

Pressure Sensors Catalog



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UPB1 General Silicon Pressure Transmitter

Description

Based on piezo-resistive silicon technology, UPB1 silicon pressure transmitter uses isolated stainless steel diaphragm as sensing element. This product is fully tested by computer automatically, and trimmed by laser for zero and sensitivity in a wider temperature range. Its amplifier circuit is built in stainless steel housing, to transform sensor signal into standard output signal. This transmitter features integrated construction, rigid and robust, high measuring accuracy, good long term stability, and is suitable for pressure measurement in general industry applications.

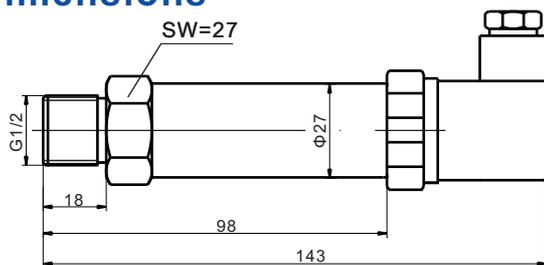
This product is widely used for pressure measurement and control of petroleum, chemical-industry, metallurgy, power station and hydrology, etc.



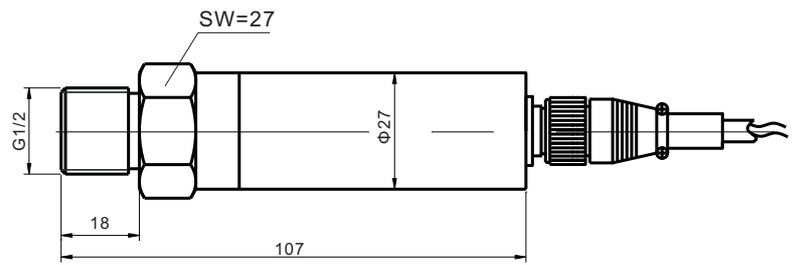
Features

- Full stainless steel construction
- Suitable for the measurement of low pressure and vacuum pressure
- Automatic testing, laser trimming compensating zero & sensitivity
- Against thunder stroke, against radio-frequency interference
- Anti-corrosion, anti-abrasion, anti-impact
- Reversed-polarity, transient current & voltage protection

Dimensions

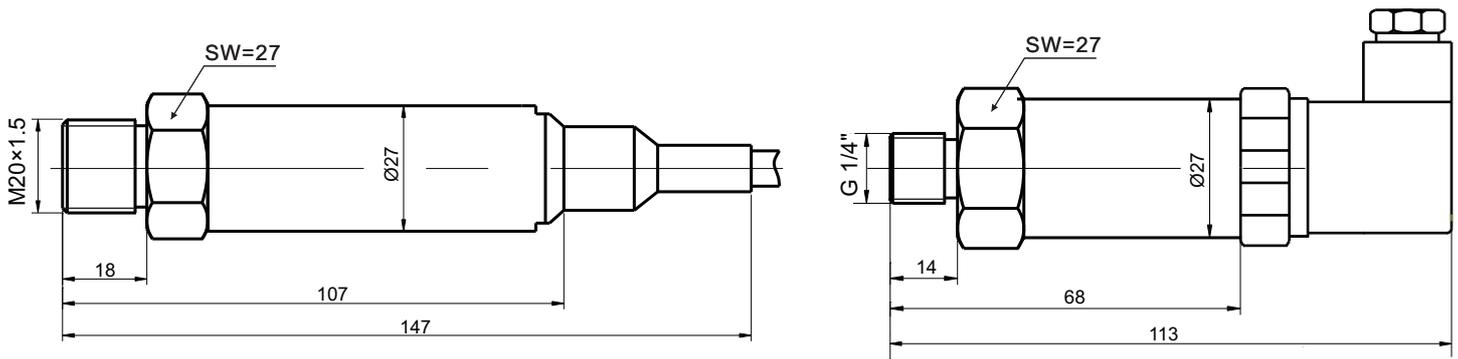


hirschmann connector



aviation connector

UPB1 General Silicon Pressure Transmitter



water-proof connector

hirschmann connector

note: this product can be made according to customer required dimensions

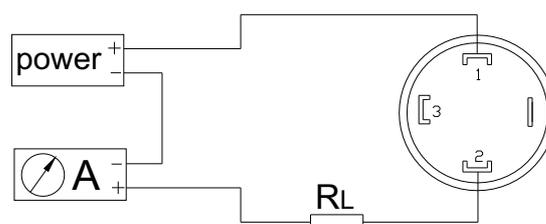
Specifications

pressure medium	gas or liquid compatible to stainless steel
pressure ranges	-1...0~0.1...600bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
output signal	4~20mA, 0~5V, 0~10V, 1~5V, 0.5~4.5V
accuracy	0.1%FS, 0.25%FS(standard), 0.5%FS
load resistance	$R_L = (U - 12V) / 0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	12~36VDC
compensated temperature range	0~70°C
operating temperature range	-30~80°C
storage temperature range	-40~120°C
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	G1/2 or others
electrical connection	DIN43650 or others
material of wetted part	1Cr18Ni9Ti
material of pressure membrane	316L
material of housing	1Cr18Ni9Ti
sealing	n-Butyronitrile or fluoro-rubber sealing ring

Electrical connection

connection cable color(pin)

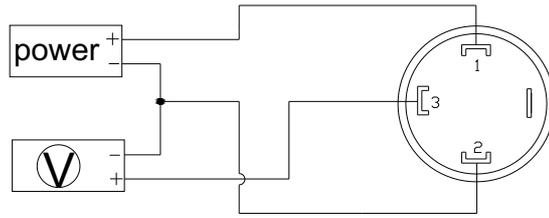
power“+” red(1)
 signal“+” black(2)



wiring drawing of 2-wire 4~20mA output (hirschmann connector)

UPB1 General Silicon Pressure Transmitter

connection	cable color(pin)
power “+”	red(1)
signal “+”	blue(3)
GND	yellow(2)



wiring drawing of 3-wire 0~5V output (hirschmann connector)

Ordering code

UPB1	
range	measuring range: -1...0bar~0.1...1000bar
(X1~X2)bar	X1: lower limit of actual measuring range, X2: higher limit of actual measuring range
code	pressure type
G	gauge
A	absolute
S	sealed gauge
code	accuracy
B	0.1%FS
C	0.25%FS
D	0.5%FS
code	output
O1	4~20mA
O2	0~5V
O3	1~5V
O4	0~10V
O5	0.5~4.5V
Oz	customer request
code	others
E1	hirschmann connector
E2	aviation connector
E3	water-proof connector
E4	cable(lock nut)
Ez	other electrical connection
D1	3-1/2LCD digital indicator
D2	3-1/2LED digital indicator
I1	intrinsic safe (Exia II CT6)
P1	G1/4
P2	G1/2
P3	1/4NPT
P4	M20×1.5
P9	flange type
Pz	customer request
UPB1	(0~10)bar G D O1 E1(D2I1)*P2

*:the user determines whether to choose the options in the parenthesis according to the working site

UPB2 Sanitary Pressure Transmitter

Description

UPB2 sanitary pressure transmitter uses piezoresistive silicon chip as sensing element. UPB2 has clamping type, M21×1.5 thread type, and flange type for options. Its output signal can be made standard voltage output signal, or current output signal, or frequency output signal.

This product is made with flush membrane structure, UPB2 have good ability on preventing fouling, crystallization and jamming of thick liquids.

UPB2 is widely used in food, medicine, health and wine industry etc.



type I



type II



type III

Features

- Pressure ranges: -1...0~0.1...350bar
- Flush membrane structure without input pressure hole & cavity
- Automatic testing and laser trimming compensating
- High accuracy, high strength, sanitary type, against fouling, dimensions can be customized.
- Has different output signals
- Pressure type: gauge pressure, absolute pressure, sealed gauge pressure

Specifications

pressure medium	gas or liquid compatible with stainless steel
pressure ranges	-1...0~0.1...350bar
overload pressure	150%FS
output signal	4~20mA, 0~5V, 0~10V, 1~5V
accuracy	0.25%FS, 0.5%FS(standard)
load resistance	$R_L = (U - 12V) / 0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	12~36VDC
compensated temperature range	0~70°C
operating temperature range	-30~+85°C
measured media temperature range	-40~+125°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.3%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	G1/2 or others
electrical connection	hirschmann connector or others
material of wetted part	316 stainless steel
material of pressure membrane	316L stainless steel
material of housing	stainless steel or aluminium alloy

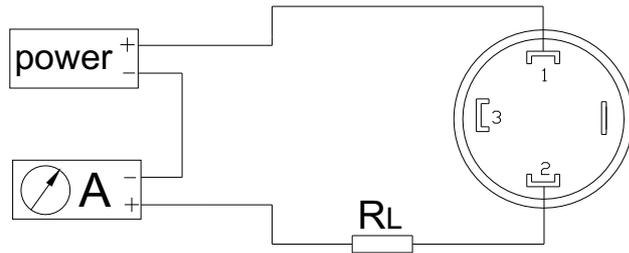
UPB2 Sanitary Pressure Transmitter

Electrical connection

connection cable color(pin)

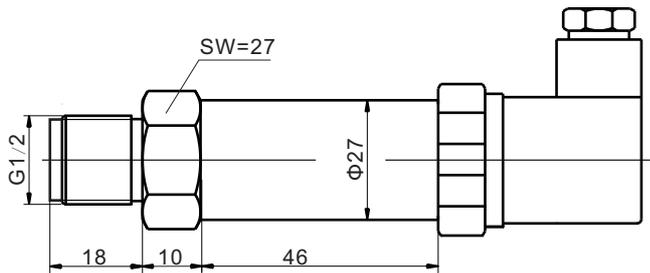
power“+”
signal“+”

red(1)
black(2)



wiring drawing of two-wire 4~20mA output (hirschmann)

Dimensions



Ordering code

UPB2-I	type I				
UPB2-II	type II				
UPB2-III	type III				
	range	measuring range: -1...0~0.1...350bar			
	(X1~X2)bar	X1: lower limit of actual measuring range,X2:higher limit of actual measuring range			
	code	output			
	O1	4~20mA			
	O2	0~5V			
	O3	1~5V			
	O4	0~10V			
	code	accuracy			
	B	0.1%FS			
	C	0.25%FS			
	D	0.5%FS			
	code	process connection			
	P2	G1/2			
	P4	M20×1.5			
	Pc	2" clamp			
	Pz	customer request			
	code	electrical connection			
	E1	hirschmann connector			
	E2	aviation connector			
	E3	shielded PVC cable			
	Ez	customer request			
UPB2-I	(0~200)bar	O1	D	P2	E1

UPB3 Ceramic Pressure Transmitter

Description

UPB3 ceramic pressure transmitter is made integrated structure by using high quality thick-film ceramic sensors and special amplified circuits. The output of UPB3 is configured to 4~20mA current loop, or 0~5Vdc, or 0~10Vdc, or 1~5Vdc voltage signals. The pressure diaphragm of this transmitter is made from ceramic material, while its wetted parts is made from 316L stainless steel. Because of the thermal stability of ceramic and its thick-film resistance, the transmitter can be operated in a higher temperature range; at the same time, this also makes the zero & sensitivity thermal shifts over the whole operating temperature range of the transmitter is very small.

The compensated temperature range of UPB3 is 0~70°C, UPB3 is designed for use in most industrial application, and this product is suitable for measurement of most pressure medium (including corrosive medium) directly.

Features

- Many measuring pressure range
- Wide application scope and long service life
- Automatic testing and laser trimming compensating zero & sensitivity
- High accuracy & long-term stability
- Good ability on anti-corrosion & anti-impact



Specifications

pressure medium	gas or liquid compatible with ceramic and stainless steel
pressure ranges	0~1bar...200bar
overload pressure	150%FS
output signal	4~20mA, 0~5V, 0~10V, 1~5V
accuracy	0.25%FS, 0.5%FS(standard)
load resistance	$R_L = (U - 12V) / 0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	12~36VDC
compensated temperature range	0~70°C
operating temperature range	-30~95°C
storage temperature range	-40~100°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.3%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	G1/4 or others
electrical connection	hirschmann connector or others
material of wetted part	1Cr18Ni9Ti
material of pressure membrane	ceramic
material of housing	1Cr18Ni9Ti
sealing	n-Butyronitrile or fluoro-rubber sealing ring

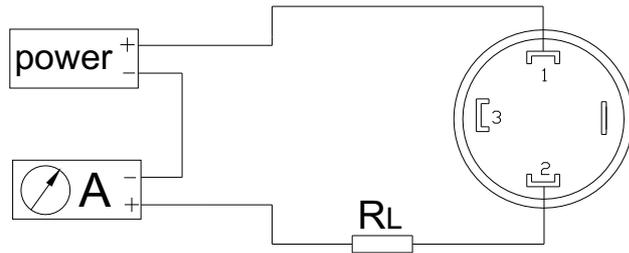
UPB3 Ceramic Pressure Transmitter

Electrical connection

connection cable color(pin)

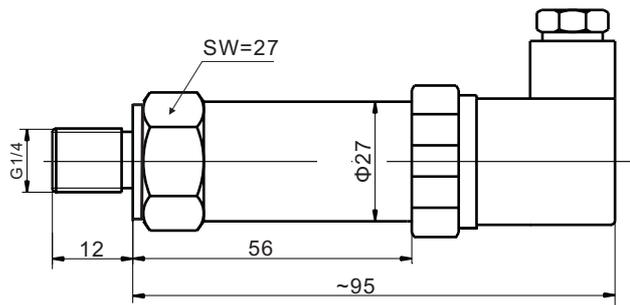
power“+”
signal“+”

red(1)
black(2)



wiring drawing of two-wire 4~20mA output (hirschmann)

Dimensions



note: this product can be made according to customer's required dimensions.

Ordering code

UPB3							
	range (0~X)bar	measuring range: 0~1bar...200bar					
		X: required measuring range					
		code	output				
		O1	4~20mA				
		O2	0~5V				
		O3	1~5V				
		O4	0~10V				
			code	accuracy			
			C	0.25%FS			
			D	0.5%FS			
			code	process connection			
			P1	G1/4			
			P3	1/4NPT			
			P4	M20×1.5			
			Pz	customer request			
				code	electrical connection		
				E1	hirschmann connector		
				E2	aviation connector		
				E3	shielded PVC cable		
				Ez	customer request		
UPB3	(0~200)bar	O1	D	P3	E1		

UPB4 High Frequency Response Pressure Transmitter

Description

UPB4 high frequency response pressure transmitter is made of UPC4 high frequency response and special amplifying circuit with high frequency characteristic, its frequency response characteristic has been decided by these two parts.

UPB4 high frequency response pressure transmitter's dynamic frequency response is extremely high (max.1MHz), it may response to the lowest to zero frequency, highest to almost natural frequency, and the level rising time is only microsecond. The special-purpose amplifying circuit's natural frequency is also reach 1MHz(max.), the concrete resonance frequency concerns with its enlargement's multiple.

UPB4 series pressure transmitter is suitable for dynamic pressure real-time measurement in the military engineering, melt exploding experiment, petroleum, oil well logging, the material, mechanics, construction engineering, soil and rock mechanics, wound medicine, hydraulic pressure power generator experiment, and in modernization instruments and meters etc.

Features

- Based on MEMS silicon chips
- High accuracy high reliability
- Flush structure option, good dynamic frequency response
- Good long term stability



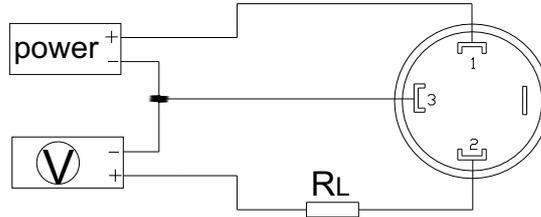
Specifications

dynamic frequency response	1MHz max.
pressure medium	gas or liquid compatible to stainless steel
pressure ranges	0~0.1bar...1000bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	≥200%FS
output signal	0~5V and other voltage output signal
accuracy	0.1%FS, 0.25%FS, 0.5%FS(standard)
long-term stability	<0.2%FS/year
power supply	12~32VDC
compensated temperature range	0~70°C
operating temperature range	-10~80°C
storage temperature range	-40~100°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.3%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	M20×1.5 or others
electrical connection	hirschmann or other
material of wetted part	1Cr18Ni9Ti
material of housing	1Cr18Ni9Ti

UPB4 High Frequency Response Pressure Transmitter

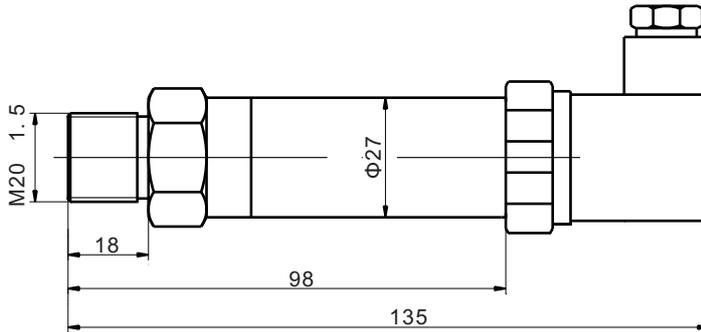
Electrical connection

connection
 power “ + ” : red (1)
 signal “ + ” : yellow (2)
 GND: black (3)



wiring of 3-wire 0~5V voltage output(hirschmann connector)

Dimensions



Ordering code

UPB4						
	range	measuring range: 0~0.1bar...1000bar				
	(0~X)bar	X: high limit of actual measuring range				
		code	pressure type			
		G	gauge			
		A	absolute			
		S	sealed gauge			
			code	accuracy		
			B	0.1%FS		
			C	0.25%FS		
			D	0.5%FS		
			code	process connection		
			P1	G1/4		
			P4	M20×1.5		
			P6	M12×1		
			Pz	customer request		
				code	electrical connection	
				E1	hirschmann connector	
				E2	aviation connector	
				E3	hummel connector	
				Ez	customer request	
UPB1	(0~10)bar	G	D	P1	E1	

UPB7 Strain Gauge Pressure Transmitter

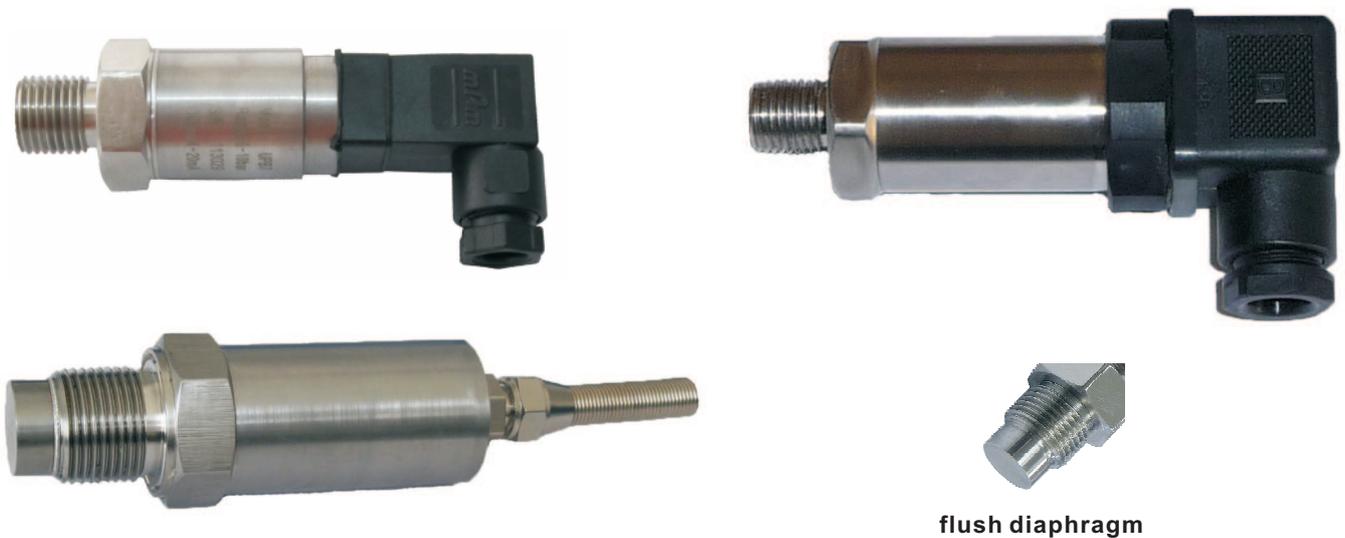
Description

UPB7 strain gauge pressure transmitter uses advanced metal foil strain gauges as sensing element. Those strain gauges consist a Wheatstone bridge and can feel the changes of the strain gauge's resistance and convert these changes to "mV" electrical signal, the signal will be amplified to standard current or voltage output after it is conducted by the special amplifiers.

As the sizes of strain gauges are very small and can be designed so many different types to suit different situations, the transmitter's pressure port is designed flush diaphragm or cavity for user's option, the application of UPB7 strain gauge pressure transmitter is very wide these days, it is suitable for the measurement of middle pressure and high pressure .

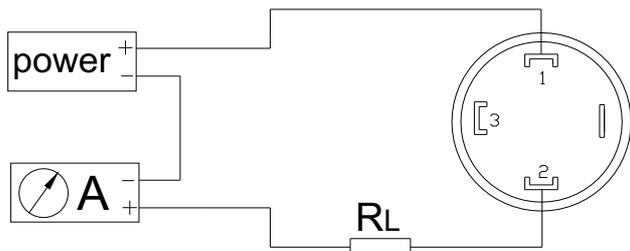
Features

- Good sealing, high accuracy
- Wide application scope, long service life
- Good long term stability
- Anti-corrosion, anti-attrition, anti-impact
- Suitable for the measurement of middle pressure and high pressure



Electrical connection

<u>connection</u>	<u>cable color(pin)</u>
power“+”	red(1)
signal“+”	black(2)



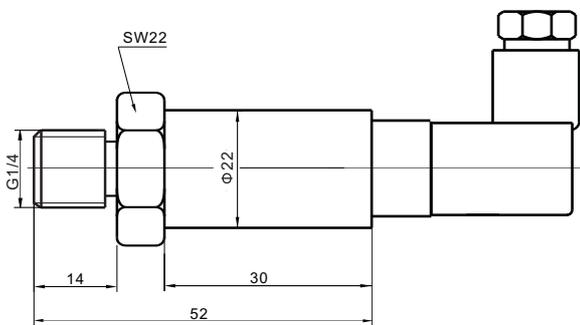
wiring drawing of 2-wire 4~20mA output (hirschmann connector)

UPB7 Strain Gauge Pressure Transmitter

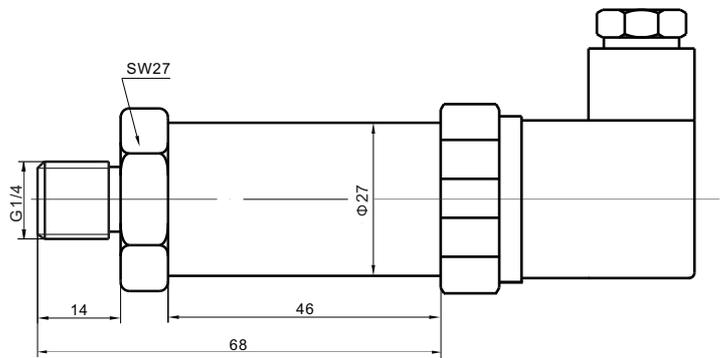
Specifications

pressure medium	gas or liquid compatible to stainless steel
pressure ranges	0~10bar...5000bar
overload pressure	150%FS
output signal	4~20mA, 0~5V, 0~10V, 1~5V
accuracy	0.1%FS, 0.25%FS, 0.5%FS(standard)
load resistance	$RL=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	12~36VDC
compensated temperature range	-10~+60°C
operating temperature range	-20~80°C
storage temperature range	-30~100°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.3%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	G1/4 or others
electrical connection	hirschmann or others
material of wetted part	1Cr18Ni9Ti/17-4PH
material of pressure membrane	17-4PH
material of housing	1Cr18Ni9Ti

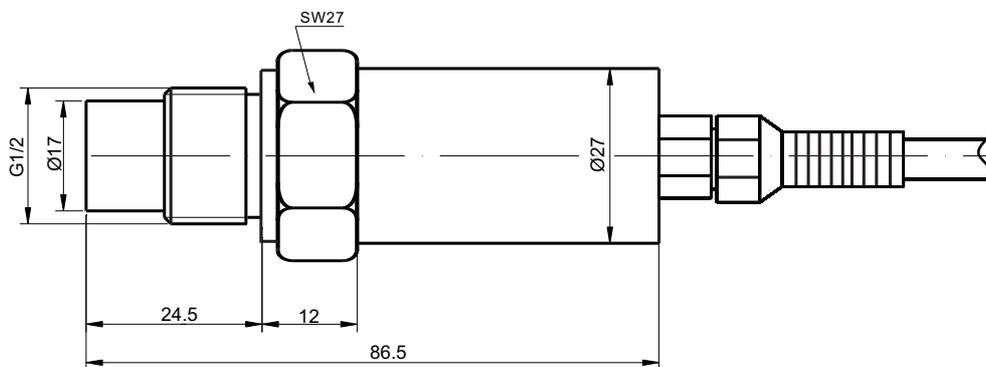
Dimensions



inner cavity type(diameter: 22mm)

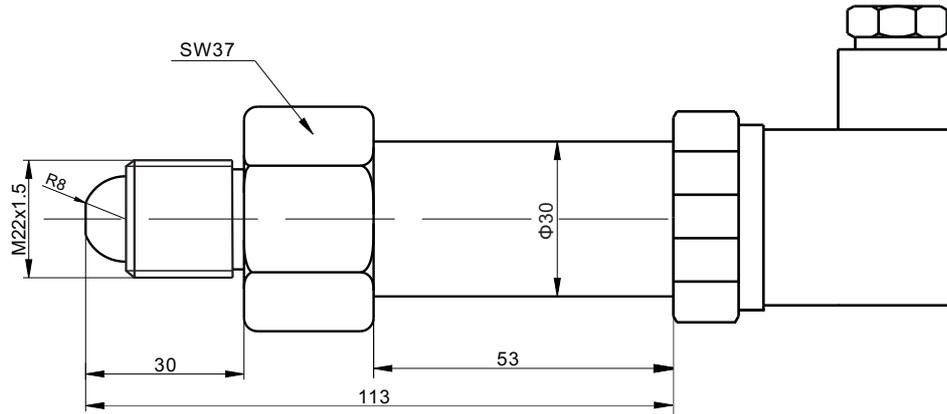


inner cavity type(diameter: 27mm)



flush diaphragm type (range: 0~10...1200bar, suitable for the measurement of fluid with grains such as slurry etc)

UPB7 Strain Gauge Pressure Transmitter



high pressure type (range: 0~500. . . 5000bar)

Ordering code

UPB7	
range	measuring range: 0~10bar...5000bar
(0~X)bar	X: actual measuring range
code	accuracy
B	0.1%FS
C	0.25%FS
D	0.5%FS
code	output
O1	4~20mA
O2	0~5V
O3	1~5V
O4	0~10V
O5	0.5~4.5V
Oz	customer request
code	others
E1	hirschmann connector
E2	aviation connector
E3	shielded PVC cable
Ez	other electrical connection
D1	3-1/2LCD digital indicator
D2	3-1/2LED digital indicator
P1	cavity type G1/4
P2	cavity type G1/2
P4	cavity type M20×1. 5
P7	cavity type M22×1. 5(for high pressure)
P8	flush diaphragm(G1/2):0~10...1200 bar
Pz	customer request
UPB7	(0~100)bar D O1 E1(D2)*P4

*: The user determines whether to choose the options in the parenthesis according to the working site.

** : Please indicate on the order sheet if the user have any special requirement.

UPB8 High Temperature Pressure Transmitter

Description

UPB8 high temperature pressure transmitter is designed for the measurement of high temperature medium, it uses special pressure sensors whose pressure diaphragm can be contacted by pressure medium directly. This product uses temperature radiation to isolate its amplifying circuits, this not only guarantees UPB8's small volume and good performance, but also make this product enhance the measured medium temperature range.

The performance of UPB8 is very reliable after strict tests and aged screening, it is suitable for pressure measurement in many industrial sites. UPB8 high temperature pressure transmitter presently is widely used for measurement of high temperature gas or liquid in aerospace, petroleum chemical industry, metallurgy, electric power, food, medicine, scientific research etc.



Features

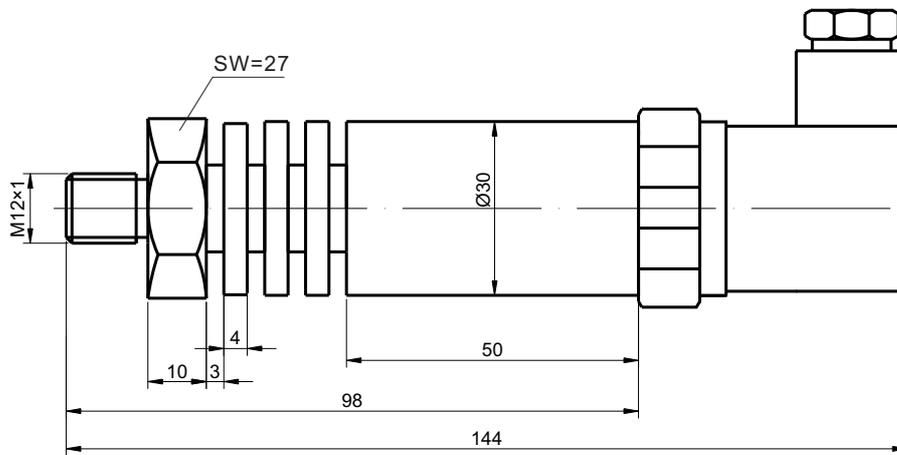
- Suitable for the measurement of high temperature (max. 175°C), low temperature, and normal temperature medium
- Reliable performance, good long-term stability
- Anti-impact, anti-vibration, anti-corrosive
- Reversed polar protection and current limiting protection

Specifications

pressure medium	gas or liquid compatible to stainless steel
pressure ranges	-1...0~0.04bar...1000bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	200%FS and 150MPa (choose smaller)
output signal	4~20mA, 1~5V
accuracy	0.25%FS, 0.5%FS(standard)
load resistance	$R_L=(U-10V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.5%FS/year
supply voltage	10~30VDC
operating temperature range	-40~+135°C
medium temperature range	-20~+145°C or -20~+175°C
temperature coefficient of zero	0.25%FS/10°C
temperature coefficient of span	0.25%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	G1/2 or others
electrical connection	hirschmann connector or others
material of wetted part and housing	1Cr18Ni9Ti
response time	<1ms

UPB8 High Temperature Pressure Transmitter

Dimensions



Ordering code

UPB8					
	range	measuring range: -1...0~0.04...1000bar			
	(X1~X2)bar	X1: lower limit of actual measuring range, X2: higher limit of actual measuring range			
	code	pressure type			
	G	gauge			
	A	absolute			
	S	sealed gauge			
	code	accuracy			
	C	0.25%FS			
	D	0.5%FS			
	code	output			
	O1	4~20mA			
	O2	0~5V			
	O3	1~5V			
	Oz	customer request			
	code	other			
	P1	G1/4			
	P2	G1/2			
	P3	1/4NPT			
	P4	M20×1.5			
	Pz	customer request			
UPB8	(-1~10)bar	G	D	O1	P2

UPB9 Industrial Pressure Transmitter

Description

UPB9 pressure transmitter uses high quality pressure sensors with isolated stainless steel diaphragm as sensing elements, it is tested by computer automatically and made laser trimming compensation for zero and sensitivity. The output of UPB8 is amplified to 4~20mA standard output by using special amplifier, simultaneously the output signal can be displayed through LCD indicator at working site.

After long-term aging tests and stability tests, this product's performance is very reliable, it is suitable for the pressure measurement and control in bad working conditions, and presently widely used in petroleum, chemical industry, metallurgy, electric power etc.

