	
	Z	Customization	
12	Code	Explosion-proof options	
	*5 A	None	
	B	Explosion-proof connection	
	*6 C	Plastic cable connection	
	D	Metal cable connection	
	Z	Customization	
13	Code	Language	
	A	Chinese	
	E	English	
14	- Code	Additional options	
	/	None	
	F1	Factory calibration Report	
	F2	Certificate of origin	
	F3	CE certificate	
	F4	SIL certificate	
	F5	Overpressure leak test report (1.5 times max work pressure)	
	F6	Coating of cell	
	F7	Coating of cell and elec. housing (for strong corrosion environment)	
	FB	FAT	
	FC	Degreasing	
FD	Oxygen service		
FE	Chlorine service		

Note1: (*1) Please consult the delivery time with us.

Note2: (*2) See the appendix "Wireless HART Pressure Transmitter" for the relevant parameters of wireless hart.

Note3: (*3) Available for 1st digit code "5", "6", "7".

Note4: (*4) Not available for 4th digit code "C", "D".

Note5: (*5) Metal plug+ Dust cap: Available for 6th digit code "N1", "N3", "N4", "N6", "A1", "A3", "A4" and "A6". Plastic plug+ Dust cap: Available for 6th digit code "00", "N2", "N5", "A2" and "A5".

Note6: (*6) Only applicable when the 4th digit code is A and C.

SKE Level Transmitter

Span, Range

Range Code	Span (kPa)		Range (kPa)	
	Min.	Max.	LRL	URL
3	3	6	-6	6
4	4	40	-40	40
5	25	250	-250	250
6	80	800	-800	800
7	300	3000	-1000	3000

Code	Filled Fluid	Process Temperature
A	Ordinary silicone oil	(-40~205)°C
S	High temperature silicone oil DC704	(0~315)°C
C	High temperature silicone oil DC705	(20~350)°C
T	Low temperature silicone oil	(-75~150)°C
B	Fluorinated oil	(-45~160)°C
F	Food oil	(-15~225)°C

Performance Specifications

Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST isolating diaphragms and 4 to 20mA analog output in linear mode.

Accuracy (including linearity, hysteresis, and repeatability)

For range code 3:

Turn down	Accuracy
≤ 2:1	±0.2% (Standard) ±0.1% (High) ^{note1}
> 2:1	±(0.15+0.025×URL/Span)% (Standard) ±(0.05+0.025×URL/Span)% (High) ^{note1}

Note: Only applicable to flange diameter DN80 and above instrument.

For range code 4:

Turn down	Accuracy
≤ 5:1	±0.2% (Standard) ±0.075% (High)
> 5:1	±(0.15+0.01×URL/Span)% (Standard) ±(0.05+0.005×URL/Span)% (High)

For range code 5, 6 and 7:

Turn down	Accuracy
≤ 5:1	±0.2% (Standard) ±0.075% (High)
> 5:1	±(0.15+0.01×URL/Span)% (Standard) ±(0.05+0.005×URL/Span)% (High)

Stability

±0.2% of upper range limit (URL) for 10 years.

Temperature Effect

Effect per 28°C change between the limits of (-40~85)°C

For range code 3: ±(0.25%+0.05%URL/Span)

For range code 4, 5, 6 and 7: ±(0.15%+0.05%URL/Span)

Note: Above specifications are based on the conditions that flange and sensor unit is at the same temperature and in the same level. If temperature is different at flange, capillary or sensor unit, output variation may increase.

Over Range Effect

Zero shift: ±0.1% of URL for flange rating pressure

For 7th digit code 2H and 2T:

Zero shift: ±0.2% of URL for flange rating pressure

Static Pressure Effect

For 7th digit code 2A:

Zero shift: ±0.2% of URL/1MPa

For 7th digit code 2H and 2T:

Zero shift: ±0.4% of URL/1MPa

Mounting Position Effect

Zero shift: less than 0.3kPa for a 10° tilt in any place (0.6kPa for filling fluorinated oil). No effect on span. This error can be corrected by adjusting zero.

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, Hastelloy® C-276, Tantalum
 Mounting flange material: 316 SST, 304 SST or carbon steel
 Wetted sensor body: 316 SST
 Wetted o-rings: Fluororubber, PTFE

Non-wetted Materials

Filled fluid: Silicone oil, Fluorinated oil, Food oil
 Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately (10~20)kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process Connections

LP side: ¼-18NPT
 HP side: ANSI, DIN, HG 20592, HG 20615, GB raised face flange.

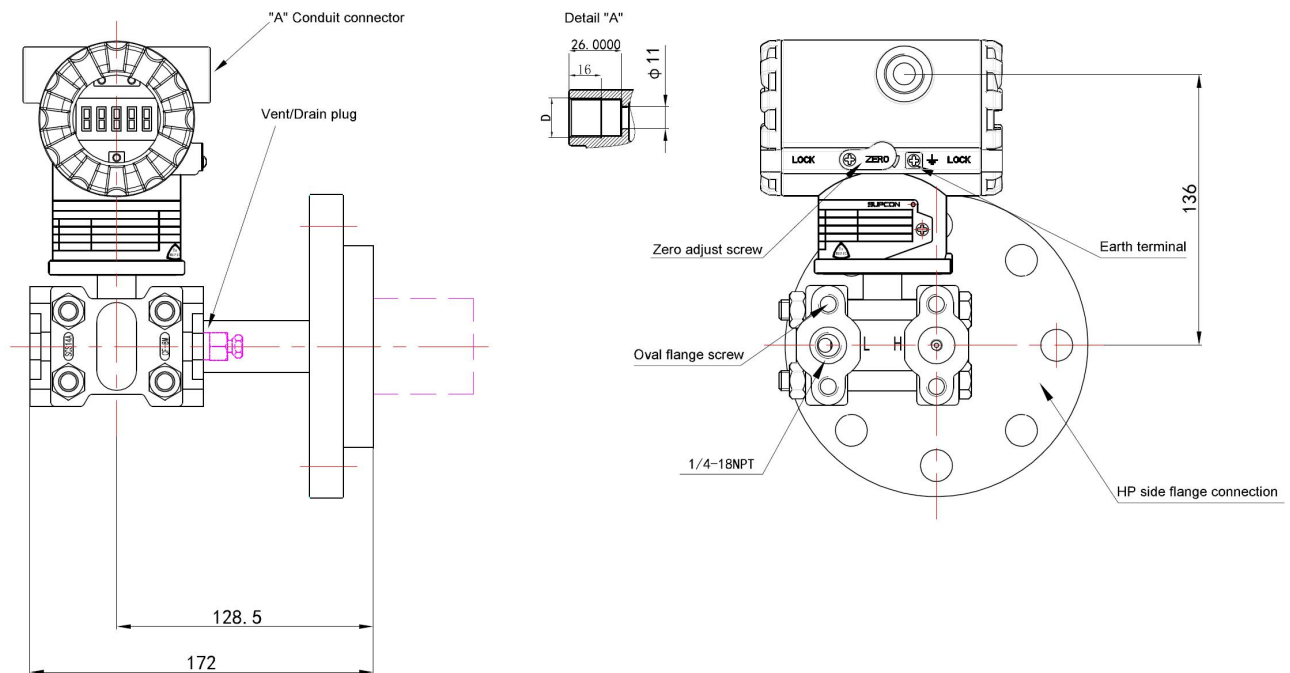
Diaphragm Extension

0mm, 50mm, 100mm or 200mm

Mounting

Flange mounting

Outline Diagram (Unit: mm)



4th Code	Conduit Connector D	Pressure Connector	Oval Flange Screw
B/D	½-14NPT	¼-18NPT	M10
A/C	M20×1.5	¼-18NPT	M10

SKD Remote Seal Type Differential Pressure Transmitter

Span, Range

Range Code	Span (kPa)		Range (kPa)	
	Min.	LRL	LRL	URL
3	3	6	-6	6
4	4	40	-40	40
5	25	250	-250	250
6	80	800	-800	800
7	300	3000	-1000	3000

Code	Filled Fluid	Process Temperature
A	Ordinary silicone oil	(-40~205)°C
S	High temperature silicone oil DC704	(0~315)°C
C	High temperature silicone oil DC705	(20~350)°C
T	Low temperature silicone oil	(-75~150)°C
B	Fluorinated oil	(-45~160)°C
F	Food oil	(-15~225)°C

Performance Specifications

Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST isolating diaphragms and 4 to 20mA analog output in linear mode.

Accuracy (including linearity, hysteresis, and repeatability)

For range code 3 and 4:

Turn down	Accuracy
≤ 2:1	±0.2%
> 2:1	±(0.15+0.025×URL/Spa)%

For range code 5, 6 and 7:

Turn down	Accuracy
≤ 5:1	±0.2% (Standard) ±0.15% (High)
> 5:1	±(0.15+0.01×URL/Spa)% (Standard) ±(0.1+0.01×URL/Spa)% (High)

Stability

±0.2% of upper range limit (URL) for 10 years.

Temperature Effect

For range code 3 and 4: ±(0.5%+0.06%URL/Spa)

For range code 5, 6 and 7: ±(0.4%+0.06%URL/Spa)

Note: Above specifications are based on the conditions that flange and sensor unit is at the same temperature and in the same level. If temperature is different at flange, capillary or sensor unit, output variation may increase.

Static Pressure Effect

For 316L SST diaphragm:

Zero shift: ±0.2% of URL/1MPa

For other diaphragms:

Zero shift: ±0.4% of URL/1MPa

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, 316L SST + Au coating, Monel, Hastelloy® C-276, Tantalum, Titanium, Nickel
Mounting flange material 316 SST, 304 SST or carbon steel
Wetted sensor body: 316 SST
Wetted o-rings: Fluororubber, PTFE

Non-wetted Materials

Filled fluid: Silicone oil, High temperature silicone oil, Low temperature silicone oil, Fluorinated oil, Food oil
Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately 10 to 20kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process Connections

ANSI, DIN, GB, HG 20592, HG 20615 raised face flange.

