ZHYQ®

PRODUCT BROCHURE

PROFESSIONAL MANUFACTURER FOR MEASUREMENT AND CONTROL

FOCUS ON
SENSING & CONTROL FOR 20 YEARS

Provided Quality Automatic Instruments for Thousands of Custom-

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ZHYQ IOT PTY LTD

Welcome

ZHYQ is based in Melbourne, Australia, specializes in sensor technology and product design, development, sales and technical support to build and ensure high reliability and timely customized solutions for customers. With the advantage of having our own production facilities in China, we aim to serve international customers from more than 50 countries with reliable technology and excellent service.

Our product range includes:

- Sensors and transmitters for measuring pressure, weight, force and weighing.
- Sensors and transmitters for pressure, differential, temperature and concentration measurements.
- Structural health monitoring and highway weighing systems for Bridges, subways and tunnels Industry 4.0 wireless sensor network systems.

About Our Manufacturer

Shanghai Zhaohui Pressure Apparatus Co., Ltd. (ZHYQ) is our leading professional manufacturer in the industrial of pressure, flow, temperature, liquid level and Internet of Things (IoT). ZHYQ found in 1999. We are an ISO9001 (2015) Quality management certificated company, we acquired the certificates of CMC, Ex, MA, CE, RoHS and more. We are qualified for 7 Invention patents and more than 70 utility model patent technologies.

R&D Center

Production Base

Why choose ZHYQ ?

Technical advice from our highly experienced and trained experts

15,000m² plant, annual output 200,000 pieces transmitters

Nearly 60 national invention patents and utility model patents

ISO 9001: 2015 accredited quality systems

CMC, Ex, MA, CE, RoHS, ATEX, SIL certification

A whole new Research & Development centre in Shang Hai

The first in the industry to obtain a high-range 500MPa metering license

Efficient and complete production line of monocrystalline silicon sensor

CONTENTS

PT124B-21X Series General Purpose Pressure Transmitters

| Standard type | High pressure type | Flush diaphragm type | High temperature type |

Features

- Wide pressure range -1…0…6000bar
- Various output optional
- Various electric connector optional
- Simple shape design, cost-effective
- Can increase the zero & span adjustment as required
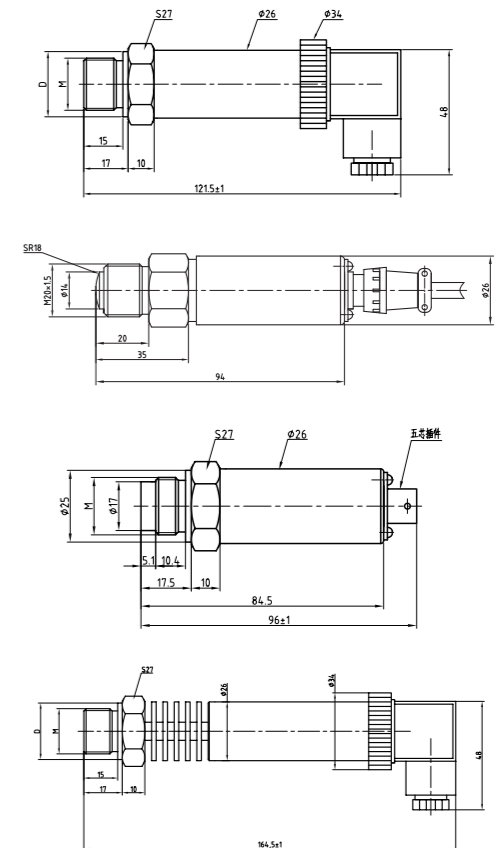- Various process connection optional

Applications

- Mechanical engineering
- Servo systems, hydraulic steam
- High pressure water jet, air pressure measurement
- Cement, mud, asphalt
- General industrial control field

Specifications

Sensor chip	Diffused Silicon , Strain Gauge , Microfused , Sapphire
Pressure range	-1...0...1...6000bar
Output signal	4-20mA , 0-5V, 0-10V, RS485 , HART optional
Accuracy	0.25%FS, 0.5%FS , 1.0%FS
Overload	150%FS
Operating temperature	-20~150℃ （customized)
Power supply	24(12~36)VDC
Process connection	M20x1.5, G1/4, G1/2, G1, 1/4NPT （customized)
Electric connector	Hirschman （DIN）, M12x1, 4pin, 5pin connector, gland cable and optional
Long-term stability	≤ ± 0.1 % FS / year
Response time	< 5 ms
Wetted parts material	SS304 , SS316L （customized)
Protection grade	IP65, IP67
Temperature compensation	-20 ~ 80 ℃
Certificate	CE，ROHS, ATEX, SIL , CMC, EX

Dimension

PT124B-21X Series General Purpose Pressure Transmitters

High accuracy type

Local display type

Pressure switch type

Sanitary type

Features

- Wide pressure range -1~0~700bar
- Various output optional
- High accuracy , high steadily & Polarity protection
- Simple shape design, cost-effective
- Can increase the zero & span adjustment as required
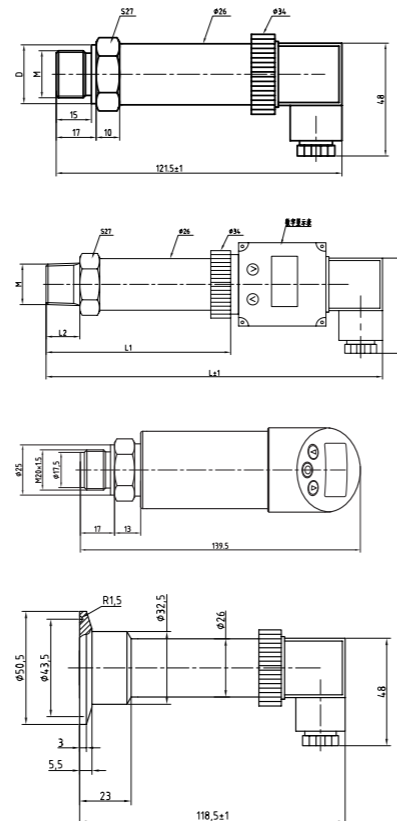- Various process connection optional

Applications

- Mechanical engineering
- Automatic control and detection system, building automation
- Constant pressure water supply
- Medicine machine, food, beverage, brewing industry
- Petrochemical, environmental protection, industrial process

