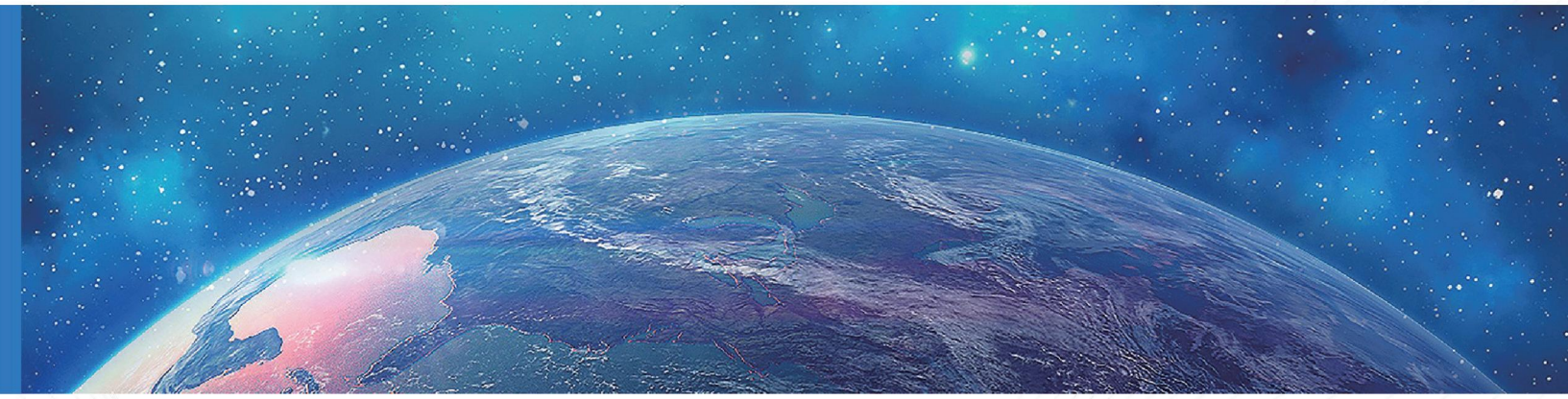
JZ SENSOR

Model Selection Manual of

Single Crystal silicon/Diffusion silicon Sensor



NANJING JZ SENSOR TECHNOLOGY CO., LTD.

Company Introduction

Nanjing JZ Sensor Technology Co., Ltd.is an innovative enterprise engaged in the production of monocrystalline silicon / diffusion silicon sensors, the company is located in Nanjing, the company mainly provides advanced instrument intelligent manufacturing equipment and instrumentation production services with independent intellectual property rights, since its inception, the company has provided instrumentation automation production solutions for domestic and foreign instrumentation, automatic control and other manufacturers, including: monocrystalline silicon / Diffusion silicon pressure sensor, Automatic – P pressure/ differential pressure transmitter batch automatic calibration and test system, differential pressure, pressure, temperature, liquid level and other intelligent instruments.

At present, JZ Sensor products have been widely used in transmitter instrument manufacturing, heating energy saving, air conditioning and refrigeration energy saving, industrial fluid automatic control, aerospace, machinery manufacturing, motor vehicles, medical equipment, automotive safety, household appliance control and many fields.

The company has perfect management, advanced scientific research, stable production, full of vitality, has a team with advanced knowledge and concepts, adhering to the "do our beststrive for the best"corporate culture. With a number of talents in the field of sensor design, software design, communication design, etc., based on solid instrument design experience, through advanced sensing technology, to achieve automatic production of instruments, in the same industry rapid rise.

Adhering to the corporate tenet and business philosophy of "integrity-based, quality first, service-oriented, customer first", the company adheres to the business philosophyof"people-oriented, brand-oriented, market-led, service-oriented, management as guarantee",and constantly strives for excellence in product quality , Constantly thinking about intelligent instrument automatic production, put forward three improvements and three reductions, improve production efficiency, improve product quality, improve market competitiveness, reduce production difficulty, reduce labor costs, reduce production area, and contribute to China's manufacturing while creating economic benefits in the company.

Catalog

Monocrystalline silicon pressure sensor seriessensor series

Monocrystalline silicon differential pressure sensor series

Monocrystalline silicon pressure / differential pressure transmitter series

Diffusion silicon sensor series

Diffuse silicon pressure/differential pressure transmitter

Temperature sensor series

AP100 High-Stability Monocrystalline Silicon Pressure Cell

Introduction

AP100 High-stability monocrystalline silicon pressure core adopts high-stability chip imported from Germany, with high precision, high stability and other characteristics, built in temperature sensitive components, can greatly improve the temperature performance of monocrystalline silicon pressure core, full 316L stainless steel all-welded structure, with excellent overload performance, suitable for -40-120℃ A variety of harsh environments.

AP100 High-stability monocrystalline silicon pressure cells are widely used in pressure instrument manufacturing, heating and energy saving, industrial fluid automatic control, aerospace, machinery manufacturing and medical equipment and other measurement fields.

Characteristic

- High accuracy
- High stability
- Intelligent static pressure compensation
- Intelligent temperature compensation
- Universal measurement of positive and negative pressure
- Excellent overload performance

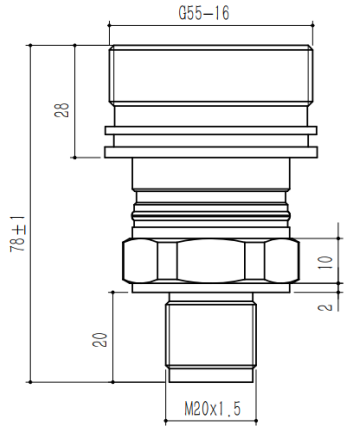
Specifications

Power supply	5 (typical)- 12V
Electrical connection	110mm silicone wire
Bridge resistance	6KΩ ±0.5KΩ
Response time	≤ 10ms
Insulation resistance	500MΩ/500VDC
Operating temperature	-40-+120℃
Storage temperature	-50-+125℃
Full-point output voltage	60-140mV (10Mpa: 200-300mV) @5VDC power supply
Zero temperature influence	±0.05%F.S./℃
Temperature hysteresis	<±0.1%F.S.
Pressure lag	<±0.05%F.S.
Long-term drift	<±0.1%F.S./ year
Nonlinearity error	<± 0.3% F.S. (10kPa ≤ sensitive component range ≤ 10kPa).
	<1 7% F.S. (sensitive component range <10kPa).
repeatability	<±0.05%F.S.
Hysteresis	<±0.05%F.S.
Diaphragm material	316L/ Hastelloy C
Junction box connection	M27×2 male thread
	2 16/16UNS male thread
Process connection	M20*1.5 male thread

Range

Range	Lower range limit (LRL).		Maximum quantum range (URL).	Overload pressure
	Gauge pressure	Absolute		
6kpa	-6kpa	-	6kpa	16Mpa
40kpa	-40kpa	0kpa	40kpa	16Mpa
250kpa	-100kpa	0 kpa	250 kpa	16Mpa
1Mpa	-100kpa	0 kpa	1Mpa	16Mpa
3Mpa	-100kpa	-	3Mpa	16Mpa

Product Shape



Electrical Connections

Black line - Negative temperature;

Green line - Positive temperature;

White line - Output negative;

Yellow line - Positive output;

Blue line - Power negative;

Red line - Power positive.

Lectotype

project	parameter	code	Code description
	Model	AP100	Highly stable monocrystalline silicon pressure core
Sensitive components	separator	–	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa -3MPa).
		A	Absolute pressure (40kPa-3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		O	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55-16
	Sealing method	F	Stainless steel welded seal
	Process connection	M	M20* 1.5 male thread,316 stainless steel
		N	NPT1/2 male thread,316 stainless steel
		G	G1/2 male thread,316 stainless steel
		P	NPT1/2 female thread,316 stainless steel
	Signal output mode	In	Sensor millivolt signal output

AP110 High Precision Monocrystalline Silicon Pressure Sensor Module

Introduction

AP110 High-precision monocrystalline silicon pressure sensor module adopts high-stability chip imported from Germany, with high precision, high stability and other characteristics, preset signal processing module, and has 0. for static pressure and temperature compensation0.75% measurement accuracy, the assembled shell can be shipped, reducing the production debugging process and reducing costs.

AP110 High-precision monocrystalline silicon pressure sensor modules are widely used in pressure instrument manufacturing, heating and energy saving, Industrial fluid automation, aerospace, mechanical engineering and medical equipment and other measurement fields.

Characteristic

- High accuracy
- 0.075% high stability
- Intelligent static pressure compensation
- Intelligent temperature compensation
- Universal measurement of positive and negative pressure
- Excellent overload performance

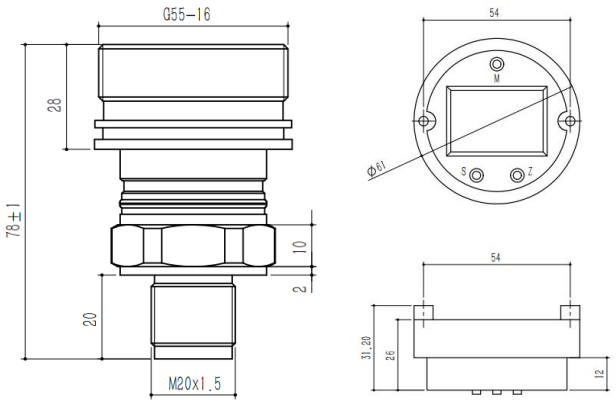
Specifications

Power supply	11-36V
Electrical connection	Silicone wire
Bridge resistance	6KΩ ± 0.5KΩ
Response time	≤ 10ms
Insulation resistance	500MΩ/500VDC
Operating temperature	-40-+85℃
Storage temperature	-50-+125℃
Sensor output	4-20mA DC+HART protocol
Full temperature zone accuracy	0.075%FS
Location impact	The horizontal and vertical positions are approximately 200
Overvoltage effects	< 0.05%FS/10Mpa
stability	≤ 0.03%FS/ year
Power impact	< 0.005%FS/V
repeatability	< ± 0.05%F.S.
Hysteresis	< ± 0.05%F.S.
Diaphragm material	316L/ Hastelloy C
Junction box connection	M27 × 2 male thread
Process connection	2 16/16UNS male thread

Range

Range	Lower range limit (LRL).		Maximum quantum range (URL).	Overload pressure
	Gauge pressure	Absolute		
6kpa	-6kpa	-	6kpa	16Mpa
40kpa	-40kpa	0kpa	40kpa	16Mpa
250kpa	-100kpa	0 kpa	250 kpa	16Mpa
1Mpa	-100kpa	0 kpa	1Mpa	16Mpa
3Mpa	-100kpa	-	3Mpa	16Mpa

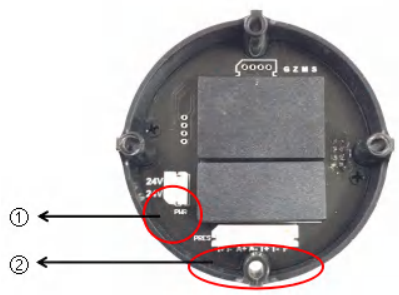
Product Shape



Electrical Connections

Red line - Positive power;

Blue line - Positive output.



Lectotype

project	parameter	code	Code description
	Model	AP110	High-precision monocrystalline silicon pressure sensor module
Sensitive components	separator	-	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa -3MPa).
		A	Absolute pressure (40kPa-3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		O	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55-16
	Sealing method	F	Stainless steel welded seal
	Process connection	M	M20* 1.5 male thread,316 stainless steel
		N	NPT1/2 male thread,316 stainless steel
		G	G1/2 male thread,316 stainless steel
		P	NPT1/2 female thread,316 stainless steel
	Signal output mode	A	4-20mA,4-20mA+Hart

AP120 Economical Monocrystalline Silicon Pressure Sensor Module

Introduction

AP120 economical monocrystalline silicon pressure sensor module adopts high-stability chip imported from Germany, with high precision, high stability and other characteristics, sensor intelligent temperature compensation, has to meet 0.1% measurement accuracy, conventional circuit, no need to warm supplement, assembly shell can be shipped, reduce production and debugging links, reduce costs.

AP120 Economical monocrystalline silicon pressure sensor module is widely used in pressure instrument manufacturing, heating and energy saving, Industrial fluid automation, aerospace, mechanical engineering and medical equipment and other measurement fields.