Features

- 31/2 LED displaying at working site, simultaneously give 4~20mA signal output
- High performance-to-price ratio, high accuracy, long-term stability
- Electric shell is cast-aluminium material , IP65 protection
- Reversed protection, current limiting protection
- Anti-corrosive, the anti-attrition, the anti-impact
- Flush membrane and the tantalum diaphragm option

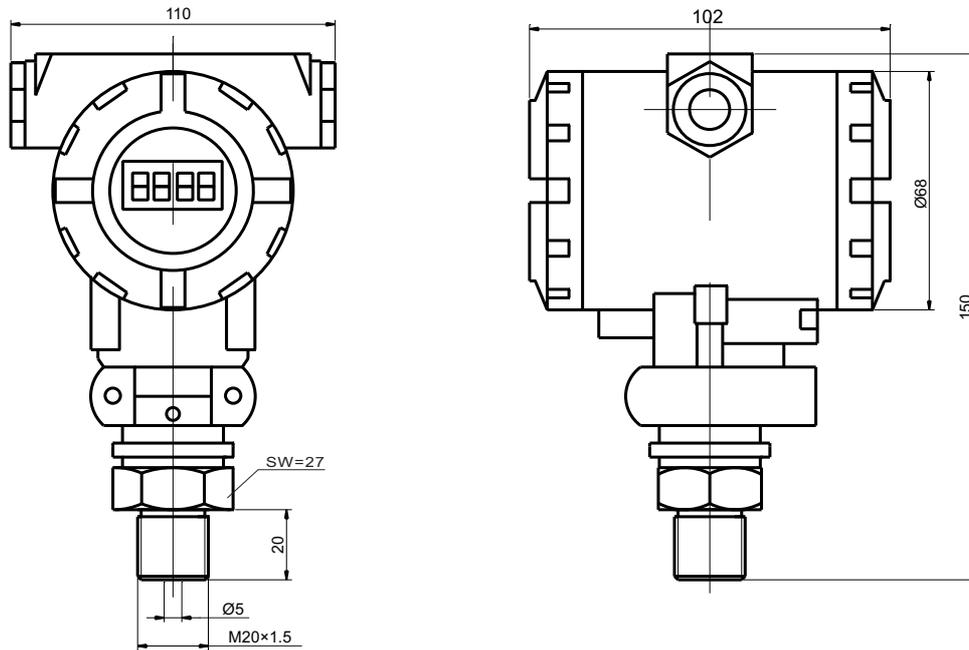
Specifications

pressure medium	gas or liquid compatible to stainless steel
pressure ranges	-1...0bar~0.1...600bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS~300%FS(determined by measuring range)
output signal	4~20mA, 0~5V, 0~10V, 1~5V
accuracy	0.25%FS, 0.5%FS(standard)
load resistance	$RL=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	12~36VDC
compensated temperature range	0~70°C
operating temperature range	-30~95°C
storage temperature range	-40~100°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.3%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	G1/2 or others
electrical connection	M20×1.5(female thread)
material of wetted part	1Cr18Ni9Ti
material of pressure membrane	316L
material of housing	cast aluminium
sealing	fluoro-rubber sealing ring



UPB9 Industrial Pressure Transmitter

Dimensions



Ordering code

UPB9		range	measuring range: -1...0~0.35...600bar		
		(X1~X2)bar	X1: lower limit of actual measuring range, X2: higher limit of actual measuring range		
			code	pressure type	
			G	gauge	
			A	absolute	
			S	sealed gauge	
			code	accuracy	
			C	0.25%FS	
			D	0.5%FS	
			code	output	
			O1	4~20mA	
			O2	0~5V	
			O3	1~5V	
			O4	customer request	
			code	others	
			P2	G1/2	
			P4	M20x1.5	
			Pf	flange	
			Pz	customer request	
			I1	intrinsic safe	
			I2	flame proof	
			M1	3-1/2LCD indicator	
			M2	3-1/2LED indicator	
UPB9	(-1~10)bar	G	D	O1	P2(I1M1)

*: the users determines whether to choose the options in the parenthesis option according to the working site.

UPB11 Ceramic Capacitive Pressure Transmitter

Description

UPB11 series ceramic capacitive pressure transmitters uses advanced ceramic capacitive sensor as sensing element. Coordinating high accuracy electronic components, UPB11 pressure transmitters are assembled through strict technological process.

By using dry-type (without Intermediate liquid) pressure measurement technology, and heavy film electronic technology, as well as SMT (surface mounting technology) technology & PFM signal transmission technology, UPB11 series pressure transmitters have displayed the technical superiority of ceramic capacitive pressure transmitter fully, and also enables UPB11 have outstanding technical performances.

UPB11 series ceramic capacitive pressure transmitters have been widely used in the industries such as petroleum, chemical, metallurgy, electric power, drugs manufacturing, food etc.

Features

- Good ability of anti-overload pressure and anti-impact
- Using imported ceramic capacitive sensor as sensing element, output signal is big, High combined error and good stability
- Small temperature drift
- Wide pressure ranges from 5mbar to 1000bar, optional negative pressure range to positive range
- Without pollution, suitable for food and medicine industries
- Good ability on anti-jamming, waterproof, dust-proof, quake-proof, explosive-proof, anti-corrosion
- Intrinsic safety ExialICT5

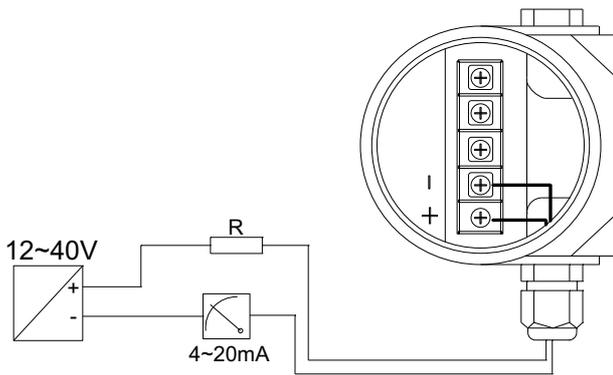
Specifications

pressure medium	gas or liquid compatible with stainless steel and ceramic
pressure ranges	-1bar...0~5mbar...1000bar
overload pressure	300%FS~10000%FS(determined by measuring ranges)
output signal	4~20mA, 0~5V, 0~10V, 1~5V
accuracy	0.25%FS, 0.5%FS(standard)
load resistance	$R_L=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	12~36VDC
environment temperature range	-20~+80°C
operating temperature range	-40~+85°C
measured media temperature range	-40~+125°C
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	G1/2 or others
electrical connection	M20×1.5(female thread) or 1/2NPT(female thread)
material of wetted part	316 stainless steel
material of housing	aluminium alloy
protection	IP65

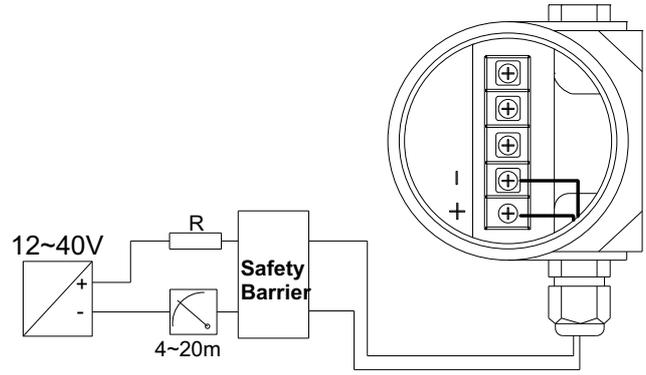


UPB11 Ceramic Capacitive Pressure Transmitter

Electrical connection



electrical connection without explosive-proof



electrical connection with explosive-proof

Ordering code

UPB11						
range	measuring range: -1...0bar~0.005...1000bar					
(X1~X2)bar	X1:lowe limit of actual measuring range, X2:higher limit of actual measuring range					
code	output					
O1	analog output: 4~20mA					
H	4~20mA with HART Protocol					
code	accuracy					
B	0.1%FS					
C	0.25%FS					
D	0.5%FS					
code	process connection					
P2	G1/2					
P4	M20×1.5					
P9	flange type					
Pt	thread screwing in type					
Pk	clamping type					
Pq	quick screwing type					
Pz	customer request					
code	material of wetted part					
A	1Cr18Ni9Ti					
B	316L					
C	hastelloy-C					
D	brass					
Z	customer request					
code	Other functions					
M0	without display meter					
M1	poniter meter					
M2	digital meter					
D0	no explosive-proof					
D1	intrinsic safety					
UPB11	(0~200)bar	O1	D	P2	A	M0D1

UMPB Series Melt Pressure Transmitter

Description

UMPB series melt pressure transmitters are developed from strain gauge technology. The UMPB are constructed with a full bridge strain gauge circuit and 100% made from stainless steel material. In addition, the pressure diaphragm features a surface treatment with special alloy coating for all the UMPB models. Both the rigid stem and flexible extension provide thermal isolation to UMPT's electronic circuitry, which enable UMPB suitable for melt pressure and melt temperature measurements.

UMPB-a melt pressure transmitter can work with digital pressure meters, so as to realize the measurement & control for pressure. With internal 80%FSO shunt calibration, UMPB-a's zero and span is adjustable, and its amplified output signal can be inputted to PLC directly. Because of its features of high accuracy of pressure measurement, this product is widely popular in oversea and home market.

UMPB-b melt pressure transmitter is manufactured by using a temperature sensor based on UMPB-a, suitable for melt pressure and temperature measurement. Its performance is same as UMPB-a.

UMPB-c melt pressure transmitter is manufactured by using flexible extension based on UMPB-b, providing further thermal isolation for electronic circuitry. Its performance is same as UMPB-a.

UMPB-d melt pressure transmitter is manufactured by using a temperature sensor based on UMPB-c, suitable for melt pressure and melt temperature measurements. Its performance is same as UMPB-c.

UMPB series melt pressure transmitters are widely used for melt pressure measurement and control in chemical fiber equipments, plastic and rubber manufacturing equipments, medicine equipments, food processing equipment etc.

Features

- Integrated stainless steel construction ;
- Good stability & realibility;
- Internal shunt calibration signal of 80%fso;
- Hastelloy-C diaphragm available on special request;
- Zero & span adjustable;



UMPB-a



UMPB-b

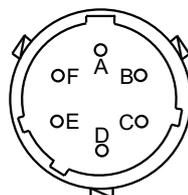


UMPB-c



UMPB-d

Electrical connection



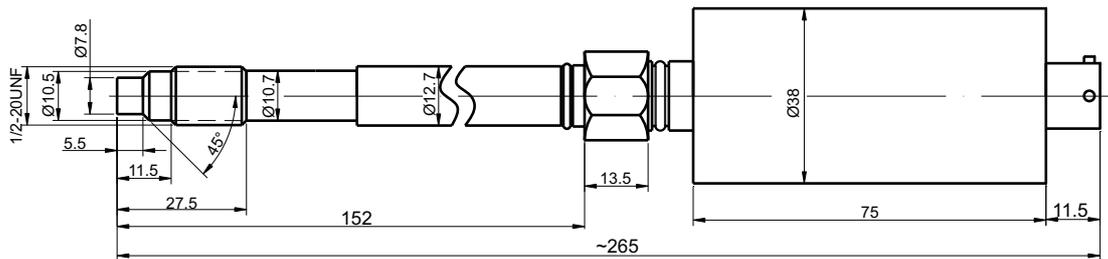
6-pin male connector YLH25N1006J-4

UMPB Series Melt Pressure Transmitter

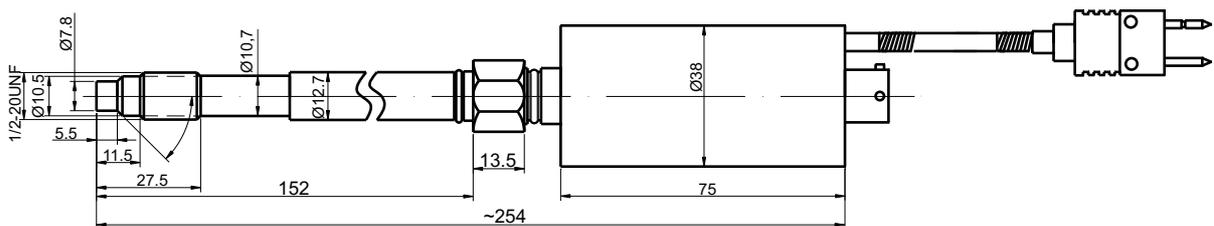
Specifications

pressure ranges	0~35bar...2000bar
overload pressure	200%FS
output signal	3.33mV/V(for transducer); 4~20mA, 0~5V, 0~10V, 1~5V
accuracy	0.25%FS, 0.5%FS(standard), 1%FS
load resistance	$R_L = (U - 12V) / 0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	10V DC(for transducer); 12~36VDC
compensated temperature range	0~+80°C
max operating temp. @ wetted parts	+400°C
temperature coefficient of zero	0.5%FS/10°C
temperature coefficient of span	0.5%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	1/2"-20UNF-2A or others
electrical connection	6 pin male tighten connector or others
temperature sensor	J type(Fe-CuNi)thermocouple or other type on request
thermocouple connection	2 pin plug in connector

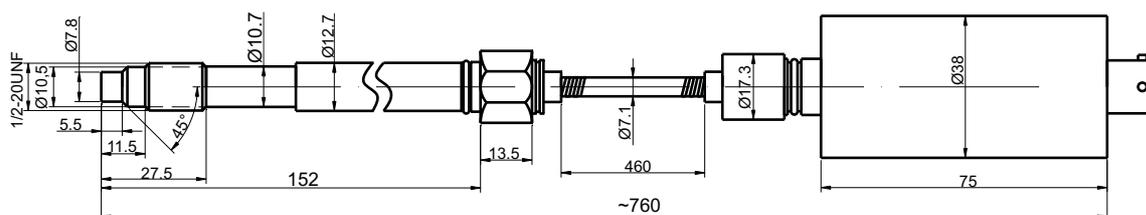
Dimensions



UMPB-a

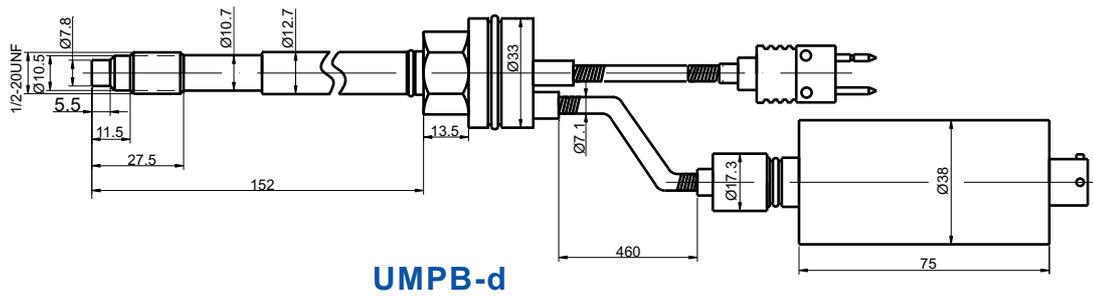


UMPB-b



UMPB-c

UMPB Series Melt Pressure Transmitter



UMPB-d

Ordering code

UMPB-a									
UMPB-b									
UMPB-c									
UMPB-d									
range		measuring range: 0~35bar...2000bar							
(0~X)bar		X: higher limit of actual measuring range							
code		output							
O1		4~20mA							
O2		0~10V							
Oz		customer request							
code		accuracy							
C		0.25%FS							
D		0.5%FS(standard)							
E		1%FS							
code		process connection							
Pu		1/2-20UNF(standard)							
Pm		M18×1.5							
Pg		G3/8							
Pz		customer request							
code		electrical connection							
E1		5-pin male connector							
E2		6-pin male connector(standard)							
Ez		customer request							
code		temperature measurement (UMPB-b and UMPB-d)							
J		J-thermocouple (standard)							
K		K-thermocouple							
E		E-thermocouple							
P		Pt100 thermal resistor							
		length of flexible extension(UMPB-c and UMPB-d)							
		1=380mm		2=458mm		3=762mm		4:other length	
		code		length of rigid stem					
		L1		152mm(standard)					
		L2		229mm					
		L3		305mm					
		Lz		other length					
UMPB-b (0~200)bar O1 D Pu E2 J 1 L1									

*: The user should indicate on the order sheet if the product is used in medicine or food industries.

** : HART protocol output is available on request.

UMPB-Y Series

Melt Pressure Transmitter with Manometer

Description

UMPB-Y series melt pressure transmitter with manometer is designed complete stainless steel structure, local pointer meter. The dial can be installed from two sides, and the case can be adjusted at 360 degree to get the best visual angle. The products have many types of remote transmitting, are suitable for measuring corrosive, high temperature, high viscosity, easily crystallized, easy solidified medium pressure.

UMPB-Y1 pressure transmitter with rigid stem is constructed with isolated diaphragm, local pointer meter and imported original module. The dial can be installed from two sides, and the case can be adjusted at 360 degree to get the best visual angle. The meter is built in high precision pressure sensor, can output analogue signal.

UMPB-Y2 pressure transmitter with flexible extension is constructed with isolated diaphragm, local pointer meter and imported original module. The dial can be installed from two sides, and the case can be adjusted at 360 degree to get the best visual angle. The meter is built in high precision pressure sensor, can output analogue signal.

UMPB-Y3 pressure transmitter with flexible extension, realize pressure & temperature measurement for one point simultaneously. is constructed with isolated diaphragm, local pointer meter and imported original module. The dial can be installed from two sides, and the case can be adjusted at 360 degree to get the best visual angle. The meter is built in high precision pressure sensor and temperature sensor, can output analogue signal.

Features

- Integrated stainless steel construction;
- Good stability & reliability;
- Can be made with temperature & pressure analogue output signal;
- Hastelloy-C diaphragm available on special request;
- Zero adjustment;
- The dial can be adjusted at 360 degree freely



UMPB-Y1

Specifications

pressure ranges	0~50bar...2000bar
overload pressure	150%FS
output signal	4~20mA, 0~5V, 0~10V, 1~5V
accuracy	±1%FS,±1.5%FS
load resistance	$R_L = (U - 12V) / 0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.5%FS/year
supply voltage	12~36VDC
temperature measurement	J,K,E;PT100
structure	bourdon tube
max. operating temp. @ diaphragm	350°C
dial diameter	100mm
length of flexible extension	0.5...5m
process connection	1/2"-20UNF, M18×1.5 or others
electrical connection	Hirschmann connector, or aviation connector

UMPB-Y Series

Melt Pressure Transmitter with Manometer



UMPB-Y2



UMPB-Y3

Ordering code

UMPB-Y1									
UMPB-Y2									
UMPB-Y3									
range		measuring range: 0~50bar...2000bar							
(0~X)bar		X: higher limit of actual measuring range							
code		output							
O1		4~20mA							
O2		0~10V							
Oz		customer request							
code		accuracy							
D		1%FS							
E		1.5%FS							
code		process connection							
Pu		1/2-20UNF(standard)							
Pz		customer request							
code		electrical connection							
E1		Hirschmann connector(DIN43650-A)							
E2		Aviation connector							
Ez		customer request							
code		temperature measurement (UMPB-Y3)							
J		J-thermocouple (standard)							
K		K-thermocouple							
E		E-thermocouple							
P		Pt100 thermal resistor							
		length of flexible extension(UMPB-Y2 and UMPB-Y3)							
		1=380mm		2=458mm		3=762mm		4: other length	
		code		length of rigid stem					
		L1		152mm(standard)					
		Lz		other length					
UMPB-Y1	(0~200)bar	O1	D	Pu	E2	J	1	L1	

UPB20 Special-Purpose Pressure Transmitter For Fracturing Truck

Description

UPB20 fracturing transmitter is made based on metal strain gauge technology by using advanced manufacturing workmanship & technics. This product is designed for large oilfield equipment like oil cementing fracturing truck etc.

UPB20 adopts imported sensitive components, this ensure its high accuracy and reliability, as well excellent performance. With stainless steel housing, UPB20 has good resistance to high pressure & impacting but without any leakage. UPB20 is suitable for operating in kind of exploration and mining working conditions. UPB20 has 4~20mA, 0~5V or other standard output signals, its electrical connection is compatible to international similar products.

UPB20 is suitable for high pressure measurement in equipments like oil drilling, cementing, fracturing truck equipment. This product can replace the international similar products completely.



Features

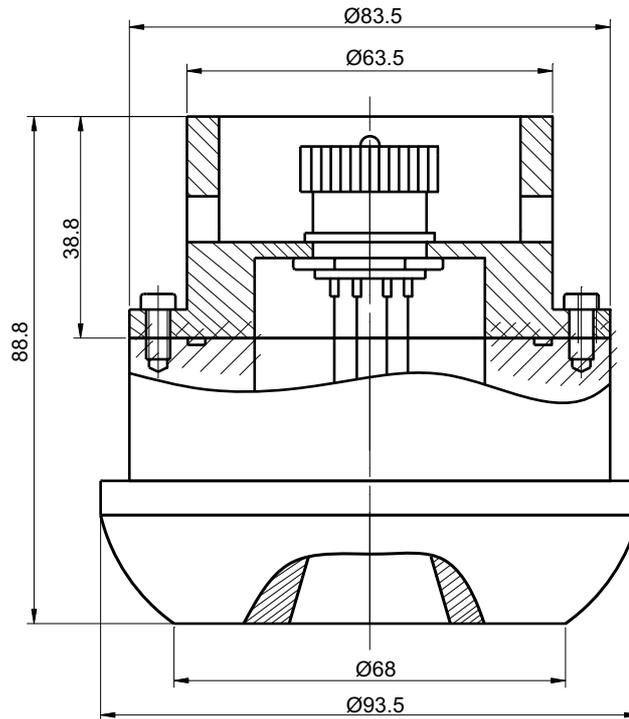
- Range: 0~400, 600, 800, 1000, 1200, 1600, 2000bar;
- Special purpose pressure transmitter for oil field fracturing truck;
- Resistance to high pressure and impacting, no leakage, no deformation;
- 4~20mA analogue output signal electrical connection is compatible to international similar products;
- High accuracy and good reliability;
- Have mV output signal, and standard Volt or mA output signal for options;
- With many different outer structures.

Specifications

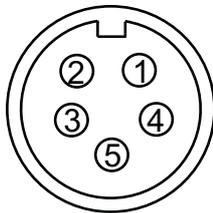
pressure ranges	0~400bar,600bar,800bar,1000bar,1200bar,1600bar,2000bar
overload pressure	150%FS
burst pressure	200%FS
output signal	~1.5mV/V(for transducer);4~20mA, 0~5V, 0~10V, 1~5V(for transmitter)
accuracy	0.25%FS(standard)
load resistance	$RL=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	5~10VDC(for transducer);12~30VDC(for transmitter)
compensated temperature range	0~60°C
operating temperature range	-30~+70°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.3%FS/10°C
insulation resistance	500MΩ@50VDC
process connection	2" union connection(SR50)
electrical connection	aviation connector
relative humidity	0~80%RH
protection	IP65

UPB20 Special-Purpose Pressure Transmitter For Fracturing Truck

Dimensions



Electrical connection



Power“+”: 1

Signal“+”: 2

wiring drawing of 2-wire 4~20mA output (hirschmann connector)

Ordering code

UPB20		
range	measuring range: 0~400,600,800,1000,1200,1600,2000(bar)	
(0~X)bar	X: required measuring range	
	code	output
	O1	4~20mA
	O2	0~5V
	O3	1~5V
	O4	0~10V
	Oc	~1.5mV/V (for transducer)
	Oz	customer request
UPB20	(0~400)bar	O1

UPB21 Special-Purpose Pressure Transmitter

Description

UPB21 is developed based on our model UPB20 pressure transducer. UPB21 is designed with full Welded stainless steel construction and 2" NPT thread for process connection instead of 1502 union installation, which provide a much easy and convenient installation way.

UPB21 is featured with high precision, wide pressure ranges, robust structure and good ability of shock or impact resistance. Because of adopting high precision digital amplifier, UPB21 also has strong anti-jamming capability. This product has been widely used in oil drilling, fracturing, cementing equipment etc.



Features

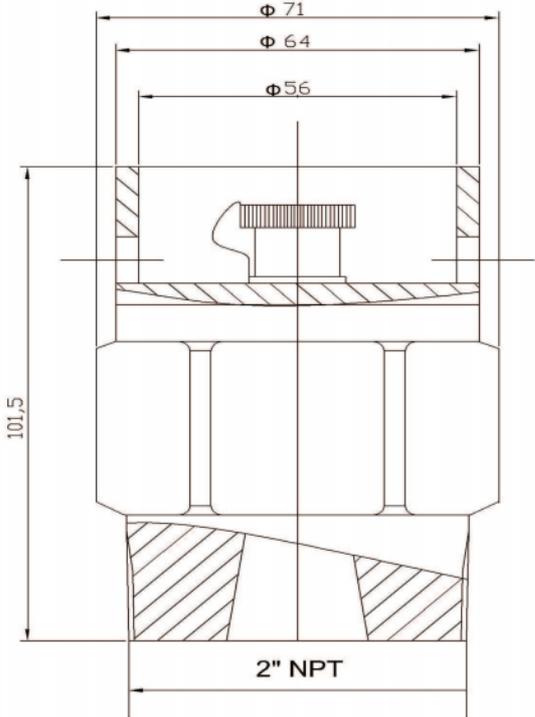
- Range: 0~400, 600, 800, 1000, 1200, 1500bar;
- Special purpose pressure transmitter for oil field;
- Resistance to high pressure and impacting, no leakage, no deformation;
- 4~20mA analogue output signal electrical connection is compatible to international similar products;
- High accuracy and good reliability;
- Have mV output signal, and standard Volt or mA output signal for options.

Specifications

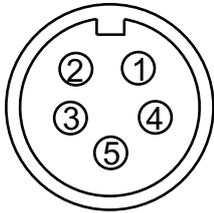
pressure ranges	0~400bar, 600bar, 800bar, 1000bar, 1200bar, 1500bar
overload pressure	150%FS
output signal	~1.5mV/V(for transducer);4~20mA, 0~5V, 0~10V, 1~5V(for transmitter)
accuracy	0.25%FS(standard)
linearity	0.2%FS
hysteresis	0.2%FS
repeatability	0.1%FS
load resistance	$RL=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	5~10VDC(for transducer);12~30VDC(for transmitter)
operating temperature range	-40~+85°C
temperature coefficient of zero	0.05%FS/10°C
temperature coefficient of span	0.05%FS/10°C
insulation resistance	500MΩ@50VDC
process connection	2" NPT
electrical connection	aviation connector
protection	IP67

UPB21 Special-Purpose Pressure Transmitter

Dimensions



Electrical connection



Power“+”: 1
 Signal“+”: 2

wiring drawing of 2-wire 4~20mA output (hirschmann connector)

Ordering code

UPB21		
	range	measuring range: 0~400,600,800,1000,1200,1500(bar)
	(0~X)bar	X: required measuring range
		code output
		O1 4~20mA
		O2 0~5V
		O3 1~5V
		O4 0~10V
		Oc ~1.5mV/V (for transducer)
		Oz customer request
UPB21	(0~400)bar	O1

UIB3351 Metal Capacitive Pressure/Differential Pressure Transmitters

Description

Based on metal capacitive technology, UIB3351 series differential pressure transmitters is designed by using imported key raw material & parts, and its performances & outward appearance achieve international advanced level. It is suitable for the measurement and control of different pressure, gauge pressure, level etc. It is also can be used for measuring corrosive medium or used in hard & dangerous working environment, can satisfy customer's request in max. limit.

UIB3351 series differential pressure transmitters feature wide measuring pressure ranges, high accuracy, good long term stability, excellent performance as well as many structures. Thanks to the integrate electronics, the standard output (4~20mA) of UIB3351 can be iterated digital communication signal(HART Protocol), but without interrupting the signal sending out to control systems. The control room can carry on long-distance inquiry to transmitters or make configuration again.

UIB3351 series metal capacitive pressure transmitter is widely used in technical areas such as petroleum industry, chemical industry, steel and iron industry, electric power, food, papermaking industry, spinning and weaving, medicine and environmental protection and so on.



Features

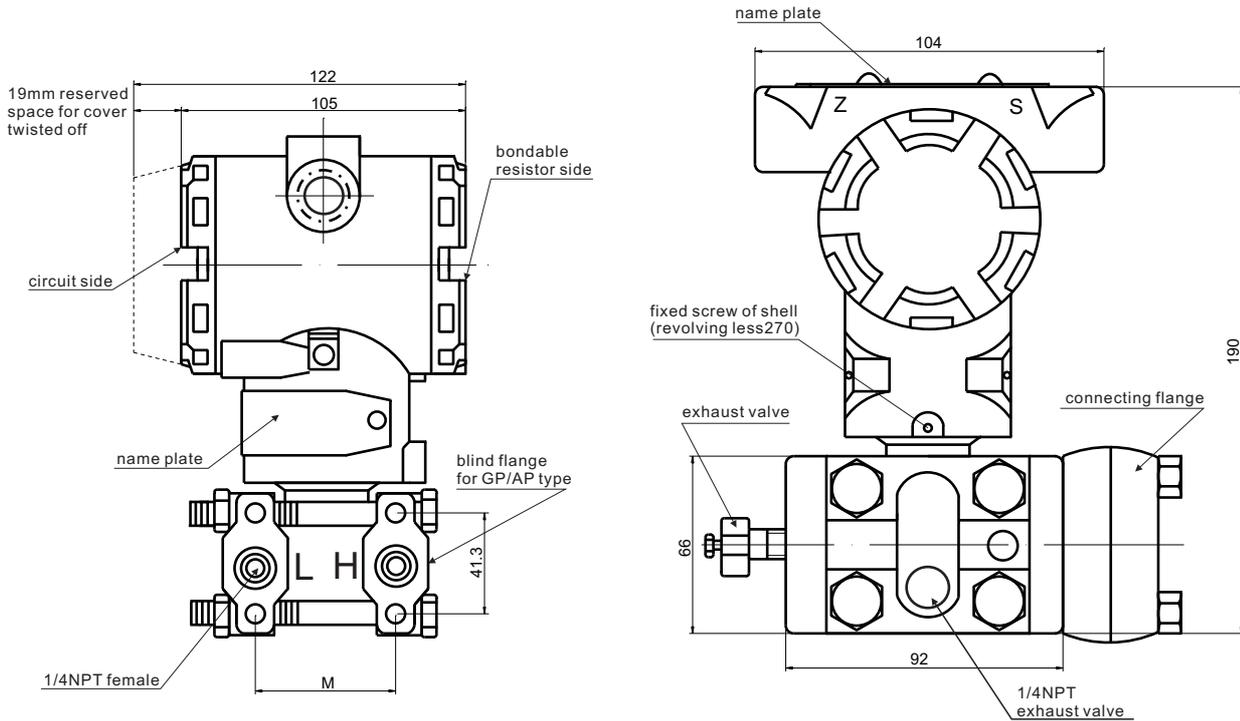
- Excellent measuring performance, suitable for measurement of differential pressure, gauge pressure, absolute pressure, level and fluid.
- Rangable 15: 1 (max. 40: 1)
- 4~20mA analog output signal with HART PROTOCOL, can realize long-distance operation
- Intrinsic safety (Exia II CT6), optional flame-proof(Exd II CT6)
- Protection: IP67

Specifications

measuring medium	liquid, gas, steam
pressure range	0~0.1kPa...10MPa D
	0~1kPa...40MPa G
	0~6kPa...10MPa A
pressure type	gauge(G), absolute(A), differential(D)
output signal	4~20mA(HART protocol option)
accuracy	0.1%FS, 0.2%FS,0.5%FS
long-term stability	not exceed absolute value of max. range's basic error in 12 months
power supply	12~45V DC(standard 24V DC)
load resistance	$R_L=(U-12V)/0.02A$ U—power supply voltage (V DC)
system pressure	40bar/100bar/250bar/320bar
system pressure effect	0.2%FS/10MPa(can be modified under pipeline pressure)
operating temperature range	-40~+85°C,-20~+65°C(with indicator)
media temperature range	-40~+120°C
storage temperature range	-40~+105°C
temperature coefficient of zero&span	0.03%FS/10°C
meter	0~100% linear meter or 3-1/2 digital meter
electromagnetic/radio-frequency interference influence	20~1000MHz, output shift<0.01%FS for Field intensity of 30V/m
Vibration influence	on any axial, 0.05%FS/g under 200Hz
electrical connection	M20×1.5 or 1/2NPT
sensor filled oil	silicon oil, fluorocarbon oil
O-ring	butyronitrile rubber, fluorine rubber, polytetrafluoro, metal sealing ring etc
Electronic shell and coating	low copper aluminum alloy, anodic oxidation, spray coating polyurethane

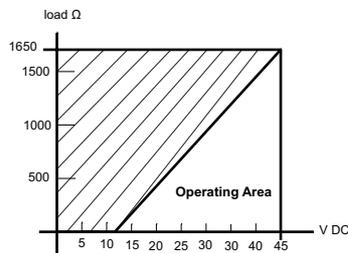
UIB3351 Metal Capacitive Pressure/Differential Pressure Transmitters