Specifications

Sensor chip	Diffused Silicon , monocrystalline silicon
Pressure range	-1~0~700bar
Output signal	4-20mA , 0-5V, 0-10V, RS485 , HART optional
Accuracy	0.1%FS, 0.25%FS , 0.5%FS
Overload	150%FS
Operating temperature	-20~150℃（customized)
Power supply	24(12~36)VDC
Process connection	M20x1.5, G1/4, G1/2, G1, 1/4NPT, 1.5" Clamp
Electric connector	Hirschman（DIN）, M12x1, 5 pins, gland cable , optional
Long-term stability	≤ ± 0.1% FS / year
Response time	< 5 ms
Wetted parts material	SS304 , SS316L （customized)
Protection grade	IP65, IP67
Temperature compensation	-20 ~ 80 ℃
Certificate	CE，ROHS, ATEX, SIL , CMC, EX

Dimension

Ordering Guide

Model	Transmitter type		
PT124B-210	Standard type	PT124B-215	Explosion proof type
PT124B-211	High pressure type	PT124B-216	Local display & switch type
PT124B-212	High accuracy type	PT124B-217	Sanitary type
PT124B-213	Compact type	PT124B-218	Moderate and high temperature type
PT124B-214	Flush diaphragm type	PT124B-219	Marine / shipping type
Code	**Range**		
X~Y	-100~0~100kpa, 0~600MPa		
Code	**Process connection**		
G1	M20 x 1.5 male	G5	1/4" NPT male
G2	G1/2" male	G6	G3/8" male
G3	G1/4" male	G0	Other on request
G4	1/2" NPT male		
Code	**Wetted parts material**		
C1	SS304		
C2	SS316L		
C3	2205		
C0	Other on request		
Code	**Output signal**		
S1	4~20 mA (2-wire)	S5	0~10 V DC (3-wire)
S2	4~20 mA + HART (2-wire)	S6	1~5 V DC (3-wire)
S3	RS485 / Modbus (4-wire)	S0	Other on request
S4	0.5~4.5 V DC (3-wire)		
Code	**Accuracy**		
J3	± 0.25 % FS		
J4	± 0.5 % FS		
J5	± 1 % FS		
Code	**Electrical connection**		
D1	Hirschman (DIN 43650)		
D2	Gland cable		
D3	5 pins		
D4	M12x1		
D0	Other on request		
Example	PT124B-210-(0~5bar)G1C1S1J3D1		

PT124B-28X Series General Purpose Pressure Transmitters

Standard type

High temperature type

Flange type

Sanitary type

Specifications

|	
Sensor chip	Diffused Silicon , monocrystalline silicon
Pressure range	-1~0~700bar
Output signal	4-20mA,RS485 ,HART optional
Accuracy	0.25%FS , 0.5%FS, 1%FS
Overload	150%FS
Operating temperature	-20~150°C（customized）
Power supply	24(12~36)VDC
Process connection	M20x1.5, G1/4, G1/2, G1, 1/4NPT, 1.5" Clamp
Electric connector	M12x1, Gland cable, Terminal
Long-term stability	≤ ± 0.1% FS / year
Response time	< 5 ms
Wetted parts material	SS304 ,SS316L ,2205 , TA2 （customized）
Protection grade	IP65, IP67
Explosion proof grade	Exib II CT4 Gb , Exib II CT6 Gb
Certificate	CE，ROHS，ATEX，SIL，CMC，EX

Features

■ Thermal power unit, light industry, machinery, metallurgy
■ Building self-control, constant pressure water supply
■ Petrochemical, environmental protection, air compression
■ Automatic control and detection system
■ Power station operation inspection
■ Industrial process detection and control

Applications

■ Wide pressure range -1~0~700bar
■ Various output optional
■ High accuracy , high steadily & Polarity protection
■ Aluminum alloy or stainless steel housing material
■ Can increase the zero & span adjustment as required
■ Various process connection optional
■ LED indicator can be rotated 360°

Dimension
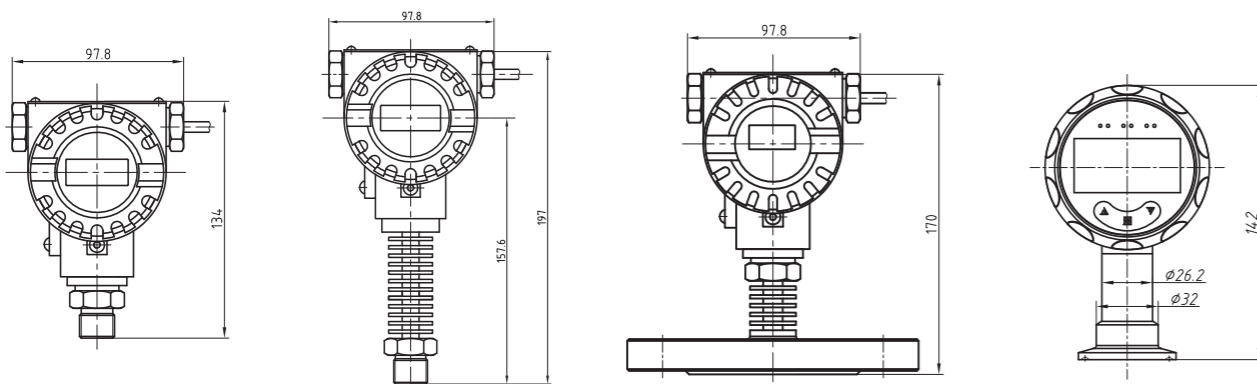
Ordering Guide

Model	Transmitter type		
PT124B-280	Standard type (without display)	PT124B-284	Clamping type
PT124B-281	Anticorrosion type	PT124B-285	Moderate and high temperature type
PT124B-282	Standard type (with display)	PT124B-286	Flange type
PT124B-283	Flush diaphragm type	PT124B-287	Sanitary type
Code	Range		
X~Y	-1~0~700 bar		
Code	Process connection		
G1	M20 x 1.5 male	G6	G3/8" male
G2	G1/2" male	G7	1.5" clamp
G3	G1/4" male	G8	DN50 standard flange
G4	1/2" NPT male	G9	DN80 standard flange
G5	1/4" NPT male	G0	Other on request
Code	Wetted parts material		
C1	SS304	C4	Hastelloy C
C2	SS316L	C0	Other on request
C3	PTFE		
Code	Output signal		
S1	4~20 mA (2-wire)	S5	0~10 V DC (3-wire)
S2	4~20 mA + HART (2-wire)	S6	1~5 V DC (3-wire)
S3	RS485 / Modbus (4-wire)	S0	Other on request
S4	0.5~4.5 V DC (3-wire)		
Code	Accuracy		
J3	± 0.25 % FS	J5	± 1 % FS
J4	± 0.5 % FS		
Code	Display		
X1	Without display	X4	Percentage display
X2	LCD display	X0	Other on request
X3	LED display		
Code	Electrical connection		
D2	Gland cable	D5	Terminal
D3	M20x1.5	D0	Other on request
D4	M12x1		
Code	Protection grade		
F1	IP65	F2	IP67
Code	Explosion proof grade		
T4	Exib II CT4 Gb	T6	Exib II CT6 Gb
Example	PT124B-282-(0~5bar)G1C2S2J2X2D5F2T6		