Characteristic

- High accuracy
- High stability
- Excellent overload performance
- Universal measurement of positive and negative pressure
- Intelligent static pressure compensation
- Germany imported monocrystalline silicon chip

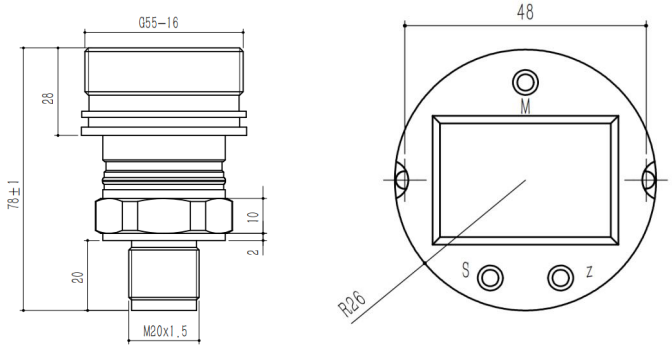
Specifications

Power supply	11-36V
Electrical connection	Silicone wire
Bridge resistance	6KΩ ±0.5KΩ
Response time	≤ 10ms
Insulation resistance	500MΩ/500VDC
Operating temperature	-40-+85℃
Storage temperature	-50-+125℃
Sensor output	4-20mA DC
precision	0.1%FS
Location impact	The horizontal and vertical positions are approximately 200 pa
Overvoltage effects	< 0.05%FS/10Mpa
stability	≤ 0.03%FS/ year
Power impact	< 0.005%FS/V
repeatability	<±0.05%F.S.
Hysteresis	<±0.05%F.S.
Diaphragm material	316L/ Hastelloy C
Junction box connection	M27×2 male thread
	2 16/16UNS male thread
Process connection	M20*1.5 male thread

Range

Range	Lower range limit (LRL).		Maximum quantum range (URL).	Overload pressure
	Gauge pressure	Absolute		
6kpa	-6kpa	-	6kpa	16Mpa
40kpa	-40kpa	0kpa	40kpa	16Mpa
250kpa	-100kpa	0 kpa	250 kpa	16Mpa
1Mpa	-100kpa	0 kpa	1Mpa	16Mpa
3Mpa	-100kpa	-	3Mpa	16Mpa

Product Shape



Electrical Connections

Red line – Positive power;

Blue line – Positive output.

lectotype

project	parameter	code	Code description
	Model	AP120	Economical monocrystalline silicon pressure sensor module
Sensitive components	separator	–	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa -3MPa).
		A	Absolute pressure (40kPa-3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		Or	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55-16
	Sealing method	F	Stainless steel welded seal
	Process connection	M	M20* 1.5 male thread,316 stainless steel
		N	NPT1/2 male thread,316 stainless steel
		G	G1/2 male thread,316 stainless steel
		P	NPT1/2 female thread,316 stainless steel
	Signal output mode	A	4-20mA,4-20mA+Hart

AP200 Hygienic Monocrystalline Silicon Pressure Sensor

Introduction

AP200 sanitary monocrystalline silicon pressure sensor adopts high-stability chip imported from Germany, with high precision, high stability and other characteristics, built-in temperature sensitive components, can greatly improve the temperature performance of monocrystalline silicon pressure core, full 316L stainless steel all-welded structure, with excellent overload performance, suitable for -40-120℃ in various harsh environments.

AP200 Hygienic monocrystalline silicon pressure sensors are widely used in pressure instrument manufacturing, food processing, beverage production, pharmaceutical production and medical equipment and other hygienic measurement fields.

Characteristic

- High accuracy
- High stability
- Excellent overload performance
- Universal measurement of positive and negative pressure
- Intelligent static pressure compensation
- Germany imported monocrystalline silicon chip

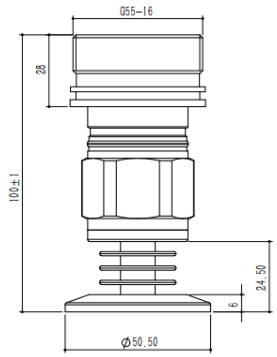
Specifications

Power supply	5(typical)-12V
Electrical connection	110mm silicone wire
Power supply	5 (typical)- 12V
Electrical connection	110mm silicone wire
Bridge resistance	6KΩ ±0.5KΩ
Response time	≤ 10ms
Insulation resistance	500MΩ/500VDC
Operating temperature	-40-+120℃
Storage temperature	-50-+125℃
Full-point output voltage	60-140mV (10Mpa: 200-300mV) @5VDC power supply
Zero temperature influence	±0.05%F.S./℃
Temperature hysteresis	<±0.1%F.S.
Pressure lag	<±0.05%F.S.
Long-term drift	<±0.1%F.S./ year
Nonlinearity error	<± 0.3% F.S. (10kPa ≤ sensitive component range ≤ 10kPa).
	<1 7% F.S. (sensitive component range <10kPa).
repeatability	<±0.05%F.S.
Hysteresis	<±0.05%F.S.
Junction box connection	M27×2 male thread
	2 16/16UNS male thread
Process connection	M20*1.5 male thread

Range

Range	Lower range limit (LRL).		Maximum quantum range (URL).	Overload pressure
	Gauge pressure	Absolute		
6kpa	-6kpa	-	6kpa	16Mpa
40kpa	-40kpa	0kpa	40kpa	16Mpa
250kpa	-100kpa	0 kpa	250 kpa	16Mpa
1Mpa	-100kpa	0 kpa	1Mpa	16Mpa
3Mpa	-100kpa	-	3Mpa	16Mpa

Product Shape



Electrical Connections

Black line – Negative temperature;

Green line – Positive temperature;

White line – Output negative;

Yellow line – Positive output;

Blue line – Power negative;

Red line – Power positive.

lectotype

project	parameter	code	Code description
	Model	AP200	Hygienic monocrystalline silicon pressure transmitter
Sensitive components	separator	–	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa -3MPa).
		A	Absolute pressure (40kPa-3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		Or	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55-16
	Sealing method	F	Stainless steel welded seal
	Process connection	D1	ϕ50.5 Chuck,DIN32676:2001-02
		D2	ϕ64 chuck,DIN32676:2001-02
		N3	Threaded screw, DIN11851:1998-11
	Signal output mode	In	Sensor millivolt signal output

AP400 Flanged Monocrystalline Silicon Pressure Sensor

Introduction

AP400 flange type monocrystalline silicon pressure sensor adopts high stability chip imported from Germany, with high precision, high stability and other characteristics, built-in temperature sensitive components, can greatly improve the temperature performance of single crystal silicon pressure core, flange diaphragm fully welded structure, with excellent overload performance, suitable for -40-120 ℃ in various harsh environments.

AP400 Flanged monocrystalline silicon pressure sensors are widely used in pressure instrument manufacturing, chemical production, food processing, beverage production, pharmaceutical production and medical equipment and other measurement fields.

Characteristic

- High accuracy
- High stability
- Excellent overload performance
- Universal measurement of positive and negative pressure
- Intelligent static pressure compensation
- Germany imported monocrystalline silicon chip

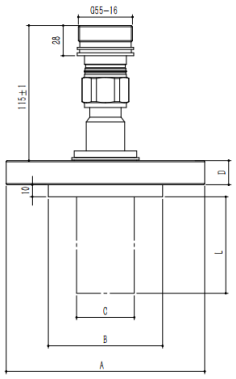
Specifications

Power supply	5 (typical)- 12V
Electrical connection	110mm silicone wire
Bridge resistance	6KΩ ± 0.5KΩ
Response time	≤ 10ms
Insulation resistance	500MΩ/500VDC
Operating temperature	-40-+120℃
Storage temperature	-50-+125℃
Full-point output voltage	60-140mV (10Mpa: 200-300mV) @5VDC power supply
Zero temperature influence	± 0.05%F.S./℃
Temperature hysteresis	< ± 0.1%F.S.
Pressure lag	< ± 0.05%F.S.
Long-term drift	< ± 0.1%F.S./ year
Nonlinearity error	< ± 0.3% F.S. (10kPa ≤ sensitive component range ≤ 10kPa).
	<1 7% F.S. (sensitive component range <10kPa).
repeatability	< ± 0.05%F.S.
Hysteresis	< ± 0.05%F.S.
Diaphragm material	316L/ Hastelloy C
Junction box connection	M27 × 2 male thread
	2 16/16UNS male thread
Process connection	M20*1.5 male thread

Range

Range	Lower range limit (LRL).		Maximum quantum range (URL).	Overload pressure
	Gauge pressure	Absolute		
6kpa	-6kpa	-	6kpa	16Mpa
40kpa	-40kpa	0kpa	40kpa	16Mpa
250kpa	-100kpa	0 kpa	250 kpa	16Mpa
1Mpa	-100kpa	0 kpa	1Mpa	16Mpa
3Mpa	-100kpa	-	3Mpa	16Mpa

Product Shape



Electrical Connections

Black line − Negative temperature;

Green line − Positive temperature;

White line − Output negative;

Yellow line − Positive output;

Blue line − Power negative;

lectotype

project	parameter	code	Code description
	Model	AP400	Flanged monocrystalline silicon pressure transmitter
Sensitive components	separator	−	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa −3MPa).
		A	Absolute pressure (40kPa−3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		O	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55−16
	Sealing method	F	Stainless steel welded seal
	Process connection	G	HG/T 20592−2009，RF side
		M	HG/T 20615−2009，RF side
		Q	Other criteria can be remarked
	Signal output mode	In	Sensor millivolt signal output

Range Selection

standard	Flange specifications	ϕF Outer diameter (A).	ϕSealing surface(B)	ϕF Thickness (D)	ϕF outer diameter of the socket(A).	ϕF Insertion depth (S)
HG/T 20592−2009	DN25/PN16	115	65	16	——	——
HG/T 20592−2009	DN50/PN16	165	95	19	48	50−200
HG/T 20592−2009	DN80/PN16	200	127	20	76	50−200
HG/T 20592−2009	DN100/PN16	220	157	22	94	50−200
HG/T 20615−2009	DN25/150LB	110	50	12.7	——	——
HG/T 20615−2009	DN50/150LB	150	92	17.5	48	50−200
HG/T 20615−2009	DN80/150LB	190	127	22.3	76	50−200
HG/T 20615−2009	DN100/150LB	230	157	22.3	94	50−200

AP300 Superstable Monocrystalline Silicon Differential Pressure Core

Introduction

AP300 The ultra-stable monocrystalline silicon differential pressure core adopts a high-stability chip imported from Germany, which has the characteristics of high precision and high stability, and has built-in temperature-sensitive components, which can greatly improve the temperature performance of the monocrystalline silicon pressure core 316L Stainless steel all-welded construction, with Excellent overload performance, suitable for -40-120℃ A variety of harsh environments.

AP300 Ultra-stable monocrystalline silicon differential pressure core is widely used in pressure instrument manufacturing, heating energy saving, industrial fluid automatic control, aerospace, Various measurement fields such as machinery manufacturing and medical equipment.