Diaphragm Extension

0mm, 50mm, 100mm or 200mm

Mounting

On 50A(2B) pipe using mounting bracket, Process-wetted use flange mounting, flange clamping method (Wafer type)

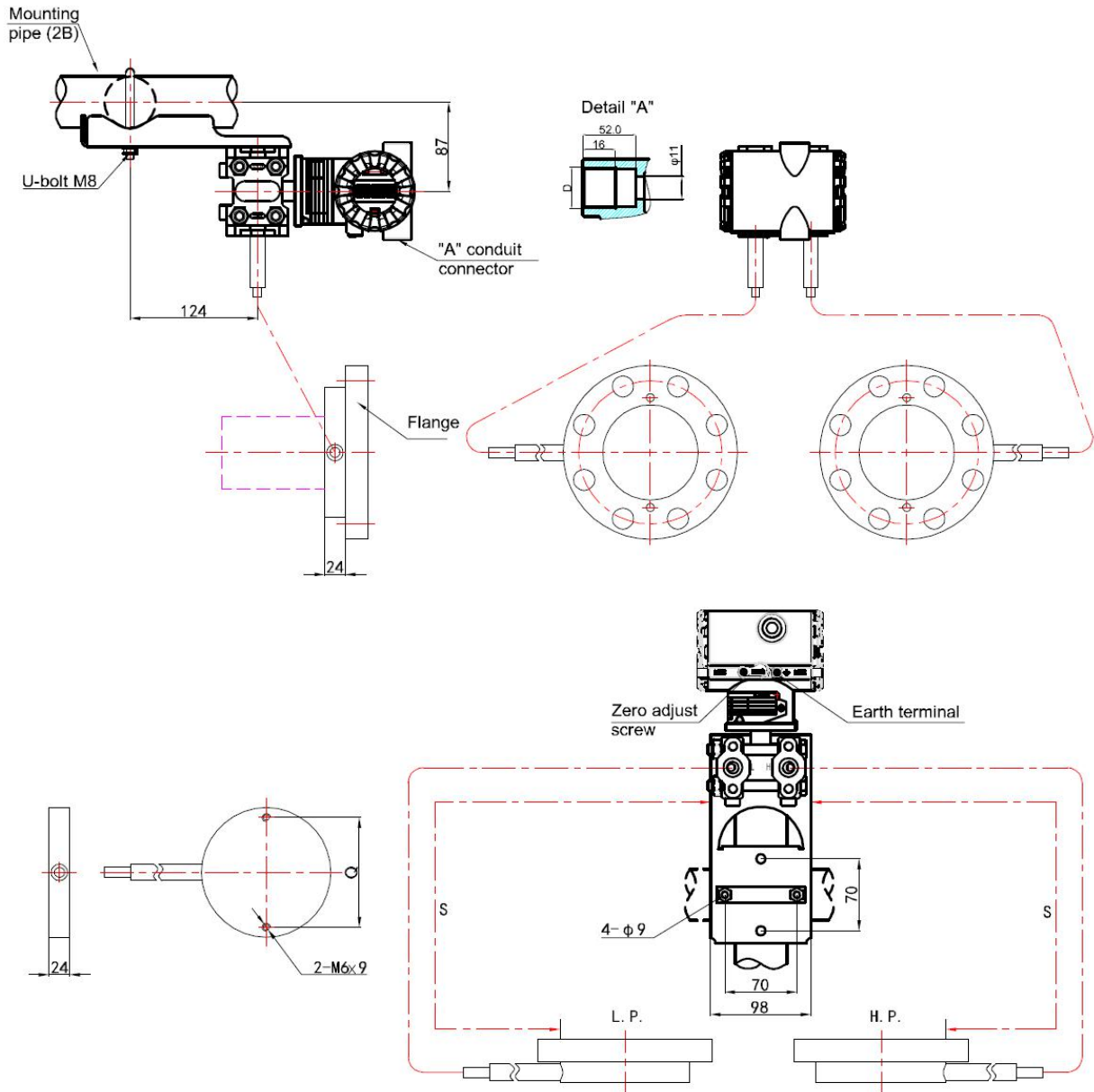
Capillary Material

304 SST or 316 SST

Armor of Capillary

304 SST or PVC + 304 SST

Outline Diagram (Unit: mm)



4th Code	Conduit Connector D
B/D	1/2-14NPT
A/C	M20×1.5

Wafer Type	Q
50A, 2B	88
80A, 3B	116
100A, 4B	141

SKB Remote Seal Type Pressure Transmitter

Range, Span

Range Code	Span (kPa)		Range (kPa)	
	Min.	Max.	LRL	URL
4	6	40	-40	40
5	25	250	-100	250
6	80	800	-100	800
7	300	3000	-100	3000
8	1000	10000	-100	10000
0	4000	40000	-100	40000

Code	Filled Fluid	Process Temperature
A	Ordinary silicone oil	(-40~205)°C
S	High temperature silicone oil DC704	(0~315)°C
C	High temperature silicone oil DC705	(20~350)°C
T	Low temperature silicone oil	(-75~150)°C
B	Fluorinated oil	(-45~160)°C
F	Food oil	(-15~225)°C

Performance Specifications

Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST diaphragms, 4 to 20mA analog output in linear mode.

Accuracy (including linearity, hysteresis, and repeatability)

For range code 4:

Turn down	Accuracy
≤ 2:1	±0.2%
> 2:1	±(0.15+0.025×URL/Span)%

For range code 5, 6, 7, 8 and 0:

Turn down	Accuracy
≤ 5:1	±0.2% (Standard) ±0.1% (High)
> 5:1	±(0.15+0.01×URL/Span)% (Standard) ±(0.05+0.01×URL/Span)% (High)

Stability

±0.2% of upper range limit (URL) for 10 years.

Temperature Effect

Effect per 28°C change between the limits of -40°C and +85°C:
±(0.2%+0.05%URL/Span)

Note: Above specifications are based on the conditions that flange and sensor unit is at the same temperature and in the same level. If temperature is different at flange, capillary or sensor unit, output variation may increase.

Over Range Effect

Zero shift: ±0.2% of URL for any over range to maximum limit

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, 316L SST + Au coating, Monel, Hastelloy® C-276, Tantalum, Titanium, Nickel

Mounting flange material: 316 SST, 304 SST or carbon steel

Wetted sensor body: 316 SST

Wetted o-rings: Fluororubber, PTFE

Non-wetted Materials

Filled fluid: Silicone oil, High temperature silicone oil, Low temperature silicone oil, Fluorinated oil, Food oil

Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately 5 to 13kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process Connections

ANSI, DIN, HG 20592, HG 20615, GB raised face flange

Diaphragm Extension

0mm, 50mm, 100mm or 200mm

Mounting

On 50A (2B) pipe using mounting bracket, Process-wetted use flange mounting, flange clamping method (Wafer type)

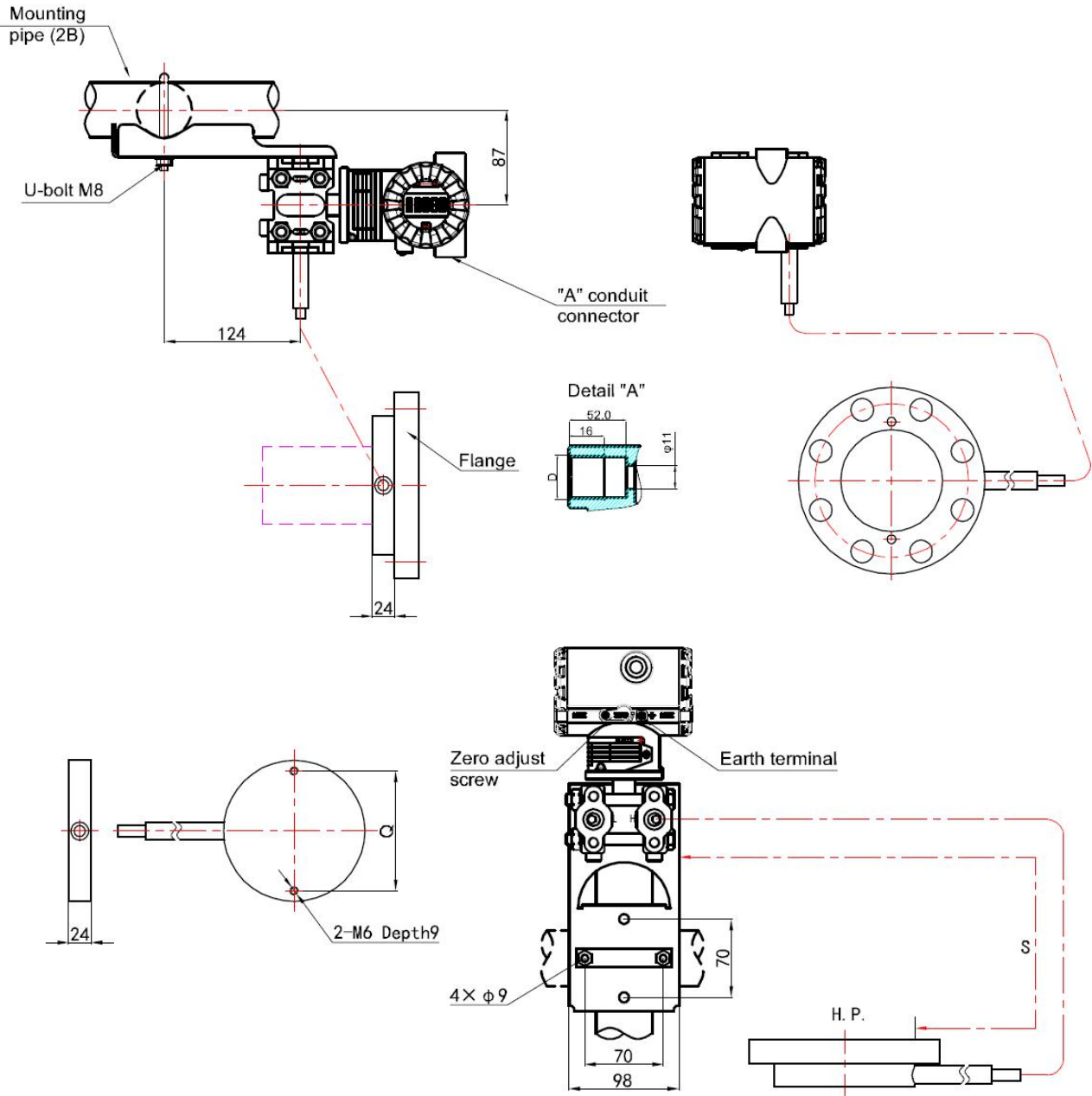
Capillary Material

304 SST or 316 SST

Armor of Capillary

304 SST or PVC + 304SST

Outline Diagram (Unit: mm)



4th Code	Conduit Connector D
B/D	½-14NPT
A/C	M20×1.5

Wafer Type	Q
50A, 2B	88
80A, 3B	116
100A, 4B	141

SKQ Flange Pressure Transmitter

Range, Span

Range Code	Span (kPa)		Range (kPa)		Over Range (MPa)
	Min.	Max.	LRL	URL	
4	6	40	-40	40	0.12
5	25	250	-100	250	0.75
6	100	1000	-100	1000	Nominal Pressure
7	200	3000	-100	3000	
8	1000	10000	-100	10000	
0	4000	40000	-100	40000	

Code	Filled Fluid	Process Temperature
A	Ordinary silicone oil	(-40~205)°C
S	High temperature silicone oil DC704	(0~315)°C
C	High temperature silicone oil DC705	(20~350)°C
T	Low temperature silicone oil	(-75~150)°C
B	Fluorinated oil	(-45~160)°C
F	Food oil	(-15~225)°C

Performance Specifications

(Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST diaphragms, 4 to 20mA analog output in linear mode.)