PT124B-289 Wireless Pressure Transmitter

Features

- Low power design, battery powered, long battery life
- Battery power or 24VDC power supply Optional
- Various wireless transmission type optional
- Various pressure unit switching
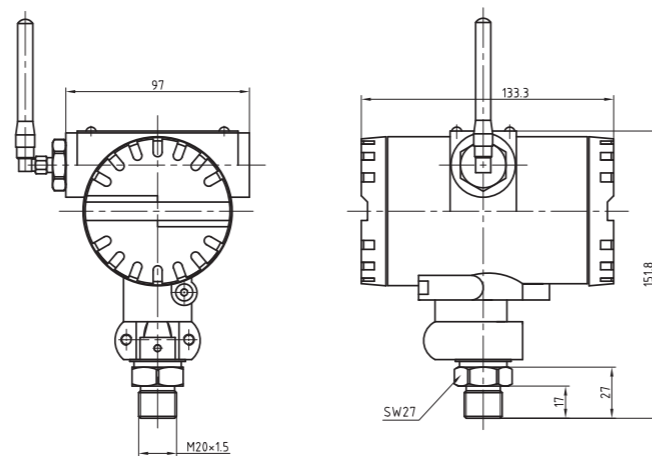- Mating with gateway ,efficient pressure monitoring in the LAN

Applications

- Corrosive, impact, shock and other places pressure display
- Aboratories and industrial sites
- Coal mine wells, water pipe pressure , fire pipe network
- Oil, coal, tap water, automation control

Specifications

Pressure range	-1~0~700bar
Output signal	GPRS, LoRa, NB-IoT, ZigBee, WiFi
Accuracy	0.25%FS , 0.5%FS
Overload	150%FS
Operating temperature	-20~120℃
Power supply	3.6V Li battery or 24V or 12V DC optional
Process connection	M20x1.5, G1/2, 1/4NPT (Customized)
Electrical protection	Anti-electromagnetic interference
Display and backlight	LCD display and white backlight
Sampling rate	1~600s/time Settable
Data configuration	Button setting or remote setting
Upload rate	1-1440 minute settable
Explosion proof grade	Exib II CT4 Gb , Exib II CT6 Gb
Response frequency	3.2KHz（-3dB)
Long-term stability	≤ ± 0.2 % FS / year
Certificate	CE，ROHS, ATEX, SIL , CMC, EX
Temperature compensation	-20 ~ 80 ℃

Dimension

Ordering Guide

Model	Transmitter type				
PT124B-289A	Clamp mounting type	PT124B-289B	Thread mounting type	PT124B-289C	Flange mounting type
Code	Range				
X~Y	-1~0~700 bar				
Code	Process connection				
G7	1.5" clamp	G1	M20 x 1.5 male	G8	DN50
G14	2" clamp	G2	G1/2" male	G9	DN80
G0	Other on request	G0	Other on request	G0	Other on request
Code	Server type				
V1	ZHYQ server		V3	Third server	
V2	Custom server				
Code	Protocol type				
A1	ZHYQ protocol		A3	Third protocol	
A2	Custom protocol				
Code	Wetted parts material				
C1	SS304		C0	Other on request	
C2	SS316L				
Code	Output signal				
S10	GPRS		S13	ZigBee	
S11	LoRa		S14	WiFi	
S12	NB-IoT				
Code	SIM card type (only for GPRS & NB-IoT)				
K1	ZHYQ card		K2	Custom card	
Code	DTU / gateway (only for LoRa, ZigBee & WiFi)				
W1	ZHYQ DTU / gateway		W2	Custom DTU / gateway	
Code	Accuracy				
J3	± 0.25 % FS		J4	± 0.5 % FS	
Code	Electrical connection				
D5	Terminal		D0	Other on request	
Code	Explosion proof grade				
T4	Exib II CT4 Gb		T6	Exib II CT6 Gb	
Code	Power supply				
P2	24V DC				
P4	3.6V Li battery				
P5	12V DC				
Example	PT124B-289B-(0~5bar)G1V2A2C1S11W2J3D5T6P4				

PT3501 Differential Pressure Transmitter

Features

- Widely pressure range : -0.1~0~2000 kPa
- Excellent static pressure performance (up to 32MPa)
- High accuracy , high steadily & Polarity protection
- Zero & Range can be set on-site, the range ratio is 50:1
- Can increase the zero & span adjustment as required
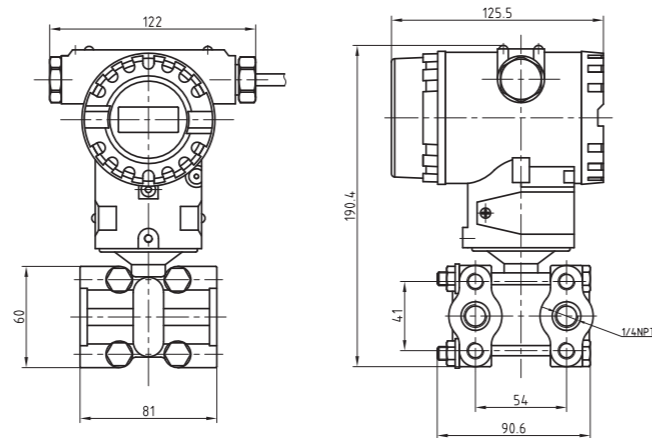- LED indicator can be rotated 360°

Applications

- Hydraulic and pneumatic control systems
- Level measure and control
- Petrochemical, environmental protection , pharmaceutical
- Thermal power unit, light industry, machinery, metallurgy
- Industrial process detection and control

Specifications

Sensor chip	Monocrystalline silicon
Pressure range	-0.1 ~ 0 ~ 2000kPa
Output signal	4-20mA,RS485 ,HART optional
Accuracy	0.075%FS , 0.1%FS, 0.25%FS , 0.5%FS
Overload	150%FS
Operating temperature	-20~150°C（Customized)
Power supply	24(12~36)VDC
Process connection	1/4NPT , 1/2NPT (Customized)
Electric connector	Gland cable, Terminal
Long-term stability	≤ ± 0.1% FS / year
Wetted parts material	SS304 , SS316L （customized)
Response frequency	3.2KHz （-3dB)
Max static pressure	32MPa
Protection grade	IP65, IP67
Explosion proof grade	Exib II CT4 Gb , Exib II CT6 Gb
Certificate	CE，ROHS, ATEX, SIL ,CMC, EX
Temperature compensation	-20 ~ 80 °C