Characteristic

- High accuracy
- High stability
- Excellent overload performance
- Universal measurement of positive and negative pressure
- Intelligent static pressure compensation
- Germany imported monocrystalline silicon chip

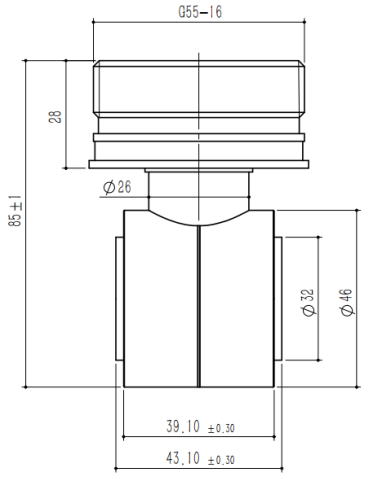
Specifications

Power supply	5 (typical)- 12V
Electrical connection	110mm silicone wire
Bridge resistance	6KΩ ±0.5KΩ
Response time	≤ 10ms
Insulation resistance	500MΩ/500VDC
Operating temperature	-40-+85℃
Storage temperature	-50-+125℃
Full-point output voltage	60-140mV（3kPa：50-120mV）
Zero temperature influence	±0.05%F.S./℃
Temperature hysteresis	<±0.1% F.S. (10kPa ≤ sensitive component range ≤ 10MPa).
	< ±0.5% F.S. (sensitive component range <10kpa).
Pressure lag	<±0.05%F.S.
Long-term drift	<±0.05%F.S./ year
Nonlinearity error	<±0.3% F.S. (10kPa ≤ sensitive component range ≤ 10MPa).
	<± 1.7% F.S. (sensitive component range <10MPa).
repeatability	<±0.05%F.S.
Hysteresis	<±0.05%F.S.
Static pressure influence	<±0.1% F.S./10MPa (10kPa ≤ sensitive component range <10MPa).
	<±0.15% F.S./10MPa (sensitive component range <10kPa or =10MPa).
Diaphragm material	316L / Hastelloy C
Junction box connection	M27×2 male thread
	M56×1.5 male thread
	23/16US male thread
Process connection	H-shaped construction, double flange, process connection female thread 1/4-18NPT,flange rear end with drain valve,316 stainless steel

Range

Range	Lower range limit (LRL).			Differential pressure	Gauge pressure	Absolute
	Differential pressure	Gauge pressure	Absolute			
3kpa	-3kPa	-3kPa	-	3kPa	300kPa	7MPa
6kpa	-6kPa	-6kPa	-	6kPa	16MPa	25MPa
40kpa	-40kPa	-40kPa	0kpa	40kpa	16MPa	40MPa
250kpa	-250kPa	-100kPa	0kpa	250kpa	16MPa	40MPa
1Mpa	-500kPa	-100kPa	0kpa	1Mpa	16MPa	40MPa
3Mpa	-500kPa	-500kPa	-	3Mpa	16MPa	-

Product Shape



Electrical Connections

Black line – Negative temperature;

Green line – Positive temperature;

White line – Output negative;

Yellow line – Positive output;

Blue line – Power negative;

Red line – Power positive.

lectotype

project	parameter	code	Code description
	Model	AP300	Ultra-stable monocrystalline silicon differential pressure core
Sensitive components	separator	–	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa -3MPa).
		A	Absolute pressure (40kPa-3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		Or	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55-16
	Sealing method	F	Stainless steel welded seal
	Signal output mode	V	Sensor millivolt signal output

AP310 High Precision Monocrystalline Silicon Differential Pressure Sensor module

Introduction

AP310 high-precision monocrystalline silicon differential pressure sensor module adopts high-stability chip imported from Germany, with high precision, high stability and other characteristics, preset signal processing module, and static pressure and temperature compensation, with 0.075% measurement accuracy, assembly shell can be shipped, reduce production and debugging links, reduce costs.

AP310 high-precision monocrystalline silicon differential pressure sensor module is widely used in pressure instrument manufacturing, heating and energy saving, industrial fluid automatic control, aerospace, machinery manufacturing and medical equipment and other measurement fields.

Characteristic

- High accuracy
- High stability
- Excellent overload performance
- Universal measurement of positive and negative pressure
- Intelligent static pressure compensation
- Germany imported monocrystalline silicon chip

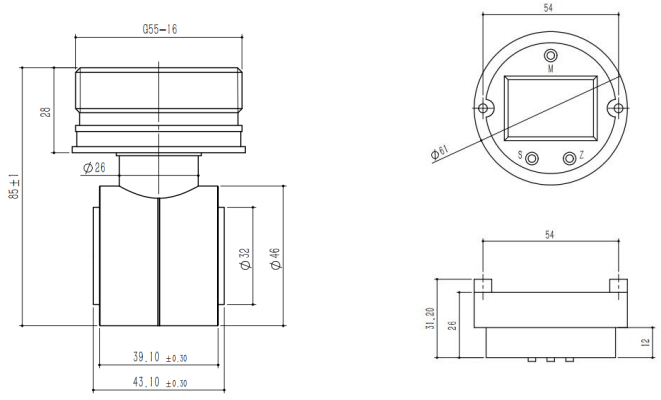
Specifications

Power supply	11-36V
Electrical connection	Silicone wire
Bridge resistance	6KΩ ±0.5KΩ
Response time	≤ 10ms
Insulation resistance	500MΩ/500VDC
Operating temperature	-40-+85℃
Storage temperature	-50-+125℃
Sensor output	4-20mA DC+HART protocol
Full temperature zone accuracy	0.075%FS
Temperature hysteresis	<±0.1% F.S. (10kPa ≤ sensitive component range ≤ 10MPa).
	< ±0.5% F.S. (sensitive component range <10kpa).
Pressure lag	<±0.05%F.S.
Long-term drift	<±0.05%F.S./ year
Nonlinearity error	<±0.3% F.S. (10kPa ≤ sensitive component range ≤ 10MPa).
	<± 1.7% F.S. (sensitive component range <10MPa).
repeatability	<±0.05%F.S.
Hysteresis	<±0.05%F.S.
Static pressure influence	<±0.1% F.S./10MPa (10kPa ≤ sensitive component range <10MPa).
	<±0.15% F.S./10MPa (sensitive component range <10kPa or =10MPa).
Diaphragm material	316L / Hastelloy C
Junction box connection	M27×2 male thread
	M56×1.5 male thread
	23/16US male thread
Process connection	H-shaped construction, double flange, process connection female thread 1/4-18NPT,flange rear end with drain valve,316 stainless steel

Range

Range	Lower range limit (LRL).			Maximum range (URL).	Single-ended overload pressure	Static pressure
	Differential pressure	Gauge pressure	Absolute			
3kpa	-3kPa	-3kPa	-	3kPa	300kPa	7MPa
6kpa	-6kPa	-6kPa	-	6kPa	16MPa	25MPa
40kpa	-40kPa	-40kPa	0kpa	40kpa	16MPa	40MPa
250kpa	-250kPa	-100kPa	0kpa	250kpa	16MPa	40MPa
1Mpa	-500kPa	-100kPa	0kpa	1Mpa	16MPa	40MPa
3Mpa	-500kPa	-500kPa	-	3Mpa	16MPa	-

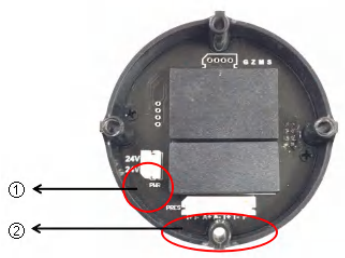
Product Shape



Electrical Connections

(1): Power interface;

(2): Monocrystalline silicon sensor interface



lectotype

project	parameter	code	Code description
	Model	AP310	High-precision monocrystalline silicon differential pressure sensor module
Sensitive components	separator	-	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa -3MPa).
		A	Absolute pressure (40kPa-3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		Or	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55-16
	Sealing method	F	Stainless steel welded seal
	Signal output mode	A	4-20mA,4-20mA+Hart

AP320 Economical Monocrystalline Silicon Differential Pressure Sensor Module

Introduction

AP320 economical monocrystalline silicon differential pressure sensor module adopts high-stability chip imported from Germany, with high precision, high stability and other characteristics, sensor intelligent temperature compensation, has a measurement accuracy of 0.1%, conventional circuit, no need for temperature compensation, assembly shell can be shipped, reduce production and debugging links, reduce costs.

AP320 Economical monocrystalline silicon differential pressure sensor module is widely used in pressure instrument manufacturing, heating and energy saving, Industrial fluid automation, aerospace, mechanical engineering and medical equipment and other measurement fields.

Characteristic

- ◆ Accuracy 0.1%,
- ◆ Strong economy, 3high
- ◆ High stability
- ◆ Intelligent
- ◆ Static pressure compensation
- ◆ Intelligent temperature compensation
- ◆ Positive and negative pressure
- ◆ Universal measurement
- ◆ Excellent overload performance
- ◆ Germany imported monocrystalline silicon chip
- ◆ 316L stainless steel all-welded structure
- ◆ Adapt to the mainstream thread shell on the market

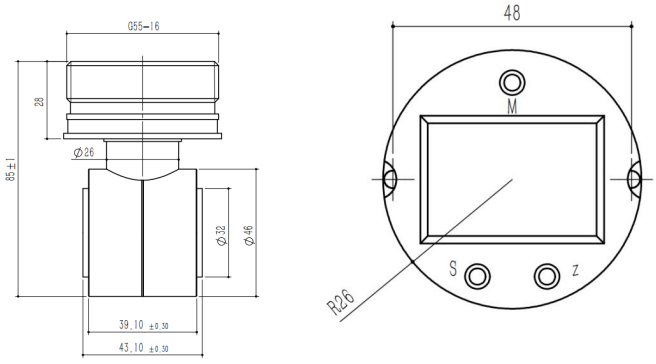
Specifications

Power supply	11-36V
Electrical connection	Silicone wire
Bridge resistance	6KΩ ± 0.5KΩ
Response time	≤ 10ms
Insulation resistance	500MΩ/500VDC
Operating temperature	-40-+85℃
Storage temperature	-50-+125℃
Sensor output	4-20mA DC
precision	0.1%FS
Temperature hysteresis	< ± 0.1% F.S. (10kPa ≤ sensitive component range ≤ 10MPa).
	< ± 0.5% F.S. (sensitive component range <10kpa).
Pressure lag	< ± 0.05%F.S.
Long-term drift	< ± 0.05%F.S./ year
Nonlinearity error	< ± 0.3% F.S. (10kPa ≤ sensitive component range ≤ 10MPa).
	< ± 1.7% F.S. (sensitive component range <10MPa).
repeatability	< ± 0.05%F.S.
Hysteresis	< ± 0.05%F.S.
Static pressure influence	< ± 0.1% F.S./10MPa (10kPa ≤ sensitive component range <10MPa).
	< ± 0.15% F.S./10MPa (sensitive component range <10kPa or =10MPa).
Diaphragm material	316L / Hastelloy C
Junction box connection	M27 × 2 male thread
	M56 × 1.5 male thread
	23/16US male thread
Process connection	H-shaped construction, double flange, process connection female thread 1/4-18NPT,flange rear end with drain valve,316 stainless steel

Range

Range	Lower range limit (LRL).			Maximum range (URL).	Single-ended overload pressure	Static pressure
	Differential pressure	Gauge pressure	Absolute			
3kpa	-3kPa	-3kPa	-	3kPa	300kPa	7MPa
6kpa	-6kPa	-6kPa	-	6kPa	16MPa	25MPa
40kpa	-40kPa	-40kPa	0kpa	40kpa	16MPa	40MPa
250kpa	-250kPa	-100kPa	0kpa	250kpa	16MPa	40MPa
1Mpa	-500kPa	-100kPa	0kpa	1Mpa	16MPa	40MPa
3Mpa	-500kPa	-500kPa	-	3Mpa	16MPa	-

Product Shape



Electrical Connections

(1): Power interface;

(2): Monocrystalline silicon sensor interface.

lectotype

project	parameter	code	Code description
	Model	AP320	Economical monocrystalline silicon differential pressure sensor module
Sensitive components	separator	-	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa -3MPa).
		A	Absolute pressure (40kPa-3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		Or	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55-16
	Sealing method	F	Stainless steel welded seal
	Signal output mode	A	4-20mA,4-20mA+Hart

AP300LT Side-Mounted Flat Membrane Flange /Cartridge Flange Differential Pressure Sensor

Introduction

AP300LT Side-mounted flat film flange/ The plug-in flange differential pressure sensor adopts high-stability chip imported from Germany, which has high precision, High stability and other characteristics, built-in temperature sensitive components, can greatly improve the temperature performance of monocrystalline silicon pressure core, methodThe blue diaphragm is fully welded with excellent overload performance and is suitable for -40-120℃ A variety of harsh environments.

AP300LT Side-mounted flat film flange / Socket flange differential pressure sensor is widely used in pressure instrument manufacturing, chemical production, Food processing, beverage production, pharmaceutical production and medical equipment and other liquid level measurement fields.