Accuracy (including linearity, hysteresis, and repeatability)

For range code 4:

Turn down	Accuracy
≤ 2:1	±0.2%
> 2:1	±(0.15+0.025×URL/Span)%

For range code 5, 6, 7, 8 and 0:

Turn down	Accuracy
≤ 5:1	±0.2% (Standard) ±0.1% (High)
> 5:1	±(0.15+0.01×URL/Span)% (Standard) ±(0.05+0.01×URL/Span)% (High)

Stability

±0.2% of upper range limit (URL) for 10 years.

Temperature Effect

Effect per 28°C change between the limits of -40°C and +85°C:
±(0.2%+0.05%URL/Span)

Note: Above specifications are based on the conditions that flange and sensor unit is at the same temperature and in the same level. If temperature is different at flange, capillary or sensor unit, output variation may increase.

Over Range Effect

Zero shift: ±0.2% of URL for any over range to maximum limit

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, 316L SST + Au coating, Monel, Hastelloy® C-276, Tantalum, Titanium, Nickel
Mounting flange material: 316 SST, 304 SST or carbon steel
Wetted sensor body: 316 SST

Non-wetted Materials

Filled fluid: Silicone oil, High temperature silicone oil, Low temperature silicone oil, Fluorinated oil, Food oil
Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately 6 to 10kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process Connections

ANSI, DIN, HG 20592, HG 20615, GB raised face flange.

Diaphragm Extension

0mm, 50mm, 100mm or 200mm

Mounting

On 50A (2B) pipe using mounting bracket, Process-wetted use flange mounting, flange clamping method (Wafer type), threaded connection (adaptor)

Capillary Material

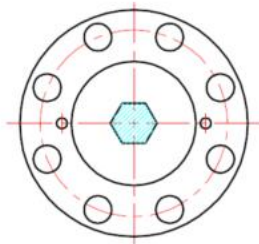
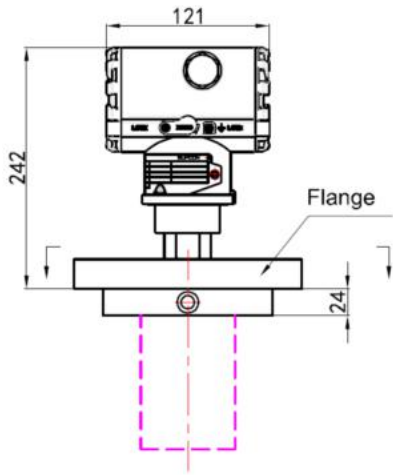
304 SST or 316 SST

Armor of Capillary

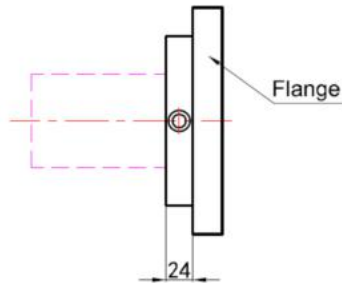
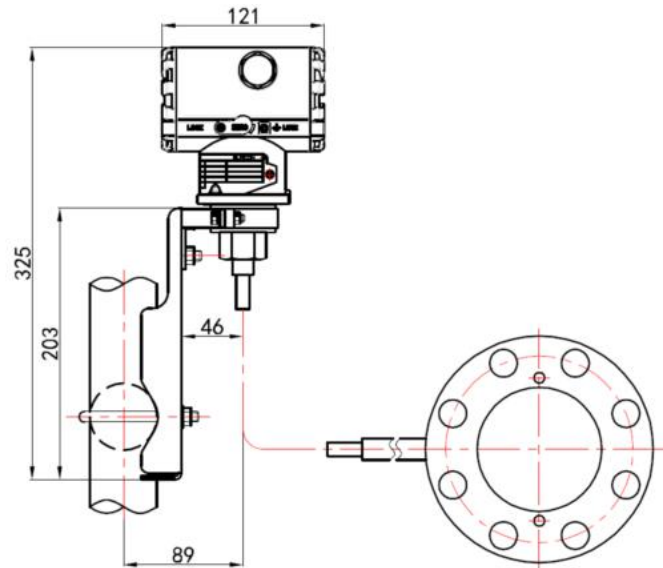
304 SST or PVC + 304SST

Outline Diagram (Unit: mm)

Direct mount flange:



Flange with capillary:



SKR Flange Absolute Pressure Transmitter

Range, Span

Range Code	Span (kPa)		Range (kPa)		Over Range (MPa)
	Min.	Max.	LRL	URL	
4	6	40	0	40	0.12
5	25	250	0	250	0.75
6	100	1000	0	1000	Nominal Pressure
7	200	3000	0	3000	

Code	Filled Fluid	Process Temperature
A	Ordinary silicone oil	(-40~205)°C
S	High temperature silicone oil DC704	(0~315)°C
C	High temperature silicone oil DC705	(20~350)°C
T	Low temperature silicone oil	(-75~150)°C
B	Fluorinated oil	(-45~160)°C
F	Food oil	(-15~225)°C

Performance Specifications

(Zero-based calibrated ranges, reference conditions, silicone oil fill, 316L SST diaphragms, 4 to 20mA analog output in linear mode.)

Accuracy (including linearity, hysteresis, and repeatability)

For range code 4:

Turn down	Accuracy
≤ 2:1	±0.2%
> 2:1	±(0.15+0.025×URL/Span)%

For range code 5, 6 and 7:

Turn down	Accuracy
≤ 5:1	±0.2% (Standard) ±0.1% (High)
> 5:1	±(0.15+0.01×URL/Span)% (Standard) ±(0.05+0.01×URL/Span)% (High)

Stability

±0.2% of upper range limit (URL) for 10 years.

Temperature Effect

Effect per 28°C change between the limits of -40°C and +85°C:
±(0.2%+0.15%URL/Span)

Note: Above specifications are based on the conditions that flange and sensor unit is at the same temperature and in the same level. If temperature is different at flange, capillary or sensor unit, output variation may increase.

Over Range Effect

Zero shift: ±0.2% of URL for any over range to maximum limit

Physical Specifications

Wetted Materials

Isolating diaphragms: 316L SST, 316L SST + Au coating, Monel, Hastelloy® C-276, Tantalum, Titanium, Nickel

Mounting flange material: 316 SST, 304 SST or carbon steel

Wetted sensor body: 316 SST

Non-wetted Materials

Filled fluid: Silicone oil, High temperature silicone oil, Low temperature silicone oil, Fluorinated oil, Food oil

Electronics housing: Aluminum alloy

Mass (weight)

Transmitter approximately 6 to 10kg without options

Conduit Connections

½-14NPT or M20×1.5 conduit

Process Connections

ANSI, DIN, HG 20592, HG 20615, GB raised face flange.

Diaphragm Extension

0mm, 50mm, 100mm or 200mm

Mounting

On 50A(2B) pipe using mounting bracket, Process-wetted use flange mounting, flange clamping method (Wafer type), threaded connection (adaptor)

Capillary Material

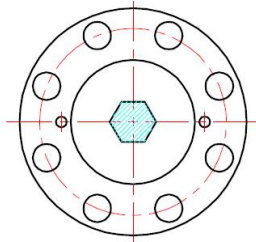
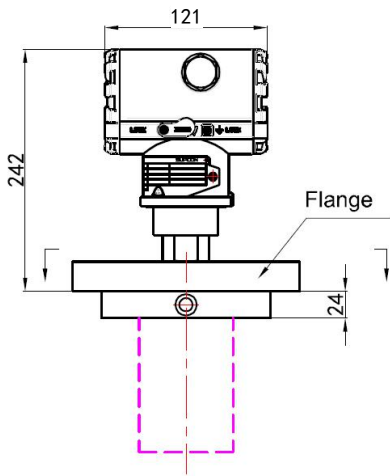
304 SST or 316 SST

Armor of Capillary

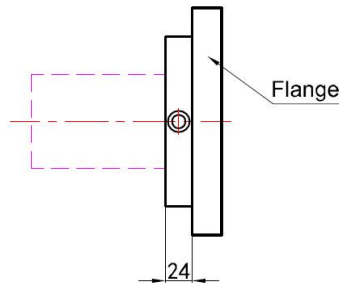
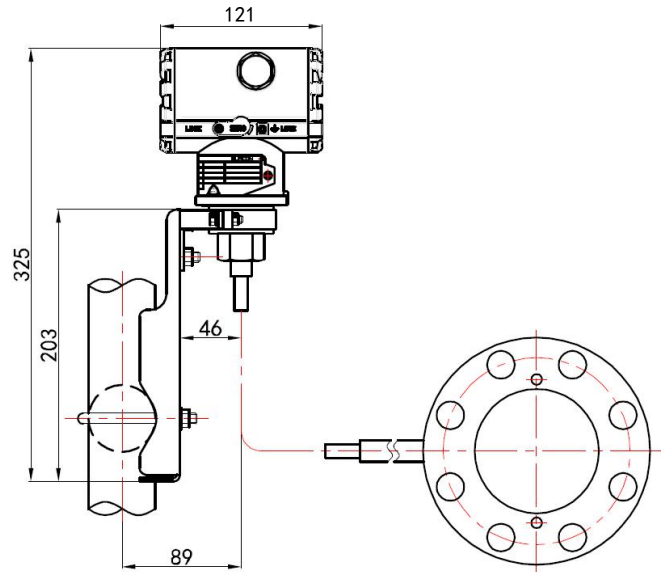
304 SST or PVC + 304SST

Outline Diagram (Unit: mm)

Direct mount flange:



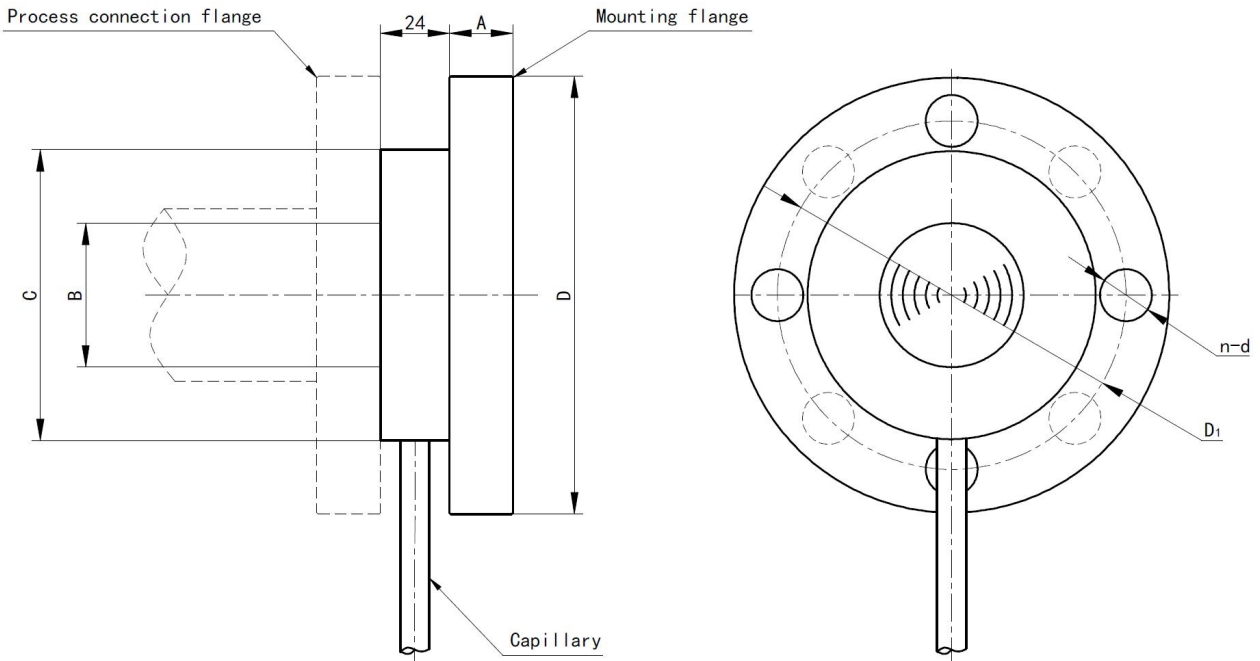
Flange with capillary:



Remote Seal Device

PFW Flat Remote Seal Device

Dimension of PFW



Nominal diameter	Nominal Pressure	D(mm)	D ₁ (mm)	C(mm)	B(mm)	A(mm)	n	d
DN50 (Sealing face DIN 2526 E, flange DIN2501)	PN16/40	Φ165	Φ125	Φ102	Φ57	20	4	Φ18
	PN63	Φ180	Φ135	Φ102	Φ57	26	4	Φ22
DN80 (Sealing face DIN 2526 E, flange DIN2501)	PN16	Φ200	Φ160	Φ138	Φ75	20	8	Φ18
	PN40	Φ200	Φ160	Φ138	Φ75	24	8	Φ18
	PN63	Φ215	Φ170	Φ138	Φ75	28	8	Φ22
DN100 (Sealing face DIN 2526 E, flange DIN2501)	PN16	Φ220	Φ180	Φ157	Φ89	20	8	Φ18
	PN40	Φ235	Φ190	Φ157	Φ89	24	8	Φ22
	PN63	Φ250	Φ200	Φ157	Φ89	28	8	Φ26
	PN100	Φ265	Φ210	Φ157	Φ89	34	8	Φ30
2" (ANSI B16.5 RF)	Class150 lb	Φ152.4	Φ120.6	Φ92.1	Φ57	17.4	4	Φ18
	Class300 lb	Φ165.1	Φ127.0	Φ92.1	Φ57	20.6	8	Φ18
3" (ANSI B16.5 RF)	Class150 lb	Φ190.5	Φ152.4	Φ127	Φ75	22.2	4	Φ18
	Class300 lb	Φ209.5	Φ168.3	Φ127	Φ75	27.0	8	Φ22
4" (ANSI B16.5 RF)	Class150 lb	Φ229	Φ191	Φ157	Φ89	30	8	Φ18
	Class300 lb	Φ255	Φ200	Φ157	Φ89	32	8	Φ22

Note: For more specifications, please contact us.

Ordering Code of PFW

PFW	PFW Flat Remote Seal Device					
	Code	Nominal Pressure				
	A1	ANSI/JPI 150LB				
	A2	ANSI/JPI 300LB				
	A3	ANSI/JPI 600LB				
	A4	ANSI/JPI 900LB				
	A5	ANSI/JPI 1500LB				
	D1	DIN PN16				
	D2	DIN PN25				
	D3	DIN PN40				
	D4	DIN PN63				
	D5	DIN PN100				
	D6	DIN PN160				
	H1	GB/T, HG PN10/16				
	H2	GB/T, HG PN25/40				
	H4	GB/T, HG PN63				
	H5	GB/T, HG PN100				
	H6	GB/T, HG PN160				
	ZZ	Customization				
	Code	Nominal Diameter				
	2(*1)	1", DN25				
	4(*1)	1½", DN40				
	5	2", DN50				
	8	3", DN80				
	0	4", DN100				
	Z	Customization				
	Code	Materials				
	C	Carbon steel				
	U	304 SST				
	W	316 SST				
	Z	Customization				
	Code	Diaphragm				
	A	316L SST				
	H	Hastelloy® C-276				
	T	Tantalum				
	J	316L SST + Au coating				
	P	Titanium				
	M	Monel				
	N	Nickel				
	Z	Customization				
	Code	Flange Facing				
	A	Raised face / Flat face				
	B	Male face				
	C	Female face				
	D(*2)	Ring joint face				
	Z	Customization				
	Code	Diaphragm Protection				
	0	None				
	T(*3)	FEP plated on Diaphragm, Temperature≤120℃,no vacuum				
	F(*4)	PFA plated on Diaphragm, Temperature <150℃				
PFW	□	□	□	□	□	□

Note1: (*1) Please consult the delivery time with us.

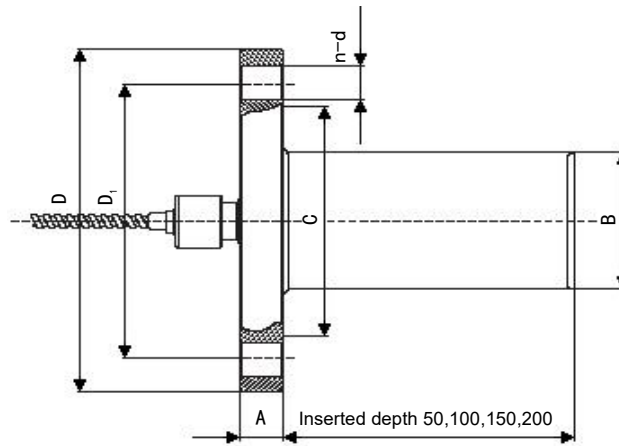
Note2: (*2) Available for flange diaphragm "A", "J".

Note3: (*3) Available for flange facing code "A", "B".

Note4: (*4) Available for flange diaphragm "A", "H".

EFW Extended Flanged Remote Seal Device

Dimension of EFW



Nominal diameter	Nominal pressure	D (mm)	D ₁ (mm)	C (mm)	B (mm)	A (mm)	n	d
DN50 (Sealing face DIN 2526 E, flange DIN2501)	PN16/40	Φ165	Φ125	Φ102	Φ57	20	4	Φ18
	PN63	Φ180	Φ135	Φ102	Φ57	26	4	Φ22
DN80 (Sealing face DIN 2526 E, flange DIN2501)	PN16	Φ200	Φ160	Φ138	Φ75	20	8	Φ18
	PN40	Φ200	Φ160	Φ138	Φ75	24	8	Φ18
	PN63	Φ215	Φ170	Φ138	Φ75	28	8	Φ22
DN100 (Sealing face DIN 2526 E, flange DIN2501)	PN16	Φ220	Φ180	Φ157	Φ89	20	8	Φ18
	PN40	Φ235	Φ190	Φ157	Φ89	24	8	Φ22
	PN63	Φ250	Φ200	Φ157	Φ89	28	8	Φ26
	PN100	Φ265	Φ210	Φ157	Φ89	34	8	Φ30
2" (ANSI B16.5 RF)	Class150 lb	Φ152.4	Φ120.6	Φ92.1	Φ57	17.4	4	Φ18
	Class300 lb	Φ165.1	Φ127.0	Φ92.1	Φ57	20.6	8	Φ18
3" (ANSI B16.5 RF)	Class150 lb	Φ190.5	Φ152.4	Φ127	Φ75	22.2	4	Φ18
	Class300 lb	Φ209.5	Φ168.3	Φ127	Φ75	27.0	8	Φ22
4" (ANSI B16.5 RF)	Class150 lb	Φ229	Φ191	Φ157	Φ89	30	8	Φ18
	Class300 lb	Φ255	Φ200	Φ157	Φ89	32	8	Φ22

Note: For more specifications, please contact us.

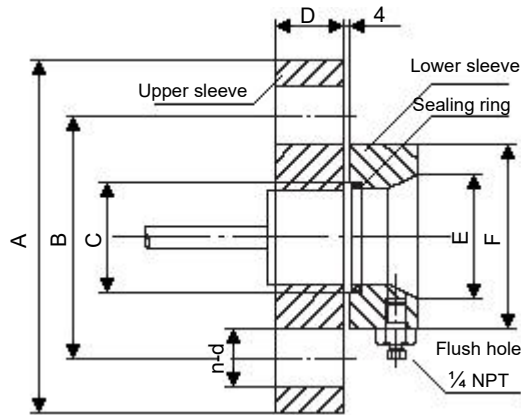
Ordering Code of EFW

EFW	EFW Extended Flanged Remote Seal Device							
	Code	Extended Flanged Length						
	1	50mm						
	2	100mm						
	3	150mm						
	4	200mm						
	Z	Customization						
		Code	Extended Flanged Materials					
		W	316					
		H	Hastelloy® C-276					
		P	Titanium					
		M	Monel					
		T	Tantalum					
		Z	Customization					
		Code	Nominal Pressure					
		A1	ANSI/JPI 150LB					
		A2	ANSI/JPI 300LB					
		A3	ANSI/JPI 600LB					
		A4	ANSI/JPI 900LB					
		A5	ANSI/JPI 1500LB					
		D1	DIN PN16					
		D2	DIN PN25					
		D3	DIN PN40					
		D4	DIN PN63					
		D5	DIN PN100					
		D6	DIN PN160					
		H1	GB/T, HG PN10/16					
		H2	GB/T, HG PN25/40					
		H4	GB/T, HG PN63					
		H5	GB/T, HG PN100					
		H6	GB/T, HG PN160					
		ZZ	Customization					
		Code	Nominal Diameter					
	5	2", DN50						
	8	3", DN80						
	0	4", DN100						
	Z	Customization						
	Code	Materials						
	C	Carbon steel						
	U	304 SST						
	W	316 SST						
	Code	Diaphragm						
	A	316L SST						
	H	Hastelloy® C-276						
	T	Tantalum						
	J	316L SST + Au coating						
	P	Titanium						
	M	Monel						
	N	Nickel						
	Z	Customization						
	Code	Flange Facing						
	A	Raised face / Flat face						
	B	Male face						
	Z	Customization						
	Code	Diaphragm Protection						
	0	None						
	F(*1)	PFA plated on Diaphragm, Temperature <150°C						
EFW	□	□	□	□	□	□	□	□

Note1: (*1) Available for flange diaphragm "A", "H".