Dimensions

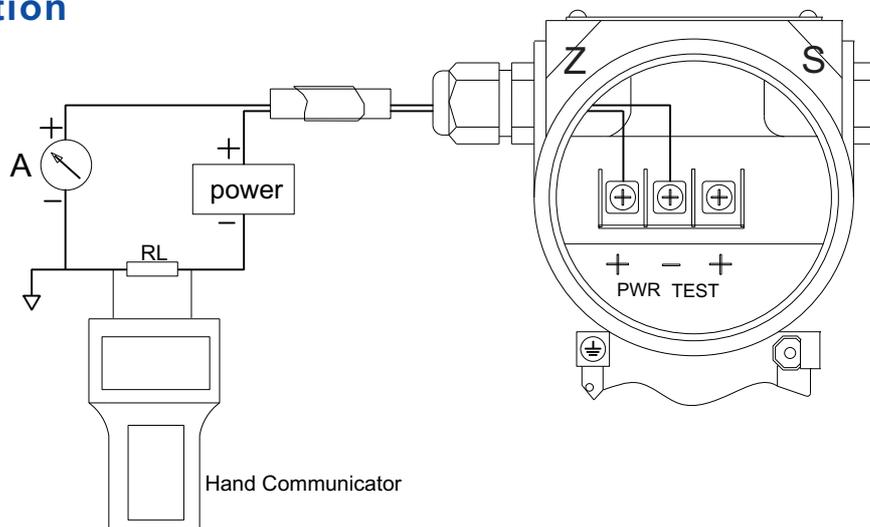


range code	I,II,III,IV	V	VI	VII	VIII
M(mm)	54	55.4	55.8	57.4	58.5

Loading characteristics

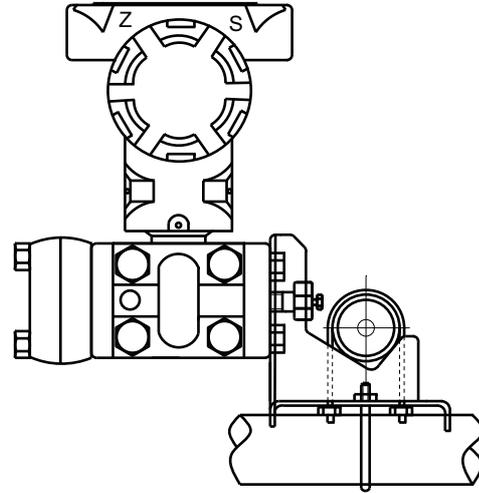
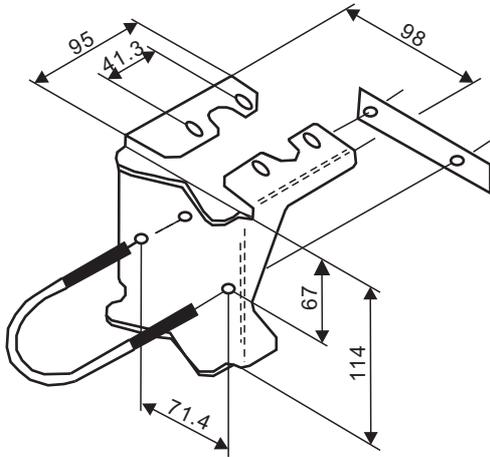


Electrical connection

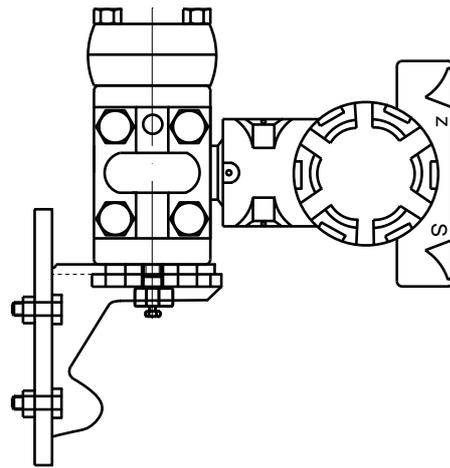
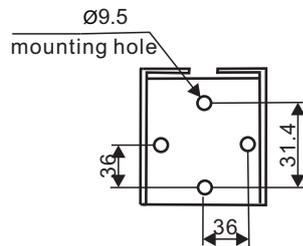
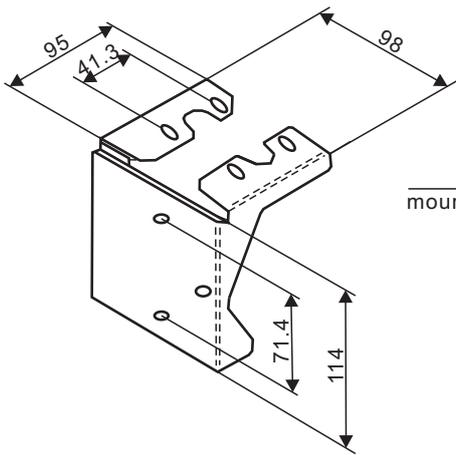


UIB3351 Metal Capacitive Pressure/Differential Pressure Transmitters

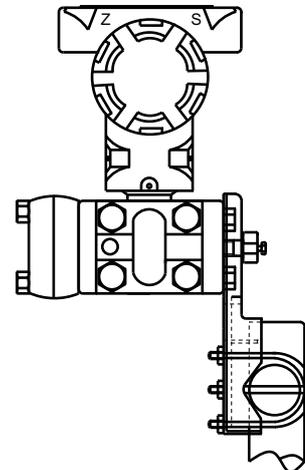
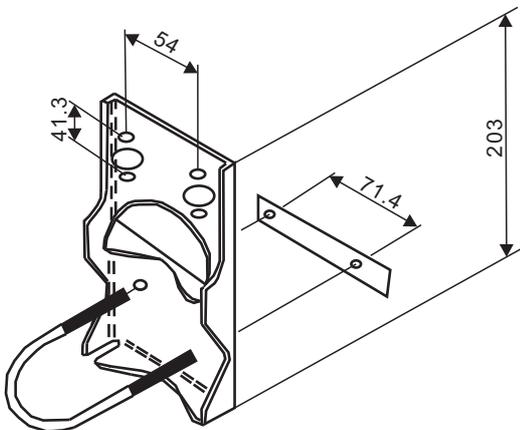
Mounting means



pipe mounting kit B1



panel mounting kit B2



pipe flat mount kit B3

UIB3351 Metal Capacitive Pressure/Differential Pressure Transmitters

Ordering code

UIB3351						
code	pressure range & type					
I	0~0.1...1kPa for VDP(very low differential pressure transmitter)					
II	0~0.4...6kPa for DP(differential pressure transmitter),GP(gauge pressure transmitter)					
III	0~2.67...40kPa for DP, GP, AP(absolute pressure transmitter), HDP (high system pressure transmitter)					
IV	0~16.7...250kPa for DP, GP, AP, HDP					
V	0~66.7...1000kPa for DP, GP, AP, HDP					
VI	0~167...2500kPa for DP, GP, AP, HDP					
VII	0~0.667...10MPa for DP, GP, AP					
VIII	0~1.67...25MPa for GP					
IX	0~2.67...40MPa for GP					
code	system pressure(for differential pressure transmitter)					
1	1MPa for VDP					
4	4MPa for VDP,DP					
10	10MPa for DP					
25	25MPa for HDP					
32	32MPa for HDP					
code	accuracy					
B	0.1%FS					
C	0.2%FS					
D	0.5%FS					
code	materials: flange, exhaust vlave, diaphragm					
12	nickle plated carbon steel , 316, 316L					
22	316,316,316L					
23	316,316,Hastelloy-C					
24	316,316,Monel					
25	316,316,Tantalum					
33	Hastelloy-C, Hastelloy-C, Hastelloy-C					
35	Hastelloy-C, Hastelloy-C, Tantalum					
44	Tantalum, Tantalum, Tantalum					
code	other functions					
D0	no display meter					
D1	linear display meter, 0~100%scale					
D2	3-1/2 digital meter					
B1	2" pipe mounting kit					
B2	panel mounting kit					
B3	2" pipe flat mounting kit					
V0	exhaust valve on flange' s back					
V1	side exhaust valve on top					
V2	side exhaust valve on bottom					
E0	no explosive-proof					
E1	flame proof Exd II CT6					
E2	intrinsic safety Exia II CT6					
UIB3351	III	DP	10	C	22	D2B2V1E1

*: Please indicate required pressure range when ordering. If not, the product will be set the max. range when leaving our factory.

UPB1151 Metal Capacitive Pressure/Differential Pressure Transmitters

Description

Based on metal capacitive technology, UPB1151 series differential pressure transmitters is designed by using selected high accuracy & stability electric capacitive sensor, that use one-side or two-side stainless steel or tantalum isolated diaphragm. After strict temperature compensation, linearity compensation, signal amplified, V/I transforming, antipolarity protection, pressure overload, and current limiting processing, the parameters like differential pressure, gauge pressure, fluid, and level can be transformed to standard signal of 4~20mA or 0~20mA by UIB1151.

UPB1151 series metal electric capacitive pressure transmitters can be connected with Process Automation Instrumentation or computer control system, realizing precise measurement for corrosive gas pressure, liquid pressure, steam pressure, level or fluids etc. UPB1151 series metal capacitive pressure transmitter is widely used in technical areas such as petroleum industry, chemical industry, steel and iron industry, electric power, food, papermaking industry, spinning and weaving, medicine and environmental protection and so on.



Features

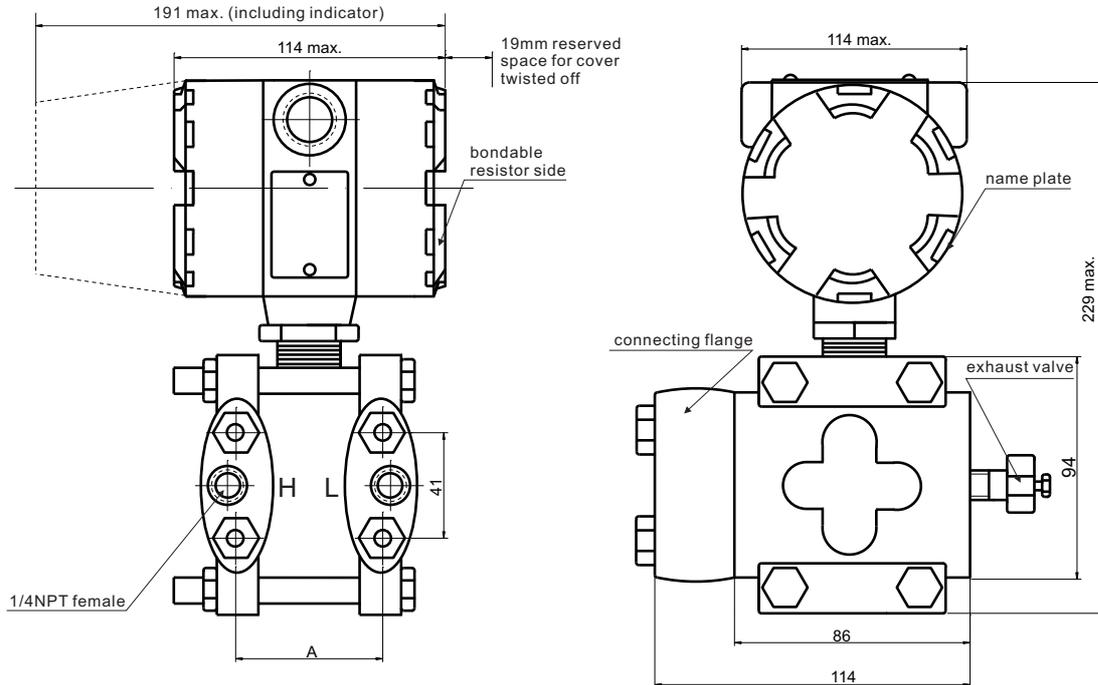
- Excellent measuring performance, suitable for measurement of differential pressure, gauge pressure, absolute pressure and level.
- Wide range shift, can be shifted downwards or upwards.
- Have adjustable damping device, can measure pulsation fluids.
- Intrinsic safety (Exia IICT6), flame-proof Exd IICT6) optional.
- Protection: IP67

Specifications

measuring medium	liquid, gas, steam
pressure range	0~0.1kPa...10MPa D
	0~1kPa...40MPa G
	0~6kPa...10MPa A
pressure type	gauge(G), absolute(A), differential(D)
output signal	4~20mA
accuracy	0.1%FS, 0.2%FS(standard),0.5%FS (determined by measuring range)
long-term stability	not exceed absolute value of max. range's basic error in 12 months
power supply	12~45V DC(standard 24V DC)
load resistance	$R_L=(U-12V)/0.02A$ U—power supply voltage (V DC)
system pressure	40bar/100bar/250bar/320bar
system pressure effect	0.2%FS/10MPa(can be modified under pipeline pressure)
operating temperature range	-40~+85°C,-20~+65°C(with indicator)
media temperature range	-40~+120°C
storage temperature range	-40~+105°C
temperature coefficient of zero&span	0.03%FS/10°C
meter	0~100% linear meter or 3-1/2 digital meter
Electromagnetic/radio-frequency interference influence	20~1000MHz, output shift <0.01%FS for field intensity of 30V/m
vibration influence	on any axial,0.05%FS/g under 200Hz
electrical connection	M20×1.5 or 1/2NPT
sensor filled oil	silicon oil or fluoro carbon oil
O-ring	butyronitrile rubber, fluorine rubber, polytetrafluoro, metal sealing ring etc.
electronic shell and coating	low copper aluminum alloy, anodic oxidation, spray coating polyurethane

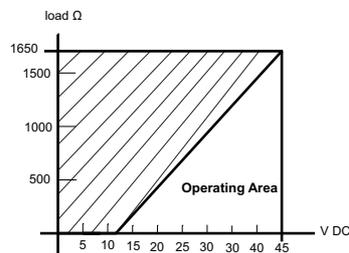
UPB1151 Metal Capacitive Pressure/Differential Pressure Transmitters

Dimensions

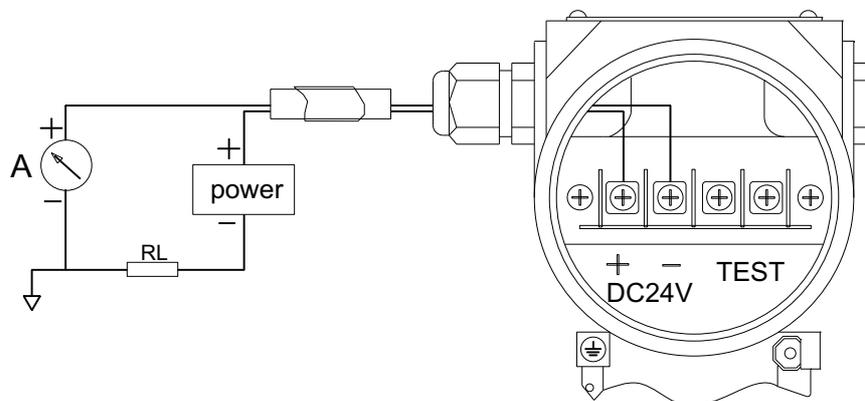


量程代码	I,II,III,IV	V	VI	VII	VIII
A(mm)	54	55.4	55.8	57.4	58.5

Loading characteristics

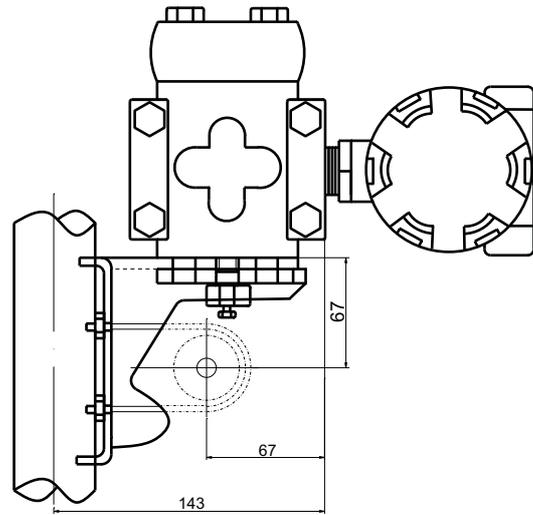
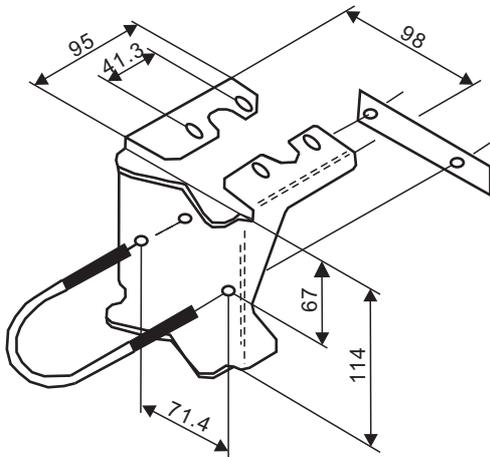


Electrical connection

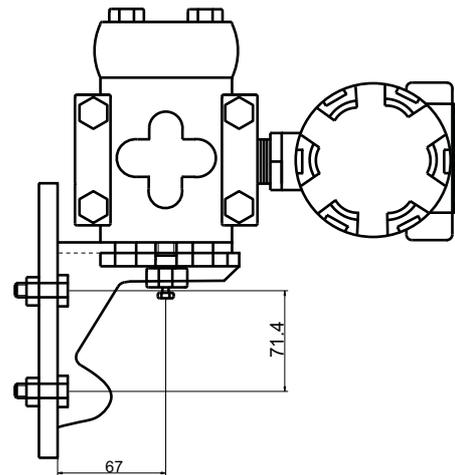
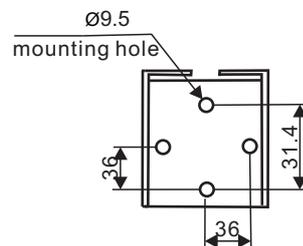
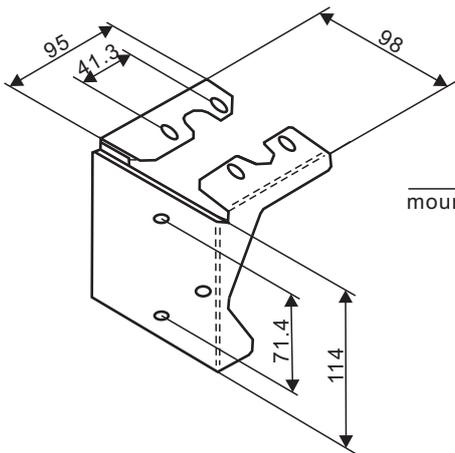


UPB1151 Metal Capacitive Pressure/Differential Pressure Transmitters

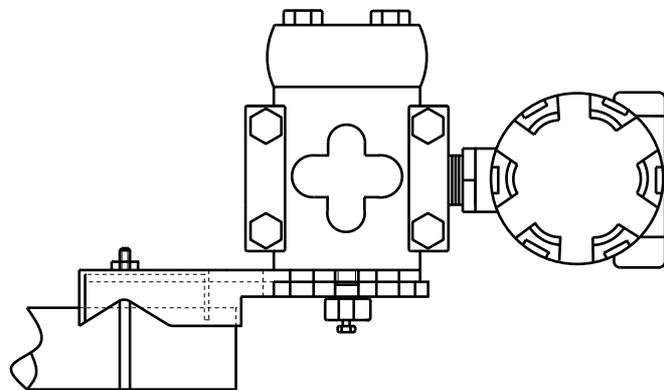
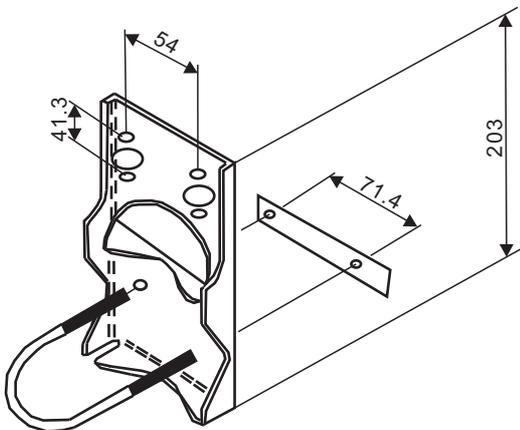
Mounting means



pipe mounting kit B1



panel mounting kit B2



pipe flat mount kit B3

UPB1151 Metal Capacitive Pressure/Differential Pressure Transmitters

Ordering code

UPB1151						
code	pressure range & type					
I	0~0.1...1kPa for VDP(very low differential pressure transmitter)					
II	0~1...6kPa for DP(differential pressure transmitter),GP(gauge pressure transmitter)					
III	0~6...40kPa for DP, GP, AP(absolute pressure transmitter), HDP (high system pressure transmitter)					
IV	0~40...250kPa for DP, GP, AP, HDP					
V	0~0.16...1MPa for DP, GP, AP, HDP					
VI	0~0.4...2.5MPa for DP, GP, AP, HDP					
VII	0~1.6...10MPa for DP, GP, AP					
VIII	0~4...25MPa for GP					
IX	0~6...40MPa for GP					
code	system pressure(for differential pressure transmitter)					
1	1MPa for VDP					
4	4MPa for VDP,DP					
10	10MPa for DP					
25	25MPa for HDP					
32	32MPa for HDP					
code	accuracy					
B	0.1%FS					
C	0.2%FS					
D	0.5%FS					
code	materials: flange, exhaust vlave, diaphragm					
12	nickel plated carbon steel, 316, 316L					
13	nickel plated carbon steel, Hastelloy-C, Hastelloy-C					
22	316,316,316L					
23	316,316,Hastelloy-C					
24	316,316,Monel					
25	316,316,Tantalum					
33	Hastelloy-C, Hastelloy-C, Hastelloy-C					
35	Hastelloy-C, Hastelloy-C, Tantalum					
44	Tantalum, Tantalum, Tantalum					
code	other functions					
D0	no display meter					
D1	linear display meter, 0~100%scale					
D2	digital meter					
B1	2" pipe mounting kit					
B2	panel mounting kit					
B3	2" pipe flat mounting kit					
V0	exhaust valve on flange's back					
V1	side exhaust valve on top					
V2	side exhaust valve on bottom					
E0	no explosive-proof					
E1	flame proof Exd II CT6					
E2	intrinsic safety Exia II CT6					
UPB1151	III	DP	10	C	22	D2B2V1E1

*: Please indicate required pressure range when ordering. If not, the product will be set the max. range when leaving our factory.

UIB3351 Remote Pressure /Differential Pressure Transmitter

Description

UIB3351 remote pressure/differential pressure transmitter feels the measured pressure through remote device which is installed in pipeline or vessels. The measured pressure is transmitted to isolated diaphragm through the transmission of filled silicone (or other fluids) in capillary, to realize the remote measurement for process pressure.

UIB3351 remote pressure/differential pressure transmitter is mainly used for pressure measurement for such media: high temperature or high viscosity medium measurement; medium which is easy to crystallize or easy to solidify; precipitability medium that has solid particle or suspension; Strong corrosion or violently poisonous medium; medium that is easy phase change under normal temperature; medium that needs to flush but not allow to be mixed when it is replaced; such situation that require high hygienic clean.



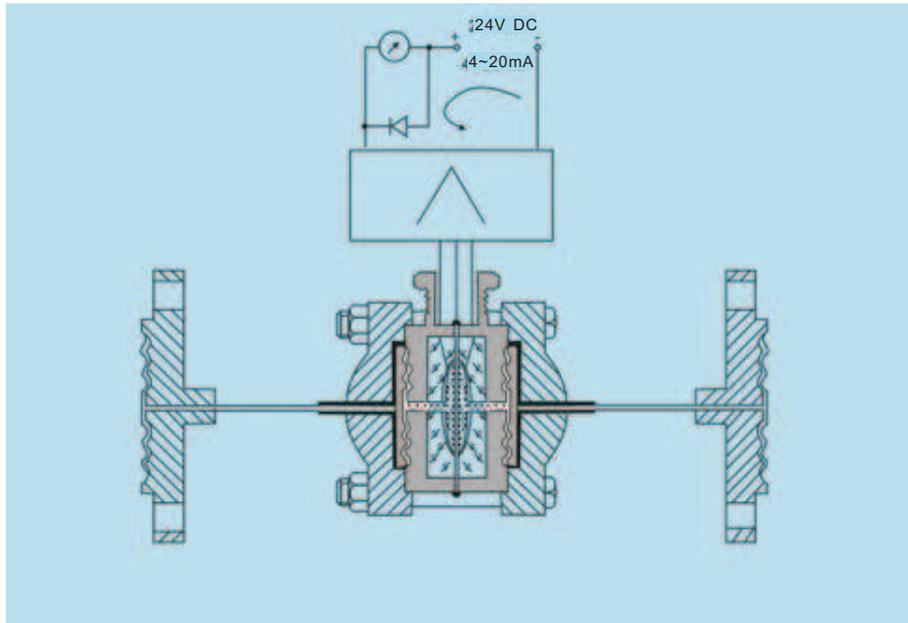
Features

- 4~20mA analog output signal with HART PROTOCOL, can realize long-distance operation
- Remote device is welded construction, reliability is high; liquid-filled cavity is designed with small volume, which is helpful for reducing temperature effects
- Working pressure is no less than 3.5kPa

Specifications

measuring medium	liquid, gas, steam
pressure range	0~3.5kPa...10000kPa
output signal	4~20mA(HART Protocol option)
accuracy	0.5%FS
long-term stability	not exceed absolute value of max. range's basic error in 12 months
power supply	12~45V DC(standard 24V DC)
load resistance	$R_L=(U-12V)/0.02A$ U—power supply voltage (V DC)
operating temperature range	-40~+85°C, -20~+65°C(with indicator)
media temperature range	-40~+300°C
storage temperature range	-40~+105°C
temperature coefficient of zero&span	0.03%FS/10°C
meter	0~100% linear meter or 3-1/2 digital meter
electromagnetic	20~1000MHz, output shift<0.01%FS for Field intensity of 30V/m
electrical connection	M20×1.5 or 1/2NPT
electronic shell and coating	low copper aluminum alloy, anodic oxidation, spray coating polyurethane

UIB3351 Remote Pressure /Differential Pressure Transmitter



structure schematic

Ordering code

UIB3351GP/DP					
code	analog type pressure range		intelligent type pressure range		
III	0~6...40kPa		0~3.5...40kPa		
IV	0~40...250kPa		0~16.7...250kPa		
V	0~160...1000kPa		0~66.7...1000kPa		
VI	0~400...2500kPa		0~167...2500kPa		
VII	0~1.6...10MPa		0~0.667...10MPa		
code	output signal				
A	4~20mA analog output				
H	4~20mA digital signal based on HART Protocol				
code	flange		isolated diaphragm		
12	carbon steel nickel plated		316LSST		
22	316 SST		316L SST		
code	remote device				
S1	1 remote device				
S2	2 remote devices				
code	other functions				
D1	linear display meter, 0~100% scale				
D2	3-1/2 digital meter%				
B1	2" pipe mounting kit				
B2	panel mounting kit				
B3	2" pipe flat mounting kit				
E1	flame proof Exd II CT6				
E2	intrinsic safety Exia II CT6				
UIB3351DP	II	A	22	S2	D2B1

UPB40 High System Pressure Silicon Differential Pressure Transmitters

Description

UPB40 series high system pressure silicon differential pressure transmitters are one kind of differential pressure measurement instrument with light weight, high performance and high working pressure.

The products use small type silicon differential pressure sensor assembly (outer diameter 40mm), which have compact structure and system pressure protection. The superior characteristics of sensors enable UPB40 can be assembled to not only industrial standard type differential pressure transmitters (e.g. 3351 series), also composed to easy general type of micro-differential pressure transmitter with high working pressure . Meanwhile, for general type of UPB40, it have exhaust valve for option

UPB40 series high system pressure silicon differential pressure transmitters are designed for precision measuring for liquid, or gas's pressure, differential pressure and negative pressure. When UPB40 iscoordinating throttling element, it can also measure liquid's flow. Besides 4~20mA analog output, UPB40can also be made with HART Protocol or RS232,RS485 communication interface. UPB40 are widely used for pressure measurement and control in many industrial process.



UPB40-a (industrial standard type)



UPB40-b (generally simple type)



Features

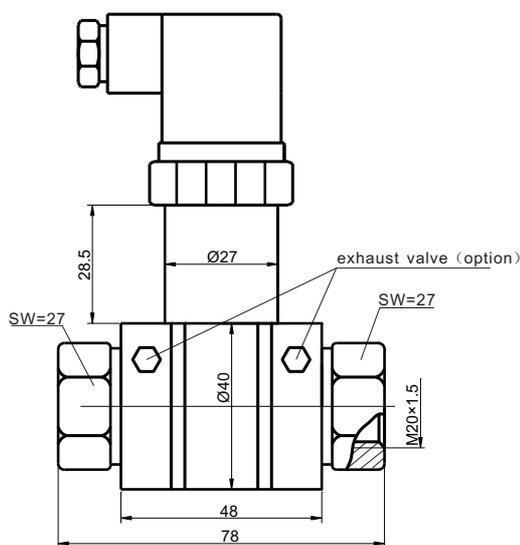
- Two types: industrial standard type (UPB40-a) and generally simple type (UPB40-b)
- 2-wire 4~20mA output signal, HART Protocol or other communication interface are optional.
- Advanced diaphragm manufacturing and weld process, entirely sealed oil-filled isolation technology, unidirectional system pressure protection, can withstand max. rated working pressure
- Good long term stability
- High accuracy
- Measuring range continuously adjustable, and rangeability can be positive and negative
- Good performance of electromagnetic compatibility

UPB40 High System Pressure Silicon Differential Pressure Transmitters

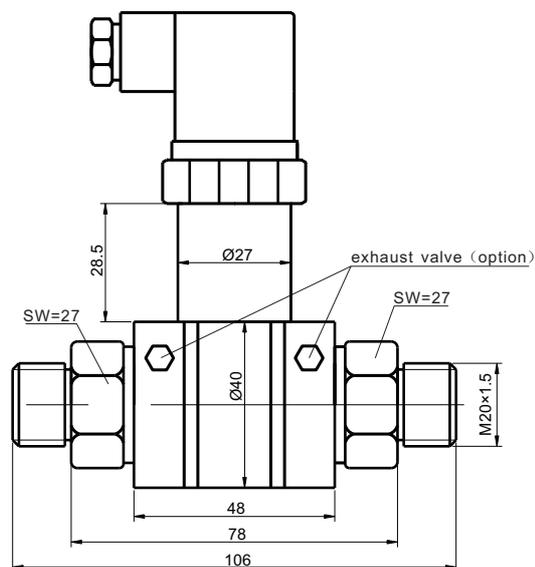
Specifications

model	UPB40-a(industrial standard type)	UPB40-b(generally simple type)
measuring ranges	0~0.6kPa...6MPa	0~2.5kPa...6MPa
system pressure	1MPa (for pressure range < 6kPa), 16MPa,25MPa,40MPa	6.4MPa (for pressure range < 10kPa), 16MPa,25MPa,40MPa
rangeability	analog 4:1; intelligent from 20:1 to 100:1	
output	analog 4~20mA;intelligent (HART or other)	
accuracy	0.075%FS,0.1%FS,0.2%FS(standard), 0.5%FS	
load resistance	RL=(U-10.5V)/0.02A (4~20mA current output) U—loop voltage (V)	
long-term stability	<0.5%FS/year	
supply voltage	12~45VDC	
storage temperature range	-40~+100°C	
operating temperature range	-40~+80°C(-40~+100°C optional)	
measured media temperature range	-40~+100°C	
temperature coefficient of zero	0.08%FS/10°C	
temperature coefficient of span	0.08%FS/10°C	
insulation resistance	100MΩ@50VDC	
system pressure effect	zero & span error ≤0. 4%FS for system pressure≤6.4MPa, zero & span error ≤0. 6%FS for system pressure≥6. 4MPa	
isolated diaphragm material	316L	
pos. & neg. pressure chamber material	316L	
filled oil	silicon oil	
explosive proof	intrinsic safety Exd ia II CT6	
sealing	fluorine rubber teflon	welded
protection	IP67	IP65
sealing	fluororubber or polyfluortetraethylene	welded sealing
housing material	cast aluminum	316 stainless steel
process connection	1/4" NPT female (1/2" NPT flange optional)	G1/4 male or others
electrical connection	M20×1.5 female,1/2"NPT female	hirschmann connector or others