Characteristic

- High accuracy
- High stability
- Excellent overload performance
- Universal measurement of positive and negative pressure
- Intelligent static pressure compensation
- Germany imported monocrystalline silicon chip

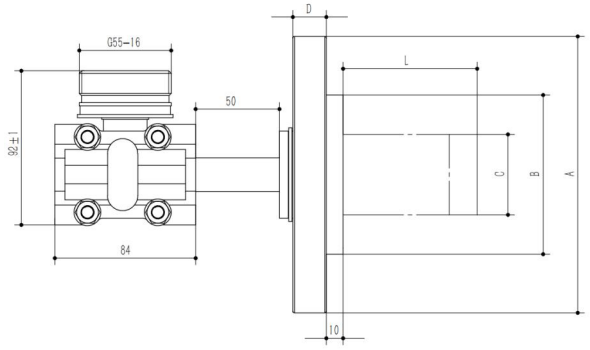
Specifications

Power supply	5 (typical)- 12V
Electrical connection	110mm silicone wire
Bridge resistance	6KΩ ±0.5KΩ
Response time	≤ 10ms
Insulation resistance	500MΩ/500VDC
Operating temperature	-40-+85℃
Storage temperature	-50-+125℃
Full-point output voltage	60-140mV (3kPa：50-120mV)
Zero temperature influence	±0.05%F.S./℃
Temperature hysteresis	<±0.1% F.S. (10kPa ≤ sensitive component range ≤ 10MPa).
	< ±0.5% F.S. (sensitive component range <10kpa).
Pressure lag	<±0.05%F.S.
Long-term drift	<±0.05%F.S./ year
Nonlinearity error	<±0.3% F.S. (10kPa ≤ sensitive component range ≤ 10MPa).
	<± 1.7% F.S. (sensitive component range <10MPa).
repeatability	<±0.05%F.S.
Hysteresis	<±0.05%F.S.
Static pressure influence	<±0.1% F.S./10MPa (10kPa ≤ sensitive component range <10MPa).
	<±0.15% F.S./10MPa (sensitive component range <10kPa or =10MPa).
Diaphragm material	316L / Hastelloy C
Junction box connection	M27×2 male thread
	M56×1.5 male thread
	23/16UNS male thread
Process connection	H-shaped construction, double flange, process connection female thread 1/4-18NPT,flange rear end with drain valve,316 stainless steel

Range

Range	Lower range limit (LRL).			Maximum range (URL).	Single-ended overload pressure	Static pressure
	Differential pressure	Gauge pressure	Absolute			
3kpa	-3kPa	-3kPa	-	3kPa	300kPa	7MPa
6kpa	-6kPa	-6kPa	-	6kPa	16MPa	25MPa
40kpa	-40kPa	-40kPa	0kpa	40kpa	16MPa	40MPa
250kpa	-250kPa	-100kPa	0kpa	250kpa	16MPa	40MPa
1Mpa	-500kPa	-100kPa	0kpa	1Mpa	16MPa	40MPa
3Mpa	-500kPa	-500kPa	-	3Mpa	16MPa	-

Product Shape



Electrical Connections:

Black line – Negative temperature;

Green line – Positive temperature;

White line – Output negative;

Yellow line – Positive output;

Blue line – Power negative;

Red line – Power positive.

lectotype

project	parameter	code	Code description
	Model	AP300LT	Side mounted flat film flange / socket flange differential pressure transmitter
	separator	–	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa -3MPa).
		A	Absolute pressure (40kPa-3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		Or	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55-16
	Sealing method	F	Stainless steel welded seal
	Process connection	G	HG/T 20592-2009，RF side
		M	HG/T 20615-2009，RF side
		Q	Other criteria can be remarked
	Signal output mode	In	Sensor millivolt signal output

Range Selection:

standard	Flange specifications	F Outer diameter (A).	ϕ Sealing surface(B).	F Thickness (D).	F outer diameter of the socket(A).	F Insertion depth (S).
HG/T 20592-2009	DN25/PN16	115	65	16	——	——
HG/T 20592-2009	DN50/PN16	165	95	19	48	50-200
HG/T 20592-2009	DN80/PN16	200	127	20	76	50-200
HG/T 20592-2009	DN100/PN16	220	157	22	94	50-200
HG/T 20615-2009	DN25/150LB	110	50	12.7	——	——
HG/T 20615-2009	DN50/150LB	150	92	17.5	48	50-200
HG/T 20615-2009	DN80/150LB	190	127	22.3	76	50-200
HG/T 20615-2009	DN100/150LB	230	157	22.3	94	50-200

AP300LS Remote Flat Membrane Flange / Socket Flange Differential Pressure sensor

Introduction

AP300LS remote flat membrane flange / socket flange differential pressure sensor adopts high stability chip imported from Germany, with high precision, high stability and other characteristics, built-in temperature sensitive components, can greatly improve the temperature performance of single crystal silicon pressure core, flange diaphragm fully welded structure, with excellent overload performance, suitable for -40-120℃ A variety of harsh environments.

AP300LS Far Eastic flat film flange/ Socket flange differential pressure sensor is widely used in pressure instrument manufacturing, chemical production, food processing, wine and beverage production, Pharmaceutical production and medical equipment and other liquid level measurement fields.

Characteristic

- High accuracy
- High stability
- Excellent overload performance
- Universal measurement of positive and negative pressure
- Intelligent static pressure compensation
- Germany imported monocrystalline silicon chip

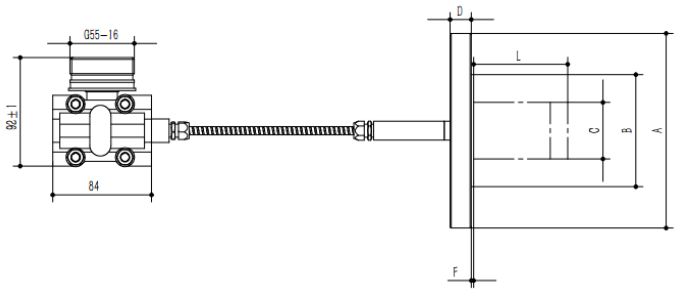
Specifications

Power supply	5 (typical)- 12V
Electrical connection	110mm silicone wire
Bridge resistance	6KΩ ± 0.5KΩ
Response time	≤ 10ms
Insulation resistance	500MΩ/500VDC
Operating temperature	-40-+85℃
Storage temperature	-50-+125℃
Full-point output voltage	60-140mV (3kPa：50-120mV)
Zero temperature influence	±0.05%F.S./℃
Temperature hysteresis	<±0.1% F.S. (10kPa ≤ sensitive component range ≤ 10MPa).
	< ±0.5% F.S. (sensitive component range <10kpa).
Pressure lag	<±0.05%F.S.
Long-term drift	<±0.05%F.S./ year
Nonlinearity error	<±0.3% F.S. (10kPa ≤ sensitive component range ≤ 10MPa).
	<± 1.7% F.S. (sensitive component range <10MPa).
repeatability	<±0.05%F.S.
Hysteresis	<±0.05%F.S.
Static pressure influence	<±0.1% F.S./10MPa (10kPa ≤ sensitive component range <10MPa).
	<±0.15% F.S./10MPa (sensitive component range <10kPa or =10MPa).
Diaphragm material	316L / Hastelloy C
Junction box connection	M27×2 male thread
	M56×1.5 male thread
	23/16UNS male thread
Process connection	H-shaped construction, double flange, process connection female thread 1/4-18NPT,flange rear end with drain valve,316 stainless steel

Range

Range	Lower range limit (LRL).			Maximum range (URL).	Single-ended overload pressure	Static pressure
	Differential pressure	Gauge pressure	Absolute			
3kpa	-3kPa	-3kPa	-	3kPa	300kPa	7MPa
6kpa	-6kPa	-6kPa	-	6kPa	16MPa	25MPa
40kpa	-40kPa	-40kPa	0kpa	40kpa	16MPa	40MPa
250kpa	-250kPa	-100kPa	0kpa	250kpa	16MPa	40MPa
1Mpa	-500kPa	-100kPa	0kpa	1Mpa	16MPa	40MPa
3Mpa	-500kPa	-500kPa	-	3Mpa	16MPa	-

Product Shape



Electrical Connections

Black line − Negative temperature;

Green line − Positive temperature;

White line − Output negative;

Yellow line − Positive output;

Blue line − Power negative;

Red line − Power positive.

lectotype

project	parameter	code	Code description
	Model	AP300LS	Remote flat membrane flange / plug flange differential pressure transmitter
	separator	−	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa −3MPa).
		A	Absolute pressure (40kPa−3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		Or	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55−16
	Sealing method	F	Stainless steel welded seal
	Process connection	G	HG/T 20592−2009，RF side
		M	HG/T 20615−2009，RF side
		Q	Other criteria can be remarked
	Signal output mode	In	Sensor millivolt signal output

Range Selection

standard	Flange specifications	F Outer diameter (A).	ϕ Sealing surface(B).	F Thickness (D).	F outer diameter of the socket(A).	F Insertion depth (S).
HG/T 20592−2009	DN25/PN16	115	65	16	——	——
HG/T 20592−2009	DN50/PN16	165	95	19	48	50−200
HG/T 20592−2009	DN80/PN16	200	127	20	76	50−200
HG/T 20592−2009	DN100/PN16	220	157	22	94	50−200
HG/T 20615−2009	DN25/150LB	110	50	12.7	——	——
HG/T 20615−2009	DN50/150LB	150	92	17.5	48	50−200
HG/T 20615−2009	DN80/150LB	190	127	22.3	76	50−200
HG/T 20615−2009	DN100/150LB	230	157	22.3	94	50−200

FC3351 Series Intelligent High-Precision Monocrystalline Silicon Differential

Product Introduction

FC3351 Series intelligent pressure /Differential pressure transmitter, the center sensing unit adopts the world's leading high-precision silicon pressure and differencePressure sensor technology and packaging process, single crystal silicon pressure, differential pressure sensor is located at the top of the metal body, away from the contact surface of the medium. Achieve mechanical and thermal isolation; The glass sintered sensor leads realize high-strength electrical insulation with the metal matrix. Improved flexibility of electronic circuits and ability to withstand transient voltages. Platinum grade accuracy achieved ±0.05%, one-way overvoltageUp to 25MPa。 Excellent static pressure performance, static pressure error can be optimally controlled ±0.05%/10MPa Within, temperature shadowThe change in response is minimal and optimally controllable ±0.04%/10K。

In the circuit design, the model with microprocessor as the core and supplemented by advanced digital isolation technology is adopted Block design to makeThe instrument has high anti-interference and stability. useHart Protocol to communicate, can be passed Hart Hand communicator or mounting Hart The software computer is operated remotely, and the measurement information configuration is completed while using digital compensation technology and throughThe temperature sensor compensates the transmitter, improves the measurement accuracy, reduces the temperature drift, and has good long-term stability. High reliability. The most humanized design of infrared wireless setting, one-key zero clearance function, to meet the requirements of safe operation in dangerous occasions, very convenient shortcut menu operation, and can complete all parameter settings, comprehensively improve the performance of the transmitter.

Characteristic

- Advanced monocrystalline silicon pressure sensor technology and packaging process, carefully developed an international leading technology ultra-high performance pressure, differential pressure transmitter
- The modular design with microprocessor as the core and assisted by advanced digital isolation technology makes the instrument highly anti-interference and stable
- Powerful 24-bitADC for high accuracy
- Innovative double compensation technology real 0.075 High precision

Functional Parameters

Range limit	Within the upper and lower limits of the measuring range, it can be adjusted arbitrarily It is recommended to choose a quantum code with the lowest possible quantum ratio to optimize performance
Zero point setting	The zero point and range can be adjusted to any value within the measuring range in the table, as long as the standard range ≥ the minimum range
Effect of installation location	If the installation position changes perpendicular to the diaphragm surface will not cause zero drift effect, if the installation position and the diaphragm surface change by more than 90° , the zero position effect within the range of <0.4kPawill occur, and the zero adjustment can be adjusted and corrected, without range effect
output	2-wire 4-20mAcompliant with NAMIR NE43 specifications with a selectable linear or square root output for superimposed digital signals (Hart protocol).
Output signal limit	Imin=3.9mA,Imax=21.0mA
Fault warning	If a sensor or circuit fails, the automatic diagnostics function automatically outputs 3.9 or 21.0mA(user preset).
Alarm current	Low Alarm Mode (Minimum): 3.9mA
High report mode (maximum)	21 mA
Alarm current default settings	High report mode
Response time	The damping constant of the amplifier component is 0.1s; The sensor time constant is 0.1 ~ 1.6s,depending on the range and span ratio. Additional adjustable time constants are:0 ~ 100s
Warm-up time	<15s

Performance Parameters

Measuring medium	Gases, vapours, liquids
Inaccuracy	± 0.05%, ±0.075%, ±0.1%(including linearity, differential and repeatability from zero).
stability	±0.1%/3 years
Ambient temperature effects	⩽ ±0.04%URL/10℃
Static pressure influence	±0.05%/10MPa
power supply	10 ~ 36V DC（recommend 24V DC）
Power impact	±0.001% /10V (10 ~ 36V DC),negligible
The reference accuracy of the modulation	If TD>10 (TD= maximum range / regulated range), it is: ±(0.075×TD)% square root output accuracy is 1.5 of the upper linear reference accuracy times
Ambient temperature	−40℃ ~85℃
Measure the temperature of the medium	−40℃ ~120℃
Storage temperature	−40℃ ~105℃
display	LCD、OLED
The monitor shows the module temperature	−20℃ ~70℃（LCD）、−40℃ ~80℃（OLED）

Overload And Static Pressure

	Range	Unilateral overload (negative terminal)	Unilateral overload (positive side)	Bilateral static pressure
A	1KPa	1MPa	1MPa	16MPa
B	6KPa	2MPa	2MPa	16MPa
C	40KPa	3MPa	3MPa	25MPa
D	400KPa	10MPa	10MPa	25MPa
And	4MPa	10MPa	10MPa	25MPa

Electromagnetic Compatibility (EMC).