RFW Flushing Ring Flanged Remote Seal Device

Dimension of RFW



Nominal Diameter	Nominal Pressure	A(mm)	D (mm)	B (mm)	n	d (mm)	E (mm)	F (mm)
1"	Class150 lb	Φ110	14.3	79.5	4	Φ16	Φ26.9	Φ66.5
	Class300 lb	Φ125	17.2	89	4	Φ20		
1.5"	Class150 lb	Φ127	17.2	98.4	4	Φ16	Φ41.9	Φ78.7
	Class300 lb	Φ156	20.7	114.5	4	Φ23		
2"	Class150 lb	Φ152	19.1	120.6	4	Φ20	Φ52.5	Φ95.2
	Class300 lb	Φ165	22.2	127	8	Φ20		
3"	Class150 lb	Φ190	23.8	152.4	4	Φ20	Φ79	Φ127
	Class300 lb	Φ210	25.5	168.3	8	Φ23		
DN25	1~4MPa	Φ115	14	85	4	Φ14	Φ26.9	Φ66.5
	6.4MPa	Φ140	22	100	4	Φ18		
DN40	1~4MPa	Φ150	16	110	4	Φ18	Φ41.9	Φ78.7
	6.4MPa	Φ170	24	125	4	Φ22		
DN50	1~4MPa	Φ165	18	125	4	Φ18	Φ52.5	Φ95.2
	6.4MPa	Φ180	24	135	4	Φ22		
DN80	1~4MPa	Φ200	20	160	8	Φ18	Φ79	Φ127
	6.4MPa	Φ215	26	170	8	Φ22		

Note: For more specifications, please contact us.

Ordering Code of RFW

RFW ^{Note1}		RFW Flushing Ring Flanged Remote Seal Device			
	Code	Spare Flush Hole			
	0	None			
	1	1/4NPT × 1			
	2	1/4NPT × 2			
	3	1/2NPT × 1			
	4	1/2NPT × 2			
	Code	Diaphragm			
	A	316L SST			
	H	Hastelloy® C-276			
	T	Tantalum			
	P	Titanium			
	M	Monel			
	Z	Customization			
	Code	Structural Materials^{Note2}			
		Upper Sleeve	Lower Sleeve	Gasket	
	1	316 SST	316 SST	PTFE	
	3	316 SST	Hastelloy® C-276	PTFE	
	5	316 SST	316 SST + PFA plated	PTFE	
	Code	Nominal Pressure of Upper Sleeve			
	A1	ANSI/JPI 150LB			
	A2	ANSI/JPI 300LB			
	A3	ANSI/JPI 600LB			
	D1	DIN PN16			
	D2	DIN PN25			
	D3	DIN PN40			
	D4	DIN PN63			
	D5	DIN PN100			
	H1	GB/T, HG PN10/16			
	H2	GB/T, HG PN25/40			
	H4	GB/T, HG PN63			
	H5	GB/T, HG PN100			
	ZZ	Customization			
	Code	Nominal Diameter of Upper Sleeve			
	2	1", DN25			
	4	1 1/2", DN40			
	5	2", DN50			
	8	3", DN80			
	Z	Customization			
	Code	Diaphragm Protection			
	0	None			
	F(*3)	PFA plated on Diaphragm, Temperature <150°C			
	Z	Customization			
RFW	□	□	□	□	□

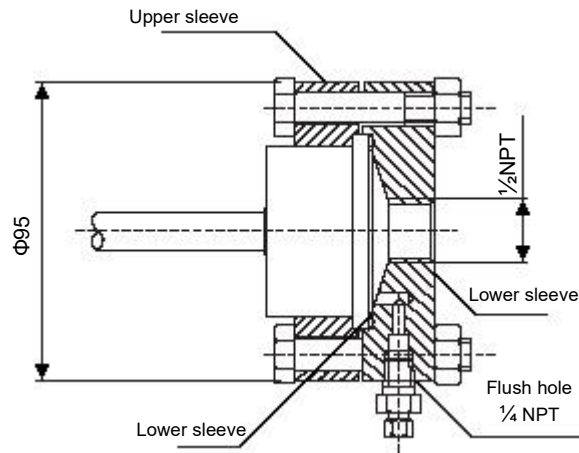
Note1: Less than 5m for length of capillary is recommend when RFW is selected.

Note2: The default material of the upper sleeve flange is 304 stainless steel.

Note3: (*3) Available for flange diaphragm "A", "H".

RTW Threaded Remote Seal Device

Dimension of RTW



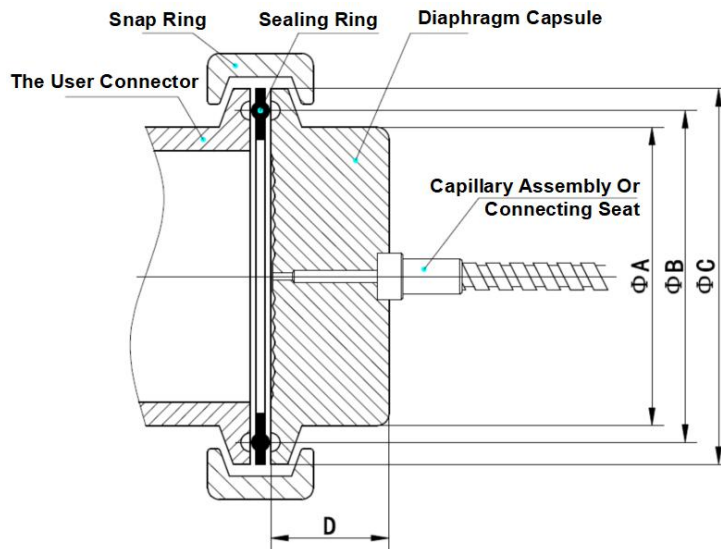
Ordering Code of RTW

RTW	Threaded Remote Seal Device		
	Code	Spare Flush Hole	
	0	None	
	1	Yes	
	Code	Diaphragm	
	A	316L	
	H	Hastelloy® C-276	
	T	Tantalum	
	P	Titanium	
	M	Monel	
	Z	Customization	
	Code	Structural Materials	
		Upper Sleeve	Mounting Ring
	7	316 SST	304 SST
	9	316 SST	316 SST
	Code	Materials of Lower Sleeve	
	W	316 SST	
	Z	Customization	
	Code	Induced Pressure Port	
	1	1/2NPT female thread	
	2	1/2NPT male thread	
	3	M20×1.5 male thread	
	4	G1/2 male thread	
	Z	Customization	
	Code	Diaphragm Protection	
	0	None	
	F(*1)	PFA plated on Diaphragm, Temperature <150℃	
	Z	Customization	
RTW	□	□	□

Note1: (*1) Available for flange diaphragm "A", "H".

SCW Clamp Remote Clean Type Seal Device

Dimension of SCW



Nominal Diameter	A(mm)	B (mm)	C (mm)	D (mm)
1.5"	32.0	43.5	50.5	16.0
2"	50.8	56.5	64.0	20.0
3"	76.2	83.5	91.0	22.0
4"	101.6	110.5	119.0	24.0

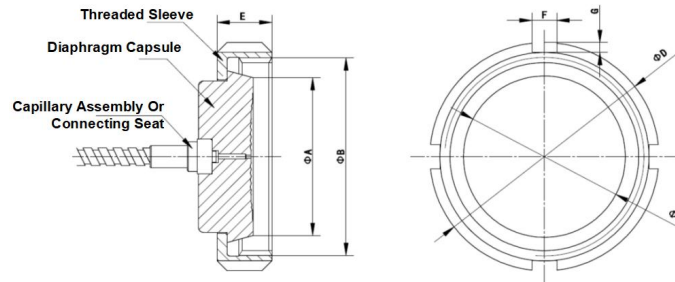
Ordering Code of SCW

SCW	SCW Clamp Remote Clean Type Seal Device		
Code	Install The Clamp		
	Nominal Diameter	Pressure Rating	Material ^{Note1}
11	DN40 (1.5")	PN40 (Class300 lb)	SST
12	DN50 (2")	PN25 (Class150 lb)	SST
13	DN80 (3")	PN25 (Class150 lb)	SST
14	DN100 (4")	PN25 (Class150 lb)	SST
ZZ	Customization		
Code	Diaphragm		
	A	316L	
	H	Hastelloy® C-276	
	T	Tantalum	
Z	Customization		
SCW	□	□	

Note1: (*1) Clamp material standard 304 SST, optional 316 SST.

SLS Clamp Coupling Clean Type Seal Device

Dimension of SLS



Nominal Diameter	A	B	C	D	E	F	G
1.5"	52	RD 65 × 1/6	49	78	21	10	4
2"	64	RD 78 × 1/6	62	92	22	10	4
3"	95	RD 110 × 1/4	94	127	29	10	5
4"	114	RD 130 × 1/4	115	148	31	12	5

Ordering Code of SCW

SCW	SCW Clamp Remote Clean Type Seal Device		
	Code	Install The Clamp	
		Nominal Diameter	Pressure Rating
	11	DN40 (1.5")	PN40 (Class300 lb)
	12	DN50 (2")	PN25 (Class150 lb)
	13	DN80 (3")	PN25 (Class150 lb)
	14	DN100 (4")	PN25 (Class150 lb)
	ZZ	Customization	
		Code	Diaphragm
		A	316L
		H	Hastelloy® C-276
		T	Tantalum
		Z	Customization
SCW	□	□	□

Note1: (*1) Clamp material standard 304 SST, optional 316 SST.

Ordering Code of CAP Capillary

CAP		Capillary (304 SST, $\Phi 3 \times 1$) ^{Note 1}	
	Code	Length (m)	
	0~A	HP side: 0-10 (integer)	
	Z	Customization	
		0~A(*2)	LP side: 0-10 (integer)
		Z	Customization
		Code	Protection Sleeve ^{Note3}
		0	None
		A	304+PVC
		K	304
		Z	Customization
CAP □ □ □			

Note1: (*1) 316 capillary is optional. Note required.

Note2: (*2) For SKB/SKRQ/SKR, 0m should be specified on LP side.

Note3: (*3) In high temperature environment, please select "K" for the protection tube.

Ordering Code of Filled Fluid

Code	Filled Fluid	Temperature (°C)/atm	Maximum Working Temperature (Under minimum pressure)	Density (g/cm ³)	Temperature Expansion Coefficient	Viscosity at 25°C (mPaS)
A	Ordinary silicone oil	-40~205	125°C/2.7kPa abs	0.934	0.0006	9.5
S	High temperature silicone oil DC704	0~315	220°C/1.3kPa abs	1.07	0.00053	44
C	High temperature silicone oil DC705	20~350	285°C/1.3kPa abs	1.09	0.00043	175
T	Low temperature silicone oil	-75~150	30°C/2.7kPa abs	0.85	0.00066	1.6
F	Food oil	-15~225	/	0.94	0.00056	9.8
B	Inert filling fluid	-45~160	/	1.85	0.00060	6.5
Z	Customization	/	/	/	/	/

Note: In the vacuum occasion (<50kPa absolute pressure), the temperature limit is lowered, so please specify when ordering.