Dimension

PT3503 Dual Remote Differential Pressure Transmitter

Features

- 0~100~500kPa range pressure level measurement
- High accuracy , high steadily & Polarity protection
- Zero & Range can be set on-site, the range ratio is 50:1
- Can increase the zero & span adjustment as required
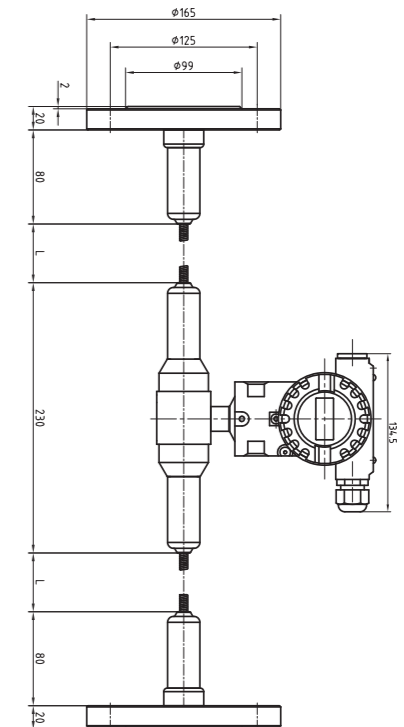- LED indicator can be rotated 360°

Applications

- Hydraulic and pneumatic control systems
- Level measure and control
- Petrochemical, environmental protection , pharmaceutical
- Thermal power unit, light industry, machinery, metallurgy
- Industrial process detection and control

Specifications

Sensor chip	Monocrystalline silicon
Pressure range	0 ~ 100 ~ 500kPa
Output signal	4-20mA,RS485 ,HART optional
Accuracy	0.075%FS , 0.1%FS, 0.25%FS , 0.5%FS
Overload	150%FS
Operating temperature	-20~150°C（Customized)
Power supply	24(12~36)VDC
Process connection	DN50, DN80 Flange，Clamp（customized)
Electric connector	Gland cable, Terminal
Long-term stability	≤ ± 0.1% FS / year
Wetted parts material	SS316L,Ta ,PTFE,Hastalloy C （customized)
Response frequency	3.2KHz （-3dB)
Protection grade	IP65, IP67
Explosion proof grade	Exib II CT4, Exib II CT6
Certificate	CE，ROHS, ATEX, SIL ,CMC, EX
Temperature compensation	-20 ~ 80 °C
Capillary length	0.5 ~ 10m optional
Temperature compensation	-20 ~ 80 °C

Dimension

PT3504 Single-flange Differential Pressure Transmitter

Features

- Widely range 0~100~2000 kPa
- High precision, high stability, polarity protection
- Zero & Range can be set on-site, the range ratio is 50:1
- Can increase the zero & span adjustment as required
- LED indicator can be rotated 360°

Applications

- Corrosive, impact, shock and other places pressure display
- Aboratories and industrial sites
- Petrochemical, environmental protection , pharmaceutical
- Thermal power unit, light industry, machinery, metallurgy
- Industrial process detection and control

Specifications

Sensor chip	Monocrystalline silicon
Pressure range	0 ~ 100 ~ 2000kPa
Output signal	4-20mA,RS485 ,HART optional
Accuracy	0.075%FS , 0.1%FS, 0.25%FS , 0.5%FS
Overload	150%FS
Operating temperature	-20~150°C（Customized）
Power supply	24(12~36)VDC
Process connection	DN50, DN80 Flange （customized）
Electric connector	Gland cable, Terminal
Long-term stability	≤ ± 0.1% FS / year
Wetted parts material	SS316L,Ta ,PTFE,Hastalloy C （customized）
Response frequency	3.2KHz （-3dB）
Protection grade	IP65, IP67
Explosion proof grade	Exib II CT4 Gb , Exib II CT6 Gb
Certificate	CE，ROHS, ATEX, SIL ,CMC, EX
Temperature compensation	-20 ~ 80 °C

Dimension
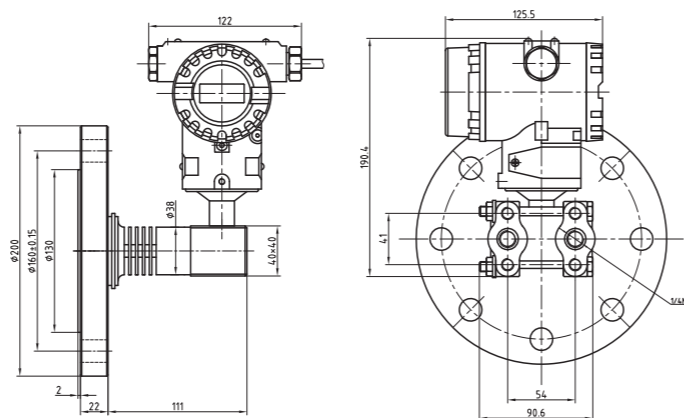
Ordering Guide

Model	Transmitter type		
PT3501	Standard type	PT3504	Single flange type
PT3502	Single measurement & single remote type	PT3505	Dual measurement & single remote type
PT3503	Dual measurement & dual remote type		
Code	Range		
X~Y	-0.1...20...2000kPa, 0...20mH$_2$O (pls. advise static pressure)		
Code	Process connection		
G7	1.5" clamp	G12	1/4" NPT female
G8	DN50 standard flange	G13	DN25 standard flange
G9	DN80 standard flange	G0	Other on request
G11	1/2" NPT female		
Code	Mount bracket		
A1	Tube flat bracket	A3	Board mounted flat bracket
A2	Tube bending bracket		
Code	Capillary length		
L1	1m	L3	5m
L2	3m	L0	Other on request
Code	Wetted parts material		
C1	SS304	C4	Hastelloy C
C2	SS316L	C5	Tantalum
C3	PTFE	C0	Other on request
Code	Output signal		
S1	4~20 mA (2-wire)	S7	4~20mA rooting output
S2	4~20 mA + HART (2-wire)	S0	Other on request
S3	RS485 / Modbus (4-wire)		
Code	Accuracy		
J1	± 0.075 % FS	J3	± 0.25 % FS
J2	± 0.1 % FS	J4	± 0.5 % FS
Code	Display		
X1	Without display	X4	Percentage display
X2	LCD display	X0	Other on request
Code	Electrical connection		
D5	Terminal	D0	Other on request
Code	Protection grade		
F1	IP65	F2	IP67
Code	Explosion proof grade		
T4	Exib II CT4 Gb	T6	Exib II CT6 Gb
Example	PT3503-(0~5mH$_2$O)G8A2L2C5X2D5F2T4		