The test field is strong	Frequency range	EUT placement	Polarization direction	Detection results		
				Product number		
				24283	24281	24282
3V/m	80MHz−1GHz	Upright	Horizontal polarization	The memory data of the test sample does not change	The memory data of the test sample does not change	The memory data of the test sample does not change
			Vertical polarization	The memory data of the test sample does not change	The memory data of the test sample does not change	The memory data of the test sample does not change

Magnetic field strength	Test results		
	Product number		
	24283	24281	24282
400A/m（X、Y、Z）	The memory data of the test sample does not change	The memory data of the test sample does not change	The memory data of the test sample does not change

Physical Parameters

Measuring the membrane cartridge	Stainless steel 316L
diaphragm	Stainless steel 316L, HastelloyC
Process flange	Stainless steel 304,316L
Nuts and bolts	Carbon steel galvanized, stainless steel
Filling solution	Silicone oil, fluorine oil, high temperature silicone oil, etc
Sealing rings	Nitrile rubber, fluoroelastomer, polytetrafluoroethylene
Transmitter housing	Made of aluminum alloy, the exterior is sprayed with epoxy resin
Housing seals	nitrile rubber
nameplate	Stainless steel 304
weight	2.6kg (without: mounting bracket, process connection).
Enclosure rating	IP67
Explosion-proof rating	Exd Ⅱ CT6、Exia II. CT6

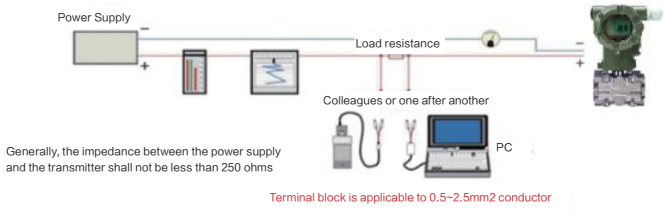
Installation

Power and load conditions

The supply voltage is 24V,R ≤ (Us-10V)/I max Ω wherel max=21 mA

Maximum supply voltage: 36VDC Minimum supply voltage:10VDC

Digital communication load range: 250 ~ 600Ω

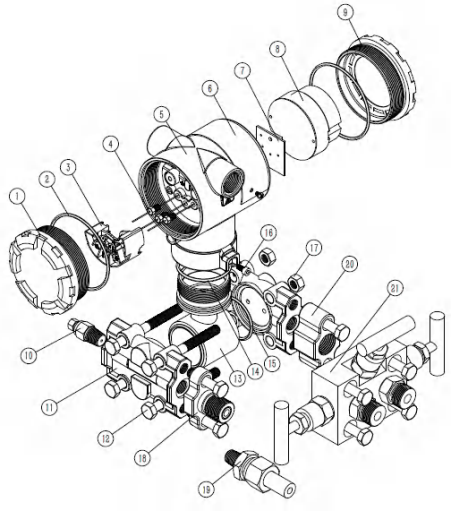


Process connection

The two end faces of the process connection flange are NPT1/4 和 M10 或 UNF7/16 Internal thread.

Typical Product Assembly Exploded View

01	Rear end cover	02	End cap seals
03	Terminal blocks	04	Through-core capacitors
05	Housing	06	Signs
07	Anti-interference board	08	Circuit meter header
09	Show end caps	10	Exhaust drain valve
11	cleat	12	M8 screws
13	sensor	14	Housing seals
15	Sensor seals	16	The housing locks the top wire
17	M8 nut	18	T-connector (optional).
19	Welded pipe fittings (optional).	20	Waist flange (optional).
21	Integrated three-valve block (optional).		

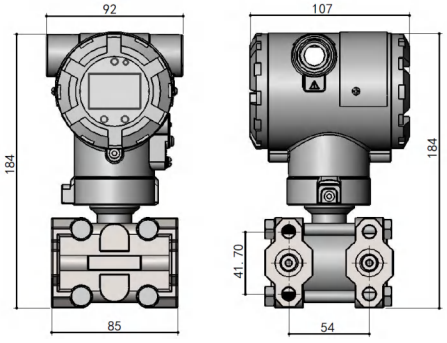


FC3351DP Intelligent Differential Pressure Transmitter

Range

Quantum code	Measuring range (KPa).	Measuring range (KPa).	Accuracy / stability
A	−1 ~ 1	0.1 ~ 1	Range ±0.075%F. S/ The maximum error per yearis ±0.1%of the span
B	−6 ~ 6	1 ~ 6	
C	−40 ~ 40	6 ~ 40	
D	−100 ~ 400	40 ~ 400	
E	−100 ~ 4000	400 ~ 4000	

Overall Dimension



FC3351DPIntelligent differential pressure transmitter selection table

code	type									
DP	Intelligent differential pressure transmitter									
	code	Differential pressure range (KPa).								
	A	0.1 ~ 1								
	B	1 ~ 6								
	C	6 ~ 40								
	D	40 ~ 400								
	E	400 ~ 4000								
		code	Output signal							
		E	4 ~ 20mA							
		S	4 ~ 20mA+Hart							
		J	Square root 4 ~ 20mA							
			code	display						
			M1	LCD						
			M2	OLED (low temperature resistant −40℃).						
				code	Pressure method					
				C0	NPT1/4 Pressure Optic Joint and Rear Welded Pressure Pipe F14					
				C1	NPT1/2 cone pipe female thread waist flange					
				C2	T−shaped male connector M20*1.5					
				C3	Integrated triple manifold					
					code	Structural material				
						Flange construction	Drainage / Venting	diaphragm		
					21	304 stainless steel	304 stainless steel	316L stainless steel		
					22	316 stainless steel	316 stainless steel	316L stainless steel		
					23	316 stainless steel	316 stainless steel	Hastelloy C		
					24	316 stainless steel	316 stainless steel	Monel alloys		
					25	316 stainless steel	316 stainless steel	tantalum		
					26	Hastelloy C	Hastelloy C	Hastelloy C		
					27	Hastelloy C	Hastelloy C	tantalum		
					28	Monel alloys	Monel alloys	Monel alloys		
						code	Bleed valve			
						X0	Exhaust valve			
						X1	Drain valve			
							code	Mounting bracket		
							B0	No mounting brackets		
							B1	Tube bending bracket		
							B2	Plate bending bracket		
							B3	Flat bracket for tubes		
								code	Hazardous Location Certification (Normal Type Not Filled In)	
								E0	No explosion proof	
								E1	Flameproof version, explosion−proof class Exd II. CT6	
								E2	Intrinsically safe, Exia II. CT6	
									code	Electrical connection
									D1	M20*1.5 standard
									D2	User specified
DP	A	E	M1	C1	21	X0	B1	E1	D1	Selection examples

FC3351-B GP/AP Intelligent Direct Mount Pressure /Absolute Pressure Transmitter

Gauge pressure range

Quantum code	Measuring range (KPa).	Measuring range (KPa).	Accuracy / stability
A	−6 ~ 6	1 ~ 6	Range ±0.075%F.S/ The maximum error per year is the span ±0.1%
B	−40 ~ 40	6 ~ 40	
C	−100 ~ 250	40 ~ 250	
D	−100 ~ 2000	250 ~ 2000	
And	−100 ~ 10000	2000 ~ 10000	
G	−100 ~ 40000	10000 ~ 40000	

Absolute pressure range

Quantum code	Measuring range (KPa).	Measuring range (KPa).	Accuracy / stability
A	0 ~ 40	6 ~ 40	Range ±0.075%F.S/ The maximum error per year is the span ±0.1%
B	0 ~ 250	40 ~ 250	
C	0 ~ 2000	250 ~ 2000	

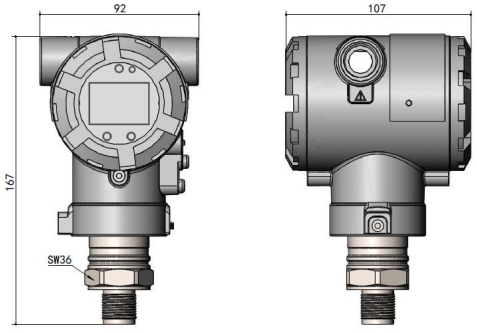
Gauge overload limit

Range	6KPa A	40KPa B	250KPa C	2000KPa D	10000KPa E	21000KPa F	40000KPa G
Overload limit	0.2MPa	1MPa	4MPa	16MPa	20MPa	50MPa	50MPa

Absolute overload limit

Range	40KPa A	250KPa B	2000KPa C
Overload limit	1MPa	4MPa	16MPa

Overall Dimension



FC3351-B GP/AP Intelligent Direct Mount Pressure / Absolute Pressure Transmitter Selection Table

code	type
GP	Intelligent direct-mounted gauge pressure transmitter
AP	Intelligent direct-mounted absolute pressure transmitter

code	Gauge pressure range (KPa).	Absolute pressure range (KPa).
A	1 ~ 6	6 ~ 40
B	6 ~ 40	40 ~ 250
C	40 ~ 250	250 ~ 2000
D	250 ~ 2000	
E	2000 ~ 10000	
F	10000 ~ 21000	
G	10000 ~ 40000	

code	Output signal
E	4 ~ 20mA
S	4 ~ 20mA+Hart

code	display
M1	LCD
M2	OLED (Hart optional).

code	Process connection
C1	External thread M20*1.5
C2	G1/2 male thread
C3	G1/4 male thread
C4	1/2NPT male thread
C5	1/2NPT female thread
T	Special Requirements

code	Hazardous Location Certification (Normal Type Not Filled In)
E0	No explosion proof
E1	Flameproof version, explosion-proof class Exd II. CT6
12	Intrinsically safe, Exia II. CT6

code	Electrical connection
D1	M20*1.5 standard
D2	User specified

code	Special equirements
T	Customer specified

GP	A	E	M1	C1	E1	D1	T	Selection examples

FC3351LT/CLT Intelligent Flat Membrane Flange/Socket Flange Level Transmitter

Range

Quantum code	Minimum range (KPa).	Maximum Range (KPa).	Rated pressure (max.)
B	1	6	The rated pressure of the level flange
C	6	40	
D	40	400	
E	400	4000	

Comparison Table Of The Relationship Between Level Flange And Minimum range

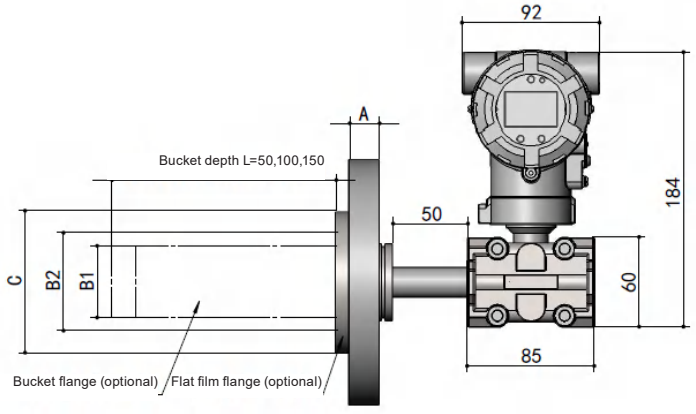
Level flange	Nominal diameter	Minimum range
Flat membrane type	DN 50/2"	10KPa
	DN 80/3"	1KPa
	DN 100/4"	1KPa
Cartridge type	DN 50/2"	16KPa
	DN 80/2"	1KPa
	DN 100/4"	1KPa

Level Flange Rated Pressure

ANSI standard	150psi ~ 600psi
DIN standard	PN 1.6MPa ~ PN 10MPa

One-Way Overload Limit

The low-pressure side is the rated pressure of the transmitter body, and the high-pressure side is the rated pressure of the liquid level flange, and correctable zero drift mav occur.



FC3351LT/CLT Intelligent Flat Membrane Flange / Socket Flange Level Transmitter Selection Table

code	type
LT	Intelligent flat membrane flange level transmitter
CLT	Intelligent socket flange level transmitter

code	Pressure measurement range (KPa).
B	1 ~ 6
C	6 ~ 40
D	40 ~ 400
E	400 ~ 4000

code	Output signal
E	4 ~ 20mA
S	4 ~ 20mA+Hart

code	display
M1	LCD
M2	OLED (Hart optional).