Accessories

Flushing ring

Flushing ring is clamped between the process flange and the remote seal. Deposits can be flushed away from the diaphragm through the hole in the side or the pressure volume can be vented.



Materials: 304 SST, 316 SST, 316L SST, Hastelloy® C-276

Nominal Diameter: 1.5"/DN40、2"/DN50、3"/DN80、4"/DN100

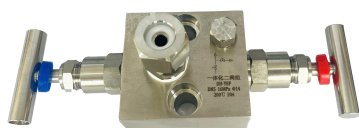
Sealing facing: Male, Ring

Flush hole: 1/4NPT×1, 1/4NPT×2, 1/2NPT×1, 1/2NPT×2

Valve Set

SV series valve set consists of flat type two valve set, three valve set, five valve set and columnar globe valve, can be matched for differential pressure, pressure transmitter and its integrated assembly, can also be used for other pressure control instruments.

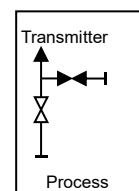
Two-valve Manifold



(Used for SKG)



(Used for SKP)



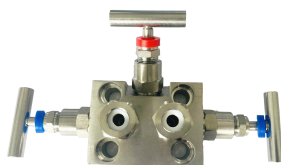
Materials: 304 SST, 316 SST

Pressure rating: 16MPa, 42MPa

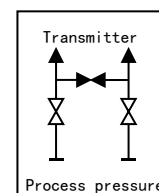
Process connection hole: 1/2NPT

Process connector: Φ12、Φ14

Three-valve Manifold



(Used for SKC)



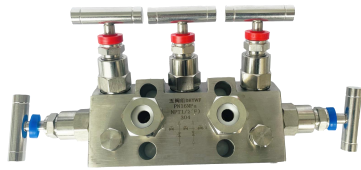
Materials: 304 SST, 316 SST

Pressure rating: 16MPa, 42MPa

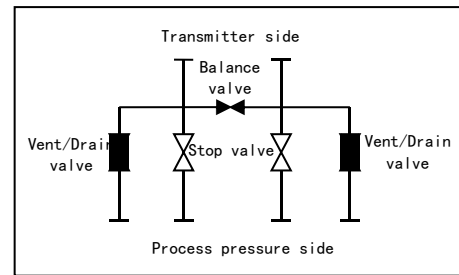
Process connection hole: 1/2NPT

Process connector: Φ12、Φ14

Five-valve Manifold

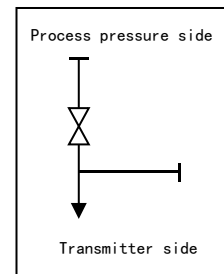


(Used for SKC)



Materials: 304 SST, 316 SST
 Pressure rating: 16MPa, 42MPa
 Process connection hole: 1/2NPT
 Process connector: $\Phi 12$ 、 $\Phi 14$

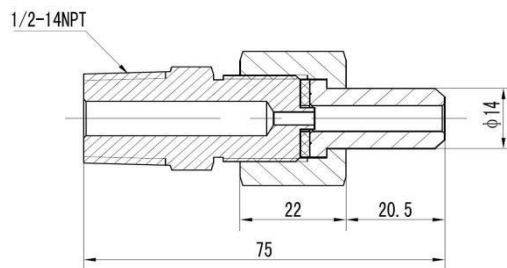
Stop Valve



Materials: 304 SST, 316 SST
 Pressure rating: 16MPa, 42MPa
 Input: 1/2NPT male/female thread, 1/4NPT male/female thread
 Output: 1/2NPT male/female thread, 1/4NPT male/female thread
 Vent/Drain: None, 1/4NPT female thread

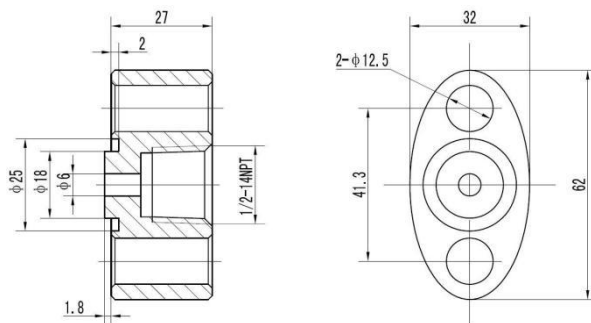
Other Accessories

1/2-14 NPT Connecting Block with Welded Tube



Oval Flange

Ellipse flanges are used to connect CXT series differential pressure, flow, level, pressure transmitters or valve sets and convert the transmitter process interface to 1/2-14NPT.



Pressure rating: 16MPa

Material: SUS304

Fluid temperature: (-40~150)°C

Process connection: 1/2-14NPT

FOUNDATION Fieldbus Communication

FOUNDATION eldbus is the digital communication line for the field instruments, whose signal is internationally standardized by Fieldbus Foundation. The Fieldbus bi-directional digital communication performance makes possible for the field instruments and the control devices to be a complete on-line system, superseding the existing analog transmission lines. CXT series differential pressure transmitters can also measure and transmit the static pressure value. Thus, based on FOUNDATION fieldbus specifications, CXT Fieldbus models offer more flexible instrumentation through a higher level communication capability and propose the cost reduction by multi-drop wirings with less cables.

Features

Interoperability

FOUNDATION fieldbus specifications grant the interoperability of the field instruments without preparing designated software for the instrument.

Multi-sensing function

CXT Fieldbus model, for example, has three independent AI function blocks for differential pressure and static pressure.

Multi-signal display (Applicable when digital indicator is specified)

Can be set according to user requirements display 100 components, unit of quantities.

Alarm function

CXT Fieldbus models securely support various alarm functions, such as high/low alarm, notice of block error, etc. based on FOUNDATION fieldbus specifications.

Self-diagnostic function

A reliable self-diagnostic function based on the NAMUR NE107 standard detects failures in the hardware of pressure sensor, temperature sensor of amplifier assembly, measuring range setting, and communications.

STANDARD SPECIFICATIONS

Output

Digital communication signal based on FOUNDATION fieldbus protocol.

Supply Voltage

9 to 32V DC for general use, flameproof type
9 to 24 V DC for intrinsically safe type Entity model

Communication Requirements

Supply Voltage: 9 to 32 V DC
Current Draw: 20 mA DC (max)

Response Time (for Primary Value)

150 ms

Update Period

Differential Pressure: 100 ms
Capsule Temperature: 120 ms
Amplifier Temperature: 5 s

Function Block

Block name	Number	Note
AI	3	The analog input function block is used to obtain the input data of the conversion block, perform various data conversion processing on it, and output

		the data in the desired form. There are three function blocks in the FF pressure transmitter.
TB	1	FF pressure transmitter has two multi-channel temperature sensor conversion blocks. The pressure conversion block uses pressure value and its own temperature data, and the converted data is provided to the AI function block for processing. The LCD conversion block is used for LCD display Settings.
RB	1	Resource blocks are used to describe the characteristics of field devices, such as device name, manufacturer, and serial number. The resource block has no input or output parameters.

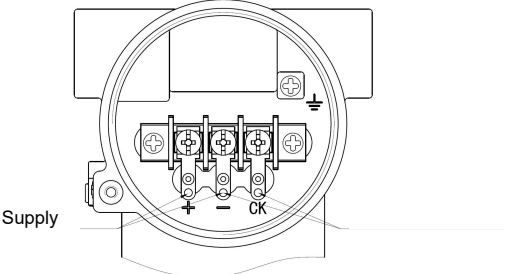
Functional Specifications

Functional specifications for Fieldbus communication conform to the standard specifications (H1) of FOUNDATION fieldbus.

Additional Information

The second position in the selection table of CXT models can select the signal output mode.

Wiring diagram



Symbol	Description
+ , -	Connects the output cable
CK	Not Used
⊕	An external terminal used for grounding.

Wireless HART Pressure Transmitter

Wireless HART communication adopts 2.4Ghz ISM frequency band wireless communication technology, in keeping the traditional HART transmitter two-line system communication, process measurement and other original functions, on the basis of the extension of the wireless communication function of the device. This wireless communication technology is the world's first internationally certified industrial wireless communication technology standard, and has also been recognized by the IEC as a publicly available communication specification. CXT series wireless HART pressure transmitter can transmit pressure, differential pressure, temperature and other parameters, providing more flexible communication functions, largely reduce the use of cables, to bring users more efficient and convenient wireless measurement solutions.

Features

Wireless Mesh network

Wireless HART network adopts Mesh network. All devices in the network have routing function, and usually have multiple routing paths, which are automatically allocated and maintained by the gateway. It has many advantages such as high real-time performance and high reliability.

AD hoc network Functions

Supports automatic device online, network status detection, and reconnection after disconnection. The gateway dynamically optimizes routes of each device based on the real-time routing status of the device.

Data Reliability

Wireless HART network data reliability > 99.9%.

Multiple configuration modes

The instrument can be configured through the manual operator, the corresponding upper computer software and the Web management page of the wireless gateway.

Alarm function

Support high and low alarm, modules abnormal alarm, etc.

STANDARD SPECIFICATIONS

Agreement

Complies with IEC 62591-WirelessHART Communication specifications.

Frequency range

2.405~2.483GHz (Channel number 15).

The power supply voltage

(3.6~5)VDC.

Antenna radio frequency power

The standard output is 10dBm, and the highest output is 13dBm.

Data update frequency

Adjustable within 1,2,4,8,16,32 seconds or 1~60 minutes.

Battery life

Not less than 2 years at 60s upload cycle, see manual for details.

Antenna Options

One piece omnidirectional antenna, teleport antenna.

Wireless communication distance

The maximum linear communication distance with the gateway is 200 meters (without obvious blocking and strong electromagnetic signal interference).

Gateway Compatibility

Compatible with WirelessHART communication specification compliant wireless gateways.