PT124B-20X Series Micro Differential Pressure Transmitter

Compact type

Wind pressure type

Fire protection type

Controller

Features

- Wide pressure range -0.1~0~2000kPa
- High accuracy , high steadily
- Compact design for small spaces
- Polarity protection, strong anti-interference ability

Applications

- Hydraulic and pneumatic control systems
- Level measure and control
- Petrochemical, environmental protection, pharmaceutical
- Fire Equipment
- Smart factory

Specifications

Sensor chip	Diffused Silicon , monocrystalline silicon
Pressure range	-0.1~0~2000kPa
Output signal	4-20mA , RS485 , HART optional
Accuracy	0.1%FS, 0.25%FS , 0.5%FS
Overload	150%FS
Operating temperature	-20~80℃ （customized）
Power supply	24(12~36)VDC
Process connection	M20x1.5, 1/4NPT （customized）
Electric connector	Gland cable, Terminal
Long-term stability	≤ ± 0.1% FS / year
Response time	< 5 ms
Wetted parts material	SS304 , SS316L （customized）
Protection grade	IP65, IP67
Certificate	CE，ROHS, ATEX, SIL , CMC, EX

Dimension
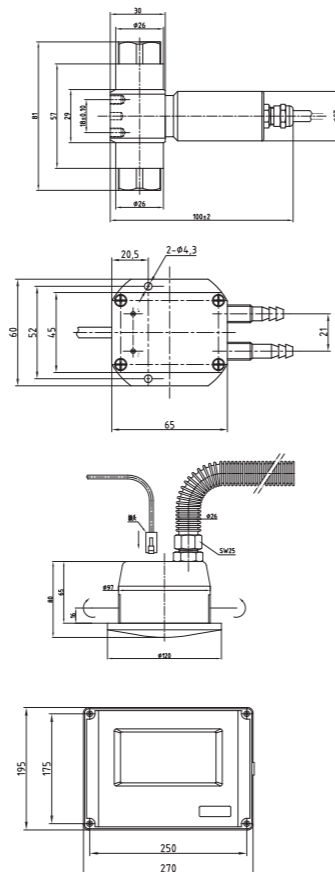
PT6006 Multi-parameter Transmitter

Features

- Multi-function monitoring of differential pressure, static pressure and temperature
- Direct measurement of liquids, gases and vapors
- Easily install and operate
- Flameproof design, with high safety

Applications

- Oilfield single well metering, simultaneous monitoring and measurement

Specifications

Measuring type	Differential pressure, static pressure, temperature, flow
Measuring range	Differential pressure： 0-150KPa Static pressure： 0-2.5MPa，6.4MPa, 10MPa Temperature: -55~150℃
Measuring medium	Liquid, gas, vapour
Accuracy	Differential pressure : 0.2%FS, Static pressure: 0.2%FS, Temperature: 0.5%FS
Output	RS485
Process connection	1/4NPT、M20*1.5、intubation(customized)
Operating temperature	-20~150℃
Protocol	Modbus RTU
Wetted parts material	SS304 , SS316L （customized）
Protection grade	IP67
Electrical connection	Gland cable, terminal （customized）
Power supply	9~36VDC
Overload pressure	150%FS
Burst pressure	300%FS
Pressure connection	DN50、DN80 (customized)
Temperature compensation	-20 ~ 80 ℃

Dimension
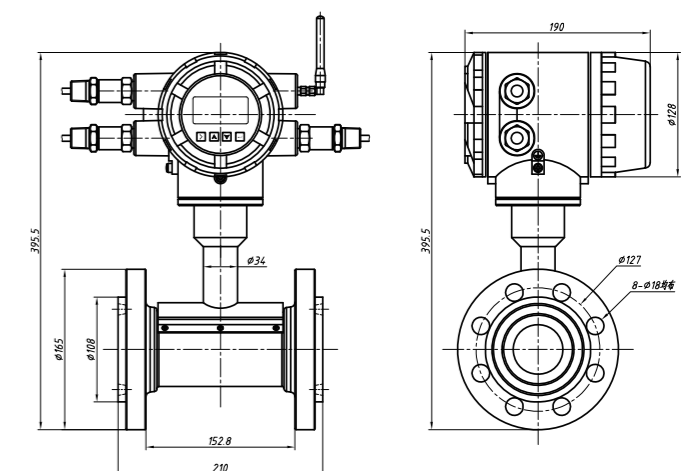
PT124B-501 Electromagnetic Flowmeter

Features

- High accuracy, linearity and stability
- Good reliability and anti-interference performance
- Good pressure tightness and high intelligence
- Good corrosion and wear resistance
- Two-way measurement system that measures forward flow and reverse flow

Applications

- Food and Beverage, Pharmaceutical, Reclaimed Water
- Petrochemical, Refining & Chemical Metering
- Facility or Property Management
- Process or Industrial
- Water & Wastewater Treatment
- Water Distribution

Specifications

Drift diameter	10~2000mm
Output signal	4-20mA, HART, RS485 optional
Accuracy	0.25%FS , 0.5%FS
Power supply	110/220VAC, 24VDC, 24V DC + battery double
Nominal pressure	4.0MPa, 2.5MPa, 1.6MPa, 1.0MPa, 0.6MPa
Lining material	CR, PTFE, PFA, PU, F46, etc.
Flange material	Carbon steel, SS304, SS316, SS316L optional
Maximum flow rate	15m/s
Electric Connector	Terminal
Fluid conductivity	≥ 5μS/cm
Power consumption	< 20W
Operating temperature	-25°C ～ 60°C
Electrode material	SS316L, Hastelloy C, Ti, Ta, Pt, optional
Number of electrodes	Standard 3 electrodes
Protection grade	IP67
Explosion Proof Grade	Exib II CT4 Gb , Exib II CT6 Gb
Certificate	CE，ROHS