Structural material					
code	Flange material	code	Diaphragm material	code	coating
22	304 stainless steel	N1	316L stainless steel	T1	not
23	316 stainless steel	N2	Hastelloy C	T2	Spray tetrafluoride
		N3	Monel alloys		
		N4	tantalum		
		N5	titanium		

code	Installation dimensions
A	DN50
B	DN80
C	DN100
D	2”
E	3”
F	4”
G	Customer specified

code	Socket length (mm).
10	0 (flat flange).
11	50
12	100
13	150
T	Customer specified

code	Capillary length (m).
L1	1m
L2	2m
L3	3m
L4	Customer specified

code	Mounting bracket
A1	No mounting brackets
A2	Tube bending bracket
A3	Plate bending bracket
A4	Flat bracket for tubes

code	Hazardous Location Certification (Normal Type Not Filled In)
E0	No explosion proof
E1	Flameproof version, explosion-proof class Exd II. CT6
E2	Intrinsically safe, Exia II. CT6

code	Electrical connection
D1	M20*1.5 standard
D2	User specified

LT	B	E	M1	22 N1 T1	A	10	L1	A1	E0	D1	Selection examples

FC3351DY/GY Intelligent Remote Transmission Flat Membrane Flange/Socket Flange Differential Pressure And Pressure Transmitter

Range

Quantum code	Minimum range	Maximum capacity	Rated pressure (max.)
B	1KPa	6KPa	The rated pressure of the level flange
C	6KPa	40KPa	
D	40KPa	400KPa	
E	400KPa	4MPa	

Comparison Table Of The Relationship Between Level Flange And Minimum range

Level flange	Nominal diameter	Minimum range	
		One-way remote transmission	Bilateral far and far away
Flat membrane type	DN 50/2"	10KPa	10KPa
	DN 80/3"	6KPa	1KPa
	DN 4"	6KPa	1KPa
Cartridge type	DN 50/2"	16KPa	16KPa
	DN 80/2"	6KPa	1KPa
	DN 4"	6KPa	1KPa

Overall Dimension

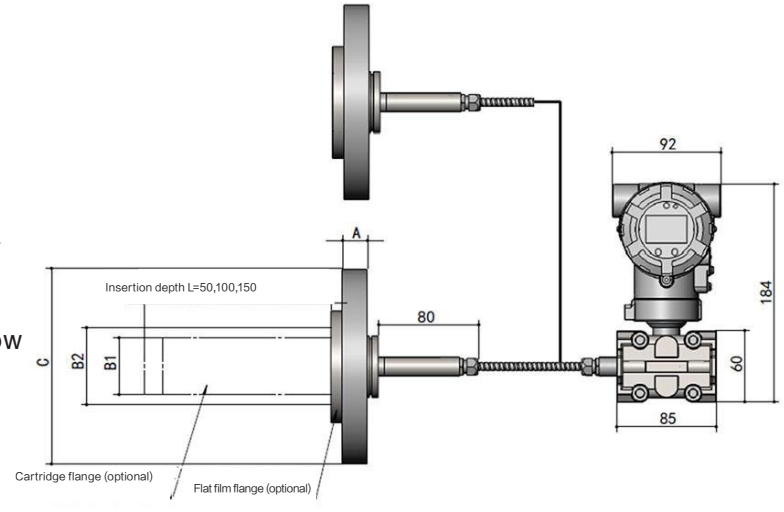
Level flange rated pressure

ANSI standard：150psi ~ 600psi

DINstandard：PN 1.6MPa ~ PN 10MPa

Unidirectional overload pole

The overload limit on the high and low pressure side is the rated



FC3351DY/GY Intelligent Remote Differential Pressure/ Pressure Transmitter Selection Table

code	type
DY	Intelligent remote differential pressure transmitter
GY	Intelligent remote pressure transmitter

code	Pressure measurement range (KPa).
B	1~6
C	6~40
D	40~250
E	250~2000

code	Output signal
E	4~20mA
S	4~20mA+Hart

code	display
M1	LCD
M2	OLED(Hart Optional)

Structural material

code	Flange material	code	Diaphragm material	code	coating
22	304 stainless steel	N1	316L stainless steel	T1	not
23	316 stainless steel	N2	Hastelloy C	T2	Spray tetrafluoride
		N3	Monel alloys		
		N4	tantalum		
		N5	titanium		
		N6	Spray tetrafluoride		

code	Installation dimensions
A	DN50
B	DN80
C	DN100
D	2″
E	3″
F	4″
F	Customer specified

code	Remote transmission device
Y0	Single flat flange type
Y1	Double flat flange type
Y2	Single insert flange type
Y3	Double insert flange type
Y4	One flat and one insert flange type

code	Capillary length
X0	1 metre
X1	2 meters
X2	3 meters
X3	User specified

code	Insertion barrel length (mm).
10	0 (flat flange).
11	50
12	100
13	150
T	Customer specified

code	Mounting bracket
B0	No mounting brackets
B1	Tube bending bracket
B2	Plate bending bracket
B3	Flat bracket for tubes

code	Hazardous Location Certification
E0	not
E1	Flameproof version, explosion-proof class EXd II. CT6
E2	Intrinsically safe, explosion-proof EXia II. CT6

code	Electrical connection
D1	M20*1.5 standard
D2	User specified

DY	B	E	M1	22 N1 T1	A	Y0	X0	10	B0	E0	D1	Selection examples

BP10 Universal Diffused Silicon Pressure Core

Introduction

BP10 universal diffusion silicon pressure core adopts Germany's advanced high-stability, high-precision silicon pressure chip, adopts stress optimization design of sintering seat, through SMD, gold wire bonding, diaphragm welding, high vacuum oil injection, pressure cycle stress relief, high temperature refining, temperature compensation and other processes. The product has excellent stability and excellent performance.

BP10Universal diffused silicon pressure core diameter 19mmThe external dimensions are satisfied 90% The user is the whole machineSize requirements. Apply to with 316LPressure testing of stainless steel and nitrile or fluoroelastomer compatible media.

Characteristic

- Measuring range 0kPa ~ 600kPa··· 100MPa
- With constant gauge pressure G, absolute pressure A and sealed gauge pressure S
- Current/constant voltage power supply
- Isolated construction for a wide range of fluid media
- diameter 19mm universal size pressure injection core
- Full 316L stainless steel material Hastelloy C/ tantalum diaphragm customized

Specifications

Electrical performance indicators	
Range range	−100kPa ~ 0 ~ 10kPa··· 100MPa
Type of pressure	Gauge pressure, absolute pressure, sealing pressure
Motivation	Constant current recommended 1.5mA; Constant voltage is recommended 10V
Input impedance	Constant current: 2kΩ ~ 5kΩ
	Constant voltage: 3kΩ ~ 18kΩ
Electrical connection	Gold-plated Kovar pins or soft silicone wires
Compensate for temperature	Constant current: 0℃ ~60℃ (≤ 35kPa),−10℃ ~70℃ (rest of the range);
	Constant voltage: −20℃ ~ 85℃
Operating temperature	−40℃ ~ 125℃
Storage temperature	−40℃ ~ 125℃
Insulation resistance	≥ 200MΩ /250VDC
Response time	≤ 1ms (up to 90% FS).
Measuring medium	All 316L compatible liquids and gases
Mechanical vibration	20g (20 ~ 5000HZ)
Rush	100g (10ms)
Service life	10 × 106 (cycles)

Structural performance indicators	
Diaphragm material	316L
Housing material	316L
Perfusion liquid	Silicone oil
Sealing circle	Cyanide or fluoroelastomer

Basic parameter indicators						
project	condition	least	typical	utmost	unit	remark
nonlinear		−0.3	±0.2	0.3	%FS	Note (1).
Hysteresis		−0.05	±0.03	0.05	%FS	
repeatability		−0.05	±0.03	0.05	%FS	
Zero output		−2	±1	2	mV	
Full−scale output	1.5mA, ⩽ 35kPa 1.5mA, remaining range 10V, ⩽ 35kPa 10V, rest of the range	40 60 60 80	90 100	150 120	mV	
Zero point temperature drift	10kPa	−2	±1.5	2	%FS	Note (2)
	The rest of the range	−1.5	±0.75	1.5		
Sensitivity temperature drift		−1.5	±0.75	1.5	%FS	Note (2)
Thermal hysteresis		−0.075	±0.05	0.075	%FS	Note (3)
Long−term stability		−0.3	±0.2	0.3	%FS/year	

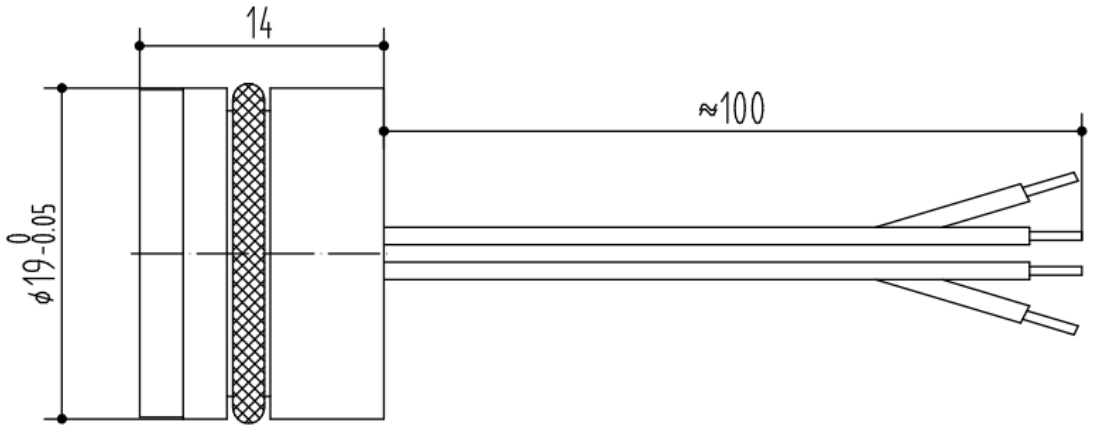
Concentrate:

(1) Calculated according to BFSL least squares.

(2) In the compensation temperature range, 0℃ ~ 60, −10℃ ~ 70℃ reference 30℃ ; −20℃ ~ 85℃ reference 32.5℃ .

(3) After high and low temperature, return to the reference temperature.

Product Shape



Electrical Connections

White line – Negative output;
Yellow line – Positive output;
Blue line – Negative power supply;
Red line – Positive power supply.

BPM-TT Digital Pressure Sensor Assembly

Product Overview

The BM-TT digital pressure sensor is an oil-filled, OEM pressure sensitive element isolated by a 316L stainless steel corrugated diaphragm. The chip adopts the internationally advanced high-stability and high-precision silicon piezoresistive chip.

By applying new production processes and highprecision production and inspection equipment, the product has excellent stability.

Through the dedicated integrated circuit developed by the company for temperature compensation and nonlinear correction, it directly outputs standard current, voltage and digital signals. Digital output, low power consumption, easy to connect with various devices, simple assembly, and strong applicability.

This product can be widely applied to the detection of various fluid pressures.