Enclosure protection level

IP66 / IP67

Explosion-proof type

The explosion-proof symbol of flameproof enclosure type transmitter is Ex db ia IIC T4...T6 Gb;

The explosion-proof symbol of Intrinsic safety type transmitter is Ex ia IIC T4 Ga;

The explosion-proof symbol of flameproof enclosure and intrinsic safety type transmitter is Ex db ia IIC T4...T6 Gb, Ex ia IIC T4 Ga;

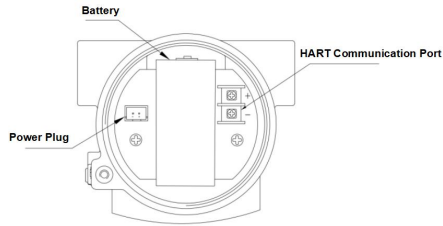
The explosion-proof symbol of dust-tight enclosure type transmitter is Ex tb IIIC T135°C...T85°C Db;

The explosion-proof symbol of dust intrinsic safety type transmitter is Ex ia IIIC T200/135°C Da;

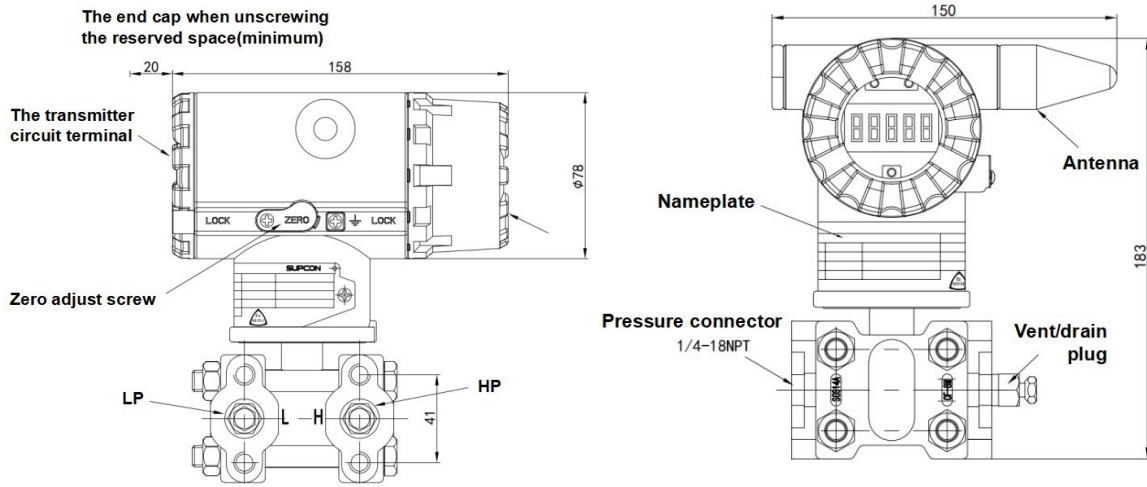
The explosion-proof symbol of Dust-tight enclosure and dust intrinsic safety type transmitter is Ex tb IIIC T135°C...T85°C Db, Ex ia IIIC T200/135°C Da.

Wiring Instructions

Note: Install the battery with the positive pole upright and upward, and the battery is positive at the end of the lead cable.



Dimension



Note: For the installation method, see the preceding specific models.

X207 HART Hand Held Communicator



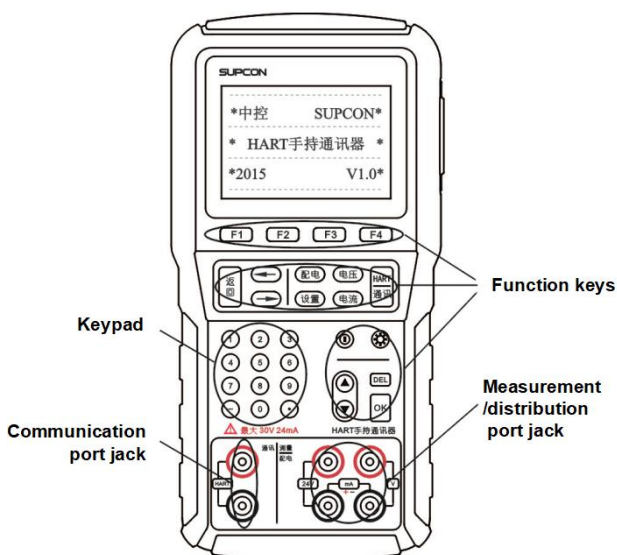
X207 HART handheld communicator fully conforms to the specification requirements of the second main equipment of HART protocol. It is a portable device for communicating with intelligent pressure transmitters following HART protocol. It is an essential tool for transmitter detection and parameter adjustment in industrial field. X207 not only supports basic commands such as reading device type, reading master variable, modifying bit number, and modifying range, but also supports general commands such as reading various process variables, modifying output mode, and special commands such as sensor adjustment and output adjustment.

X207 comes with voltage measurement, current measurement and distribution output functions, where the voltage and current measurement range is (0~10)V and (0~24)mA, the highest accuracy is $\pm 0.02\%$.

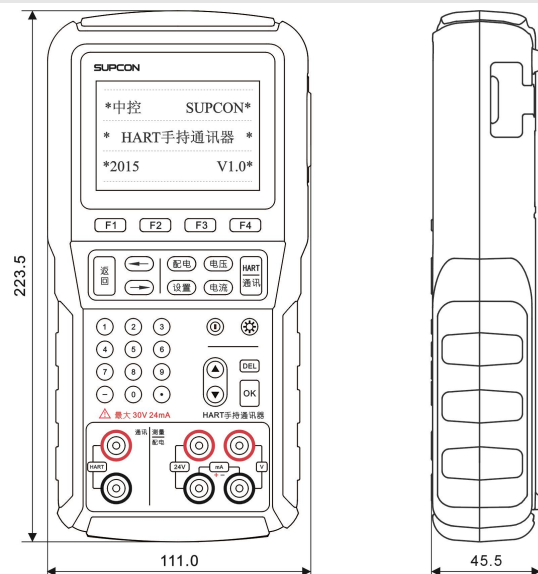
Functional Features

- Support HART protocol
- Accuracy: $\pm 0.02\%$
- 24V power distribution output
- Voltage/Current measurement
- Function Keys and numeric keys coexist
- 4.2 Ah lithium battery
- Miniaturized design, easy to carry
- Chinese Operation interface
- Battery power indicator
- 3.5-inch LED backlit LCD
- Integrated two-color shell, durable and easy to stain
- Universal Micro-USB charging interface with mobile phones

Panel Diagram



External Dimension



Standard Configuration

- X207 HART Hand Held Communicator
- CS probe
- Power adapter +Micro USB charge line
- Instruction manual
- Certificate of approval (warranty card)

Diagram of some optional accessories



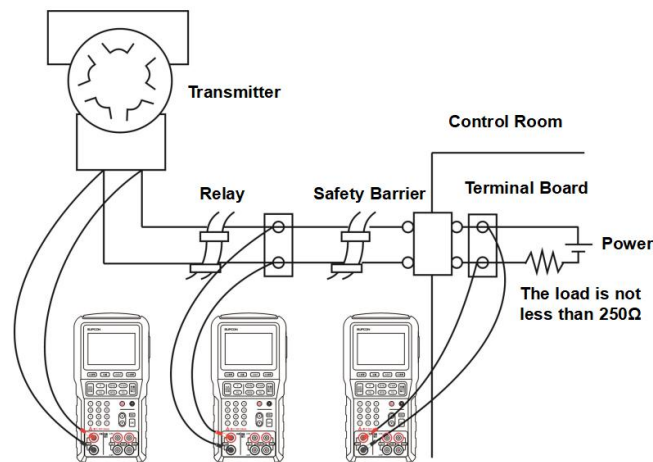
Model And Code Description

Noumenon	X207	Accuracy: ±0.02%
Options	TL	CS probe
	BG	Portable backpack

Composite Indicator

Working Temperature	-10°C~55°C
Storage Temperature	0°C~50°C
Relative Humidity (No Condensation)	90% (10°C~30°C)
	75% (30°C~40°C)
	45% (40°C~50°C)
	35% (50°C~55°C)
The Power Supply Requirements	<10°C, no Control
	Power adapter:(100~240)VAC HHC: 5V, 2A
Dimension	223.5mm×111mm×45.5mm
Weight	Approximately 670g
IP Rating	IP54

Application



The Transmitter Contact Medium Part Of The Corrosion - resistant Material

Selection Reference Table

Note:A--Good corrosion resistance; B--Moderate corrosion resistance;

C--Poor corrosion resistance; D--Not corrosion resistance;

Medium	Concentration %	Temperature °C	316L	Hastelloy C	Monel	Tantalum	Titanium	Medium	Concentration %	Temperature °C	316L	Hastelloy C	Monel	Tantalum	Titanium
Chlorine	Dry gas	25	B	A	B	A	C	Ammonium sulfate	<40	25	B	B	B	A	A
		100	B	B	B	A	C			100	B	B	B	A	C
	Moisture	25	C	B	C	A	A	Ammonium nitrate	10	25	A	B	C	A	×
		100	C	C	C	A	A			100	A	B	C	A	×
Chlorine Water	Saturated	Indoor Temperature	C	B	B	A	X	Ammonium carbon	100	25	B	B	B	A	A
Bromine	Dry	25	C	A	A	A	C	Ammonium chlorine		<40	100	B	B	B	A
		100	C	B	A	A	C		25		A	A	B	A	A
	Wet	25	×	A	C	A	C		100	100	A	A	B	A	A
		100	×	A	C	A	C			25	×	B	B	A	×
Phosphorus		25	A	A	C	×	×	Ammonium acetate	0~100	100	×	B	B	A	×
	100	A	×	C	×	×	25			A	A	A	×	×	
Sodium		370	A	A	A	A	A			100	A	A	A	×	×
Hydrochloric acid	100	25	A	A	A	A	B	Ammonium sulfite	<30	25	B	B	C	A	×
		100	A	A	A	A	B			100	B	B	C	A	×
Sulfur dioxide	10	25	A	A	C	×	A	Sodium sulfate	<40	25	A	A	A	A	A
		100	A	A	C	×	A			100	A	A	A	A	A
	90~100	25	B	B	C	×	A	Sodium carbonate	10	25	A	A	A	A	A
		100	B	B	C	×	A			100	A	A	A	A	A
Phosphorus trichloride	Dry	25	A	A	A	A	A	Sodium carbonate	100	25	B	B	B	A	×
		100	×	A	A	A	A			100	B	B	B	A	C
Arsenic trichloride	10	25	C	B	C	×	×	Sodium carbonate	<20	25	C	B	C	A	A
		100	C	B	C	×	×			100	C	B	C	A	A
Sodium peroxide	10	25	A	B	B	×	C	Sodium chloride	<30	25	B	B	A	A	A
		100	A	B	B	×	C			100	C	B	B	A	A
Disulfur dichloride	Wet		A	×	×	A	×	Sodium bisulfate	<30	25	A	B	B	A	A
Hydrogen sulfide	Wet	25	A	×	×	A	A			100	C	B	B	A	A
Methanol		25	A	A	A	A	A	Sodium nitrite		25	A	A	B	A	A
		100	A	A	A	A	A		100	A	A	B	A	A	
Ethanol		25	A	A	A	A	A	Sodium acetate	<60	25	A	B	A	A	A
		100	A	A	A	A	A			100	A	B	A	A	A
Formaldehyde	<70	25	A	B	A	A	A	Sodium benzoate	<60	25	B	B	B	B	B
		100	A	B	A	A	A			100	B	B	B	B	B
Acetaldehyde		25	A	A	A	A	A	Potassium	<20	25	A	A	A	A	A