Dimensions

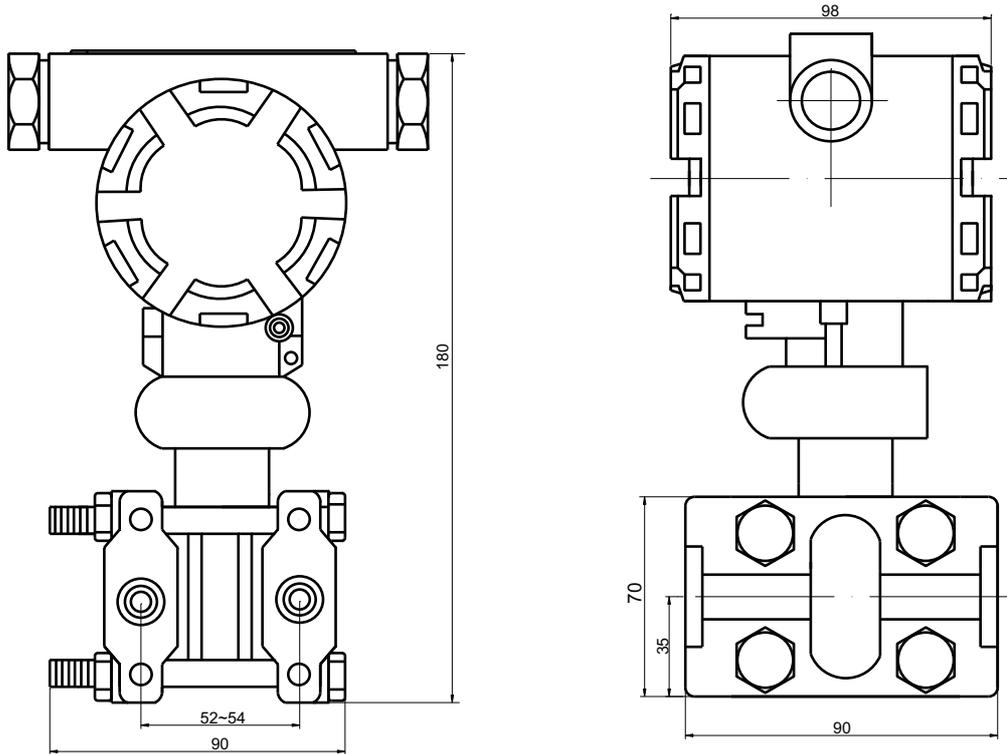


female thread



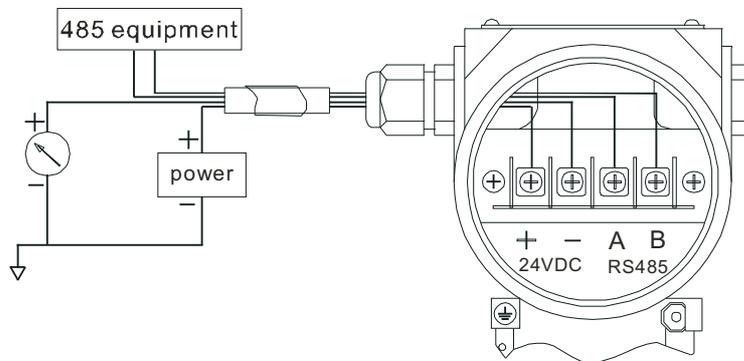
male thread

UPB40 High System Pressure Silicon Differential Pressure Transmitters

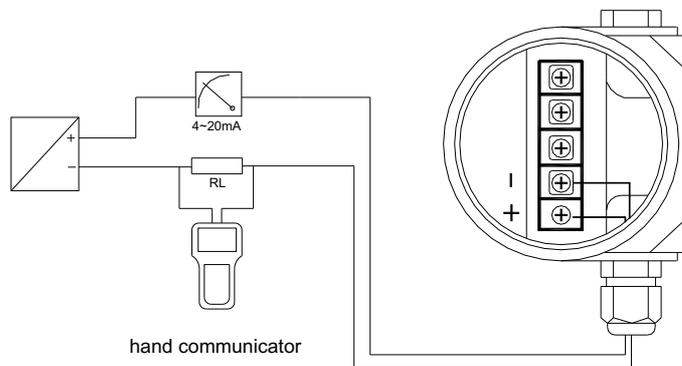


UPB40-a (industrial standard type)

Electrical connection



Electrical connection for RS485 interface



Electrical connection for HART protocol

UPB40 High System Pressure Silicon Differential Pressure Transmitters

Ordering code

UPB40-a	industrial standard type silicon differential pressure transmitter						
UPB40-b	generally simple type silicon differential pressure transmitter						
code	measuring ranges		measuring ranges				
	UPB40-a		UPB40-b				
A	0~0.6...25kPa	A1: 0~2.5kPa	A2: 0~4kPa				
B	0~1.6...60kPa	B1: 0~6kPa	B2: 0~10kPa				
C	0~10...40kPa	C1: 0~16kPa	C2: 0~25kPa				
D	0~25...100kPa	D1: 0~40kPa	D2: 0~60kPa				
E	0~60...200kPa	E1: 0~100kPa	E2: 0~160kPa				
F	0~160...600kPa	F1: 0~250kPa	F2: 0~400kPa				
G	0~0.24...1.6MPa	G1: 0~600kPa	G2: 0~1MPa				
H	0~1...4MPa	H1: 0~1.6MPa	H2: 0~2.5MPa				
I	0~2.5...6MPa	I1: 0~4MPa	I2: 0~6MPa				
code	output						
O1	4~20mA analog output						
H	4~20mA with HART Protocol						
R	RS485 interface (MODBUS Protocol)						
code	accuracy						
A	0.075%FS						
B	0.1%FS						
C	0.2%FS						
D	0.5%FS						
code	Electrical connection						
E0	1/2NPT or M20×1.5						
E1	hirschmann connection						
E2	aviation connection						
E3	cable						
code	process connection						
S1	1/4NPT(UPB40-a)						
S2	1/2NPT(UPB40-a with flange)						
P1	G1/4 male thread(UPB40-b)						
Pn	G1/4 female thread(UPB40-b)						
Pz	customer request						
code	materials: flange, exhaust valve, diaphragm(UPB40-a)						
12	nickle plated carbon steel , 316, 316L						
22	316,316,316L						
code	other functions						
D0	no display meter						
D1	linear display meter,0~100% scale						
D2	3-1/2LCD digital meter						
E0	no explosive proof						
E1	flame proof Exd II CT6						
E2	intrinsic safety Exia II CT6						
UPB40-a	C	H	C	E0	S1	12	D1E2

*: Please indicate required pressure range when ordering. If not, the product will be set the max. range when leaving our factory.

UPB5 Differential Pressure Transmitter

Description

Based on piezo-resistive silicon technology, UPB5 differential pressure transmitter uses silicon differential pressure sensors with stainless steel isolated diaphragm as measuring elements. Made from 316L stainless steel and designed of rigid and robust construction, UPB5 differential pressure transmitter is suitable for application in harsh environment and measurement with corrosive pressure media.

This product has widely been used for measurement of differential pressure of pipeline fluids in petroleum industry, chemical industry, electric power hydrology etc.

Features

- Reliable performance, good long term stability
- Good static pressure, good ability of anti-impact and overload pressure
- Strong reversed polarity protection and current limiting protection
- Light weight, easy installation
- Integrated stainless steel construction design, small volume



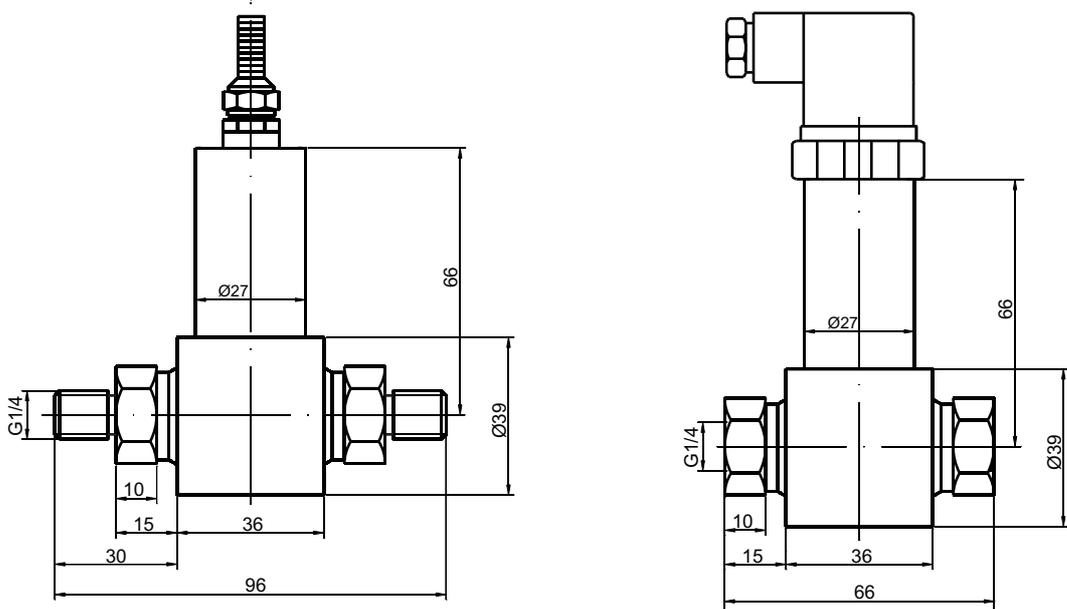
Specifications

pressure medium	gas or dilute liquid compatible to stainless steel
pressure ranges	0~0.1bar...35bar
pressure type	differential(D)
overload pressure	200%FS(positive pressure side),100%FS(negative pressure side)*
system pressure	1000%FS
output signal	4~20mA, 0~5V, 0~10V, 1~5V,0.5~4.5V
accuracy	0.1%FS(range>1bar),0.25%FS(standard), 0.5%FS
system pressure effect	0.05%FS/bar
load resistance	$RL=(U-12V)/0.02A(4\sim 20mA \text{ current output})$ U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	12~36VDC
compensated temperature range	0~+70°C
operating temperature range	-20~+80°C
storage temperature range	-40~+120°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.3%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	G1/4internal thread or others
electrical connection	hirschmann connector or others
material of wetted part and housing	1Cr18Ni9Ti
material of pressure membrane	316L
sealing	n-Butyronitrile or fluoro-rubber sealing ring

*: the overload pressure of negative end is 10bar for the transmitter of range > 10bar.

UPB5 Differential Pressure Transmitter

Dimensions



Ordering code

UPB5	
range	measuring range: 0~0.1bar...35bar
(0~X)bar	X: actual measuring range
code	accuracy
B	0.1%FS
C	0.25%FS
D	0.5%FS
code	output
O1	4~20mA
O2	0~5V
O4	0~10V
Oz	customer request
code	Others
E1	hirschmann connector
E2	aviation connector
E3	shielded PVC cable
Ez	other electrical connection
D1	3-1/2LCD digital indicator
Pn	G1/4 female thread
Pa	Air faucet
P6	M12×1 male thread
Pz	customer request
UPB5	(0~100)bar D O1 E1(D1)*Pn

*:the users determines whether to choose the options in the parenthesis option according to the working site.

** :please note the transmitter's line pressure is <200bar, and the pressure in positive & negative cavity should not exceed the required value.

UPC11 Piezo-Resistive Silicon Differential Pressure Transducers

Description

UPC11 differential pressure transducers/transmitters are assembled by using OEM silicon piezoresistive pressure sensors. UPC11's housing is made of aluminum alloy structure, and the products can be installed on the pipelines directly, or connected through pressure pipes. UPC11 differential pressure transducers/transmitters are featured with high stability, good dynamic performance. The non-linearity and temperature drift of the transducers can be compensated by equipped a high performance microprocessor, and also realize such functions as precise data transmission, field apparatus diagnosis, long-distance two-way communications and so on. The output signals of UPC11 have mV, V, or mA, as well as frequency output for options.

UPC11 are suitable for measurement & control for almost kinds of liquids and gas. They are widely used for pressure process & control in electric powers and coal mining pressure such as for boiler air supply and ventilation of mine etc.



Features

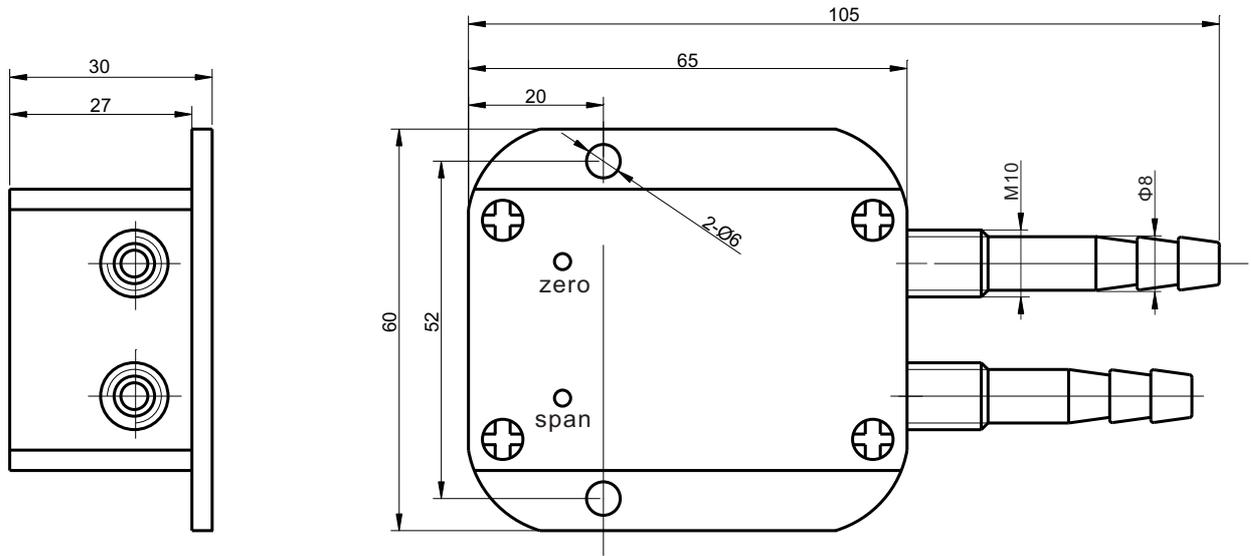
- Using imported sensitive chips and high performance special-purpose circuit
- Strong ability of anti-interference, and good long term stability
- Full scope compensation for zero & sensitivity
- Have mV output signal, and standard Volt or mA output signal for options
- With many different outer structures

Specifications

pressure media	non-electroconductive and non-corrosive gas or dilute-liquid
pressure ranges	0~1...600kPa
overload pressure	300%FS
system pressure	500%FS
output signal	~50mV(for transducer);4~20mA, 0~5V, 0~10V, 1~5V(for transmitter)
accuracy	0.25%FS, 0.5%FS(standard)
zero offset	<1.5%FS
long-term stability	<0.2%FS/year
supply voltage	0.5~1.5mA or 3~10VDC(for transducer);12~36VDC(for transmitter)
compensated temperature range	0~60°C
operating temperature range	-20~+85°C
measured media temperature range	-20~+85°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.3%FS/10°C
insulation resistance	500MΩ@50VDC
process connection	M10 with Φ8 gas nipple or others
electrical connection	cable
relative humidity	0~80%RH
material of housing	aluminum alloy

UPC11 Piezo-Resistive Silicon Differential Pressure Transducers

Dimensions



Ordering code

UPC11						
UPC11	range	measuring range: 0~1...600kPa				
	(0~X)kPa	X: required measuring range				
		code	output			
		O1	4~20mA			
		O2	0~5V			
		O3	1~5V			
		O4	0~10V			
		Oc	~50mV (for transducer)			
		Oz	customer request			
			code	accuracy		
			C	0.25%FS		
			D	0.5%FS		
				code	process connection	
				P1	M10 with Ø8 gas nipple	
			P2	M12		
			P3	Ø8 gas nipple		
			Pz	customer request		
				code	electrical connection	
				E1	hirschmann connector	
				E2	aviation connector	
				E3	shielded PVC cable	
				Ez	customer request	
UPC11	(0~5)kPa	O1	D	P2	E1	

ULB6-a/b Submersible Level Transmitter

Description

ULB6 series submersible liquid level transmitter is made from stainless steel with rigid and robust construction. The protection cap with a small hole not only protect the diaphragm, but also let the liquids contact the diaphragm freely. The exquisite sealing technology as well as good assembly techniques guarantee ULB6 level transmitter's outstanding quality & performance. The product has a waterproof cable with vent hose which is designed for submersible applications.

ULB6 series is designed with IP68 protection, it is widely applied in petroleum, chemical industry, medicine, metallurgy, hydrology exploration etc.

Features

- Rigid and robust construction, IP68 protection
- Wide application scope, long service life
- Reversed polarity protection and current limiting protection
- Against thunder stroke, against radio-frequency interference
- Intrinsic safety, or flame-proof safety optional

Specifications

measuring ranges	0~1mH ₂ O...200mH ₂ O
overload pressure	200%FS
output signal	4~20mA, 0~5V, 0~10V, 1~5V
accuracy	0.1%FS,0.25%FS(standard), 0.5%FS
load resistance	$R_L=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.1%FS/year
supply voltage	12~36VDC
compensated temperature range	0~70°C
storage temperature range	-40~100°C
temperature coefficient of zero	0.25%FS/10°C
temperature coefficient of span	0.2%FS/10°C
insulation resistance	100MΩ@50VDC
electrical connection	Φ7.6mm shielded cable with vent hose
material of wetted part and housing	1Cr18Ni9Ti
material of pressure membrane	316L or tantalum
sealing	n-Butyronitrile or fluoro-rubber sealing ring



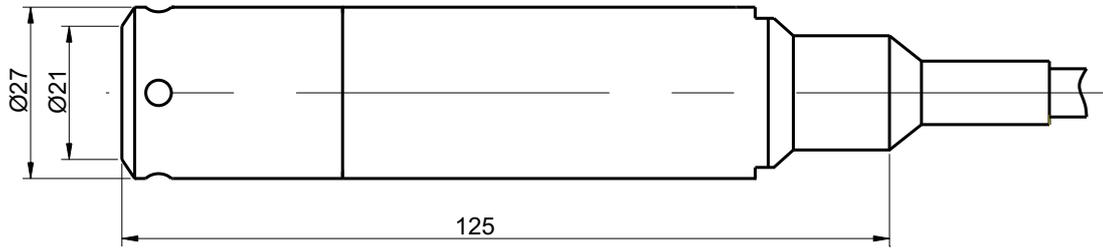
ULB6-a integrated type



ULB6-b individed type

ULB6-a/b Submersible Level Transmitter

Dimensions



ULB6-a integrated type

Ordering code

ULB6-a		ULB6-b		
range	measuring range: 0~1mH ₂ O...200mH ₂ O			
(0~XmH ₂ O)L	X: actual measuring range L: cable length, suggested L-X=(1~2)m			
	code	output		
	O1	4~20mA		
	O2	0~20mA		
	O3	0~5V		
	O4	1~5V		
	O5	0~10V		
	Oz	customer request		
		code	accuracy	
		B	0.1%FS	
		C	0.25%FS	
		D	0.5%FS	
		code	need explosive proof or not	
		N	not need explosive proof	
		Y1	intrinsic safety	
		Y2	flame proof	
ULB6-a	(0~20mH ₂ O)21	O1	C	N

Remarks: please indicate your special requirements as against thunder stroke or intrinsic safety when ordering

ULB3351 Flange Type Level Transmitter

Description

ULB3351 flange type level transmitter is one kind of scene transmitter for mounting in pipelines or vessels. Because its isolating diaphragm contacts liquid medium directly, not need pressure pipe to draw out the pressure from positive pressure side (H side), therefore ULB-3351 is suitable for level, pressure, density measurement of high temperature, macro viscosity, easy crystallized, easy precipitated media.

ULB3351 flange type level transmitter included plane type and insert type. The mounting flange has 3" and 4" according to ANSI standard. If the user has any special requirement please indicate on ordering sheet. The wetted part material of ULB3351 has SS 316L, Hastelloy-C 276, tantalum and Monel etc for options.

The ULB3351 flange type level transmitter is especially suitable for level, pressure and density measurement of special media (high temperature, macro viscosity, easy crystallized, easy precipitated, strong corrosion) in open or sealed containers.

Features

- Measuring range: 0~2.67kPa...2500kPa
- For level, pressure, density measurement of high Temperature, macroviscosity, easy crystallized, easy precipitated or strong corrosive media
- Adjustable range: 6:1 for analog type, 15:1 for intelligent type
- High accuracy, good reliability and stability
- Intrinsic safety and flame proof option.

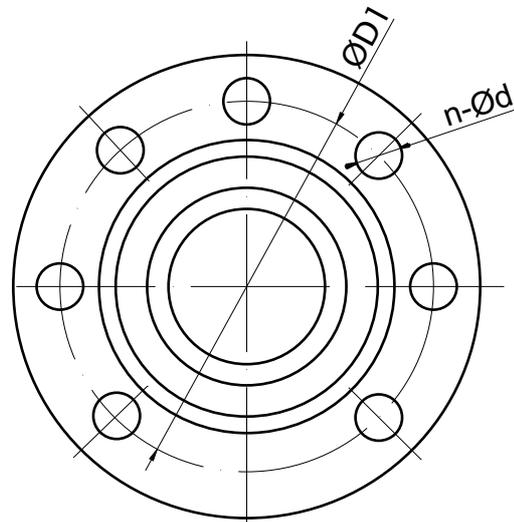
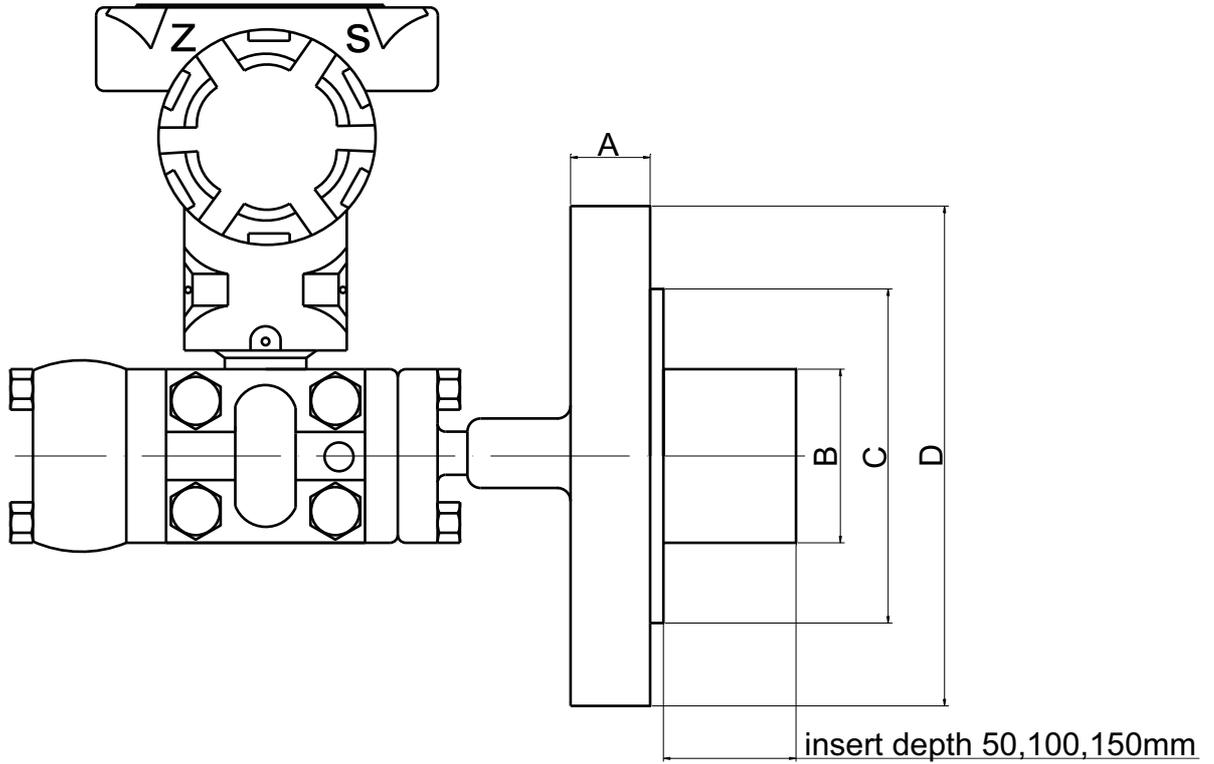


Specifications

pressure medium	liquid compatible with stainless steel
measuring ranges	0~2.67kPa...2500kPa
output signal	4~20mA (HART optional)
accuracy	0.1%FS,0.2%FS(standard), 0.5%FS
load resistance	$R_L=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.1%FS/year
supply voltage	12~45VDC
storage temperature range	-40~+105°C
operating temperature range	-40~+85°C
measured media temperature range	-40~+200°C
temperature coefficient of zero	0.1%FS/10°C
temperature coefficient of span	0.05%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	3" mounting flange or others
protection	IP67
explosive-proof	Exia II CT6 or Exd II CT6
material of pressure membrane	316L stainless steel
oil-filled	silicone oil or fluorocarbon oil
housing material	low copper aluminum alloy

ULB3351 Flange Type Level Transmitter

Dimensions



flange size						bolt hole		
dimensions	type	Diameter (D)	A	B	C	number	diameter(d)	diameter distribution (D1)
3"	150Lb	190	30	66	127	4	19	152
4"	150Lb	228	30	89	157	8	19	190
3"	300Lb	210	35	66	127	8	22	168
4"	300Lb	254	38	89	157	8	22	200

ULB3351 Flange Type Level Transmitter

Ordering code

ULB3351									
code		measuring ranges of intelligent type			measuring ranges of analog type				
IV		0~2.67...40kPa			0~6...40kPa				
V		0~16.7...250kPa			0~40...250kPa				
VI		0~66.7...1000kPa			0~160...1000kPa				
VII		0~167...2500kPa			0~400...2500kPa				
code		output							
O1		4~20mA analog output							
H		4~20mA with HART Protocol							
code		accuracy							
B		0.1%FS							
C		0.2%FS							
D		0.5%FS							
code		mounting flange & material							
A		3"(80)150LB(2.0MPa)			zinc plated carton steel or 316L SS				
B		4"(100)150LB(2.0MPa)			zinc plated carton steel or 316L SS				
C		3"(80)300LB(5.0MPa)			zinc plated carton steel or 316L SS				
D		4"(100)300LB(5.0MPa)			zinc plated carton steel or 316L SS				
code		materials: flange, exhaust vlave, diaphragm							
12		nickle plated carbon steel , 316, 316L							
15		nickle plated carbon steel,316,Tantalum							
22		316,316,316L							
23		316,316,Hastelloy-C							
24		316,316,Monel							
25		316,316,Tantalum							
33		Hastelloy-C, Hastelloy-C, Hastelloy-C							
35		Hastelloy-C, Hastelloy-C, Tantalum							
code		oil-filled							
S		Dc200# series silicone oil -40~149°C							
H		high temperature silicone oil 15~315°C							
F		fluorocarbon oil 45~205°C							
code		insert depth							
H0		0							
H1		50mm							
H2		100mm							
H3		150mm							
code		other functions							
D0		no display meter							
D1		linear display meter, 0~100%scale							
D2		3-1/2LCD digital meter							
V1		side exhaust valve on top							
V2		side exhaust valve on bottom							
E1		flame proof Exd II CT6							
E2		intrinsic safety Exia II CT6							
ULB3351	IV	O1	C	C	12	S	H0	D2	V1E1

*: Please indicate required pressure range when ordering. If not, the product will be set the max. range when leaving our factory.

ULB3 Armoring Level Transmitter

Description

The ULB3 armoring type pressure transmitter is constructed by using all sealing isolated diaphragm & oil-filled level sensor and special electrical circuit. This product is featured with high measuring accuracy, good stability, long life, and easy installation etc. It uses unique craft sealing structure, has good performance against leakage, and reliable operation of submerging liquid for a long time.

According to three mathematical model relations of the measured liquid's intensity, density, and level, through the level transducer to measure the fluid's pressure which is proportional to fluid's depth, and transforms its signal to standard 4~20mA electric current signal ((or standard voltage signal) through its amplifying circuit.

The ULB3 armoring type pressure transmitter is widely used for level measurement (static or dynamic level) in the water factory, refinery factory, chemical plant, glass factory, Sewage treatment plant etc.



Features

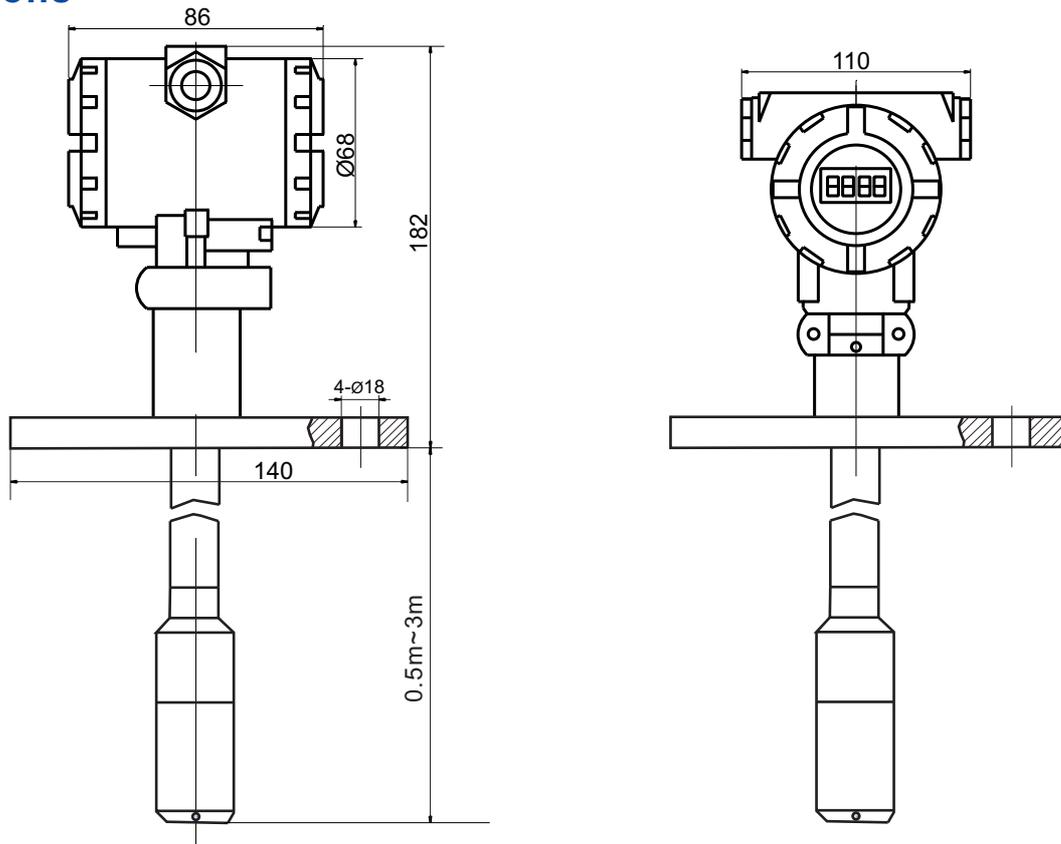
- Measuring range: 0~0.5...3mH₂O
- All metal armoring type, 316L stainless steel isolated diaphragm
- Solid sealing, good anti-corrosive ability
- Unique design against condensation and anti-radar
- High accuracy, high reliability, anti jamming, good long-term stability

Specifications

pressure medium	liquid compatible with stainless steel
measuring ranges	0~0.5...3mH ₂ O
overload	200%FS
output signal	4~20mA, 0~5V, 0~10V, 1~5V
accuracy	0.1%FS, 0.25%FS, 0.5%FS(standard)
load resistance	$R_L = (U - 12V) / 0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	12~36VDC
compensated temperature range	0~80°C
operating temperature range	-40~+85°C
measured media temperature range	-20~+100°C
temperature coefficient of zero	0.25%FS/10°C
temperature coefficient of span	0.3%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	DN32 PN1.0 or others
protection	IP67
explosive-proof	Exia II CT6
material of pressure membrane	316L stainless steel
material of housing	stainless steel and aluminum alloy

ULB3 Armoring Level Transmitter

Dimensions



Ordering code

ULB3							
ULB3	range	measuring range: 0~0.5...3mH ₂ O					
	(0~X)bar	X: required measuring range					
		code	output				
		O1	4~20mA				
		O2	0~5V				
		O3	1~5V				
		O4	0~10V				
			code	accuracy			
			B	0.1%FS			
			C	0.25%FS			
			D	0.5%FS			
				code	process connection		
			P4	M20×1.5			
			Pd	DN.32 PN1.0			
			Ps	M32×2			
			Pz	customer request			
				code	other functions		
				D1	0~100% linear indicator		
				D2	LCD digital display		
				D0	without display		
ULB3	(0~1)mH ₂ O	O1	D	Ps	D1		

ULB7-a/b Corrosive Proof Level Transmitter

Description

ULB7 series corrosive proof level transmitters is made by using imported high accuracy and stability ceramics sensors, and through precise structural design and temperature compensation, signal amplified and V/I transforming. Its polytetrafluoroethylene (PTFE) housing is full sealed design. The cable of ULB7 is put in PTFE pipe, simultaneously with breathing pipe which makes sensor's back pressure intensity connect to atmosphere pressure. ULB7 series corrosive proof level transmitters are entire solid state products with standard 4~20mA or 0~10mA signal output.

To assure ULB7 to have long life, all outside linking parts on housing and cables have been sealed. The unique internal structure of ULB7 has function of against condensation.

ULB7 series corrosive proof level transmitters have been widely used for static or dynamic level measurement of corrosive liquids as strong acid or strong alkali etc in refinery, chemical plant, glass factory, Sewage treatment plant and so on.