Product features

- It has the form of gauge pressure, absolute pressure and sealing pressure
- Isolated structure, suitable for a variety of fluid media
- Standard Φ19mm sensor universal size
- All stainless steel 316L material
- Standard current, voltage and digital signal output with high accuracy
- -10~70℃ wide temperature range compensation
- Full temperature zone 0.25% accuracy

Product features

- Diaphragm material: 316L,specialcustomization
- Shell material: 316L
- Pressure tap pipe material:316L
- Seal ring: butyl rubber,fluorocar-bon ring
- Net weight: about 26g

Performance parameters

Electrical performance indicators	
Range	-100kPa ~ 0kPa ~ 10kPa~7MPa~70MPa
Output	4-20mA
Power supply	10-32V
Temperature compensation range	≤ 100kpa：0-60℃
	> 100KPa：-10-70℃
Pressure type	Gague pressure,absolute pressure and sealing pressure
Accuracy	0.25%FS(10KPaaccuracy0.5%)
Hysteresis	0.03%FS
Repetitiveness	0.03%FS
Temperature drift	±0.25%FS(-10℃ ~70℃)(10KPaaccuracy0.5%)
Power-up response time	≤ 100ms(riseto90%FS)
Frequencyofsampling	10kHZ
Lifelength	≥ 106pressurecycle
Overload pressure	≤ 1.5times
Medium temperature	-20℃ ~80℃
Storage temperature	-20℃ ~120℃
EMC	GB/T17626.2: Electrostatic discharge immunity 2KV; GB/ T17626.4: Electrical fast transient/ burst immunity 2KV
Insulationresistance	200MΩ/250VDC

BPM-TT advantages

Reduce the difficulty of production
The production process has been optimized and the production steps have been reduced

Reduce labor costs
Produce the same number of transmitters within the same period of time, reducing the number of production personnel by three quarters

The production area was reduced
All assembly work can be completed with just one workbench

Improve production efficiency
It only takes 30 seconds to produce a transmitter, increasing efficiency by 8 times

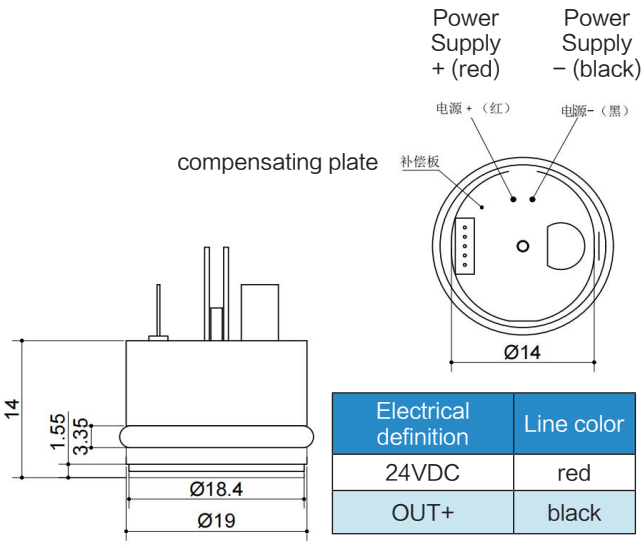
The product quality has been improved
After temperature compensation in the full temperature range of −10 to 70 ℃ , the full-range accuracy/ temperature drift can reach 0.25%

Enhance market competitiveness
The circuit is easy to match with 0.25% precision, with low cost, good product and large production capacity

Selection

project	parameter	code	Code description
Sensitive element	model	BPM-TT	Digital pressure sensors
Sensitive element	break		The following are the s pecific s peci-fications
	Pressure type	G	gage pressure
		S	Seal the pre-ssure
	Isolation diaphr agm mat e-rial	S	316L stainless steel
		T	Ta
		H	Ha C
	Isolate the tank f rom t he liquid	S	siliconeoi
		F	fluoroc-arbon oil
		0	plant oil
	Sealing method	F	Fully welded seal
	Signal output m ode	A	4-20mA

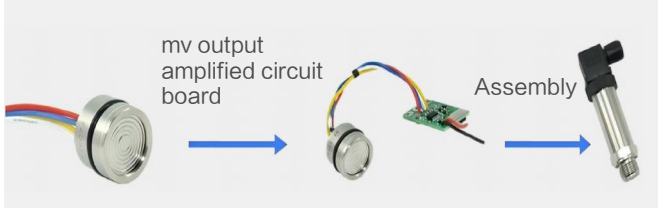
Product shape structure and wiring definition



Electrical definition	Line color
24VDC	red
OUT+	black

Comparison of selection schemes

1. Traditional solutions



2. BPM-TT scheme

BP12K Hygienic Diffused Silicon Pressure Sensor

Introduction

BP12K sanitary diffusion silicon pressure sensor adopts a silicone oil filling technology, the diaphragm is directly in contact with the measurement medium, the pressure felt is conducted to the pressure chip through the silicone oil to generate an electrical signal, the compensation circuit corrects the pressure signal to a linear pressure signal, the thread end face stressed diaphragm is exposed to directly feel the pressure, which can prevent scaling, unhygienic and viscous pressure blockage and other problems, especially suitable for medical, The food industry has hygienic requirements for viscous fluid pressure and level measurement, which are widely used in food, medicine, brewing and other hygienic industries.

The company can be tailored for users, undertake special structure and size products, has a mature batch production line, can timely ensure quality and quantity to complete the production task.

Characteristic

- ◆ High thread/clamp flat film structure
- ◆ Reliable inlet pressure chip
- ◆ Primary silicon oil isolation filling technology
- ◆ Compensation plate glue filling moisture-proof protection
- ◆ all stainless steel shell
- ◆ High precision, high stability

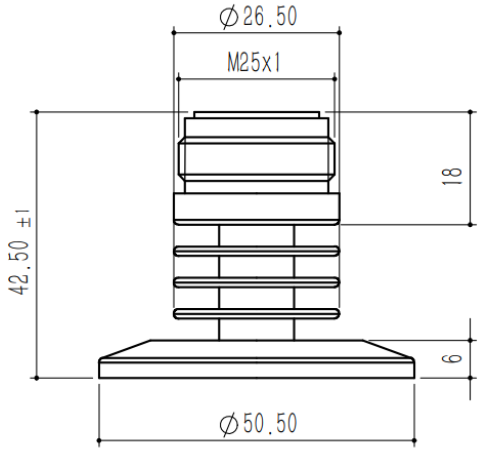
Electrical Performance

Range range	-100kPa ~ 0 ~ 10kPa…10MPa
Type of pressure	Gauge pressure, absolute pressure, sealing pressure
Agitation	Constant current is recommended at 1.5mA
Input impedance	Constant current: 2kΩ ~ 5kΩ
Electrical connection	Gold-plated Kovar pins or soft silicone wires
Compensate for temperature	Constant current: ≤ 70kPa 0℃ ~ 60℃ ; The rest of the range is -10℃ ~ 70℃
Operating temperature	-40℃ ~ 120℃
Storage temperature	-40℃ ~ 120℃
Insulation resistance	≥ 200MΩ/250VDC
Response time	≤ 1ms (up to 90% FS).
Measuring medium	All 316L compatible liquids and gases
Mechanical vibration	20g (20 ~ 5000HZ)
Rush	100g (10ms)
Service life	10 × 106 (cycles)
Diaphragm material	316L
Housing material	316L
Perfusion liquid	Medium-chain triglycerides

Technical Performance

project	condition	least	typical	utmost	unit	remark
nonlinear		-0.3	±0.25	0.3	%FS	Note (1).
Hysteresis		-0.05	±0.03	0.05	%FS	
repeatability		-0.05	±0.03	0.05	%FS	
Zero output		-2	±1	2	mV	
Full-scale output	10kPa remaining range	30 60	90	150	mV	1.5mA power supply
Zero point temperature drift	10kPa remaining range	-2 -1.5	±1.5 ±0.75	2 1.5	%FS	Note (2).
Sensitivity temperature drift		-1.5	±0.75	1.5	%FS	Note (2).
Thermal hysteresis		-0.075	±0.05	0.075	%FS	Note (3).
Long-term stability		-0.3	±0.2	0.3	%FS/ year	

Product Shape



Electrical Connections

White line – Output negative;

Yellow line – Positive output;

Blue line – Power negative;

Red line – Power positive.

lectotype

project	parameter	code	Code description
	Model	BP12K	Hygienic diffused silicon pressure sensor
Sensitive components	separator	–	The following are the specific specifications
	structure	H	High overload structure
	Quantum code	601	Nominal range 6kPa
		402	Nominal range 40kPa
		253	Nominal range 250kPa
		104	Nominal range 1MPa
		305	Nominal range 3MPa
	Type of pressure	G	Gauge pressure (6kPa –3MPa).
		A	Absolute pressure (40kPa–3MPa).
	Isolation diaphragm material	S	316L stainless steel
		H	Hastelloy C
		T	tantalum
	Isolate the filling fluid	S	Silicone oil
		F	Fluorine oil
		O	vegetable oil
	Junction box connection	2	External thread M27 *2
		4	External thread M45*1.5
		5	Male thread G55–16
	Sealing method	F	Stainless steel welded seal
	Process connection	D1	f50.5 Chuck,DIN32676:2001–02
		D2	f64 chuck,DIN32676:2001–02
		N3	Threaded screw, DIN11851:1998–11
	Signal output mode	V	Sensor millivolt signal output

APM300 Universal Pressure Transmitter

Product Introduction

APM300 universal pressure transmitter uses diffused silicon pressure core as a sensitiveelement, built-in digital processing circuit to convert sensor millivolt signal into standard current andvoltage output signals, which can be directly connected to computers, control instruments, frequency converters, PLCs, display instruments, etc. The selection of high stability and high reliability piezoresistive pressure sensor and high-performance digital dedicated circuit, the overall performance is stable and reliable, and long-distance remote signal transmission can be carried out. The use of stainless steel integrated structure, built-in cushioning and damping after multipleaging and potting treatment, to achieve solid state and high stability, easy installation, withhigh vibration resistance, moisture resistance and impact resistance, in harsh environment can be used for a long time.

Characteristic

- All stainless steel construction and potting treatment
- Digital special circuit, current and voltage signal output
- Strong anti-interference, good long-term stability
- The form and structure are diversified, and the installation and use are convenient
- Wide measuring range for measuring absolute pressure, gauge pressure and seal reference
- Pressure against vibration and shock
- Small size, easy to install

Technical Performance

Range range	-100~20Kpa~100Mpa
Type of pressure	Gauge pressure, absolute pressure, sealing pressure
Output signal	4-20mA 0-5V 0-10V
Power supply	12~24VDC (typical) 9~12VDC
Accuracy class	0.5%FS (typical) 0.3%FS 0.2%FS 0.1%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	10 times below 2Mpa ; 25Mpa above 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
insulation	100MΩ/250VDC
Degree of protection	IP65
Explosion-proof rating	Exia II. CT6
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM300H High Temperature Pressure Transmitter

Product Introduction

APM300H high temperature pressure transmitter uses high temperature pressure sensor as the signal measurement element, the pressure of the measured medium is transmitted to the sensor through the heat dissipation structure on the pressure transmitter, and the high-precision signal processing circuit is located in the stainless steel shell, which converts theoutput signal of the sensor into a standard output signal.

The whole product has passed the strict testing and aging screening of components, semi-finished products and finished products, and the performance is stable and reliable, so that the product can work stably for a long time when used for high temperature pressure measurement.

Characteristic

- ◆ Imported high temperature resistant chip
- ◆ Wide temperature range of applicable medium
- ◆ Strong anti-interference and good long-term stability
- ◆ Direct contact measurement of high temperature medium to improve pressure response frequency
- ◆ Provide multiple options of medium temperature and high temperature
- ◆ Vibration, shock, corrosion resistance

Technical Performance

Range range	-100~20Kpa~100Mpa
Type of pressure	Gauge pressure, absolute pressure, sealing pressure
Output signal	4-20mA 0-5V 0-10V
Power supply	12~24VDC (typical) 9~12VDC
Accuracy class	0.5%FS (typical) 0.3%FS 0.2%FS 0.1%FS
Compensate for temperature	-20~120℃
Ambient temperature	-20~85℃
Media temperature	-20~150℃; -20~50℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	10 times below 2Mpa ; 25Mpa above 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
insulation	100MΩ/250VDC
Degree of protection	IP65
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM300D Miniature Pressure Transmitter

Product Introduction

The APM300D miniature pressure transmitter uses a diffused silicon sensor as a pressure-sensitiveelement, and a built-in digital processing circuit converts the millivolt signal of the sensor into standard current and voltage signaloutputs. The exquisite stainless steel overall structure and high-strength components improve the overall protection performance. Small pressure transmitter small size, light weight, easy to install and use, stable performance and high interference performance, widely used in industrial automation equipment, compressors, air conditioning and refrigerationsystems, constant pressure water supply and other pressure measurement and liquid level measurement.

The company can be customized according to customer requirements OEM. To undertake products with special structure size and high temperature resistance, the company has a mature batch production line, which can complete the production task in time and with quality and quantity.

Characteristic

- Compact structure, small andexquisite
- Digital circuit processing
- Diffusion silicon piezoresistive sensor
- Stainless steel integrated structure
- Small size, easy to install and use
- A wide range of process and electrical connections are available
- Mass production, economic and reliable

Technical Performance

Range range	-100~20Kpa~40Mpa
Type of pressure	Gauge pressure, absolute pressure
Output signal	4-20mA 0-5V 0-10V
Power supply	9~24VDC
Accuracy class	0.5%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	10 times below 2Mpa ; 25Mpa above 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Degree of protection	IP65
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM300F Flanged Pressure Transmitter

Product Introduction

APM300F flanged pressure transmitter adopts 2-time vacuum sealing technology, the diffuse silicon pressure transmitter is installed and sealed at the back of the stainless steel flange, and the sensor and the flangeare filled with silicone oil, which has low temperature drift, high performance and strong economy. The flange diaphragm can be directly connected to measure the pressure, and the product has the characteristics of good anti-blocking, acid and alkali resistance and high temperature resistance; The product structure is stable, the form structure is diversified, the installation and use are convenient, and it is widely used inmedicine and hygiene, winemaking, beverages, papermaking, glue and other viscous and easy to block occasions.