Medium	Concentration %	Temperature °C	316L	Hastelloy C	Monel	Tantalum	Titanium	Medium	Concentration %	Temperature °C	316L	Hastelloy C	Monel	Tantalum	Titanium
		100	A	×	B	A	A	sulfate		100	A	A	A	A	A
Methoxymethane		25	B	B	B	A	A	Potassium nitrate	<100	25	A	B	B	A	A
		100	B	B	B	A	A			100	A	B	B	A	C
Diethyl ether		25	A	B	A	A	A	Potassium carbonate	<50	25	B	B	B	×	A
		100	A	B	A	A	A			100	B	B	B	C	A
Acetone		25	A	A	A	A	A	Potassium perchlorate	10	25	B	B	B	×	A
		100	A	A	A	A	A			100	B	B	B	×	A
2-Butanone	<100	25	B	B	B	A	A	Potassium chloride	<30	25	A	B	B	A	A
		100	B	B	B	A	A			100	A	B	B	A	A
Methyl formate	<30	25	B	B	B	B	A	Potassium bromide	<30	25	B	B	B	A	A
		100	B	B	B	B	A			100	B	B	B	A	A
Ethyl acetate		25	A	B	A	A	A	Potassium chromate	<30	25	B	A	B	A	A
		100	B	B	A	A	A			100	B	A	B	A	A
Methane		25	A	A	A	A	A	Potassium permanganate	10	25	B	B	B	×	A
		100	A	A	A	A	A			100	B	B	B	×	×
Benzene		25	B	B	A	A	A	Aluminium sulfate	<50	25	A	A	B	A	A
		100	B	B	A	A	A			100	A	A	C	A	A
Toluene		25	A	A	A	A	A	Aluminium chloride	0~100	25	B	A	A	A	B
		100	A	A	A	A	A			100	×	A	C	A	C
Phenol	90	25	B	A	B	A	A	Magnesium sulfate	<50	25	A	A	A	A	A
		100	B	A	B	A	A			100	A	A	A	A	A
Acrylonitrile		25	A	A	A	A	A	Magnesium nitrate		25	B	B	B	A	B
		100	A	A	A	A	A			100	B	B	B	A	B
Urea	<50	25	B	B	B	A	A	Copper dinitrate		Normal Temperature	B	×	×	×	B
		100	B	B	B	A	A	Cupric sulfate		Boiling Point	C	×	×	×	A
Nitroglycerin		25	A	A	A	A	A	Magnesium choride	<40	25	B	A	B	A	A
		100	A	×	×	A	×			100	B	A	B	A	A
α -Nitrotoluene		25	A	B	B	A	B	Calcium sulfate	10	25	A	B	B	A	A
		100	A	B	B	A	B			100	A	B	B	A	A
Sea		25	A	A	A	A	A	Calcium carbonate	100	25	B	B	B	A	A
		80	A	A	×	A	×			100	B	B	B	A	A
Salt Water		25	B	A	A	A	A	Calcium carbonate	100	25	B	B	B	A	A
		80	B	A	×	A	×			100	×	B	B	A	A
								Calcium phosphate	10	25	B	B	B	A	A
										100	B	B	B	A	A
								Calcium chloride	<80	25	B	A	A	A	A
										100	B	A	A	A	A
								Ferric chloride	30	25	C	B	C	A	A
										100	C	C	C	A	A
								Tetrachloromet hane	100	Boiling Point	A	B	A	×	A

Medium	Concentration %	Temperature °C	316L	Hastelloy C	Monel	Tantalum	Titanium	Medium	Concentration %	Temperature °C	316L	Hastelloy C	Monel	Tantalum	Titanium
Sulfuric acid	5	25	A	A	A	A	C	Formic acid	10	25	×	A	×	B	×
		100	C	B	B	A	C			100	×	A	C	B	×
	10	25	C	A	A	A	C		100	25	×	A	C	B	×
		100	C	C	B	A	C			100	×	A	C	B	×
	20	25	B	A	C	A	C	Acetic acid	<100	25	A	A	C	A	A
		100	C	C	X	A	C			100	A	A	C	A	A
	60	25	C	A	C	A	C		100	25	B	A	B	A	A
		100	×	C	×	A	C			100	B	A	B	A	A
	80	25	A	A	C	A	C	Propionic acid	60~90	25	B	A	B	A	C
		100	C	C	X	B	C			100	B	A	B	A	C
	98	25	B	A	C	A	C	Butyric acid		25	A	A	B	A	A
		100	×	A	×	A	C			100	A	A	B	A	A
	Fuming	25	C	B	C	C	C	Crotonic acid		25	B	B	B	A	×
		100	C	B	C	C	C			100	B	B	B	A	×
Nitric acid	10	25	A	B	C	A	A	Stearic acid		25	A	A	B	A	A
		100	A	B	C	A	A			100	A	A	×	A	A
	30	25	A	B	C	A	A	Fatty acids		25	A	A	B	A	A
		100	B	C	C	A	C			100	A	A	B	A	A
	68	25	A	A	×	A	A	Glycolic acid		25	B	B	B	A	A
		100	×	×	×	A	A			100	B	B	B	A	A
Fuming	25	×	×	×	A	C	Pyroligneous acid	10	25	A	B	B	A	×	
5	25	C	B	C	A	B			100	100	A	×	B	A	×
	100	C	C	C	A	C	25	B		A	B	A	×		
Hydrochloric acid	10	25	C	B	C	A	B	Chloroacetic acid	<70	25	C	B	B	A	×
		100	C	C	C	A	C			100	C	B	B	A	A
	20	25	C	B	C	A	B	100	25	B	A	B	A	A	
		100	C	C	C	A	C		100	×	A	B	A	A	
	35	25	C	B	C	A	C	<20	25	A	B	C	A	A	
		100	C	C	C	A	C		100	B	B	C	A	A	
Phosphoric acid	20	25	A	A	C	A	B	Lactic acid	>70	25	A	B	B	A	A
		100	A	A	C	A	C			100	B	B	B	A	A
	30	25	A	A	C	A	B	Oxalic acid	10	25	B	B	B	A	B
		100	B	A	C	A	×			100	C	B	B	A	C
	50	25	A	A	C	A	×	<50	25	B	B	B	A	A	
		100	B	A	C	A	×		100	B	B	B	A	A	
	70	25	A	A	C	A	×	Succinic acid	100	25	B	B	B	A	A
		100	C	B	C	A	C			100	B	B	B	A	A
	85	25	A	A	C	A	×	Benzoic acid	<70	25	B	A	B	A	A
		100	C	C	C	A	×			100	B	A	B	A	A
90	25	C	B	C	A	×	Citric acid	0~100	25	A	A	B	A	A	
	100	C	B	C	A	×									

Medium	Concentration %	Temperature °C	316L	Hastelloy C	Monel	Tantalum	Titanium	Medium	Concentration %	Temperature °C	316L	Hastelloy C	Monel	Tantalum	Titanium	
Hydrofluoric acid	5	25	C	C	A	C	C	Malic acid	0~100	100	A	A	B	A	A	
		100	C	C	B	C	C			25	A	A	A	A	A	
	40	25	C	A	A	×	C	Salicylic acid		25	B	B	B	A	×	
		100	C	C	A	×	C			100	B	×	B	A	×	
	90	25	C	B	×	×	C	Anthranilic acid		25	B	B	B	A	A	
		100	C	×	×	×	C			100	B	B	B	A	A	
Hydrogen bromide	<60	25	C	×	C	A	A	Benzenesulfonic acid	0~100	25	B	B	B	A	A	
		100	C	×	C	A	A			100	×	B	B	A	A	
Hydrogen cyanide		25	B	B	B	A	×	Naphthalenesulfonic acid	100	25	B	A	B	C	×	
		100	B	B	B	A	×			100	×	A	B	C	×	
Argon fluoro-hydride	5	Normal Temperature	×	×	A	×	×	Sodium hydroxide	10	25	A	A	A	C	A	
	48	Boiling Point	×	×	B	×	×			100	A	A	A	C	A	
Sulfurous acid		25	B	A	C	A	A		20	25	A	B	A	A	A	
Chlorosulfonic acid		25	B	B	C	A	A			100	A	B	B	B	B	B
		100	B	B	C	A	A		40	25	A	B	A	C	B	
Carbonic acid	10	25	B	A	A	A	A			70	25	A	A	A	C	B
		100	25	A	A	B	A		A		100	B	A	A	C	B
		100	A	×	A	A	A		Potassium hydroxide	<60	25	A	B	A	C	A
		25	C	B	C	A	A				100	A	B	A	C	A
Chromic acid	<50	100	C	B	C	A	A			100	25	A	B	A	C	B
		25	C	B	C	A	A	100			A	×	A	C	C	
		100	C	×	C	A	A	Aqueous ammonia	0~100	25	A	A	A	×	A	
		25	C	B	C	A	×			100	B	A	A	×	A	
Chloric acid	10	25	C	×	C	A	×	Calcium dihydroxide	<50	25	A	A	B	A	A	
		100	C	×	C	A	×			100	A	A	B	A	A	
Hypochlorous acid		25	C	A	C	A	A	Magnesium hydroxide	100	25	A	A	A	A	A	
		100	C	×	C	A	×			100	A	A	A	A	A	
Boric acid	0~100	25	A	A	B	A	A	Lithium hydroxide	10	25	B	B	B	×	×	
		100	A	A	B	A	A			100	B	B	B	×	×	
Chlorosulfonic acid	10	25	C	B	C	A	×	Aluminium hydroxide	10	25	A	B	B	A	A	
		100	C	×	C	A	×			100	A	B	B	A	A	
	100	25	B	A	C	A	×									
		100	B	A	C	A	×									
Chromium	20	25	×	A	×	A	×									
		100	×	×	×	A	×									
Aqua regia		25	C	C	C	A	A									
		100	C	C	C	×	B									
Nitric acid+Sulfuric acid		25	×	×	×	A	×									

Conversion Table

Units	psi	inH ₂ O	inHg	kPa	mbar	mmH ₂ O	mmHg
1 psi	1.000	27.680	2.036	6.8947	68.947	703.08	51.715
1 inH ₂ O	3.613×10^{-2}	1.000	7.355×10^{-2}	0.2491	2.491	25.4	1.8683
1 inHg	0.4912	13.596	1.000	3.3864	33.864	345.32	25.400
1 kPa	0.14504	4.0147	0.2953	1.000	10.000	101.973	7.5006
1 mbar	0.0145	0.40147	0.02953	0.100	1.000	10.1973	0.75006
1 mmH ₂ O	1.422×10^{-3}	0.03937	2.896×10^{-3}	9.806×10^{-3}	0.09806	1.000	0.07335
1 mmHg	1.943×10^{-2}	0.53525	3.937×10^{-2}	0.13332	1.3332	13.595	1.000
1 atm(std)	14.696	406.789	29.921	101.325	1013.25	10332	760

SUPCON

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