Features

- Suitable for corrosive media measurement like strong acid or strong alkali
- Against condensation
- High reliability, high accuracy, exquisite anti-corrosion structural design
- Anti-interference, good long-term stability
- Polytetrafluoroethylene material
- Protection:IP67

Specifications

measuring ranges	0~0.5mH ₂ O...500mH ₂ O
overload	300%FS
output signal	4~20mA, 0~5V, 0~10V, 1~5V
accuracy	0.1%FS,0.25%FS(standard), 0.5%FS
load resistance	$R_L=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.1%FS/year
supply voltage	12~36VDC
compensated temperature range	0~+70°C
operating temperature range	-30~100°C
temperature coefficient of zero	0.25%FS/10°C
temperature coefficient of span	0.2%FS/10°C
insulation resistance	100MΩ@50VDC
electrical connection	Φ7.6mm shielded cable with vent hose
material of wetted part and housing	polytetrafluoroethylene (PTFE)
material of pressure membrane	ceramic
explosive proof	Exia II CT6



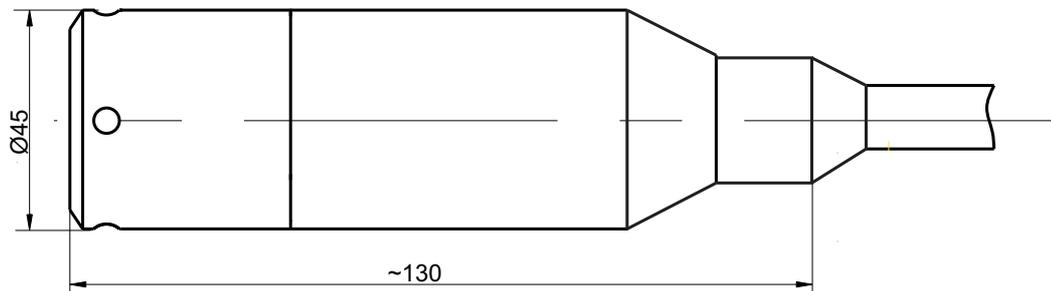
ULB7-a integrated type



ULB7-b divided type

ULB7-a/b Corrosive Proof Level Transmitter

Dimensions



ULB7-a integrated type

Ordering code

ULB7-a	
ULB7-b	
range	measuring range: 0~0.5mH ₂ O...500mH ₂ O
(0~XmH ₂ O)L	X: actual measuring range L: cable length, suggested L-X=(1~2)m
code	output
O1	4~20mA
O2	0~20mA
O3	0~5V
O4	1~5V
O5	0~10V
Oz	customer request
code	accuracy
B	0.1%FS
C	0.25%FS
D	0.5%FS
code	need explosive proof or not
N	not need explosive proof
Y1	intrinsic safety
ULB7-a	(0~20mH ₂ O)21 O1 C N

Remarks: please indicate your special requirements as against thunder stroke or intrinsic safety when ordering

ULB-2T Temperature Level Integration Transmitter

Description

ULB-2T submersible level & temperature integration transmitter is composed by high accuracy & stability pressure sensor, temperature sensor and special-propose circuit, the level and temperature of measured media will be transformed to standard 4~20mA electrical output signal separately. ULB-2T is an integrated design, can measure level and temperature of one point simultaneously, is suitable for used in place where need both media level measurement and media temperature measurement.

The unique craft seal structure of ULB-2T makes it has good performance of preventing leak, even this product is be immersed into liquid for a long time, it still has good operation reliability. ULB-2T is featured with high accuracy, good stability, long service life as well as easy installation etc.

ULB-2T is widely used in many areas like scientific research, war industry, petrochemical industry, electric power, water conservation, for measurement and control kinds of static or dynamic liquids.



Features

- Level & temperature measurement simultaneously
- Two channel 4~20mA output signals
- High accuracy, complete stainless steel structure
- Good ability of anti-jamming, good long term stability
- Against condensation & against thunder stroke design
- Intrinsic safety

Specifications

measured medium	liquid compatible to stainless steel
measured temperature ranges	-20°C~+100°C
measuring accuracy of temperature	0.5%FS, 1%FS
output signal of temperature	4~20mA (0~5V, 1~5V optional)
level measured ranges	0~1...200mH ₂ O
measuring accuracy of level	0.25%FS, 0.5%FS
output signal of level	4~20mA (0~5V, 1~5V optional)
working temperature range	-20°C~+85°C
compensated temperature range	0°C~+70°C
operating temperature range	-40°C~+90°C
temperature limit	120% of measured range
power supply	10~30VDC
long term stability	0.15%FS/year
circuit temperature shift	<±0.75%FS/50°C
electrical connection	Ø7.6mm shielded PVC cable with vent hose
material of housing	stainless steel
protection	IP68

ULB-2T Temperature Level Integration Transmitter

Electrical connection

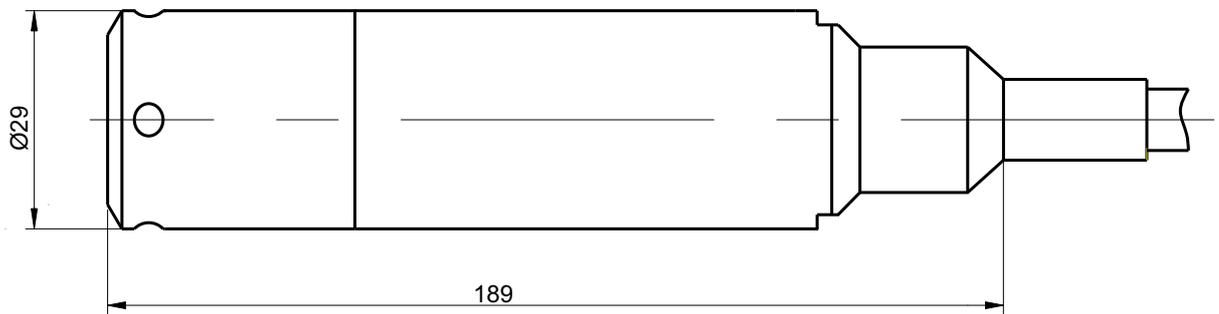
for 4~20mA level output

connection	cable color
power“+”	red
signal“+”	black

for 4~20mA temperature output

connection	cable color
power“+”	red
signal“+”	black

Dimensions



Ordering code

ULB-2T			
	range	measuring range: 0~1...200mH ₂ O; -20°C~+100°C	
	(X1~X2)°C	X1-lower limit of measured range, X2-higher limit of measured range	
	code	output signal of temperature and level	
	O1	4~20mA	
	O2	0~5V	
	O3	1~5V	
	code	measuring accuracy of temperature and pressure	
	C	0.25%FS	
	D	0.5%FS	
		E	
ULB-2T	(0~10)mH ₂ O (0~80)°C	O1 O1	D E

UPC1 Silicon Pressure Transducer

Description

UPC1 pressure transducer is piezoresistive pressure transducer by using piezoresistive sensing element based on advanced MEMS technology, suitable for the measurement of gauge pressure, vacuum pressure, absolute pressure and sealed gauge pressure. This product has such features as wide measuring ranges, good long term stability and excellent flexibility.

UPC1 pressure transducer is now widely used in many industries and laboratories for pressure measurement and control of various fluids.

Features

- Using MEMS silicon pressure dies
- High accuracy, stability and reliability
- Automatic testing, laser trimming compensating zero and sensitivity in wide temperature range
- Compact size, light weight and high frequency response
- Constant current or constant voltage power supply



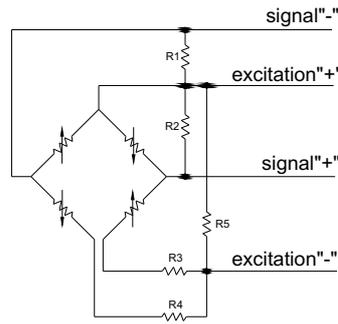
Specifications

pressure medium	virous gases and liquids compatible to stainless steel
pressure ranges	-1...0bar~0.2...600bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
output signal	$\geq 70\text{mV}$ (0~20kPa, $\geq 50\text{mV}$)
accuracy	0.1%FS, 0.25%FS(standard), 0.5%FS
zero offset	$< 2\text{mV}$
long-term stability	$< 0.2\% \text{FS/year}$
excitation	1.5mA or 10VDC
compensated temperature range	0~60°C
operating temperature range	-10~80°C
storage temperature range	-40~100°C
temperature coefficient of zero	0.02%FS/°C
temperature coefficient of span	0.02%FS/°C
input/output resistance	2~6k Ω
insulation resistance	100M Ω @50VDC
response time	$\leq 1\text{ms}$
process connection	M20×1.5 or others
electrical connection	hirschmann connector or others
material of wetted part	1Cr18Ni9Ti
material of pressure membrane	316L
material of housing	1Cr18Ni9ti

UPC1 Silicon Pressure Transducer

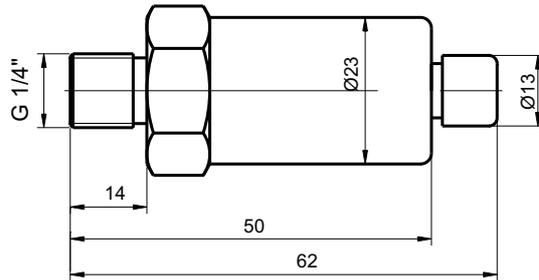
Electrical connection

connection	cable color
excitation“+”	red
excitation“-”	black
signal“+”	green
signal“-”	white



note : please refer to the user manual for the actual wiring

Dimensions



Ordering code

UPC1								
UPC1	range	pressure range: -1bar...0~0.2...600bar						
	(0~X)bar	X: required measuring range						
		code	pressure type					
		G	gauge					
		A	absolute					
		S	sealed gauge					
			code	accuracy				
			B	0.1%FS				
			C	0.25%FS				
			D	0.5%FS				
				code	process connection			
				P1	G1/4			
				P4	M20×1.5			
				P6	M12×1			
				Pz	customer request			
				code	electrical connection			
				E1	hirschmann connector			
				E2	aviation connector			
				E3	KSS connector			
				Ez	customer request			
					code	power supply		
					S1	1.5mA		
					S2	10VDC		
UPC1	(0~20)bar	G	D	P1	E2	S2		

UPC2 Miniature Pressure Transducer

Description

UPC2 miniature pressure transducer is designed based on micro machine-finishing crafts. Its outer diameter usually is from $\varnothing 3\text{mm}$ to $\varnothing 12\text{mm}$, and its length is within 25mm, this transducer can also be made upon customer's special required shapes and sizes.

UPC2 miniature pressure transducer is featured by its small size, high output, high operating temperature, outstanding dynamic and static characteristics as well as extremely high reliability.

In some special environments, where usually has a harsher request to sensor's external dimensions' microminiaturization. In order not to be interfered by flow fields condition, and also reappear dynamic flow field's change rule, UPC2 is designed for meeting these application specially.

Features

- Miniature structure, small volume, light weight
- Superior static and dynamic characteristics
- Wide measuring ranges
- Big output signal, strong antijamming ability
- Good long-term stability



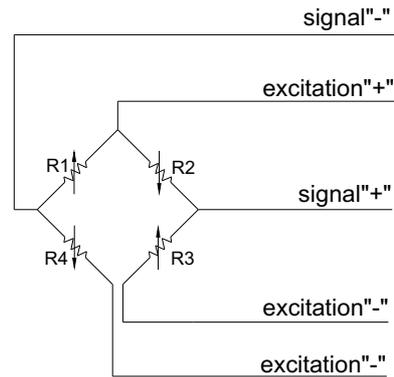
Specifications

pressure medium	gas or liquid compatible to stainless steel, glass and silicon
pressure ranges	0~0.01bar...600bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
output signal	$\geq 70\text{mV}$ (0~20kPa, $\geq 50\text{mV}$)
accuracy	0.25%FS, 0.5%FS(standard), 1%FS
zero offset	$\leq \pm 2\text{mV}$
long-term stability	$< 0.5\% \text{FS/year}$
excitation	1.5mA or 10VDC
compensated temperature range	0~+70°C
operating temperature range	-10~+80°C
storage temperature range	-40~+80°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input/output resistance	1~6k Ω
insulation resistance	100M Ω @50VDC
response time	$\leq 1\text{ms}$
process connection	gas nipple or others
electrical connection	self-locking structure or others
material of wetted part	1Cr18Ni9Ti
material of housing	1Cr18Ni9Ti

UPC2 Miniature Pressure Transducer

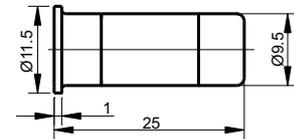
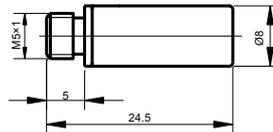
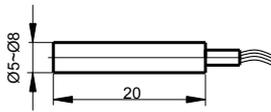
Electrical connection

connection	cable color
excitation "+" :	red
excitation "-" 1:	yellow
excitation "-" 2:	white
signal "+" :	blue
signal "-" :	green



note: please refer to the user manual for the actual wiring

Dimensions



Ordering code

UPC2					
	range	measuring range: 0~0.01bar...600bar			
	(0~X)bar	X: actual measuring range			
		code	pressure type		
		G	gauge		
		A	absolute		
		S	sealed gauge		
		code	accuracy		
		C	0.25%FS		
		D	0.5%FS		
		E	1%FS		
		code	process connection		
		P1	M6×1		
		Pg	gas nipple		
		Pz	customer request		
		code	electrical connection		
		E1	self-locking structure		
		Ez	customer request		
UPC2	(0~10)bar	G	D	P1	E1

UPC3 Ceramic Pressure Transducer

Description

UPC3 ceramics pressure transducer is made based on advanced high temperature agglutination technology, it is designed for use in application where the pressure is created by the corrosive pressure medium. The pressure diaphragm of this transducer is made from ceramic material. Ceramics are well known material for its high elasticity, good corrosion resistance, anti-abrasion, anti-impact & vibration features

Because of the good stability of ceramic and its thick-film resistance, this transducer can be operated in a higher temperature range; at the same time, this also makes the zero & sensitivity thermal shifts over the whole operating temperature range of the transmitter is very small. Ceramics' heat-stable characteristic and its heavy film resistance enable it to have the high operating temperature scope, and also guarantee its measuring accuracy and high stability simultaneously. The pressure act on the ceramic diaphragm's front surface without any liquid transmission in the transducer, which makes the diaphragm have small deformation. The thick- film resistance is printed on the ceramic diaphragm's back, and is connected to build the Wheatstone electrical bridge.

UPC3 is designed for use in most industrial application, and it is suitable for contacting most pressure medium (including corrosive medium) directly.

Features

- High measuring accuracy, high stability, high reliability
- Automatic testing, laser trimming compensation for temperature
- Small profile, light weight the weight, high frequency response
- Good ability of anti-corrosive, anti-abrasion, and anti-impact
- Wide operating temperature range



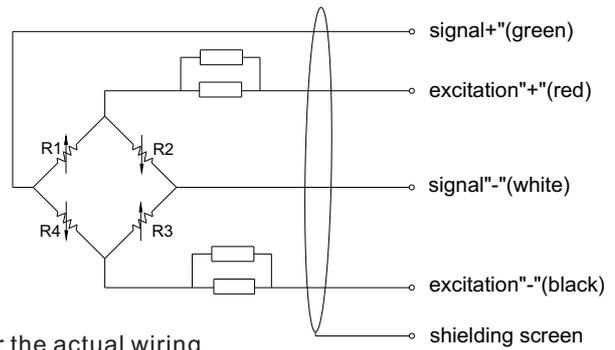
Specifications

pressure medium	gas or liquid compatible to stainless steel and ceramic
pressure ranges	0~1bar...50bar
overload pressure	150%FS
output signal	2mV/V, 3mV/V
accuracy	0.25%FS, 0.5%FS(standard)
zero offset	<3%FS
long-term stability	<0.2%FS/year
excitation	5VDC~10VDC
compensated temperature range	0~70°C
operating temperature range	-10~90°C
storage temperature range	-30~100°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.3%FS/10°C
input/output resistance	10kΩ
insulation resistance	100MΩ@50VDC
response time	≤1ms
process connection	G1/4 or others
electrical connection	hirschmann connector and others
material of wetted part	1Cr18Ni9Ti
material of pressure membrane	ceramic
material of housing	1Cr18Ni9Ti
sealing	fluorine rubber sealing ring

UPC3 Ceramic Pressure Transducer

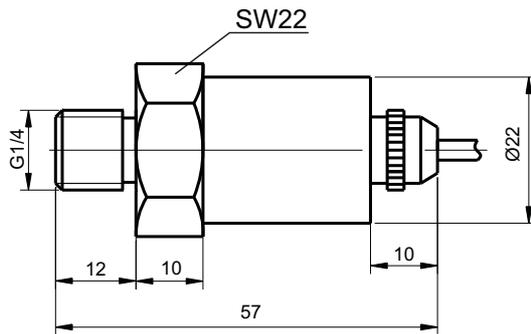
Electrical connection

connection	cable color
excitation“+”	red
excitation“-”	black
signal“+”	green
signal“-”	white



note: please refer to the user manual for the actual wiring

Dimensions



Ordering code

Intrinsic safety(Exia IICT6), flame-proof Exd IICT6)optional

UPC3						
UPC3	range	measuring range: 0~1bar...600bar				
	(0~X)bar	X: actual measuring range				
		code	output			
		O1	2mV/V			
		O2	3mV/V			
		O3	others			
			code	accuracy		
			C	0.25%FS		
			D	0.5%FS		
				code	process connection	
			P1	G1/4		
			P4	M20×1.5		
			P6	M12×1		
			Pz	customer request		
				code	electrical connection	
				E1	hirschmann connector	
				E2	aviation connector	
				E3	KSS connector	
				Ez	customer request	
UPC3	(0~20)bar	O1	D	P1	E2	

UPC4 High Frequency Response Pressure Transducer

Description

Based on MEMS technology, UPC4 high frequency pressure transducer uses integrated silicon diaphragm as sensing element. UPC4's effective size is small, and because of the silicon's fine elasticity characteristic, in addition to the transducer's flush structure, therefore, UPC4's dynamic frequency response is extremely high (max. 1MHz), it may response to the lowest to zero frequency, highest to almost natural frequency, and the level rising time is only microsecond. UPC4 transducer's overall performance surpasses piezoelectric dynamic pressure transducer.

UPC4 series sensor has been widely applied in scientific experiments as military engineering, melt exploding experiment, petroleum, oil well logging, material, mechanics, construction engineering, soil and rock mechanics, the wound medicine, hydraulic pressure power generator experiments, and in the modernization instruments and meters, it is the first choice for dynamic pressure measurement.

Features

- Based on MEMS silicon chips
- High accuracy, high stability, high reliability
- Flush structure, good dynamic frequency response
- Wide measuring ranges



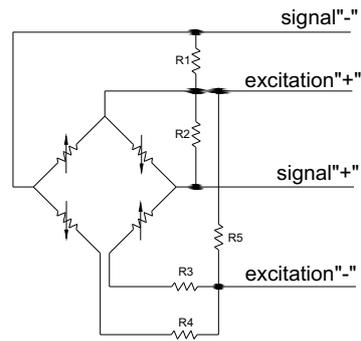
Specifications

dynamic frequency	max. 1MHz
pressure medium	gas or liquid compatible to stainless steel
pressure ranges	0~0.1bar...1000bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	≥200%FS
output signal	80±20mV
accuracy	0.1%FS, 0.25%FS, 0.5%FS(standard)
zero offset	≤±2mV
long-term stability	<0.2%FS/year
excitation	1.5mA or 9VDC
compensated temperature range	0~70°C
operating temperature range	-10~80°C
storage temperature range	-40~100°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.3%FS/10°C
input/output resistance	1~6kΩ
insulation resistance	100MΩ@50VDC
process connection	M20×1.5 or others
electrical connection	self-locking structure or other
material of wetted part	1Cr18Ni9Ti
material of housing	1Cr18Ni9Ti

UPC4 High Frequency Response Pressure Transducer

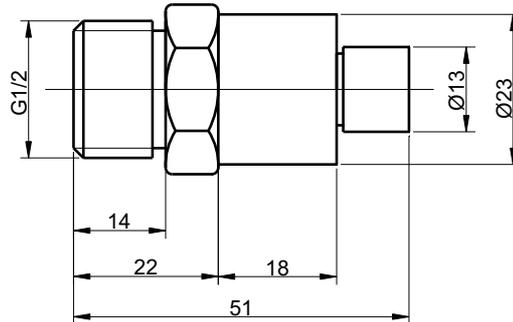
Electrical connection

connection	cable color
power“+”	red
power“-”	black
signal“+”	green
signal“-”	white



circuit of constant current supply

Dimensions



Ordering code

UPC4	
range	measuring range: 0~0.1bar...1000bar
(0~X)bar	X: higher limit of actual measuring range
code	pressure type
G	gauge
A	absolute
S	sealed gauge
code	accuracy
B	0.1%FS
C	0.25%FS
D	0.5%FS
code	process connection
P2	G1/2
P4	M20×1.5
P5	½ NPT
Pz	customer request
code	electrical connection
E1	self-locking structure
E2	aviation connector
E3	hummel connector
Ez	customer request
code	power supply
S1	1.5mA
S2	9VDC

UPC4 | (0~10)bar | G | D | P2 | E2 | S2

UPC5 Differential Pressure Transducer

Description

Based on advanced micro machine-finishing technology, UPC5 differential pressure transducer is made by using OEM differential pressure sensor, which is mounted in the entirely sealed stainless steel housing, the negative & positive pressure port of the housing are both G1/4".

The strict precise temperature compensation and linearity compensation guarantee the product to have high accuracy and high stability.

This product is widely used for industrial process control, flow measurement, and in the pressure measurement in medical instrument, aerodynamic force, hydraulic pressure, air operated equipment.

Features

- High measuring accuracy, high stability, high reliability
- Standard G1/4 female thread
- Good linearity
- Small profile, light weight the weight, high frequency response
- High static pressure, good ability on anti-impact



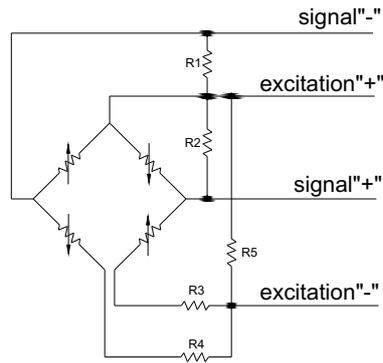
Specifications

pressure medium	gas or liquid compatible to stainless steel
pressure ranges	0~0.2bar...35bar
pressure type	differential(D)
overload pressure	250%FS(positive pressure),100%FS(negative pressure)
system pressure	≤20MPa
output signal	≥70mV (0~20kPa,≥50mV)
accuracy	0.25%FS(standard), 0.5%FS
zero offset	≤±2mV
long-term stability	<0.2%FS/year
excitation	1.5mA
compensated temperature range	0~60°C
operating temperature range	-30~100°C
storage temperature range	-40~100°C
temperature coefficient of zero	0.3%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input/output resistance	2~6kΩ
insulation resistance	100MΩ@50VDC
response time	≤1ms
process connection	G1/4 female
electrical connection	Φ7.2 cable with vent hose
material of wetted part	1Cr18Ni9Ti
material of pressure membrane	316L
material of housing	1Cr18Ni9Ti
sealing	fluorine rubber sealing ring
protection	IP65

UPC5 Differential Pressure Transducer

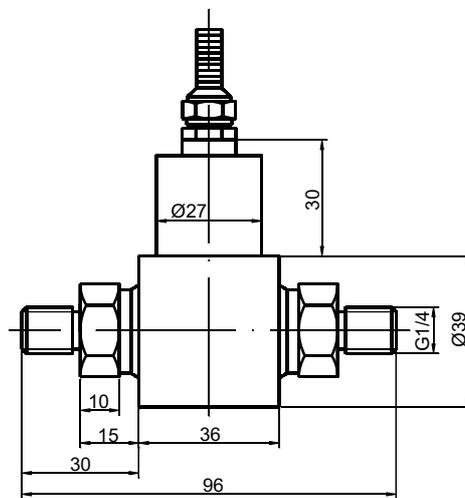
Electrical connection

connection	cable color
excitation“+”	red
excitation“-”	yellow
signal“+”	blue
signal“-”	green



note: please refer to the user manual for the actual wiring

Dimensions



Ordering code

UPC5				
	range	measuring range: 0~0.2bar...35bar		
	(0~X)bar	X: actual measuring range		
	code	accuracy		
	C	0.25%FS		
	D	0.5%FS		
		code	process connection	
		Pn	G1/4 female	
		P4	M20×1.5 male	
		Pg	gas nipple	
		Pz	customer request	
		code	electrical connection	
		E1	aviation connector	
		E2	Φ7.2 shielded PVC cable	
		Ez	customer request	
UPC5	(0~20)bar	D	Pn	E3

UPC6 Submersible level Transducer

Description

UPC6 fluid level transducer is a fully sealed transducer with stainless steel housing, and constructed by gauge pressure sensor with high accuracy and high reliability. The stainless steel cap on the housing top not only protect the pressure diaphragm, but also cause the fluid to contact diaphragm freely.

By using high quality sensor, exquisite sealing technology as well as assembly techniques have guaranteed this product's outstanding quality and performance.

Features

- Fully sealed structure
- Stable performance, good long-term stability
- Submerible measurement type
- Cable connection, good ability of oil resistant, water resistant



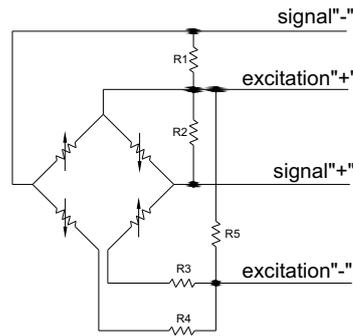
Specifications

pressure medium	gas or liquid compatible to stainless steel
measuring ranges	0~1mH ₂ O...200mH ₂ O
measuring mode	submerible
overload pressure	150%FS
output signal	≥70mV
accuracy	0.1%FS, 0.25%FS(standard), 0.5%FS
zero offset	≤±2mV
long-term stability	<0.5%FS/year
excitation	1.5mA
compensated temperature range	0~60°C
operating temperature range	-10~80°C
storage temperature range	-40~100°C
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input/output resistance	2~6kΩ
insulation resistance	100MΩ@50VDC
electrical connection	Φ7.6mm PTFE shielded cable with vent hose
material of wetted part	1Cr18Ni9Ti
material of pressure membrane	316L
material of housing	1Cr18Ni9ti
sealing	fluorine rubber sealing ring
protection	IP68

UPC6 Submersible level Transducer

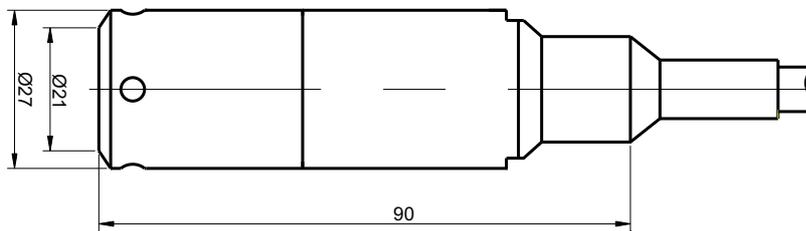
Electrical connection

connection	cable color
excitation“+”	red
excitation“-”	black
signal“+”	green
signal“-”	white



note: please refer to the user manual for the actual wiring

Dimensions



Ordering code

UPC6			
	range	measuring range: 0~1mH ₂ O...200mH ₂ O	
	(0~X)mH ₂ O	X: actual measuring range	
	code	accuracy	
	B	0.1%FS	
	C	0.25%FS	
	D	0.5%FS	
	code	cable length	
	L	5m(we provide 5m cable with the product)	
	Lz	customer request	
UPC6	(0~10)mH ₂ O	C	L

UPC7 Strain Gauge Pressure Transducer

Description

Based on strain gauge technology, UPC7 pressure transducer uses strain gauges as sensing elements. The strain gauges form a Wheatstone bridge on back of the diaphragm to sensing the deformation of the diaphragm, this deformation results from the pressure which act vertically to the diaphragm. As the sizes of strain gauges are very small and can be designed so many different types to suit different situations, therefore the application of UPC7 strain gauge pressure transmitter is very wide these days.

UPC7 strain gauge pressure transducer is mainly used for static or dynamic pressure measurement of flowing medium, for example power conduit equipment's input or output gas or liquid pressure, internal combustion engine pipeline pressure and so on.

Features

- High measuring accuracy
- Suitable for middle and high pressure measurement
- Anti-corrosive, anti-impact
- Pressure port is cavity or flush diaphragm



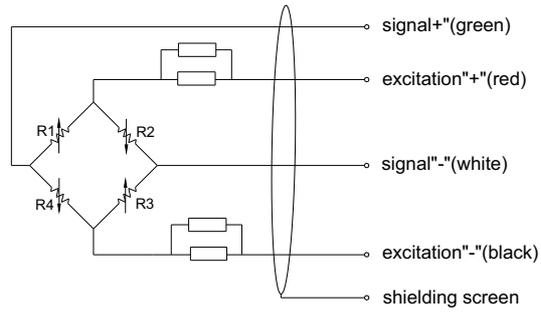
Specifications

pressure medium	gas or liquid compatible to stainless steel
pressure ranges	0~16bar...3000bar
overload pressure	150%FS
output signal	1mV/V,1.5mV/V,2mV/V
accuracy	0.1%FS,0.25%FS, 0.5%FS(standard)
zero unbalance	<±2%FS
long-term stability	<0.2%FS/year
suggested supply voltage	6VDC~12VDC
max. supply voltage	18VDC
compensated temperature range	-10~+60°C
operating temperature range	-20~+70°C
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input resistance	380±5Ω,1000±5Ω
output resistance	350±5Ω,1000±5Ω
insulation resistance	100MΩ@50VDC
process connection	G1/4 or others
electrical connection	self-locking structure
material of wetted part	1Cr18Ni9Ti
material of housing	1Cr18Ni9Ti

UPC7 Strain gauge Pressure Transducer

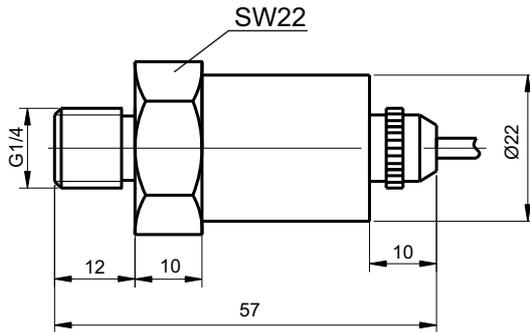
Electrical connection

connection	cable color
excitation“+”	red
excitation“-”	black
signal“+”	green
signal“-”	white



note: please refer to the user manual for the actual wiring

Dimensions



Ordering code

UPC7					
UPC7	range	measuring range: 0~16bar...3000bar			
	(0~X)bar	X: actual measuring range			
		code	output		
		O1	1mV/V		
		O2	1.5mV/V		
		O3	2mV/V		
		code	accuracy		
		B	0.1%FS		
		C	0.25%FS		
		D	0.5%FS		
		code	process connection		
		P1	G1/4		
		P4	M20×1.5		
		P6	M12×1		
		Pz	customer request		
		code	electrical connection		
		E1	hirschmann connector		
		E2	aviation connector		
		E3	self-locking structure		
		Ez	hirschmann connector		
UPC7	(0~200)bar	O1	D	P1	E2

UPC9 Sputtered Thin-film Pressure Transducer

Description

UPC9 sputtered thin-film pressure transducer is manufactured based on sputtering techniques. The pressure medium can act on 17-4PH stainless steel diaphragm directly. The transducer's "micro" level resistance film is made by means of molecular bonding, then to be made to the needed Wheatstone bridge by microelectronics technology, and to form a metal-type sensing elements without using any adhesives. Therefore the transducer has no any moving parts, also do not need sealed chamber and oil-filled cavity. UPC9 pressure transducer is featured with good long-term stability for working in harsh environments.

UPC9 pressure sensor is a high-performance product and designed for oil well logging, well testing and pressure gauge application especially. It can work stably under high temperature, and have good ability on anti-vibration, impact resistance, moisture-proof.

UPC9 has been widely used for pressure measurement in harsh environments such as oil well logging, well testing, digital pressure gauge, internal combustion engines, compressors, high pressure testing machine etc.