Dimension
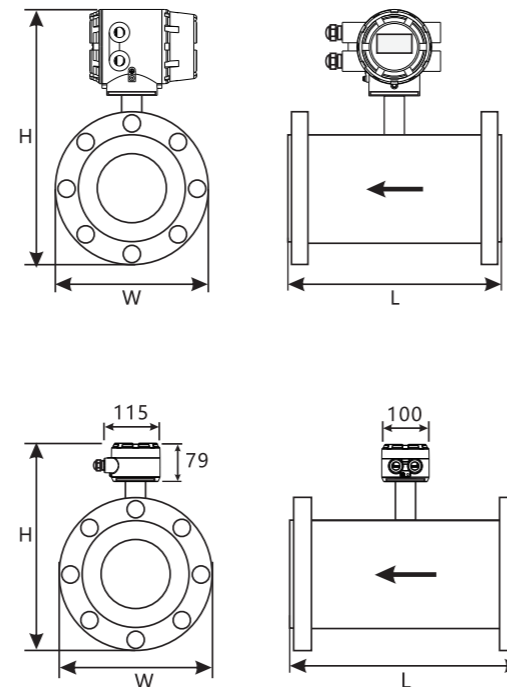
Ordering Guide

Model	Flowmeter type		
PT124B-501A	Integrated type	PT124B-501B	Separated type
Code	**Drift diameter**		
DN	10 ~ 2000 mm		
Code	**Electrode material**		
E1	SS316L	E4	Tantalum
E2	Hastelloy C	E5	Platinum
E3	Titanium	E0	Other on request
Code	**Lining material**		
L1	Chloroprene Rubber (CR)	L4	PU
L2	PTFE	L5	F46
L3	Teflon (PFA)	L0	Other on request
Code	**Flange material**		
C1	SS304	C11	Carbon steel
C2	SS316L		
Code	**Power supply**		
P1	110/220V AC	P3	24V DC + battery double
P2	24V DC		
Code	**Output signal**		
S1	4~20 mA (2-wire)	S14	Frequency / pulse output
S2	4~20 mA + HART (2-wire)	S0	Other on request
S3	RS485 / Modbus (4-wire)		
Code	**Accuracy**		
J3	± 0.25 % FS		
J4	± 0.5 % FS		
Code	**Display**		
X6	LCD display instantaneous / cumulative flow		
X0	Other on request		
Code	**Electrical connection**		
D6	M20 x 1.5 female		
D0	Other on request		
Code	**Pressure grade**		
Y1	1.6MPa	Y3	4.0MPa
Y2	2.5MPa	Y0	Other on request
Code	**Explosion proof grade**		
T4	Exib II CT4 Gb		
T6	Exib II CT6 Gb		
Example	PT124B-501A-50E1L1C1P2S1J4X6D6Y1		

PT124B-22X Series Hydrostatic Level Transmitters

Standard type

Anti-corrosion type

Insert type

Local display type

Features

- Wide range 0~1~50mH$_2$O
- Various output optional
- High precision and high stability
- Simple shape design, cost-effective
- Can increase the zero & span adjustment as required

Applications

- Wells, pools, sinks, urban water supply and sewage treatment
- Industrial site level measurement and control
- Reservoir, river, ocean monitoring
- Dam, water conservancy and hydropower, hydrological
- Liquid irrigation, sewage pool, oil pool
- Food, beverage, pharmaceutical, chemical
- Navigation and ship system

Specifications

Sensor chip	Diffused Silicon , monocrystalline silicon
Range	0 ~ 1 ~ 50mH$_2$O
Output signal	4-20mA, 0-5V, 0-10V, RS485 ,HART optional
Accuracy	0.1%FS, 0.25%FS , 0.5%FS
Overload	150%FS
Operating temperature	-10~80°C（Customized)
Power supply	24(12~36)VDC
Process connection	Submersible, screw thread, flange optional
Electric connector	Gland cable, Terminal
Long-term stability	≤ ±0.1% FS / year
Wetted parts material	SS304 , SS316L, PTFE（customized)
Response frequency	3.2KHz（-3dB)
Protection grade	IP68
Explosion proof grade	Exib II CT4 Gb , Exib II CT6 Gb
Certificate	CE，ROHS, ATEX, SIL ,CMC, EX
Temperature compensation	-20 ~ 80 °C

Dimension
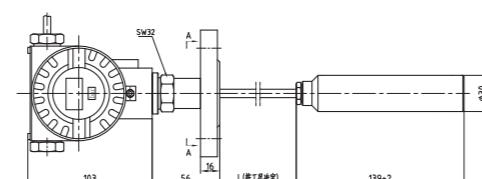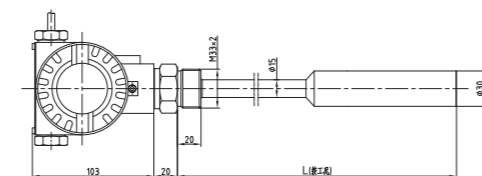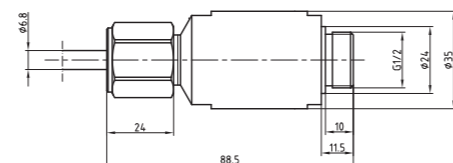
Ordering Guide

Model	Transmitter type		
PT124B-220	Standard type	PT124B-223	Low power consumption type
PT124B-221	Local display type	PT124B-224	Anti-corrosion type
PT124B-222	Insert type	PT124B-225	Capacitive type
Code	Range		
X~Y	0...1...50mH$_2$O		
Code	Process connection		
G1	M20 x 1.5 male		
G8	DN50 standard flange		
G10	Submersible type		
G0	Other on request		
Code	Wetted parts material		
C1	SS304		
C2	SS316L		
C3	PTFE		
C0	Other on request		
Code	Output signal		
S1	4~20 mA (2-wire)	S4	0.5~4.5 V DC (3-wire)
S2	4~20 mA + HART (2-wire)	S5	0~10 V DC (3-wire)
S3	RS485 / Modbus (4-wire)	S0	Other on request
Code	Accuracy		
J2	± 0.1 % FS		
J3	± 0.25 % FS		
J4	± 0.5 % FS		
Code	Display		
X1	Without display	X4	Percentage display
X2	LCD display	X0	Other on request
X3	LED display		
Code	Electrical connection		
D2	Gland cable		
D5	Terminal		
D0	Other on request		
Code	Explosion proof grade		
T4	Exib II CT4 Gb	T6	Exib II CT6 Gb
Example	PT124B-220-(0~5mH20)G10C2S1J4X1D2T4		

PT124B-229 Wireless Level Transmitter

Features

- Low power design, battery powered, long battery life
- Battery power or 24VDC power supply Optional
- Various wireless transmission type optional
- Various pressure unit switching
- Mating with gateway ,efficient pressure monitoring in the LAN

Applications

- Mine well, pipe-network water supply
- Extinguishing pipe network
- Petroleum, coal and automatic control
- Water works, hydro plant
- High pool level and hydrology monitoring

Specifications

Measuring range	0 ~ 1 ~ 50mH$_2$O
Output signal	GPRS, LoRa, NB-IoT, ZigBee, WiFi
Accuracy	0.25%FS , 0.5%FS
Overload	150%FS
Operating temperature	-20~80℃
Power supply	3.6V Li battery or 24V or 12V DC optional
Process connection	Submersible type
Electrical protection	Anti-electromagnetic interference
Display and backlight	LCD display and white backlight
Sampling rate	1~600s/time Settable
Data configuration	Button setting or remote setting
Upload rate	1-1440 minute settable
Explosion proof grade	Exib II CT4 Gb , Exib II CT6 Gb
Response frequency	3.2KHz（-3dB）
Long-term stability	≤ ± 0.2% FS / year
Certificate	CE，ROHS, ATEX, SIL , CMC, EX