Features

- Good long-term stability under high temperature
- Anti-vibration, impact resistance, moisture-proof
- High accuracy, small temperature drift
- Using sputtering techniques to make pressure sensing element, the max. working temperature reaches 180 degree c
- Long service life, pressure cycle reaches more than one million times



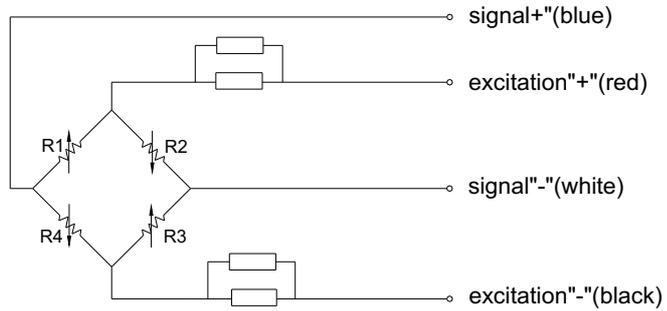
Specifications

pressure medium	gas or liquids compatible with 17-4PH stainless steel
pressure ranges	0~10...2200bar
overload pressure	200%FS
ultimate overload pressure	1000%FS
output signal	1mV/V~4mV/V (determined by pressure range)
accuracy	0.1%FS, 0.25%FS(standard), 0.5%FS
zero offset	<0.5mV
long-term stability	<0.1%FS/year
excitation	3VDC~20VDC
operating temperature range	-55°C~180°C
storage temperature range	-40°C~150°C
temperature coefficient of zero	0.005%FS/°C
temperature coefficient of span	0.005%FS/°C
input resistance	3~4kΩ
output resistance	2.8~3.8kΩ
electrical connection	4-color high temperature wire
process connection	M10×1 or others
material of wetted part	316
impact	20G, 11msec, ½ sine
shake	10G peak, 20Hz~ 2400 Hz
protection	IP67

UPC9 Sputtered Thin-film Pressure Transducer

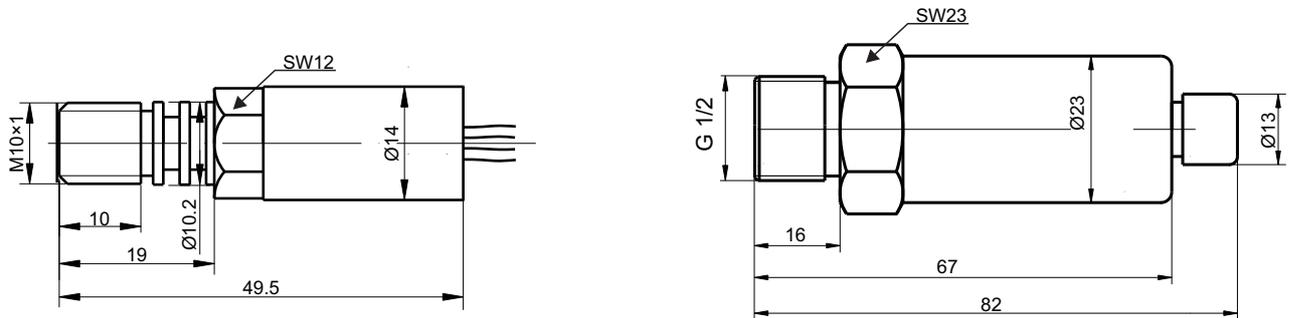
Electrical connection

connection	cable color
excitation“+”	red
excitation“-”	black
signal“+”	blue
signal“-”	white



note: please refer to the user manual for the actual wiring

Dimensions



Ordering code

UPC9-a			
UPC9-b			
	range	pressure range: 0~10...2200bar	
	(0~X)bar	X: required measuring range	
	code	accuracy	
	B	0.1%FS	
	C	0.25%FS	
	D	0.5%FS	
	code	process connection	
	P8	M10×1	
	P6	M12×1	
	P2	G1/2	
	Pz	customer request	
UPC9-a	(0~200)bar	C	Pz(M8×1.25)

UPX19 OEM Silicon Pressure Sensor

Description

Based on piezoresistive silicon technology, UPX19 is manufactured from piezoresistive silicon dies. The sensor has a diameter of 19mm and fully welded 316L stainless steel structure. The precisely adjusted thick-film circuit carry on wide temperature range compensation and zero deviation to the sensing element. The measured pressure is transmitted to the piezoresistive silicon sensing element through 316L isolated diaphragm and the filled oil, thus to realize the precise transformation of electrical signal from pressure.

UPX19 OEM pressure sensor is the core part (OEM) of making pressure transducer & transmitter. This product is designed for easy installation with O-rings as sealing method. As one kind of high performance pressure-sensitive device, UPX19 pressure sensor can be amplified and processed to assemble pressure transmitter with standard signal output very conveniently.

UPX19 is widely used in process control in petroleum, chemical industry, metallurgy, electric power, aviation, astronautics, medical equipment, automobile etc.

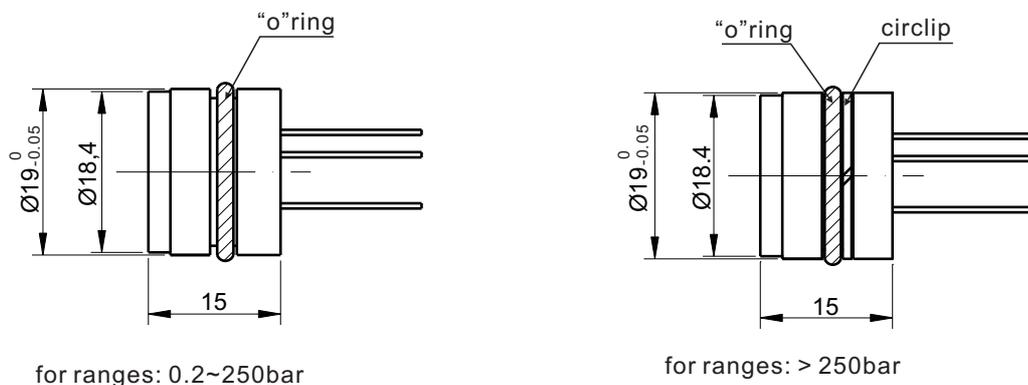
Features

- Good performance, entire solid state, high reliability
- Computer testing, laser trimming compensation for zero and sensitivity
- Have gauge pressure, absolute pressure and sealed gauge pressure
- Imported pressure silicon dies
- Isolated-type structure, suitable for measurement of many kinds of fluid medium

Note: we can make sensors as customer request like wide-temperature compensation, high reliability, high ability on anti-impact & vibration.



Dimensions



note: the proposed mounting dimension $\Phi 19^{+0.05}_{+0.02}$

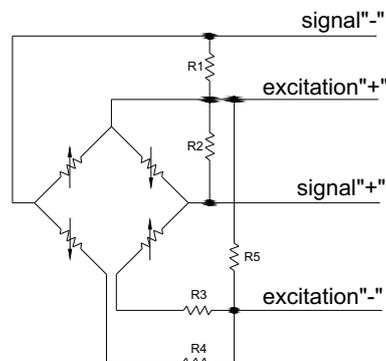
UPX19 Silicon Pressure Sensor

Specifications

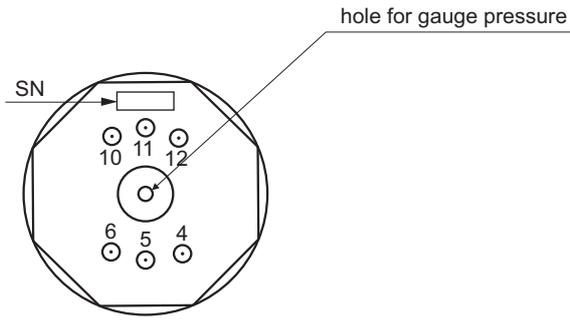
pressure medium	gas or liquid compatible to stainless steel
pressure ranges	-1~0,-0.35~0,-0.2~0,0~0.2,0~0.35,0~1,0~2.5,0~4,0~6,0~10,0~16,0~25 (G bar) 0~1,0~2.5,0~4,0~6,0~10,0~16,0~25 (A bar) 0~10,0~16,0~25,0~60,0~100,0~250,0~400,0~600,0~1000 (S bar)
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
output signal	≥70mV(typical)
accuracy	0.25%FS(standard), 0.5%FS
zero offset	≤±2mV
long-term stability	<0.2%FS/year
excitation	1.5mA
compensated temperature range	0~+70°C
operating temperature range	-20~+80°C
storage temperature range	-40~+100°C
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input/output resistance	2~6kΩ
insulation resistance	100MΩ@50VDC
response time(10%~90%)	≤1ms
electrical connection	6 pin or 4wires
material of pressure membrane	316L
material of housing	316L
filled oil	silicon oil or olive oil (hygienism)
sealing	fluorine rubber sealing ring
wire	gold-plated kovar pins or silicon rubber shielded flexible wires
vibration	20g/ (20~5000Hz)
net weight	23g
service life	>1×10 ⁸ times

Electrical connection

connection	cable color
excitation“+”	black
excitation“-”	yellow
signal“+”	red
signal“-”	blue



UPX19 Silicon Pressure Sensor



connection	pin
signal“+”	4
excitation“+”	5
excitation“-”	6
signal“-”	10
pin 11,12 not connected	

Note: please refer to the product identification card for the actual wiring

Ordering code

UPX19						
code	pressure range & pressure type		code	pressure range and pressure type		
01	-1~0 bar	G	10	0~10 bar	G A S	
02	-0.35~0 bar	G	11	0~16 bar	G A S	
03	-0.2~0 bar	G	12	0~25 bar	G A S	
04	0~0.2 bar	G	13	0~60 bar	S	
05	0~0.35 bar	G	14	0~100 bar	S	
06	0~1 bar	G A	15	0~250 bar	S	
07	0~2.5 bar	G A	16	0~350 bar	S	
08	0~4 bar	G A	17	0~600 bar	S	
09	0~6 bar	G A	18	0~1000 bar	S	
	code	pressure type				
	G	gauge				
	A	absolute				
	S	sealed gauge				
		code	accuracy			
		C	0.25%FS			
		D	0.5%FS			
			code	electrical connection		
			E1	6-Pin		
			E2	4colored silicon rubber flexible wire		
			code	negative pressure measurement		
			Y	need for negative pre. measurement.		
			N	not need for negative pre. measurement.		
UPX19	09	G	D	E1	N	

UPX20 Flush Diaphragm Silicon Pressure Sensor

Description

Based on piezoresistive silicon technology, UPX20 is manufactured from piezoresistive silicon dies. It features a fully welded construction with a flush diaphragm facing the pressure media, able to measure pressure of viscous liquids. The measured pressure is transmitted to the piezoresistive silicon sensing element through 316L isolated diaphragm and inner medium, thus to realize the precise transformation of electrical signal from pressure.

The flush diaphragm is welded in the front of the sensor body, which has a G1/2" male thread in its front end. The seal is created with an O-ring behind the thread. In the rear end of the sensor body, a make thread of M24x1 is used for installation.

UPX20 pressure sensor is suitable for applications in medical, food and beverage industry.

Features

- Good performance, entire solid state, high reliability
- Computer testing, laser trimming compensation for zero and sensitivity
- Have gauge pressure, absolute pressure and sealed gauge pressure
- Imported pressure silicon dies
- Flush diaphragm structure, suitable for medical, food, beverage industry



UPX20-a



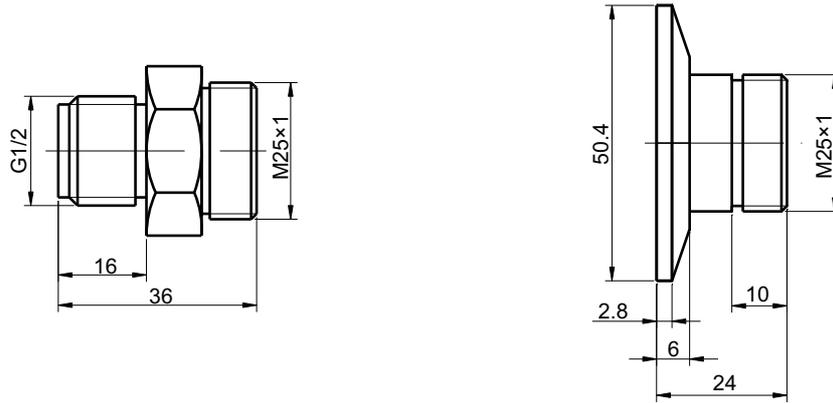
UPX20-b

Specifications

pressure medium	gas, viscous fluid or fluid with grains compatible to stainless steel
pressure ranges	0~0.2,0~0.35,0~1,0~2.5,0~4,0~6,0~10,0~16,0~25 (G,A bar) 0~10,0~16,0~25,0~60,0~100 (S bar)
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
output signal	≥70mV(typical)
accuracy	0.25%FS(standard), 0.5%FS
zero offset	≤±2mV
long-term stability	<0.2%FS/year
excitation	1.5mA
compensated temperature range	0~+70°C
operating temperature range	-20~+80°C
storage temperature range	-40~+125°C
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input/output resistance	2~6kΩ
insulation resistance	100MΩ@50VDC
response time(10%~90%)	≤1ms
process connection	G1/2
electrical connection	6 pin or 4wires
wetted part and diaphragm material	316L
filled oil	olive oil
wire	gold-plated kovar pins or silicon rubber shielded flexible wires

UPX20 Flush Diaphragm Silicon Pressure Sensor

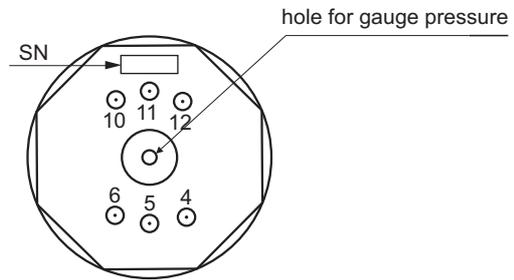
Dimensions



Electrical connection

connection	color	pin
signal“+”	red	4
excitation“+”	black	5
excitation“-”	yellow	6
signal“-”	blue	10

pin 11,12 not conected



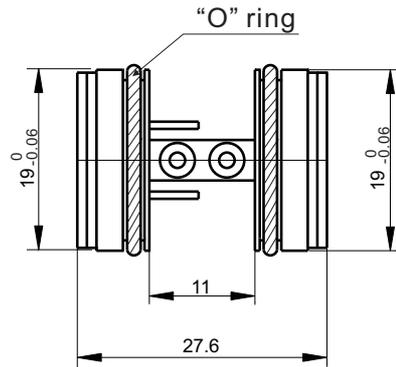
Note: please refer to the product identification card for the actual wiring

Ordering code

UPX20-a		UPX20-b		
code	pressure range and pressure type	code	pressure range and pressure type	
04	0~0.2 bar G A	10	0~10 bar G A S	
05	0~0.35 bar G A	11	0~16 bar G A S	
06	0~1 bar G A	12	0~25 bar G A S	
07	0~2.5 bar G A	13	0~60 bar S	
08	0~4 bar G A	14	0~100 bar S	
09	0~6 bar G A			
	code	pressure type		
	G	gauge		
	A	absolute		
	S	sealed gauge		
	code	accuracy		
	C	0.25%FS		
	D	0.5%FS		
	code	electrical connection		
	E1	6-pin		
	E2	4-color silicon rubber shielded flexible wire		
UPX20-a	10	G	D	E1

UPX30 Silicon Differential Pressure Sensor

Dimensions



Electrical connection

<u>connection</u>	<u>cable color</u>
signal“+”	red
excitation“+”	blue
excitation“-”	yellow
signal“-”	white

Note: please refer to the product identification card for the actual wiring

Ordering code

UPX30		
code	pressure range and pressure type	
05	0~0.35 bar	
06	0~1 bar	
07	0~2.5 bar	
08	0~4 bar	
09	0~6 bar	
10	0~10 bar	
11	0~16 bar	
12	0~25 bar	
13	0~35 bar	
code	accuracy	
C	0.25%FS	
D	0.5%FS	
UPX30	08	D

UPX30 OEM Silicon Differential Pressure Sensor

Description

Based on piezoresistive silicon technology, UPX30 is manufactured from piezoresistive silicon dies. This sensor has two flush diaphragms facing the pressure media, able to measure differential pressure of viscous liquids, the diaphragm form a chamber, in which oil is filled to isolate the sensing element and transfer pressure. The measured pressure is transmitted to the piezoresistive silicon sensing element through 316L isolated diaphragm and internal medium, thus to realize the precise transformation of electrical signal from pressure. This isolation enables the sensor to measure the pressures of corrosive fluids as well as electro conductive liquids.

This sensor is tested by computer automatically, and is compensated by laser trimming for zero and sensitivity. Its profile and assembly size have good interchangeability with some overseas' general products.

UPX30 pressure sensor is designed for easy installation with O-rings as sealing method, it is widely used for differential pressure measurement in many industrial process control areas.

Features

- Computer tested, laser trimming compensation
- Good performance, high reliability
- Imported pressure silicon dies
- Integrated, high static pressure
- Isolated-type structure, suitable for many kinds of medium measurement



Specifications

pressure medium	gas or viscous fluid or fluid with grains compatible to stainless steel
pressure ranges	0~0.35,0~1,0~2.5,0~4,0~6,0~10,0~16,0~25,0~35 (bar)
pressure type	differential
overload pressure	250%FS(positive end),100%FS(negative end)
system pressure	4MPa
output signal	$\geq 70\text{mV}$ (typical)
accuracy	0.25%FS(standard), 0.5%FS
zero offset	$\leq \pm 3\text{mV}$
long-term stability	$< 0.2\% \text{FS/year}$
excitation	1.5mA(not exceeding 2mA)
compensated temperature range	0~70°C
operating temperature range	-20~+80°C
storage temperature range	-40~+125°C
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.3%FS/10°C
input/output resistance	2~6k Ω
insulation resistance	100M Ω @50VDC
response time(10%~90%)	$\leq 1\text{ms}$
electrical connection	4-color silicon rubber shielded flexible wires
housing and diaphragm material	316L stainless steel
filled oil	silicon oil
service life	$> 1 \times 10$ times

UPX6 Series Silicon Pressure Sensor

Description

Based on piezoresistive silicon technology, UPX6-a, -b, and -c are manufactured from piezoresistive silicon dies.

UPX6-a silicon piezoresistive pressure sensor is the ultra-thin design based on UPX19 foundation

UPX6-b silicon piezoresistive pressure sensor is manufactured by using UPX-19's manufacturing techniques. It is designed for application of high pressure situation. Its small diameter causes the strength on the sensor body reduce greatly after installation.

UPX6-c silicon piezoresistive pressure sensor is manufactured by using UPX-19's manufacturing techniques. Except their outer diameters and lengths, other technical specifications of these sensors are completely same.



UPX6-a



UPX6-b



UPX6-c

Features

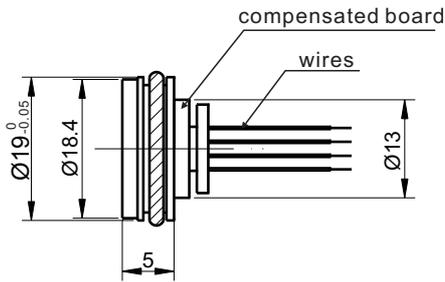
- Computer tested, laser trimming compensation
- Good performance, high reliability
- Imported pressure silicon dies
- Isolated-type structure, suitable for many kinds of medium measurement

Specifications

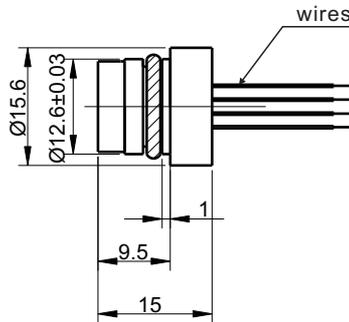
pressure medium	gas or liquid compatible to stainless steel
pressure ranges	-1...0~0.2...60 bar (UPX6-a G,A,S) 0~25...1000 bar (UPX6-b A,S) -1...0~0.2...1000 bar (UPX6-c G, A, S)
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
output signal	≥70mV(typical)
accuracy	0.25%FS(standard), 0.5%FS
zero offset	≤±2mV
long-term stability	<0.2%FS/year
excitation	1.5mA or 10V DC
compensated temperature range	0~+70°C
operating temperature range	-20~+80°C
storage temperature range	-40~+100°C
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input/output resistance	2~6kΩ
insulation resistance	100MΩ@50VDC
electrical connection	6 pin or 4wires
material of pressure membrane and housing	316L

UPX6 Series OEM Silicon Pressure Sensor

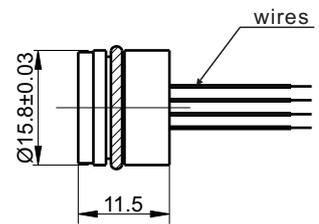
Dimensions



UPX6-a



UPX6-b



UPX6-c

Electrical connection

connection	cable color
signal“+”	red
excitation“+”	black
excitation“-”	yellow
signal“-”	blue

Note: please refer to the product identification card for the actual wiring

Ordering code

UPX6-a		UPX6-b		UPX6-c	
range	measuring range: -1...0bar~0.2...1000bar				
(0~X)bar	X: actual measuring range				
code	pressure type				
G	gauge				
A	absolute				
S	sealed gauge				
code	accuracy				
C	0.25%FS				
D	0.5%FS				
code	electrical connection				
E1	4colored PVC flexible wire				
UPX6-a	(0~10)bar	G	D	E1	

Note: We can make sensor as customer's special requests like wide-temperature compensation range, high reliability, high ability of anti-impacting and vibration etc.

UPX18 TO8 Housing Silicon Pressure Sensor

Description

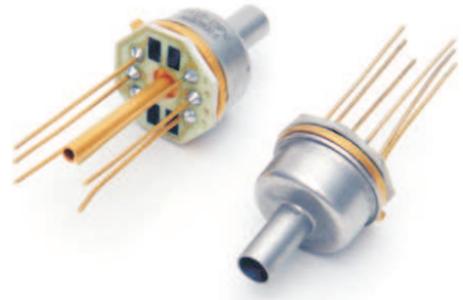
Based advanced ion implantation and micro-mechanical processing technology, UPX18 To8 housing piezoresistive pressure sensor is manufactured based on silicon chip which has Wheatstone Bridges and precise mechanical structure. The measured pressure acts on silicon die through pressure port directly, and the pressure value is transformed to output voltage signal in linearity-relationship.

The sensor is temperature compensated by means of laser trimmed technologies, TO housing makes it suitable for PCB mounting application, or installed in small space fields for pressure measurement of gas or liquid media

UPX18 has been widely used for air pressure control, physiology guarding, medicine equipment, blood-pressure meter etc.

Features

- Measuring range:0~0.07...10bar
- Gauge, absolute and differential pressure
- Suitable for measurement of non-conductive & non-corrosive media
- TO8 packing, enable for PCB installation
- Low cost, small size

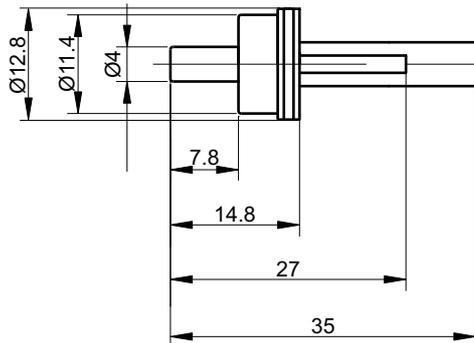


Specifications

pressure medium	non-conductive & non-corrosive gas or liquid
pressure ranges	0~0.07...10 bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
output signal	≥70mV(typical)
accuracy	0.25%FS(standard), 0.5%FS
zero offset	≤±2mV
long-term stability	<0.2%FS/year
excitation	<2mA
compensated temperature range	0~+50°C
operating temperature range	-40~+125°C
storage temperature range	-40~+125°C
temperature coefficient of zero	0.25%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input/output resistance	3~8kΩ
insulation resistance	100MΩ@50VDC
response time(10%~90%)	≤1ms
electrical connection	6 pin,(gold coated kovar wires)
housing material	316L
position effect	deviate 90°at any direction, zero change≤0.05%FS
impact	100g,11ms
net weight	about 4g

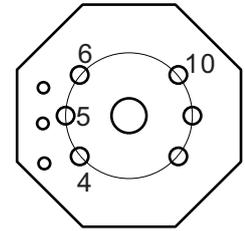
UPX18 TO8 Housing Silicon Pressure Sensor

Dimensions



Electrical connection

connection	pin
signal "+"	4
excitation "+"	5
excitation "-"	6
signal "-"	10



pin 11,12 not conected

note: please refer to the identification card for the actual wiring

Ordering code

UPX18				
code	pressure range	code	pressure range	
03	0~0.07 bar	08	0~2 bar	
04	0~0.2 bar	09	0~3.5 bar	
05	0~0.35 bar	10	0~7 bar	
06	0~0.7 bar	11	0~10 bar	
07	0~1 bar			
code		pressure type		
G		gauge		
A		absolute		
S		sealed gauge		
code		accuracy		
C		0.25%FS		
D		0.5%FS		
code		excitation		
S1		constant current		
UPX18	07	G	D	S1

UPX13 Silicon Pressure Sensor

Description

UPX13 OEM piezoresistive pressure sensor is a pressure measurement device based on corrugated stainless steel isolated diaphragm OEM pressure measurement devices. This pressure sensor is featured with integrated structure, high measuring pressure, good stability and high reliability, and is particularly suitable for high pressure measurements. By using high precision and high stability pressure-sensitive chips, the pressure sensitive elements are assembled in the imported production lines, and tested by computer automatically after zero correction and temperature compensation. UPX13 has good interchangeability because of its general assembly sizes.

UPX13 has been widely used in petrochemical, process control, hydraulic systems, pressure instrumentation, pressure calibration equipment, refrigeration equipment and air conditioning systems and other industries.

Features

- Ø12.6mm, small size
- Integrated 316L stainless steel
- Measuring ranges: 0~0.7MPa...100MPa
- Isolated structure, suitable for different fluid media
- Gauge pressure, absolute pressure and sealed gauge

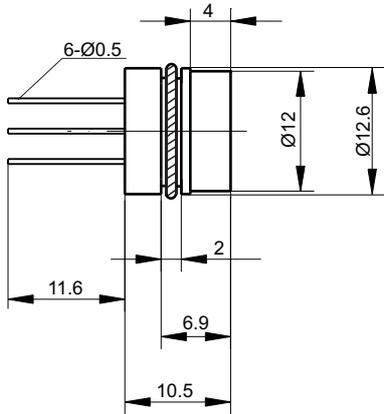


Specifications

pressure medium	gas or liquids compatible with stainless steel and fluorine rubber
pressure ranges	0~7...1000 bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS or 1100bar (choose the smaller)
output signal	≥70mV(typical)
accuracy	0.25%FS(standard), 0.5%FS
zero offset	≤±3mV
long-term stability	<0.1%FS/year
excitation	1.5mA
compensated temperature range	-10~+80°C
operating temperature range	-40~+125°C
storage temperature range	-40~+125°C
temperature coefficient of zero	0.25%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input/output resistance	3~8kΩ
insulation resistance	100MΩ@100VDC
response time(10%~90%)	≤1ms
electrical connection	6 pin, (gold coated kovar wires) or 100mm flexible silicone rubber wire
housing material	316L
position effect	deviate 90° at any direction, zero change ≤0.1%FS
impact	100g, 11ms
sealing ring	fluorine rubber

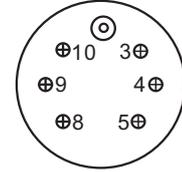
UPX13 Silicon Pressure Sensor

Dimensions



Electrical connection

connection	pin
signal“+”	4
excitation“+”	8
excitation“-”	3
excitation“-”	10
signal“-”	9



note: please refer to the identification card for the actual wiring

Ordering code

UPX13					
code	pressure range			code	pressure range
09	0~7 bar	G,A		15	0~100 bar S
10	0~10 bar	G,A		17	0~200 bar S
12	0~20 bar	G,A		18	0~350 bar S
13	0~35 bar	G,S,A		19	0~700 bar S
14	0~70 bar	S		20	0~1000 bar S
	code	pressure type			
	G	gauge			
	A	absolute			
	S	sealed gauge			
		code	temperature compensation means		
		L	laser trimmed compensation		
		R	provided compensation resistor value		
			code	electrical connection	
			E1	6 pin	
			E2	4 colored silicon rubber flexible wire	
UPX13	14	G	L	E1	

UPX22 All-welded Silicon Pressure Sensor

Description

UPX22 all-welded pressure sensor is constructed by welding general pressure sensor UPX19 into pressure port with standard or specific thread. Without any sealing ring but has different structures, UPX22 has application in wider situations compared to the general products, and is suitable for being assembled and produced for different pressure measurement products.

The UPX22 entire welding piezoresistive pressure sensor uses stainless steel isolated diaphragm as sensing element. This product is made with integrated structure, its quality is stable and reliable. By using high precision and high stability pressure-sensitive chips, the pressure sensitive elements are assembled in the imported production lines, and tested by computer automatically after zero correction and temperature compensation.

UPX22 pressure sensor is widely used in petroleum industry, chemical industry, process control, hydraulic system, pressure examination measuring instruments, pressure calibration instruments, refrigeration plant and air-conditioning system as well as aviation navigation examination etc.

Features

- All-welded structure, suitable for measuring many kinds of media
- Full stainless steel 316L material
- Measuring ranges:-1...0~0.2bar...600bar
- Excitation: constant current, or constant voltage
- Pressure type: gauge pressure, absolute pressure and sealed gauge pressure

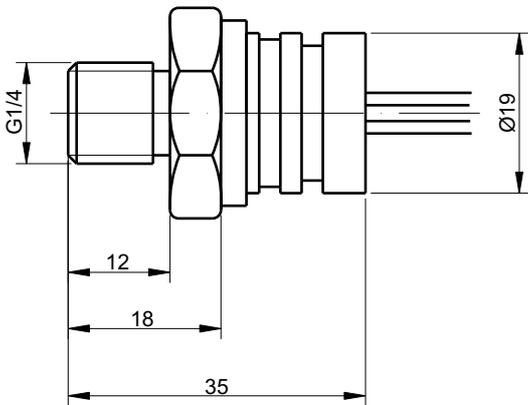


Specifications

pressure medium	gas or liquids compatible with stainless steel
pressure ranges	-1...0~0.2...600 bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS(<3.5MPa);150%FS(\geq 3.5MPa)
output signal	\geq 70mV(typical)
accuracy	0.25%FS(standard), 0.5%FS
zero offset	\leq \pm 3mV
long-term stability	<0.2%FS/year
excitation	1.5mA or 10V DC
compensated temperature range	-20~+70°C
operating temperature range	-40~+85°C
storage temperature range	-40~+120°C
temperature coefficient of zero	0.25%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input/output resistance	3~8k Ω
insulation resistance	500M Ω @100VDC
response time(10%~90%)	\leq 1ms
electrical connection	6 pin,(gold coated kovar wires)4 colored silicon rubber flexible wire
housing and diaphragm material	316L
service life	>1 \times 10 ⁷ times
filled oil	silicone oil
weight	about 60g

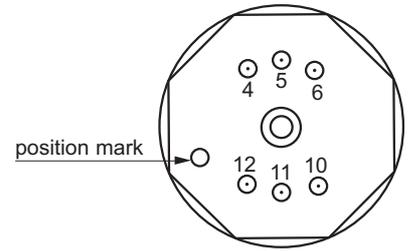
UPX22 all-welded Silicon Pressure Sensor

Dimensions



Electrical connection

connection	pin
signal "+"	4
excitation "+"	5
excitation "-"	6
signal "-"	10



note: please refer to the identification card for the actual wiring

Ordering code

UPX22					
code	pressure range & pressure type		code	pressure range and pressure type	
01	-1~0 bar	G	10	0~10 bar	G A S
02	-0.35~0 bar	G	11	0~16 bar	G A S
03	-0.2~0 bar	G	12	0~25 bar	G A S
04	0~0.2 bar	G	13	0~60 bar	S
05	0~0.35 bar	G	14	0~100 bar	S
06	0~1 bar	G A	15	0~250 bar	S
07	0~2.5 bar	G A	16	0~350 bar	S
08	0~4 bar	G A	17	0~600 bar	S
09	0~6 bar	G A			
	code	pressure type			
	G	gauge			
	A	absolute			
	S	sealed gauge			
		code	accuracy		
		C	0.25%FS		
		D	0.5%FS		
			code	electrical connection	
			E1	6-Pin	
			E2	4 colored silicon rubber flexible wire	
				code	excitation
				C	constant current
				V	constant voltage
UPX22	10	G	D	E1	C

UPX7 Series Strain gauge Pressure Sensor

Description

Based on metal foil strain gauge technology, the sensing elements of UPX-7 series pressure sensors are strain gauges, these strain gauges form a Wheatstone bridge on back of the diaphragm to sensing the deformation of the diaphragm, this deformation results from the pressure which act vertically to the diaphragm.

UPX7-a strain gauge pressure sensor is made with cavity, and designed with O-ring sealing method or welded sealing method.

UPX7-b strain gauge pressure sensor is made with semi-flush diaphragm. Its performance and principle are similar to WPX7-a'. By using integrated structure without O-ring or welding, its measuring range can reach 2000bar.