Dimension
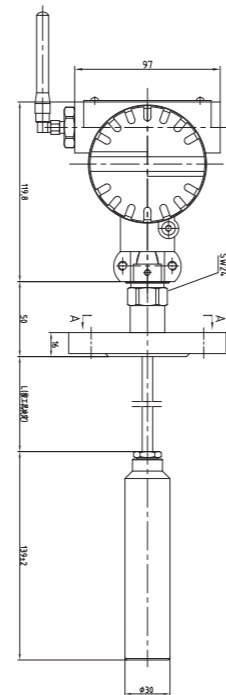
Ordering Guide

Model	Transmitter type		
PT124B-229	Wireless level transmitter		
Code	**Range**		
X~Y	0 ~ 1 ~ 50mH$_2$O		
Code	**Process connection**		
G1	M20 x 1.5 male		
G8	DN50 standard flange		
G10	Submersible type		
G0	Other on request		
Code	**Server type**		
V1	ZHYQ server	V3	Third server
V2	Custom server		
Code	**Protocol type**		
A1	ZHYQ protocol	A3	Third protocol
A2	Custom protocol		
Code	**Wetted parts material**		
C1	SS304	C3	PTFE
C2	SS316L	C0	Other on request
Code	**Output signal**		
S10	GPRS	S13	ZigBee
S11	LoRa	S14	WiFi
S12	NB-IoT		
Code	**SIM card type (only for GPRS & NB-IoT)**		
K1	ZHYQ card	K2	Custom card
Code	**DTU / gateway (only for LoRa, ZigBee & WiFi)**		
W1	ZHYQ DTU / gateway	W2	Custom DTU / gateway
Code	**Accuracy**		
J3	± 0.25 % FS	J4	± 0.5 % FS
Code	**Electrical connection**		
D5	Terminal	D0	Other on request
Code	**Explosion proof grade**		
T4	Exib II CT4 Gb	T6	Exib II CT6 Gb
Code	**Power supply**		
P2	24V DC		
P4	3.6V Li battery		
P5	12V DC		
Example	PT124B-229-(0~5mH$_2$O)G10V1A1C2S12K1J4D5T4P4		

WR Series Temperature Transmitters

Armor type

Compact type

LCD Explosion proof type

Explosion proof type

Features

- Wide range -200℃ ~ 1600℃
- Easy assembly and replacement
- Good seismic performance, high measurement accuracy
- Fast thermal response time
- High mechanical strength, pressure resistance, wear resistance

Applications

- Petrochemical
- Electric power
- Water plant
- Food and drink
- Pharmaceutical
- Boiler

Specifications

Sensor type	Thermal resistance, thermocouple
Measuring components	PT100, CU50, C, S, B, E, K, R, J, T
Range	-200℃ ～ 1600℃
Output signal	4-20mA, RS485 ,HART, PT100 optional
Accuracy	0.25%FS , 0.5%FS, Grade A, Grade B
Power supply	24(12~36)VDC
Process connection	M20x1.5, G1/4, Flange optional
Probe length	25~2000mm optional
Probe diameter	6mm, 8mm, 12mm, 16mm optional
Electric connector	Hirschman（DIN), Gland cable, Terminal
Long-term stability	≤ ±0.1% FS / year
Probe Material	SS304 , SS316L, PTFE（customized)
Response frequency	3.2KHz（-3dB)
Explosion proof grade	Exib II CT4 Gb , Exib II CT6 Gb
Certificate	CE，ROHS, ATEX, SIL ,CMC, EX
Protection grade	IP65, IP67

Dimension
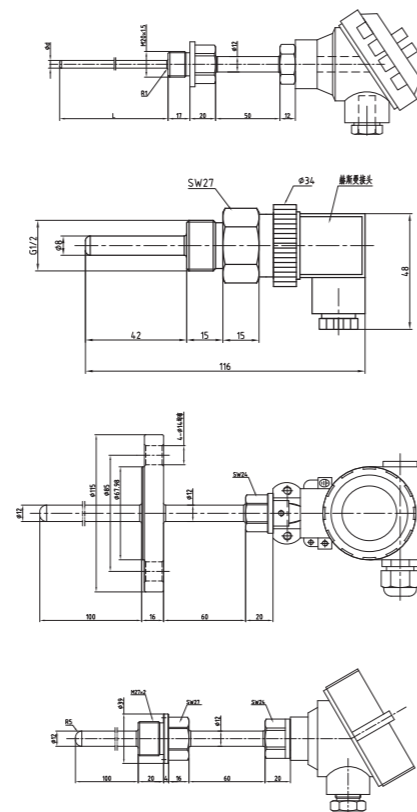
Ordering Guide

Model	Transmitter type		
WR-202	Armor type	WR-205	Explosion proof type with LCD display
WR-203	Compact type	WR-207	Explosion proof & intelligent type
Code	**Measuring components**		
P	Pt100（-200℃～500℃)	C	Copper thermal resistor (-50～50℃)
S	Platinum rhodium thermocouple (0～1100℃)	B	Platinum rhodium thermocouple (0～1600℃)
K	Nickel thermocouple (0～800℃)	R	Platinum rhodium thermocouple (0～1200℃)
J	Iron constantan thermocouple (0～500℃)		
Code	**Range**		
X~Y	-200℃ ～ 1600℃		
Code	**Process connection**		
G1	M20 x 1.5 male	G6	G3/8" male
G3	G1/4" male	G8	DN50 standard flange
G4	1/2" NPT male	G0	Other on request
Code	**Wetted parts material**		
C1	SS304	C6	Corundum
C2	SS316L	C7	TA(1-3)
C3	PTFE	C0	Other on request
Code	**Probe length**		
L	25mm~2000mm	L0	Other on request
Code	**Probe diameter**		
B1	6mm	B4	16mm
B2	8mm	B0	Other on request
B3	12mm		
Code	**Output signal**		
S1	4~20 mA (2-wire)	S8	PT100
S2	4~20 mA + HART (2-wire)	S9	Double branch type
S3	RS485 / Modbus (4-wire)	S0	Other on request
Code	**Accuracy**		
J3	± 0.25 % FS	J6	Grade A
J4	± 0.5 % FS	J7	Grade B
Code	**Display**		
X1	Without display	X3	LED display
X2	LCD display		
Code	**Electrical connection**		
D1	Hirchsman connector	D5	Terminal
Code	**Protection grade**		
F1	IP65	F2	IP67
Code	**Explosion proof grade**		
T4	Exib II CT4 Gb	T6	Exib II CT6 Gb
Example	WR203-P-(0~200℃)G1C2L200B2S1J4X1D5F2T6		