UPX7-c strain gauge pressure sensor is made with flush diaphragm. Its performance and principle are similar to UPX7-a's. This sensor uses welding as sealing method, and widely used in food, medicine and beverage industries.



cavity type



semi-flush diaphragm type



flush diaphragm type(welded)

Note: can make these sensors according to customer required dimensions

Specifications

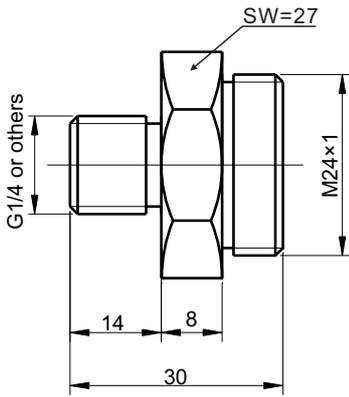
pressure medium	gas or liquid compatible to stainless steel
pressure ranges	0~10bar...3000bar
overload pressure	150%FS
output signal	1mV/V,1.5mV/V,2mV/V
accuracy	0.1%FS,0.25%FS, 0.5%FS(standard)
zero unbalance	<±2%FS
long-term stability	<0.2%FS/year
suggested excitation voltage	6VDC~12VDC
max. excitation voltage	5VDC~18VDC
compensated temperature range	-10~+60°C
operating temperature range	-20~+70°C
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
input resistance	380±5Ω,1000±5Ω
output resistance	350±5Ω,1000±5Ω
insulation resistance	100MΩ@50VDC
process connection	G1/2 or others
electrical connection	4colored PVC flexible wire
material of pressure membrane	17-4PH
material of housing	1Cr18Ni9Ti/17-4PH

UPX7 Series Strain gauge Pressure Sensor

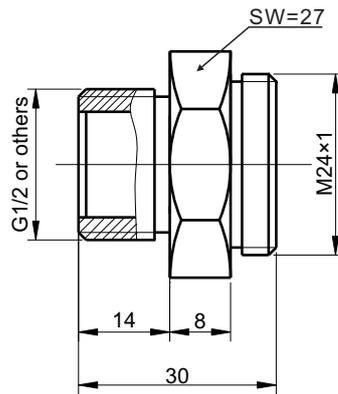
Features

- High accuracy, high performance
- Suitable for middle and high pressure measurement
- Isolated structure, suitable for many kinds of pressure medium
- Anti-corrosive, anti-abrasion, anti-impact
- Pressure port has cavity type, semi-flush diaphragm and flush diaphragm

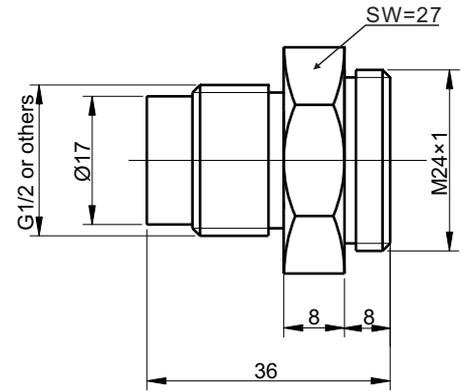
Dimensions



UPX7-a



UPX7-b



UPX7-c

Ordering code

UPX7-a					
UPX7-b					
UPX7-c					
	range	measuring range: 0~10bar...3000bar			
		(0~X)bar	X: actual measuring range		
		code	output		
		O1	1mV/V		
		O2	1.5mV/V		
		O3	2mV/V		
		code	accuracy		
			B	0.1%FS	
			C	0.25%FS	
			D	0.5%FS	
	code	process connection			
		P1	G1/4		
		P2	G1/2		
		P4	M20×1.5		
	Pz	customer request			
UPX7-a	(0~100)bar	O2	D	P2	

UPX3351 Metal Capacitive Differential Pressure Sensor

Description

UPX3351 metallic capacitive pressure sensor uses two plate capacitors as sensitive elements. The sensor is a complete welded-sealing module, the processing pressure is transmitted to the diaphragm of sensitive element through isolated diaphragm and filled silicon oil, to cause the capacity boards displacement to change, thus makes the changes of capacitive signal.

UPX3351 can output capacitance signal directly, simultaneously the amplified circuit can also be installed in sensor's neck, to make it have 4~20mA standard output signal.

UPX3351 is widely used in drugs manufacturing, food industry as well as environmental protection etc.



Features

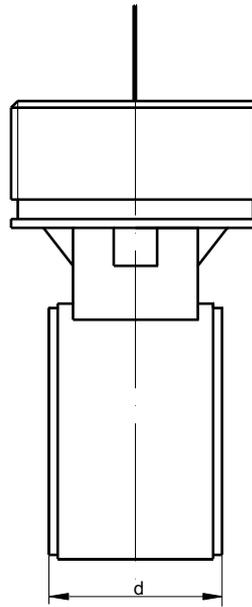
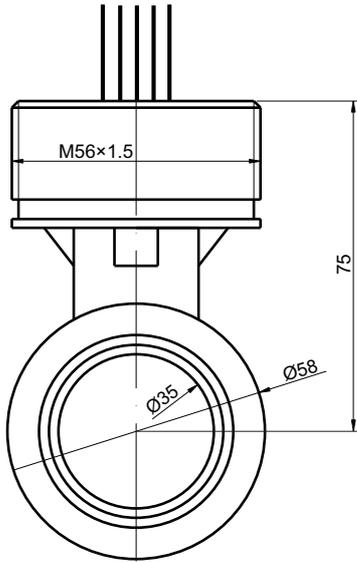
- All-welded structure, suitable for measuring many kinds of media
- Isolated diaphragm material: 316L, Hastelloy-C, Monel, Tantalum
- Measuring ranges: -100...-0kPa~1.6kPa...40MPa
- System pressure up to 312bar for differential applications
- Pressure type: gauge pressure, absolute pressure, micro differential pressure and differential pressure

Specifications

pressure medium	gas or liquids compatible with 316L, Hastelloy-C, Tantalum or Monel
pressure ranges	-100...0kPa~1.6kPa...40000kpa
pressure type	gauge(G), absolute(A), differential(D)
system pressure	13.8MPa for differential pressure, 6.9MPa for micro differential pressure 31.2MPa for high system pressure differential pressure,
output signal	capacitive signal or 4~20mA 1~5V standard signal
accuracy	±0.1%FS, ±0.2%FS
long-term stability	<0.2%FS/year
system pressure effect on zero	0.5%FS
operating temperature range	-40~+105°C
storage temperature range	-40~+100°C
temperature coefficient of zero	0.25%FS/55°C
temperature coefficient of span	0.5%FS/55°C
insulation resistance	500MΩ@100VDC
diaphragm material	316L, option: Hastelloy-C, Tantalum or Monel
electrical interface	5 colored PVC wires of differential capacitive signal and temperature signal 2 colored PVC insulated wires of 4~20mA current loop 3 colored PVC insulated wires of voltage output
filled oil	silicone oil

UPX3351 Metal Capacitive Differential Pressure Sensor

Dimensions



thickness of UPX3351

range	I	II	III	IV	V	VI	VII	VIII	IX
d	35	36	37	38	39				

Ordering code

UPX3351

code	pressure range & type		
I	0~1.5kPa for VDP (very low differential pressure transmitter)		
II	0~7.5kPa for DP(differential pressure transmitter),GP(gauge pressure transmitter)		
III	0~40kPa for DP, GP, AP(absolute pressure transmitter), HDP (high system pressure transmitter)		
IV	0~200kPa for DP, GP, AP, HDP		
V	0~690kPa for DP, GP, AP, HDP		
VI	0~2MPa for DP, GP, AP, HDP		
VII	0~7MPa for DP, GP, AP		
VIII	0~20MPa for GP		
IX	0~40MPa for GP		
code	system pressure(for differential pressure transmitter)		
1	1MPa for VDP		
4	4MPa for VDP,DP		
10	10MPa for DP		
25	25MPa for HDP		
32	32MPa for HDP		
code	accuracy		
B	0.1%FS		
C	0.2%FS		
D	0.5%FS		
code	output		
Oc	differential capacitive signal and temperature signal		
O1	4~20mA(HART protocol option)		
materials			
code	flange, exhaust valve	code	diaphragm
31	304SS,304SS	12	316L SS
32	316SS, 316SS	13	Hastelloy-C
32	Hastelloy-C, Hastelloy-C	14	Tantalum
34	Tantalum, Tantalum	15	Monel
35	Monel,Monel		

UPX3351 III DP 10 C 22 D2B2V1E1

UIY6 Intelligent Pressure Gauge

Description

UIY6 Intelligent pressure gauge is made with entire electronic structure, and uses battery as power supply. It is easy for field installation. UIY-6 intelligent pressure gauges are using high accuracy piezoresistive pressure sensors, which is located in the front end of UIY6. The output signal of the pressure sensor is processed and amplified by high accuracy and low temperature coefficient amplifier, and then transferred to A/D switch to transform digital signal which can be processed by microprocessor. After processing operation, the pressure gauge will demonstrate the actual value of the pressure by LCD indicator. UIY6 has automatic turn-off function in 1~15min.

The use of UIY6 intelligent pressure gauge is obviously flexible, and its operation is very simple, and the adjustment of this gauge is easy, safe and reliable. UIY6 intelligent pressure gauge is widely used in such industries as water and electricity, running water, petroleum, chemical, and machinery, for the measurement and demonstration of fluid medium's pressure.



Features

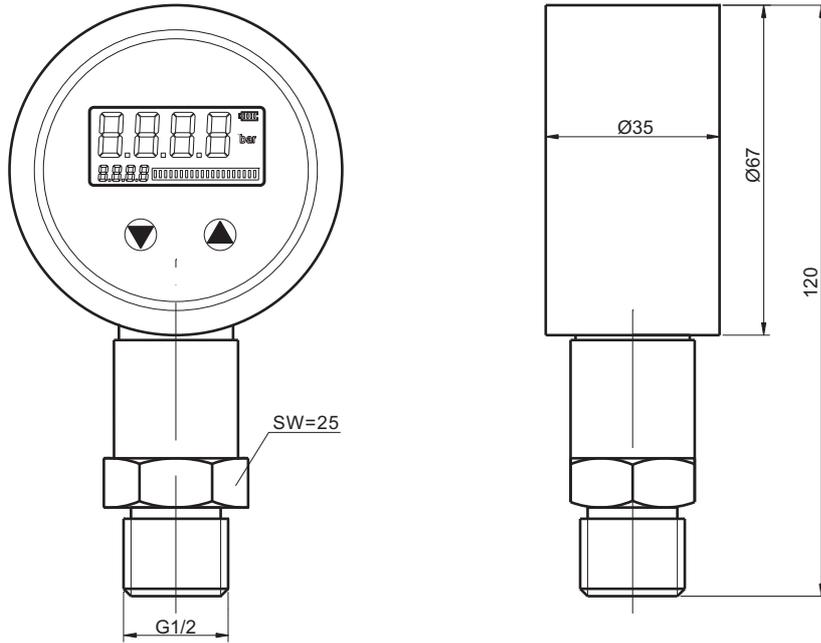
- LCD display, high resolution, without apparent value error
- Peak value recording function, record the max. pressure value during measuring process
- Pressure percentage dynamic demonstration (progress strip demonstration)
- Selectable ranges: MPa, psi, bar, kPa, kg/cm²
- 1~15min automatic turn-off function
- Micro power loss function, can work above 2 years in the electricity saving pattern
- Parameter revision function, can revise the gauge's zero error on the spot

Specifications

pressure medium	gas or liquid compatible to stainless steel
pressure ranges	-1...0~0.1...1000 bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
accuracy	0.1%FS,0.25%FS(standard), 0.5%FS
LCD display	4-digit
display range	-1999~9999
long-term stability	<0.1%FS/year
battery power supply	9V DC
compensated temperature range	0~+50°C
operating temperature range	-20~+70°C
selectable ranges	Mpa, psi,bar, kpa, kg/cm ²
sampling speed	4 times/sec.
insulation resistance	100MΩ@50VDC
process connection	G1/2 or others
housing material	1Cr18Ni9Ti

UIY6 Intelligent Pressure Gauge

Dimensions



Ordering code

UIY6					
	range	measuring range: -1...0~0.1bar...1000bar			
	(X1~X2)bar	X1: lower limit of actual measuring range, X2: higher limit of factual measuring range			
		code	pressure type		
		G	gauge		
		A	absolute		
		S	sealed gauge		
			code	accuracy	
			B	0.1%FS	
			C	0.25%FS	
			D	0.5%FS	
				code	process connector
				P1	G1/4"
				P2	G1/2"
				P4	M20×1.5
				P5	1/2"NPT
				Pz	customer request
UIY6	(0~20)bar	G	C	P2	

UIY6-D Digital Differential Pressure Gauge

Description

UIY6-D digital differential pressure gauge is made with entire electronic structure, and uses battery as power supply. It is easy for field installation. UIY-6D digital differential pressure gauges are using high accuracy piezoresistive pressure sensors, which is located in the front end of UIY6-D. The output signal of the pressure sensor is processed and amplified by high accuracy and low temperature coefficient amplifier, and then transferred to A/D switch to transform digital signal which can be processed by microprocessor. After processing operation, the pressure gauge will demonstrate the actual value of the pressure by LCD indicator. UIY6-D has automatic turn-off function in 1~15min.

The use of UIY6-D intelligent pressure gauge is obviously flexible, and its operation is very simple, and the adjustment of this gauge is easy, safe and reliable. UIY6-D digital pressure gauge is widely used in such industries as water and electricity, running water, petroleum, chemical, and machinery, for the measurement and demonstration of fluid medium's pressure.



Features

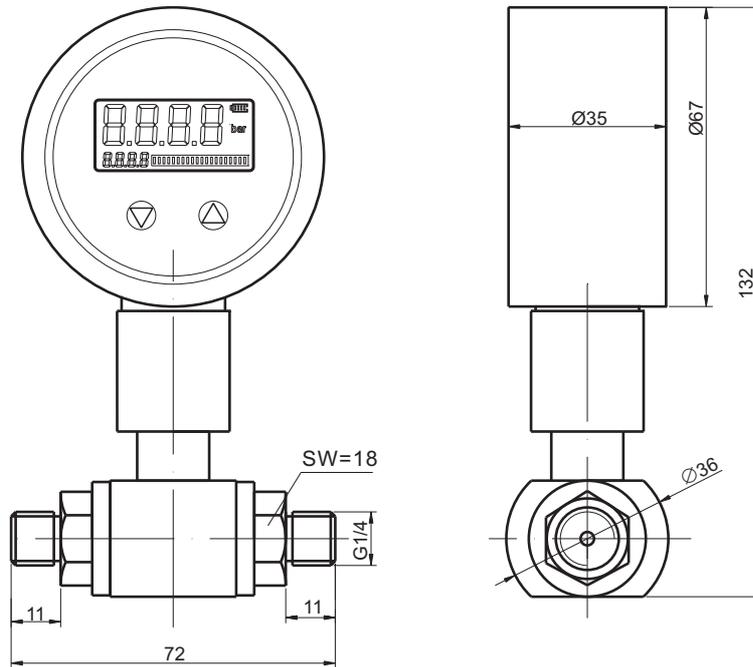
- LCD display, high resolution, without apparent value error
- Peak value recording function, record the max. pressure value during measuring process
- Pressure percentage dynamic demonstration (progress strip demonstration)
- Selectable ranges: Mpa, psi, bar, Kpa, kg/cm²
- 1~15min automatic turn-off function
- Micro power loss function, can work above 2 years in the electricity saving pattern
- Parameter revision function, can revise the gauge's zero error on the spot

Specifications

pressure medium	gas or liquid compatible to stainless steel
pressure ranges	0~0.1...35 bar
pressure type	differential
overload pressure	250%FS
system pressure	10 times of pressure value or 10MPa(select lower one)
accuracy	0.1%FS, 0.25%FS(standard), 0.5%FS
LCD display	4-digit
display range	-1999~9999
long-term stability	<0.1%FS/year
battery power supply	9V DC
compensated temperature range	0~+50°C
operating temperature range	-20~+70°C
selectable ranges	Mpa, psi, bar, kpa, kg/cm ²
sampling speed	4 times/sec.
insulation resistance	100MΩ@50VDC
process connection	G1/2 or others
housing material	1Cr18Ni9Ti

UIY6-D Digital Differential Pressure Gauge

Dimensions



Ordering code

UIY6-D			
	range	measuring range: 0~0.1bar...35bar	
	(X1~X2)bar	X1: lower limit of actual measuring range, X2: higher limit of factual measuring range	
		code	accuracy
		B	0.1%FS
		C	0.25%FS
		D	0.5%FS
		code	process connector
		P1	G1/4" male thread
		P2	G1/2" male thread
		Pn	G1/4" female thread
		Pa	air faucet
		P4	M20×1.5 male thread
		P5	1/2"NPT male thread
		Pz	customer request
UIY6-D	(0~2)bar	C	P2

UIY9 Precise Digital Pressure Gauge

Description

UIY9 precise digital pressure gauge is an intelligent digital gauge with high measuring accuracy and good long term stability. This product has 4~20mA output and RS485 communication function simultaneously. It can communicate with computer directly by coordinating communication software to carry on data preservation, processing and output report; Its signal's entire isolated design make it without any disturbance. Its power supply is built-in lithium battery with service life 4~6 years, even the outer power is off, it can also gather the pressure data stably (communication function failed).

UIY9 has axial, radial direction and plate attire structure optional. This product is suitable for pressure calibration of pressure (differential pressure) transmitters, vernier pressure gauge, ordinary pressure gauge, sphygmomanometer etc.



Features

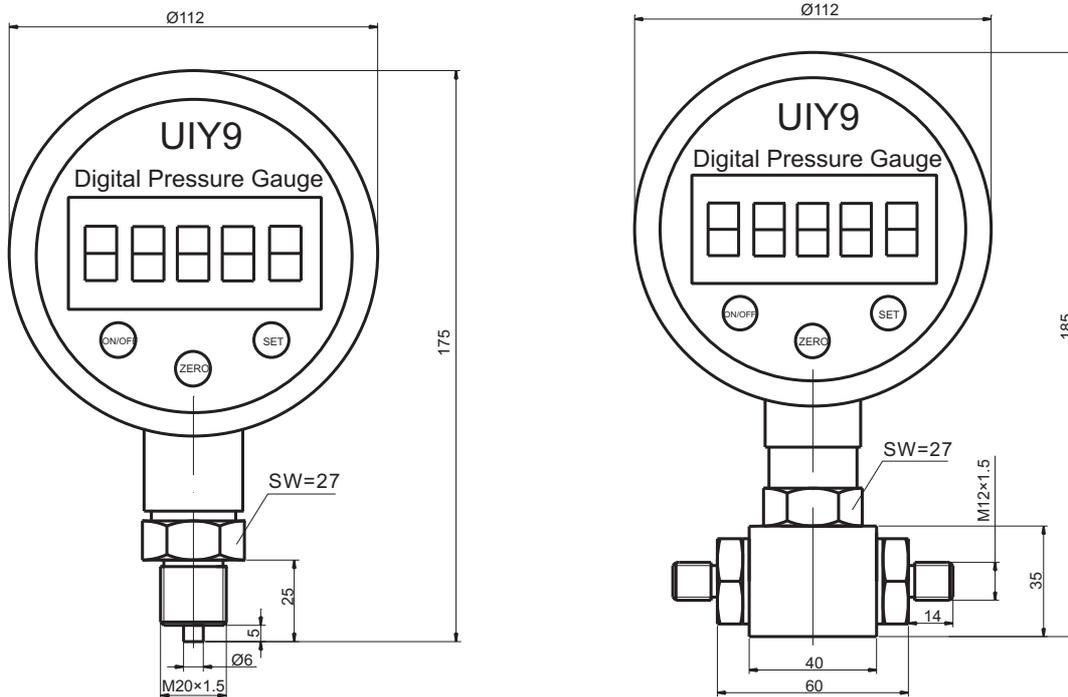
- 0.05%FS accuracy, satisfying high accuracy pressure gathering demand
- RS485 communication, or 4~20mA current output optional
- Anti-electromagnetism and anti-radio-frequency interference technology
- Signal entire isolation technology, against thunder stroke technology
- Super power source management technique, battery life for 4~6 years

Specifications

pressure medium	gas or liquid compatible to stainless steel
pressure ranges	-1...0bar~0.01...2600bar
pressure type	gauge(G), absolute(A), sealed gauge(S), differential(D)
overload pressure	150%FS~300%FS(determined by range)
output signal	4~20mA(option)
communication	RS485,RS232,USB,MODBUS,USART
accuracy	0.05%FS,0.1%FS, 0.2%FS,0.5%FS
load resistance	$RL=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.1%FS/year
supply voltage	Lithium battery and 10~30VDC supply (for communication and 4~20mA output)
medium temperature range	-40~+85°C
operating temperature range	-30~+60°C
display	dynamic 5-digit LCD display
process connection	G1/2 (male)or others
explosive-proof	ExialIBT4

UIY9 Precise Digital Pressure Gauge

Dimensions



Ordering code

UIY9		range	measuring range: -1...0~0.01bar...2600bar			
		(X1~X2)bar	X1: lower limit of actual measuring range, X2: higher limit of factual measuring range			
			code	pressure type		
			G	gauge		
			A	absolute		
			S	sealed gauge		
			D	differential		
			code	accuracy		
			A	0.05%FS		
			B	0.1%FS		
			C	0.25%FS		
			D	0.5%FS		
			code	output and communication(option)		
			O	4~20mA		
			R	MODBUS protocol (RS485interface)		
			H	HART protocol		
			W	only display, without output		
			code	process connector		
			P1	G1/4"		
			P2	G1/2"		
			P4	M20x1.5		
			P5	1/2"NPT		
			Pz	customer request		
UIY9	(0~20)bar	G	A	W	P2	

UIB1 Digital Pressure Transmitter

Description

UIB1 Digital pressure transmitter is new generation digital transmitter, it is an intelligent pressure transmitter with high accuracy & stability for pressure measurement. This product is designed by using the newest achievements of digital techniques in the sensor manufacturing domain, and the design techniques of the most advanced piezoresistive pressure transmitter, as well as precise digital temperature compensation and non-linearity compensation technology.

UIB1 Digital pressure transmitter uses ultra low power monolithic and the high accuracy power source management electric circuit, this is advantageous for the computer system to carry on the data transmission through the digital interface, thus to realize the transmitter's digitization.

This product is designed in 2-wire system, and can substitute analog pressure transmitter with 2-wire 4~20mA output. UIB1 has already widely been used in scientific research and petroleum, chemical industry, medicine, electric power etc.

Features

- Using digital compensation technology and non-linearity revision technology
- Advanced circuit design and software design
- HART protocol or MODBUS protocol(RS485 interface)
- High accuracy, good long-term stability good
- Digital communication technology

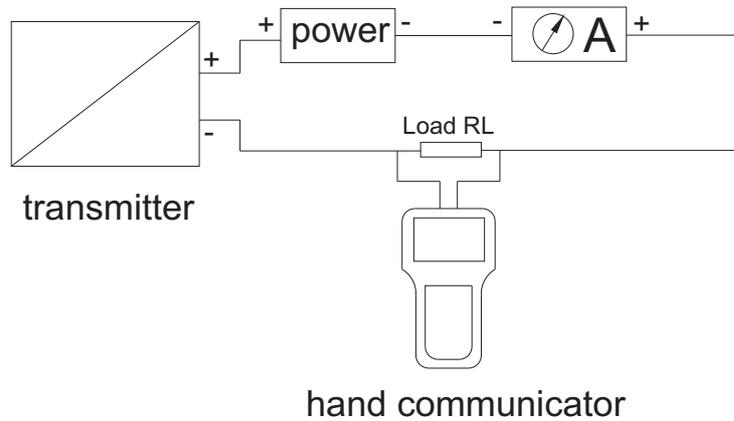


Specifications

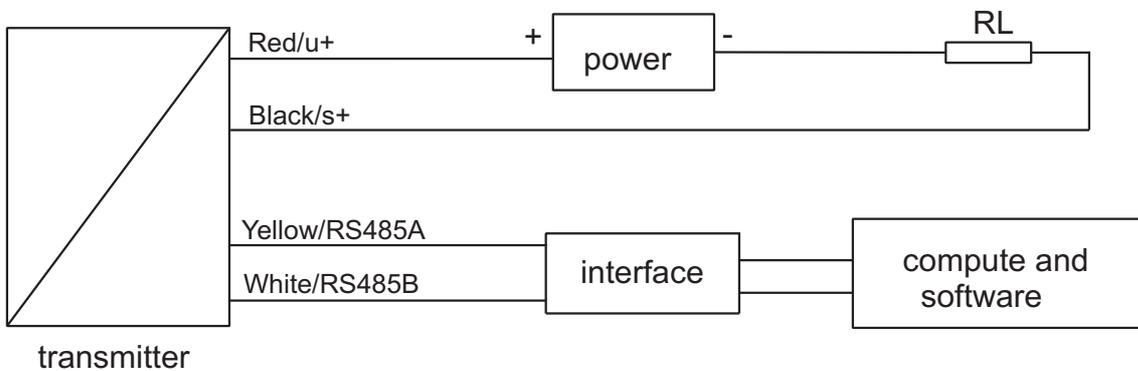
pressure medium	gas or liquid compatible to wetted stainless steel
pressure ranges	-1...0bar~0.1...600bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
output signal	4~20mA
communication	MODBUS protocol(RS485 interface)or HART protocol
accuracy	0.1%FS,0.25%FS(standard), 0.5%FS
load resistance	$R_L=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage(V)
long-term stability	<0.1%FS/year
supply voltage	12~36VDC
compensated temperature range	0~70°C
operating temperature range	-30~80°C
storage temperature range	-40~120°C
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
insulation resistance	100MΩ@50VDC
process connection	G1/2 or others
electrical connection	hirschmann connector or others
material of wetted part	1Cr18Ni9Ti
material of pressure membrane	316L
material of housing	1Cr18Ni9Ti
sealing	nitrile rubber or fluorubber sealing ring

UIB1 Digital Pressure Transmitter

Electrical connection

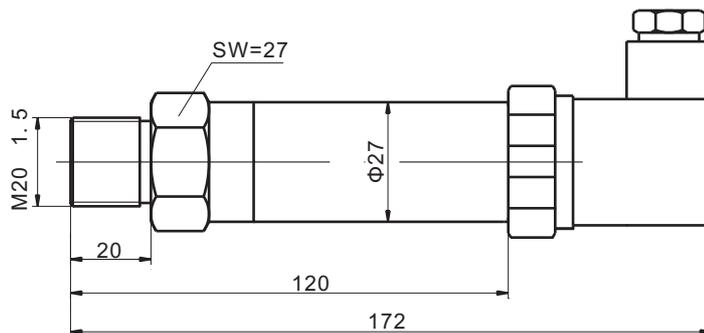


Wiring for hart transmitter connecting with hand communicator

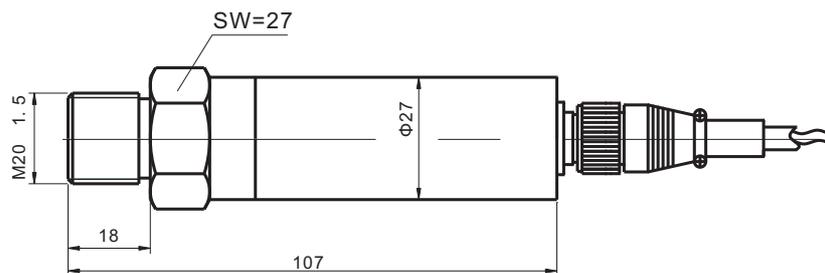


Electrical connection of RS485 interface

Dimensions

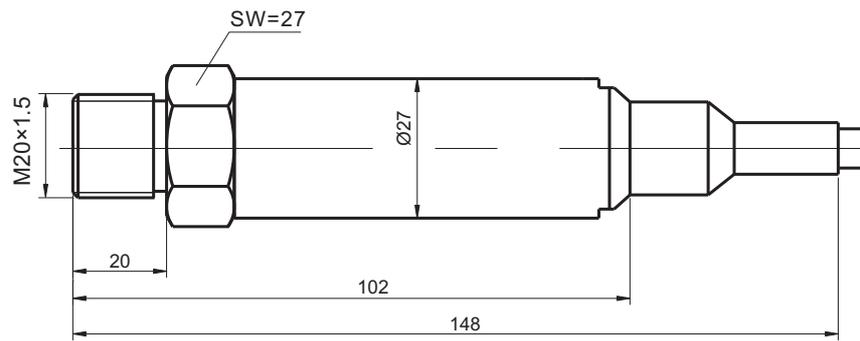


Hirschmann connector



Aviation connector

UIB1 Digital Pressure Transmitter



water-proof connector

Ordering code

UIB1					
	range	measuring range: -1...0bar~0.1bar...600bar			
	(X1~X2)bar	X1: lower limit of actual measuring range, X2: higher limit of actual measuring range			
	code	pressure type			
	G	gauge			
	A	absolute			
	S	sealed gauge			
	code	accuracy			
	B	0.1%FS			
	C	0.25%FS			
	D	0.5%FS			
	code	output and communication			
	O	4~20mA			
	R	MODBUS protocol (RS485interface)			
	H	HART protocol			
	code	others			
	E1	hirschmann connector			
	E2	Aviation connector			
	E3	water-proof connector			
	Ez	other electrical connection			
	P1	cavity type G1/4			
	P2	cavity type G1/2			
	P3	cavity type 1/4NPT			
	P4	cavity type M20x1.5			
	P8	flush diap.(G1/2) range ≤ 350 bar			
	Pz	customer request			
UIB1	(0~20)bar	G	B	R	E1P2

ULB-I Digital Level Transmitter

Description

ULB-I digital level transmitter is fully sealed submersible intelligent level measuring instrument. Based on silicon piezoresistive technology, this product is designed for liquid level measurement by using silicon die with good stability and processing electric circuit of high accuracy smart transmitter, and using precise digital temperature compensation technology and the non-linearity revision technology. The Waterproof cable with vent hose of this transmitter is sealed connected with its housing, it is suitable for submersible applications.

The output of ULB-I is digital signal, this makes this transmitter carry on transmission with computer directly. ULB-I intelligent has already widely used for water & other liquid level measurement and control in scientific research domain, and petroleum, chemical industry, medicine, water conservation etc.



Features

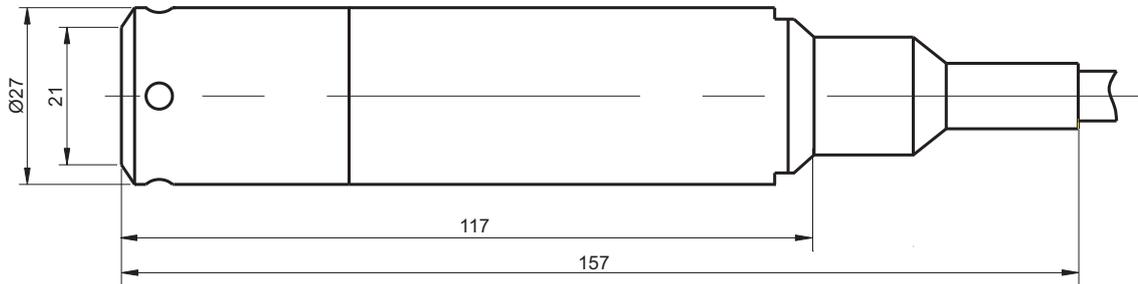
- Data networking gathering
- Advanced circuit design and software design
- HART protocol or MODBUS protocol (RS485 interface)
- Full stainless steel structure, small profile, light weight
- Digital communication technology

Specifications

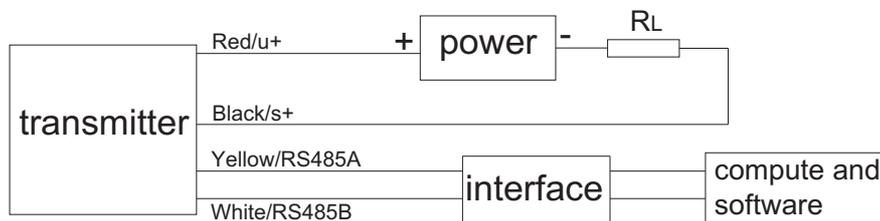
pressure medium	gas or liquid compatible to wetted stainless steel
pressure ranges	0~1mH ₂ O...200mH ₂ O
overload pressure	150%FS
output signal	4~20mA
communications	MODBUS protocol (RS485 interface) or HART protocol
accuracy	0.1%FS, 0.25%FS (standard), 0.5%FS
load resistance	$RL = (U - 12V) / 0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	8~28VDC (RS485 interface), 12~30VDC (HART protocol)
compensated temperature range	0~+70°C
operating temperature range	-10~+80°C
storage temperature range	-40~+120°C
temperature coefficient of zero	0.1%FS/10°C
temperature coefficient of span	0.1%FS/10°C
insulation resistance	100MΩ@50VDC
electrical connection	Water-proof connector with Φ7.5mm Polyethylene cable with vent hose
material of wetted part and housing	1Cr18Ni9Ti
material of pressure membrane	316L

ULB-I Digital Level Transmitter

Dimensions



Electrical connection



Electrical connection for Rs485 interface

Ordering code

ULB-I				
	range	measuring range: 0~1mH ₂ O...200mH ₂ O		
	(0~X)Lbar	X: actual measuring range L: cable length, suggest L-X= (1~2)m		
	code	output and communications		
	O	4~20mA		
	R	MODBUS protocol (RS485 interface)		
	H	HART protocol		
	code	accuracy		
	B	0.1%FS		
	C	0.25%FS		
	D	0.5%FS		
	code	structure		
	Y	integrated structure		
	D	divided structure		
	F	flange		
ULB-I	(0~5mH ₂ O)6	R	C	Y

*please indicate on the ordersheet if the user have any special requirement.