In-line Process Refractometer

Electrical Connection & Wiring

Features

- Lightweight, compact and easy to install on site.
- LED display, 4-20mA output , easy to connect with other devices for automatic control.
- Easy to operate, only one transmission line solves power and data transmission.
- It has the function of automatic temperature compensation according to the temperature of the tested medium . When the tested medium temperature changes, the Brix value (soluble solids) after temperature compensation is displayed, and the output changes accordingly.
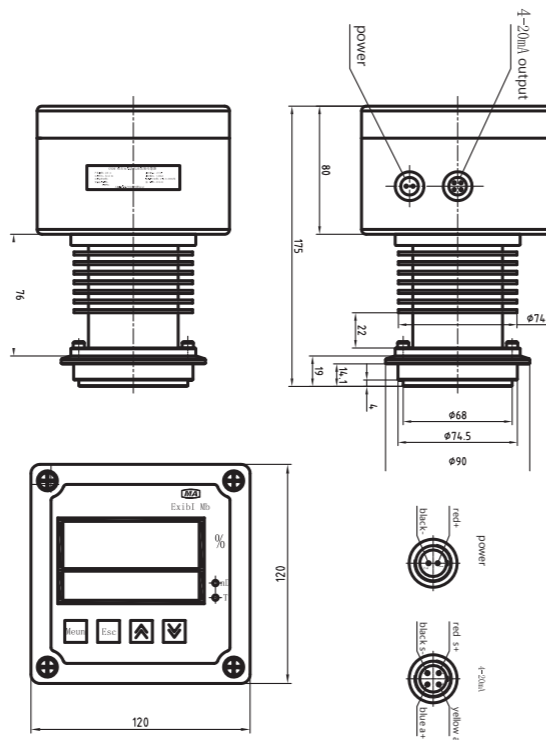
Applications

- Suitable online real-time monitoring and control of liquid substance concentration in various industries
- Cutting oil, mold release agent, quenching liquid, cleaning liquid, emulsion in the machining industry
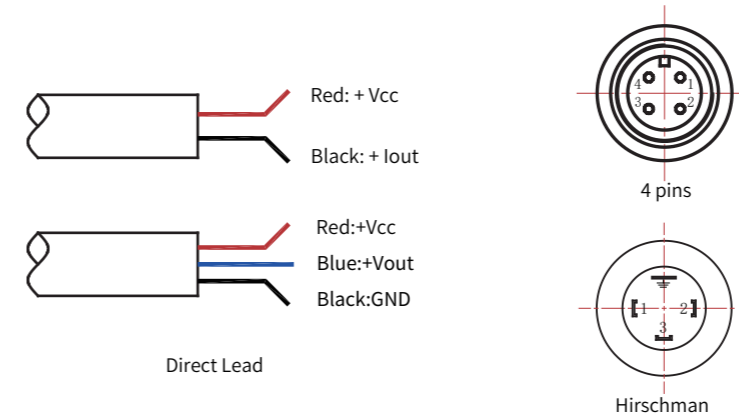- Food, chemical, paper, tobacco, environmental protection

Specifications

|	
Measurement scale	Brix (%) , Automatic Temperature Compensation
Measurement range	Brix 0~90%
Minimum indication	Brix 0.1%
Measurement accuracy	Brix ±0.5% , Temperature ±0.2%
Measurement temperature	-20~70°C Auto temperature compensation
Operating temperature	-20-60°C
Power supply	24VDC
Output	4-20mA
Protection grade	IP65
Wetted parts material	Prism: sapphire , Prism stage : SS304
Temperature sensor	Thin film platinum sensor
Resistible pressure on the prism unit	0.98MPa (10kgf/cm²)
Environmental conditions	Ambient temperature : -20~60°C Relative humidity :30~90%

Dimension

1. Analog signal output

Direct Lead

Type	Function	Color	Pin
4 pins 0-5V; 0-10V	+Vcc	Red	1
	+Vout	Blue	3
	GND	Black	4
4 pins 4-20mA	+Vcc	Red	1
	+Iout	Black	3
Hirschman 0-5V; 0-10V	+Vcc	Red	1
	+Vout	Blue	2
	GND	White	3
Hirschman 4-20mA	+Vcc	Red	1
	+Iout	Black	2

2. Digital signal output

Red:+Vcc
Black:GND
Green:RS485A/RS232R*d
White:RS485B/RS232T*d
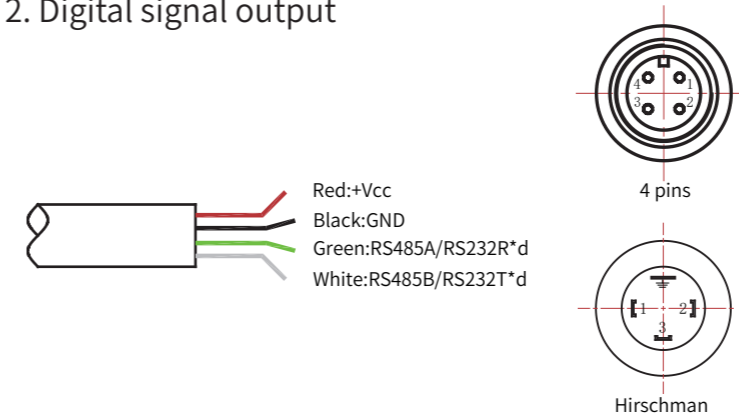
Type	Function	Color	Pin
Hirschman 4 pins MODBUS (RS485/RS232)	+Vcc	Red	1
	RS485A/RS232R*d	Green	2
	GND	Black	3
	RS485B/RS232T*d	White	4 (⏚)

3. Explosion-proof pressure transmitter wiring

Red:+Vcc
Black:+Iout

OUT   TEST
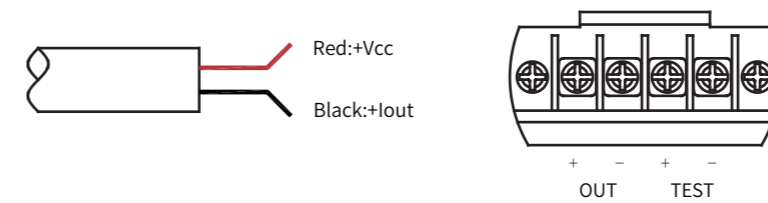
Type	Function	Color	Terminal
4-20mA	+Vcc	Red	OUT+
	+Iout	Black	OUT-

4. Differential pressure transmitter wiring

Red:+Vcc
Black:+Iout

Type	Function	Color	Terminal
4-20mA	+Vcc	Red	OUT+
	+Iout	Black	OUT-