UIB6 Digital Pressure Transmitter

Description

UIB6 digital pressure transmitter is an intelligent pressure transmitter with high accuracy & stability for pressure real-time measurement and display. This product is made of special wide-temperature LED indicator and high stable sensor, and using precise digitization temperature compensation and non-linearity revision technology to guarantee its measuring accuracy & stability. RS485 main line facilitates pressure measurement system easily.

This product can expand many communication interfaces based on its analog output signals.

UIB6 digital pressure transmitter has already widely been used for fluid pressure measurement and control in scientific research domain, and petroleum, chemical industry, medicine, water conservation etc.



Features

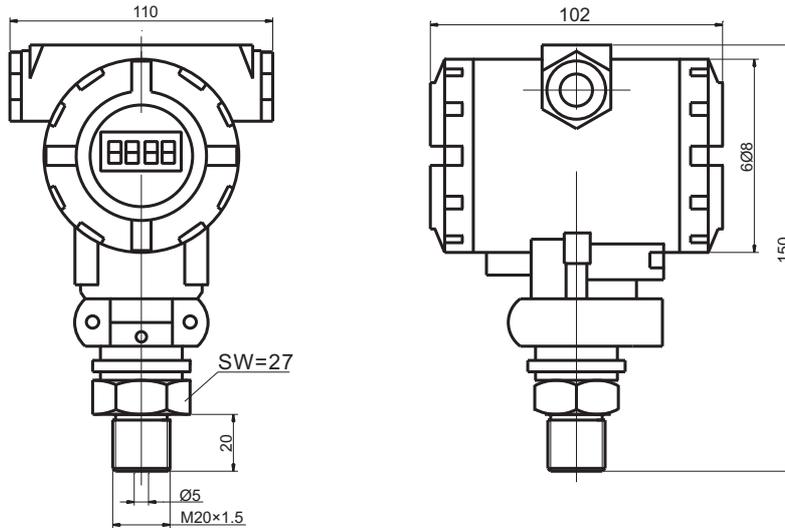
- Have 4~20mA output and RS485 communication simultaneously
- Advanced circuit design and software design
- HART protocol or MODBUS protocol (RS485 interface)
- Rangeble, suggest not exceed 3:1
- Digital communication technology

Specifications

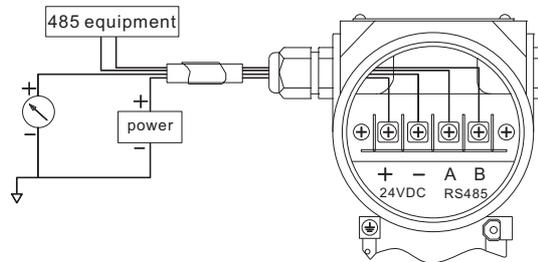
pressure medium	gas or liquid compitable to wetted stainless steel
pressure ranges	-1...0~0.1bar...1000bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
output signal	4~20mA
communication	MODBUS protocol (RS485 interface) or HART protocol
accuracy	0.1%FS,0.25%FS(standard), 0.5%FS
load resistance	$RL=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.1%FS/year
supply voltage	10~30 VDC
Medium temperature range	-40~+85°C
operating temperature range	-30~+60°C
indicator	4 digits LCD display in MPa, KPa units etc.
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
process connection	G1/2 (male)or others
electrical connection	M20×1.5 (female)
material of wetted part	1Cr18Ni9Ti
material of pressure membrane	316L
material of housing	cast aluminium
explosive proof	ExialIBT4,ExdIIBT4

UIB6 Digital Pressure Transmitter

Dimensions



Electrical connection



Electrical connection for RS485 interface

Ordering code

UIB6					
UIB6	range	measuring range: -1...0~0.1bar...1000bar			
	(X1~X2)bar	X1: lower limit of actual measuring range, X2: higher limit of actual measuring range			
	code	pressure type			
	G	gauge			
	A	absolute			
	S	sealed gauge			
	code	accuracy			
	B	0.1%FS			
	C	0.25%FS			
	D	0.5%FS			
code	output and communication				
O	4~20mA				
R	MODBUS protocol (RS485 interface)				
H	HART protocol				
code	others				
P2	G1/2				
P4	M20x1.5				
P5	1/2NPT				
Pz	customer request				
UIB6	(0~20)bar	G	B	OR	P2

UIB7 Wireless Digital Pressure Gauge

Description

UIB7 wireless digital pressure gauge is composed by pressure transmitter, signal processing electric circuit, central processor and wireless communication channel. This product uses the large capacity high performance lithium battery as power supply, its service life is 1~2 years, does not need other external power supply.

UIB7 wireless digital pressure gauge realizes long-distance real-time monitoring and wireless data transmission without any field wiring, it omits the trouble of ordinary measuring instruments which need field wiring, not only save manpower, also save construction costs.

UIB7 wireless digital pressure gauge is specially suitable for the pressure measurement in the open country or the scene, where is unable to provide power source, but need the data to carry on live transmission, such as oil field, oil well, heating pipelines and so on.



Features

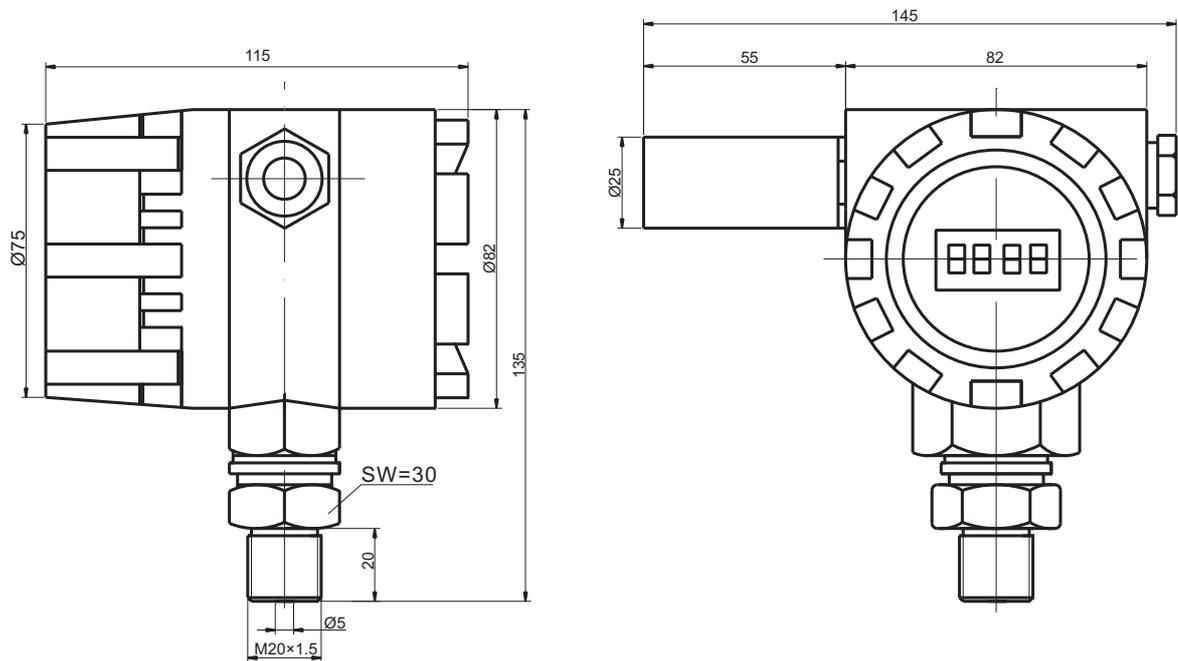
- Wireless transmission, not need any field wiring
- Use large capacity high performance lithium battery as power supply, not need external power supply
- Sensor quantity possible to expand willfully in a scope, the adjustment is more convenient
- Gathering precision is high, transmission is stable, network maintenance very little
- Anti-radar and explosive-proof design, suitable for data communication and gathering in poor weather condition environment

Specifications

pressure medium	gas or liquids compitable to wetted stainless steel
pressure ranges	-1...0bar~0.01...2600bar
pressure type	gauge(G), absolute(A), sealed gauge(S)
overload pressure	150%FS
output signal	wireless communication
accuracy	0.1%FS,0.25%FS(standard), 0.5%FS
operating frequency	430~470MHz
transmitting distance	200m or 800m
long-term stability	<0.1%FS/year
supply voltage	3.6V high performance lithium battery
medium temperature range	-40~+85°C
operating temperature range	-30~+60°C
display	dynamic 4-digit LCD digital indicator in MPa,kPa unit
temperature coefficient of zero	0.2%FS/10°C
temperature coefficient of span	0.2%FS/10°C
process connection	G1/2 (male)or others
electrical connection	M20×1.5 (female)
material of wetted part	1Cr18Ni9Ti
material of pressure membrane	316L
material of housing	cast alaluminium
explosive-proof	ExialIBT4,ExdIIBT4

UIB7 Wireless Digital Pressure Gauge

Dimensions



Ordering code

UIB7				
range	measuring range: -1...0bar~0.01...2600bar			
(X1~X2)bar	X1: lower limit of actual measuring range, X2: higher limit of actual measuring range			
code	pressure type			
G	gauge			
A	absolute			
S	sealed gauge			
code	accuracy			
B	0.1%FS			
C	0.25%FS			
D	0.5%FS			
code	process connection			
P1	G1/4			
P2	G1/2			
P4	M20×1. 5			
P5	1/2NPT			
Pz	customer request			
UIB7	(0~20)bar	G	B	P2

UIB-W Wireless Communication Terminal

Description

UIB-W communication terminal is designed for coordinating with wireless pressure measuring instruments (like UIB7). Through wireless communication, UIB-W accepts the gathering data of pressure measuring instrument, and transmits the data to the superior machine through the serial port. UIB-W supports MODBUS-RTU agreement standard, it is convenient for user to use configuration software to carry on the real-time monitoring.



Specifications

working frequency band	315MHz~2.4GHz,GFSK frequency modulation
emissive power	10DBM
communication interface	RS232、RS485(MODBUS-RTU)
communication speed	1200、2400、4800、9600、19200 bps and so on
power supply	7~24 VDC
efficiency	<3W
operating temperature range	-30~+60°C

UIWN Wireless Transducer Network

Description

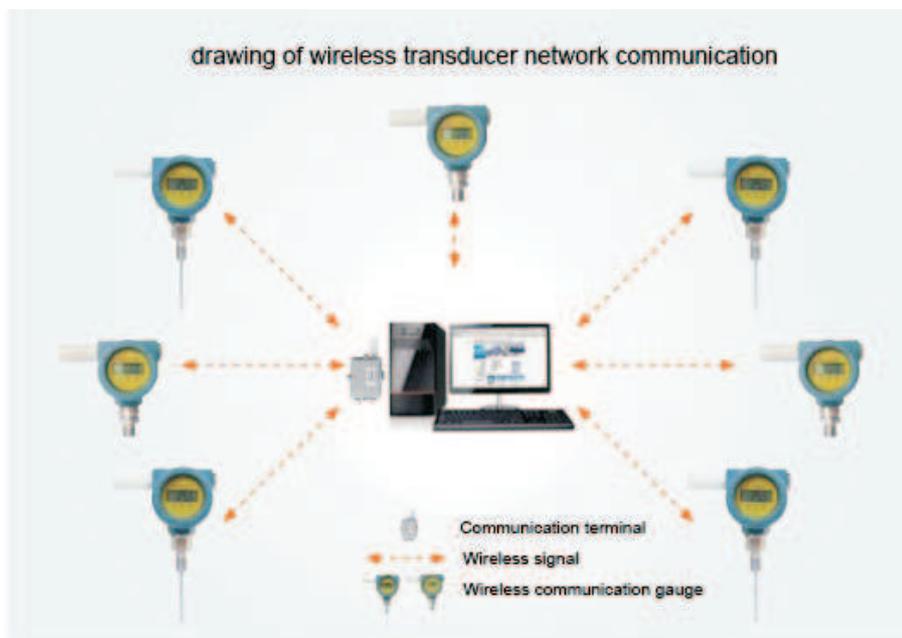
UIWN wireless transducer network is our company researched and developed independently wireless sensor network system, it can replace traditional instrumented data gathering system completely.

This system is composed of UIB-W wireless communication terminal and UIB7 wireless digit pressure transmitter, and uses completely free ISM frequency band to carry on the data transmission, the measuring instrument has bringing battery, does not need any wiring connection with the communication terminal. The communication terminal and the labor control machine use RS485 or RS232 connection, employing standard MODBUS-RTU communication terms, supports configuration king, Intouch, ifix etc softwares; it can realize data communication between many famous equipment and systems as Simens, Shinaide, ABB and so on; At present it can realize 50pcs UIB7 wireless instruments' stable gathering in 200m or 800m radius.

The application prospect of this wireless trasnducer network is broad, it has widely been used in military, industrial control, health, environmental monitoring, intelligent living, building condition monitoring etc.

Application

- Super process monitoring
- Need in situation that frequent manpower meter reading
- Need high frequency (several seconds to dozens of seconds to read meter one time) monitored and controlled
- Need in situation that much pressure monitored simultaneously



Features

- wireless transmission, without the trouble of ordinary transmitting instrument's field wiring, not only save the manpower, also save costs.
- The wireless transducer network measuring instrument uses large capacity high performance lithium battery as power supply, does not need external power supply, especially suit in the open country where is unable to provide power source;
- Wireless transducer measuring instrument's quantity may expand willfully in a scope, the adjustment is more convenient;
- The gathering precision is high, the transmission is stable, the network maintenance is small;
- The star type topology main line, the sensors do not affect mutually, maintenance is simple and convenient;

UIB8 Digital Differential Pressure Transmitter

Description

UIB8 digital differential pressure transmitter is an intelligent digital transmitter with high measuring accuracy and good long term stability. Its performance is reliable.

This product is made of special wide-temperature LED display and high stable sensor, and using precise digitization temperature compensation and non-linearity revision technology to guarantee its measuring accuracy & stability. RS485 main line facilitates network pressure measurement system easily. This product can expand many communication interfaces based on its analog output signals.

UIB8 digital differential pressure transmitter is suitable for pressure measurement and control in water and electricity, chemical industry, urban water supply, scientific research etc.

Features

- Have 4~20mA output and RS485 communication function simultaneously
- HART protocol or MODBUS protocol (RS485 interface)
- Advanced electric circuit design and software design
- Digital temperature compensation, digital communication technology
- Against thunder stroke technology, zero self-steady technology

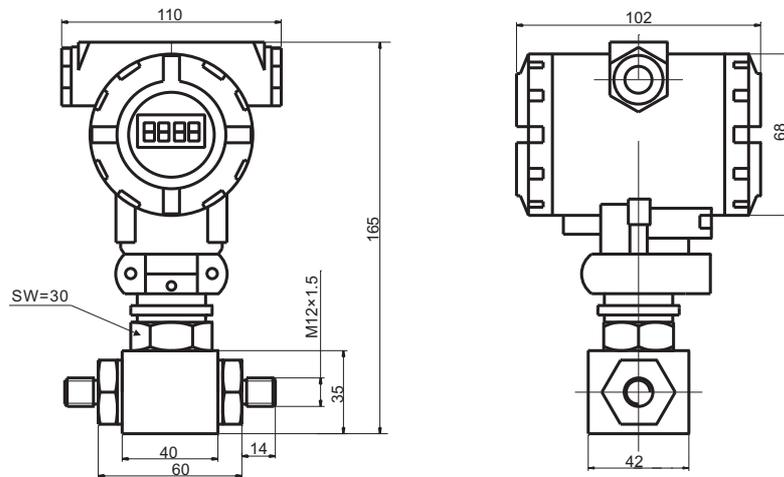


Specifications

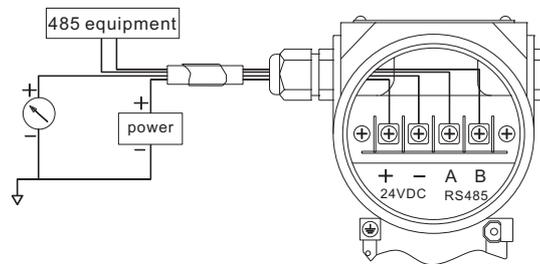
pressure medium	gas or liquid compatible to wetted stainless steel
pressure ranges	0~0.1...35bar
overload pressure	200%FS(positive side),100%FS and 10bar (choose the smaller(negative side))
system pressure	1000%FS
output signal	4~20mA
communication	MODBUS protocol (RS485 interface) or HART protocol
accuracy	0.1%FS,0.25%FS(standard), 0.5%FS
system pressure effect	0.05%FS/bar
load resistance	$R_L=(U-12V)/0.02A$ (4~20mA current output) U—loop voltage (V)
long-term stability	<0.2%FS/year
supply voltage	12~36VDC
compensated temperature range	0~+70°C(special reach -40~+85°C)
operating temperature range	-40~+85°C
storage temperature range	-40~+120°C
display	dynamic 4-digit LCD display in MPa or kPa units.
insulation resistance	100MΩ@50VDC
process connection	G1/4 (male) or others
electrical connection	M20×1.5(female)
material of housing	cast aluminum
material of wetted part	1Cr18Ni9Ti
explosive-proof	ExialIBT4,ExdIIBT4

UIB8 Digital Differential Pressure Transmitter

Dimensions



Electrical connection



electrical connection for RS485interface (MODBUS protocol)

Ordering code

UIB8		range	measuring range: 0~0.1bar...35bar	
		(0~X)bar	X: higher limit of actual measuring range	
			code	accuracy
			B	0.1%FS
			C	0.25%FS
			D	0.5%FS
			code	output and communication
			O	4~20mA
			R	MODBUS protocol (RS485 interface)
			H	HART protocol
			code	process connector
			P1	G1/4 male
			Pn	G1/4 female
			P2	G1/2 male
			P4	M20x1.5 male
			Pz	customer request
UIB8	(0~20)bar	C	OR	P1

UPS2 Electronic Pressure switch

Description

UPS2 electronic pressure switch is pressure measurement & control product with intelligent digital display, it is combined the functions of pressure measurement, display, output and control. This product is made with entire electronic structure, and built isolated-membrane pressure sensor in its front end. Its output signal is amplified through high accuracy & low temperature swift amplifier, then is input high accuracy A/D converter, and processed by microprocessor, the processed signal controls two-way switch, to realize the pressure measurement and control for systems.

The use of UPS2 electronic pressure switch is very flexible. UPS2's operation and adjustment is simple and easy, meanwhile, this product also has good reliability and safety.

UPS2 is widely used in water and electricity industry, petroleum industry, chemical industry, machinery industry etc, for the pressure measurement and control of many kinds of fluids.

Features

- 4 digit LED Switch value can be set from zero to full scale freely.
- The outer case is equipped with light emitting diode (LED), is easy for observing operation
- Operation is easy; the pressed key is for adjustment and parameters setting on the spot
- Two-way switch output, 1.2A loading capacity
- 4~20mA analog output (optional)

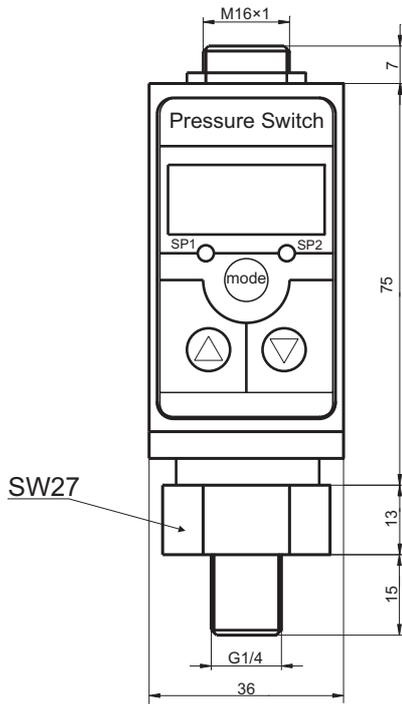


Specifications

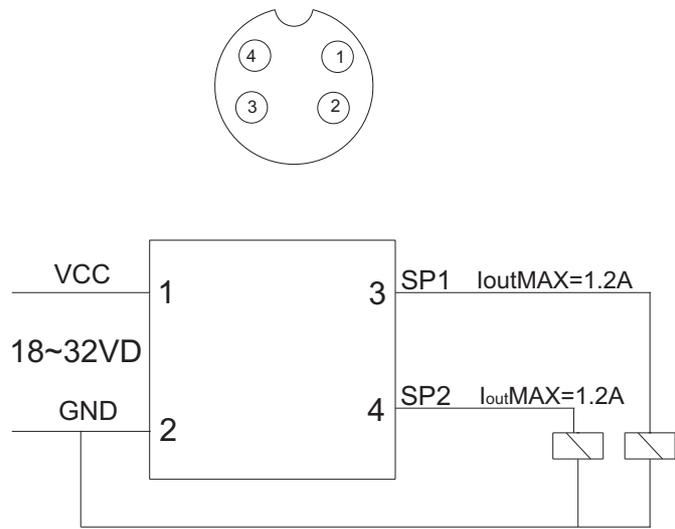
pressure medium	gas or liquid compatible with stainless steel
pressure ranges	0~1bar...600bar
overload pressure	150%FS
output signal	4~20mA(option)
control accuracy	0.5%FS(standard)
display accuracy	0.1%FS
long-term stability	<0.2%FS/year
supply voltage	18~32V DC
ambient temperature range	-30~+70°C
media temperature range	-40~+85°C
storage temperature range	-20~100°C
service life of switch	>1million times
power consumption	<3W
load capacity	<24V, 1. 2A
process connection	G1/4 or others
electrical connection	aviation connector or others
material of wetted part	1Cr18Ni9Ti
relative humidity	0~80%
protection	IP65

UPS2 Electronic Pressure switch

Dimensions



Electrical connection



Ordering code

UPS2					
	range	measuring range: 0~1bar...600bar			
	(0~X)bar	X: the max. measuring pressure			
		code	pressure type		
		G	gauge		
		A	absolute		
		S	sealed		
		D	differential		
			code	process connection	
			P1	G1/4	
			P3	1/4NPT	
		P4	M20×1.5		
		Pz	customer request		
			code	electrical connection	
			E1	hirschmann connector	
			E2	aviation connector	
			Ez	customer request	
UPS2	(0~20)bar	G	P3	E2	

*: The pressure set-point and switch state of the two-way pressure switch can be set at any range, suggesting to set the pressure within 10%~100%, so as to assure the working stability of control point.

** : NPN type and PNT type output control mode are two working patterns: normal open and normal close respectively.

UPS3 Intelligent Pressure Controller

Description

UPS3 intelligent digital pressure controller is a pressure measurement & control product with intelligent digital display, it is combined the functions of pressure measurement, display, output and control. This product is made with entire electronic structure, and built isolated-membrane pressure sensor in its front end. Its output signal is transformed through high accuracy A/D converter, and processed by microprocessor, finally can be demonstrated on the spot, and generated one-way analog output & two-way switch output.

The use of UPS3 intelligent digital pressure controller is very flexible. UPS3's operation and adjustment is simple and easy, meanwhile, this product also has good reliability and safety.

UPS3 is widely used in water and electricity industry, petroleum industry, chemical industry, machinery industry etc, for the pressure measurement and control of many kinds of fluids on the spot.

Features

- Dial 100mm
- 4-digit LED display, without apparent value error
- Two-channel control point relay output 220V 3A
- 4~20mA standard output (optional)
- Two-channel control point can be set on the spot
- Intelligent and digital product

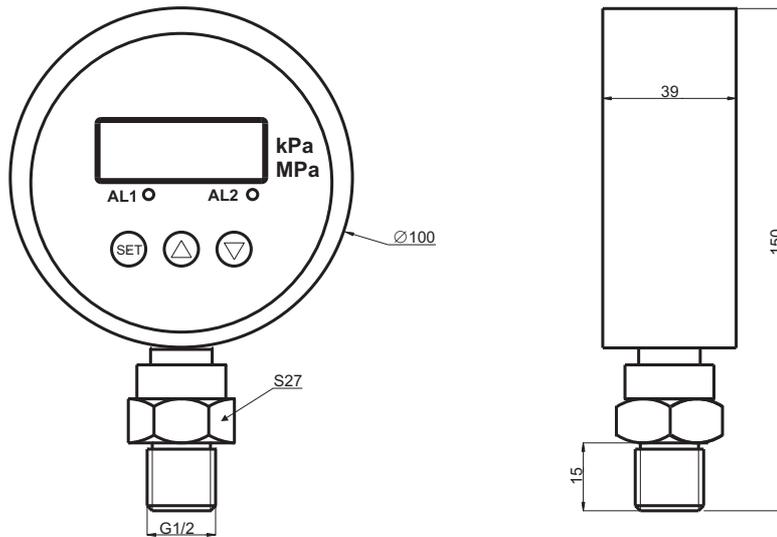


Specifications

pressure medium	gas or liquid compatible with stainless steel
pressure ranges	0~600bar
overload pressure	150%FS
output signal	4~20mA(option)
controlling accuracy	0.5%FS(standard)
display accuracy	0.1%FS
long-term stability	<0.2%FS/year
supply voltage	18~32V DC
ambient temperature range	-30~+70°C
media temperature range	-40~+85°C
storage temperature range	-20~100°C
service life of switch	>1 million times
power consumption	<3W
load capacity	<24V, 1. 2A
process connection	G1/2 or others
material of housing	stainless steel
material of wetted part	1Cr18Ni9Ti
relative humidity	0~80%
protection	IP65

UPS3 Intelligent Pressure Controller

Dimensions



Electrical connection

Electrical Connection: 1(red): power+; 2(yellow): GND; 3(blue): out+; 4(green):out-

Switch Connection: AL1: 1(red), 2(yellow); AL2: 3(blue),4green

Ordering code

UPS3					
UPS3	range	measuring range: 0~1bar...600bar			
	(0~X) bar	X: the max. measured pressure			
		code	pressure type		
		G	gauge		
		A	absolute		
		S	sealed		
		D	differential		
			code	process connection	
			P2	G1/2	
			P6	1/2NPT	
		P4	M20×1.5		
		Pz	customer request		
			code	Electrical connection	
			E2	Aviation connector	
			E4	Cable (lock nut)	
			E5	Pin connector	
			E0	Others	
UPS3	(0~25) bar	G	P2	E2	

*: The pressure set-point and switch state of the two-way pressure switch can be set at any range, suggesting to set the pressure within 10%~100%, so as to assure the working stability of control point.

** : NPN type and PNT type output control modes are two working patters: normal open and normal close respectively.

UPS5 Intelligent Pressure Controller

Description

UPS5 intelligent pressure controller is such a product which is integrated with level measurement, display, output and control. This product is made with entire electronic structure, and built isolated-membrane pressure sensor in its front end. Its output signal is transformed through high accuracy A/D converter, and processed by microprocessor, finally can be demonstrated on the spot, and generated one-relay analog output & two relay switch output.

UPS5 is widely used in water and electricity industry, petroleum industry, chemical industry etc, for the level measurement and control of many kinds of fluids on the spot.

Features

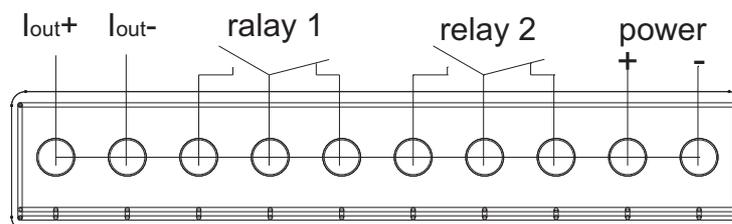
- Dial 100mm
- 4-digit LED display, without apparent value error
- Two-channel control point relay output 220V 3A
- 4~20mA standard output (optional)
- Two-channel control point can be set on the spot
- Power supply optional: 24V DC or 220V AC



Specifications

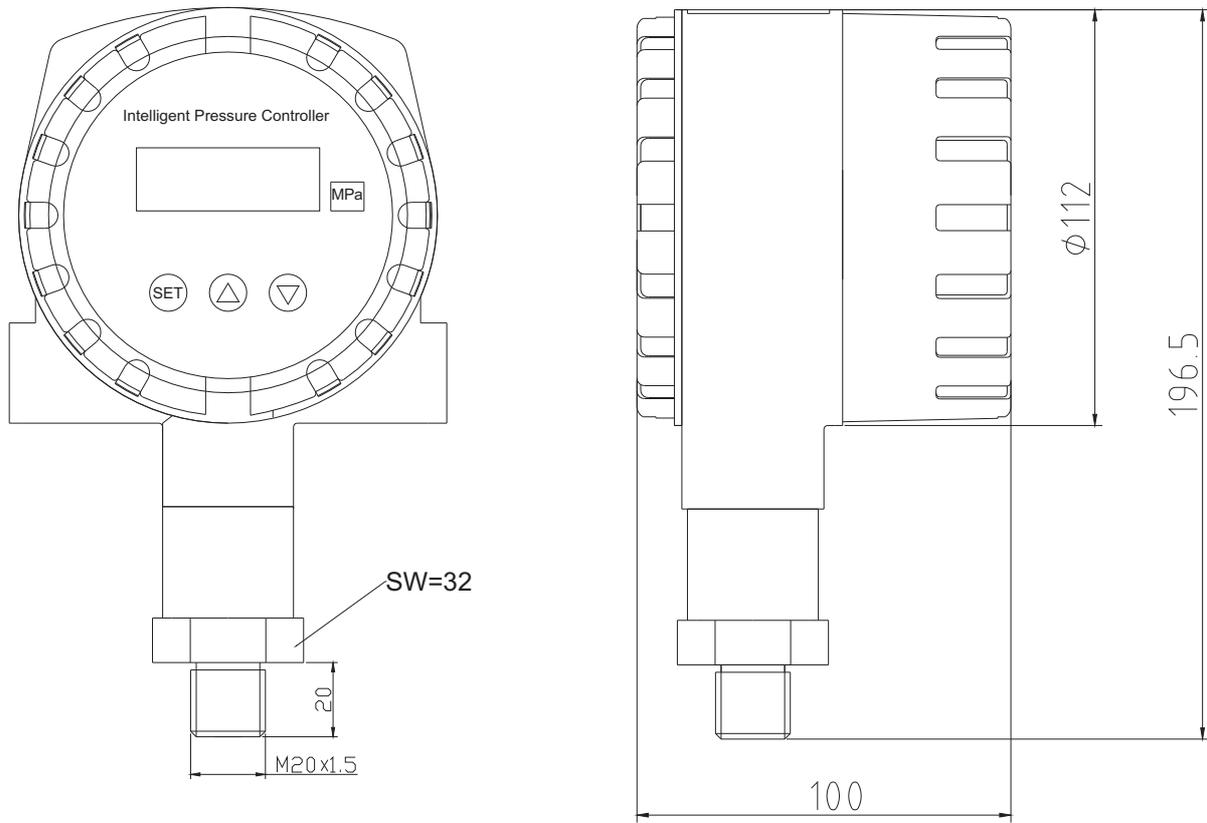
pressure medium	gas or liquid compatible with stainless steel
pressure ranges	-1...0~0.1...1000bar
overload pressure	150%FS
output signal	4~20mA(option)
controlling accuracy	0.5%FS(standard)
display accuracy	0.1%FS
long-term stability	<0.2%FS/year
supply voltage	24V DC or 220V AC
ambient temperature range	-20~+70°C
media temperature range	-40~+85°C
storage temperature range	-20~100°C
display	0.56" 4-digit LED
display range	-1999~9999
process connection	G1/2 or others
material of housing	cast aluminium
material of wetted part	1Cr18Ni9Ti
protection	IP66

Electrical connection



UPS5 Intelligent Pressure Controller

Dimensions



Ordering code

UPS5			
	range (0~X) bar	measuring range: -1...0~0.1...1000bar X: the max. measured pressure	
		code	pressure type
		G	gauge
		A	absolute
		S	sealed
		D	differential
		code	process connection
		P2	G1/2
		P6	1/2NPT
		P4	M20×1.5
		Pz	customer request
UPS5	(0~10) bar	G	P2

*: The pressure set-point and switch state of the two-way pressure switch can be set at any range, suggesting to set the pressure within 10%~100%, so as to assure the working stability of control point.

** : NPN type and PNT type output control modes are two working patterns: normal open and normal close respectively.