The PCM300F flange pressure transmitter diaphragm is stainless steel 316L, and C276 Hastelloy and tantalum diaphragms can be customized according to customer needs, and can also be lined with tetrafluoride according to customer requirements.

Characteristic

- The diaphragm is made of 316L stainless steel
- Flat membrane type, anti-scaling, anti-blocking
- Economical, flange diversification can be selected
- High sealing performance and strong corrosion resistance
- Digital display LED,LCD digital display meter head optional
- A variety of flanges are available and can be customized according to customer requirements

Technical Performance

Range range	0~0.6Mpa~4Mpa
Type of pressure	Gauge pressure
Output signal	4-20mA
Power supply	12~24VDC
Accuracy class	0.5%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	≤ 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2%FS/year
Degree of protection	IP65
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM300KF Ready-to-mount pressure transmitter

Product Introduction

APM300KF Ready-to-Install Pressure Transmitter is an isolatedOEM siliconpiezoresistive pressure-sensitive element encapsulated with stainless steel shell, the shell and joint materials are stainless steel, good media compatibility, stable and reliable performance, high precision. The hygienic KF quick mount interface is an industry standard thread with gasketend seal for pressure measurement of a wide range of dynamic and static gaseous liquids. The product is widely used in process control and measurement in water treatment, liquid level, beverage, medical equipment,chiller and other industries.

The company can be customized according to customer requirements OEM. To undertake products with special structure size and high temperature resistance, the company has a mature batch production line, which can complete the production task in time and with quality and quantity.

Characteristic

- KF Quick Release Flange offers a wide range of optional
- Digital circuit processing
- Diffusion silicon piezoresistive sensor
- Stainless steel integrated structure
- LED、LCD Digital display header optional
- A wide range of process and electrical connections are available
- Easy to use, economical and reliable

Technical Performance

Range range	-100Kpa~0~0.4Mpa
Type of pressure	Gauge pressure, absolute pressure
Output signal	4-20mA 、0-5V、0-10V
Power supply	12~24VDC
Accuracy class	0.5%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	≤ 1.5times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2%FS/year
Degree of protection	IP65
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM301 Flameproof Pressure Transmitter

Product Introduction

The APM301 flameproof pressure transmitter is a pressure transmitter designed for explosion-proof fieldsand is flameproof Exd II. BT4 certified. PCM301 adopts integrated all-welded structure, after multiplestainless steel weldings with a plurality of explosion-proof surfaces to meet the requirements of isolation explosion-proof, by high stability silicon piezoresistive piezoresistive piezoresistive piezoelectric force sensor with high-performance special amplification circuit, high strength, small volume, with excellent anti-vibration performance, and has mildew-proof, moisture-proof design, in harsh environments can be used for a long time. Widely used in petroleum machinery, chemical machinery, compressors, electric power, boilers, natural gas and other explosion-proof places.

Characteristic

- ◆ All stainless steel, all welded structure
- ◆ High strength, vibration resistance
- ◆ Through the National Explosion-proof Electrical Product Quality Supervision and Inspection Center isolation explosion-proof certification
- ◆ Wide range, can measure absolute pressure, gauge pressure and sealing pressure
- ◆ Good sealing, can work stably for a long time
- ◆ High-strength laser welded structure to ensure product reliability
- ◆ Widely used in flammable and explosive occasions
- ◆ Passed the explosion-proof certification of the National Explosion-proof Electrical Products Supervision and Inspection Center

Technical Performance

Range range	-100~20Kpa~40Mpa
Type of pressure	Gauge pressure, absolute pressure
Output signal	4-20mA 0-5V 0-10V
Power supply	12~24VDC
Accuracy class	0.5%FS、0.2%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overpressure overload	10Mpa following 2Times；25Mpa 以上 1.5 Times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20times
Long-term stability	≤ 0.2%FS/year
Media compatible	A wide range of fluid media compatible with 316L stainless steel
Degree of protection	IP67
Explosion-proof rating	Isolate explosion-proof Exd II. CT6

APM320 All-Welded Pressure Transmitter

Product Introduction

APM320 all-welded pressure transmitter is a compact all-in-one stainlesssteel structure, built-in digital circuit to convert sensor millivolt signal into standard current and voltage signal output, with a variety of structural forms and output forms. The transmitter is small in size, light in weight, easy and simple in installation and use, stable in performance, widely used in various industrial automation equipment, and has good adaptability to various complex environments.

The company can be customized according to customer requirements OEM. To undertake products with special structure size and hightemperature resistance, the company has a mature batch production line, which can complete the production task in time and with quality andquantity.

Characteristic

- KF Quick Release Flange offers a wide range of optional
- Digital circuit processing
- Diffusion silicon piezoresistive sensor
- Stainless steel integrated structure
- LED and LCD digital display meters are available
- With a variety of process and electrical connections, 7 easy to use and economical and relia

Technical Performance

Range range	-100Kpa~0~0.4Mpa
Type of pressure	Gauge pressure, absolute pressure
Output signal	4-20mA 、0-5V、0-10V
Power supply	12~24VDC
Accuracy class	0.5%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	≤ 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Degree of protection	IP65
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM350 Flat Membrane Pressure Transmitter

Product Introduction

The APM350 flat film type uses a flat membrane to directly sense the pressure signal, with diffused silicon pressure core asthe sensitive element and standard-compliant silicone oil as the pressure conduction medium. The measuring end is made of 316L stainless steel and specially welded flush isolation diaphragm. Compact structure, corrosion resistance, vibration resistance, wide range temperature compensation, PCM350 flat membrane type thread end face stressed diaphragm exposed directly feel pressure, can prevent scaling, unhygienic and viscous pressure blockage and other problems, especially suitable for medical and food industry with hygienic requirements viscous fluid pressure and liquid level measurement, to solve scaling, blockage, cleaning and hygiene Issue. It is widely used in hygienic industries such as food, medicine, beverage, dairy, wine, etc., and for pressure testing where the measuring medium may foul.

Characteristic

- The pressure connection adopts a 316L flat film separator diaphragm with ahygienic structure
- Prevent fouling
- Digital circuit transmission far, anti-interference
- Wide measuring range for absolute pressure, gauge pressure and seal reference pressure
- Good sealing, long-term stable work
- With heat sink design, adapt to high temperature medium
- A variety of signal outputs are selectable and can be customized according to customer requirements

Technical Performance

Range range	-100Kpa~0~25Mpa
Type of pressure	Gauge pressure, absolute pressure
Output signal	4-20mA 、0-5V、0-10V
Power supply	12~24VDC
Accuracy class	0.5%FS、0.2%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	≤ 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Degree of protection	IP65
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM350KF Clamp Flat Membrane Pressure Transmitter

Product Introduction

APM350KF clamp type adopts flat film to directly sense the pressure signal, with diffused silicon pressurecore as a sensitive element, built-in processing circuit to convert the millivolt signal of the sensor into standard current, voltage, 485 digital signal output, which can be directly connected to the computer, controllermeter, display instrument, etc. Long-distance signal transmission is possible.

PCM350KF clamp end face force, diaphragm exposed directly feel pressure, can preventscaling, unhygienic and viscous pressure blockage and other problems, widely used in food, medicine, beverage, brewing and other sanitary industries and measuring media may structure occasions quota pressure test.

Characteristic

- The pressure interface is adopted 316L Flat membrane isolation diaphragm structure
- Hygienic, anti-scaling
- Digital circuit transmission far, anti-interference
- Wide measuring range for absolute pressure, gauge pressure and seal reference pressure
- Good sealing, long-term stable work
- With heat sink design, adapt to high temperature medium
- A variety of signal outputs are selectable and can be customized according to customer requirements

Technical Performance

Range range	-100Kpa~0~6Mpa
Type of pressure	Gauge pressure, absolute pressure
Output signal	4-20mA 、0-5V、0-10V
Power supply	12~24VDC
Accuracy class	0.5%FS、0.2%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	≤ 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Degree of protection	IP65
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM380 Intelligent Pressure Transmitter

Product Introduction

APM380 Intelligent Pressure Transmitter is a high-precision, high-stability intelligent pressure measurement product developed by using high-performance OEM punching core and ADI special chip combined with microprocessor technology. With on-site display, data processing, zero point, full-scale software adjustment, permanent storage of setting parameters, 4-20mA output and communication functions, exquisite size, high precision, light weight, long transmission distance, wide range coverage, suitable for various industries that need to accurately measure fluid pressure.

Characteristic

- ◆ RS485 communication interface or Hart communication protocol optionally
- ◆ Supports networking applications
- ◆ Adopt digital compensation and nonlinear correction technology
- ◆ No moving parts, reliable performance
- ◆ Provide low pressure, medium pressure, high pressure, rich pressure range
- ◆ Excellent field interchangeability, can be customized according to customer requirements

Technical Performance

Range range	-0.1~0~100Mpa
Type of pressure	Gauge pressure, absolute pressure
Power supply	12~24VDC
Output signal	RS485-MODBUS,4-20mA+Hart protocol
Accuracy class	0.5%FS、0.2%FS、0.1%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	≤ 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Degree of protection	IP65
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM400 Pressure Transmitter

Product Introduction

APM400 pressure transmitter adopts high-performance, high-stability diffusion silicon pressure core as signal measurement element, sensor signal through signal processing into standard signal output, after long-term aging and stability screening, product performance is stable and reliable, used in the harsh environment of the open air, at the same time can be on-site pressuredisplay, zero point clearance.

Characteristic

- Diffusion silicon piezoresistive sensors
- Strong and well-sealed aluminum alloy junction box,
- Suitable for pressure measurement of gases, liquids and steam for outdoor installation use
- LED digital tube and LCD display are optional
- Intrinsically safe Exia II. CT6 certified, to meet explosion-proof
- Requirements in a variety of styles, suitable for various industrial occasions require
- A variety of output signals optional, can be customized according to customer requirements
- Passed the explosion-proof certification of the National Explosion-proof Electrical Products Supervision and Inspection Center

Technical Performance

Range range	-100~20Kpa~100Mpa
Type of pressure	Gauge pressure, absolute pressure
Output signal	4-20mA 0-5V 0-10V
Power supply	12~24VDC (typical).
Accuracy class	0.5%FS (typical) 0.3%FS 0.2%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS (max)
Sensitivity, temperature drift	0.5%FS (max)
Pressure overload	10 times below 2Mpa ; 25Mpa above 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Housing material	Housing low copper aluminum alloy; 304 stainless steel fitting
Degree of protection	IP65
Explosion-proof rating	Exia II. CT6
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM400H high temperature pressure transmitter

Product Introduction

APM400H high temperature pressure transmitter adopts high temperature pressure sensor as the signal measurement element, the pressure of the measured medium is transmitted to the sensor through the heat dissipation structure on the pressure transmitter, and the high-precision signal processing circuit is located in the stainless steel shell to convert the sensor output signal into a standard output signal. The whole product has undergone strict testing and aging screening of components, semi-finished products and finished products, and the performance is stable and reliable, so that the productcan work stably for a long time when used for high temperature pressure measurement.

Characteristic

- The 316L stainless steel isolation diaphragm
- Adopts imported high-temperature resistant chip
- Strong and well-sealed aluminum alloy junction box for outdoor installation and use
- With heat sink design, high temperature resistance, applicable medium up to 300℃
- LED digital tube, LCD display/can(max)-max) be selected
- Intrinsically safe explosion-proof optional

Technical Performance

Range range	-100~20Kpa~100Mpa
Type of pressure	Gauge pressure, absolute pressure
Output signal	4-20mA 0-5V 0-10V
Power supply	12~24VDC (typical).
Accuracy class	0.5%FS (typical) 0.3%FS 0.2%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS (max)
Sensitivity, temperature drift	0.5%FS (max)
Pressure overload	10 times below 2Mpa ; 25Mpa above 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Housing material	Housing low copper aluminum alloy; 304 stainless steel fitting
Degree of protection	IP65
Explosion-proof rating	Exia II. CT6
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM400B Flameproof Pressure Transmitter

Product Introduction

APM400B pressure transmitter adopts high-performance, high-stability diffusion silicon pressure core as the signal measurement element, the sensor signal is converted into standard signal output by signal processing, after long-term aging and stability screening, the product performance is stable and reliable, used in the open air scene with a relatively harsh environment, and at the same time can display the on-site pressureand clear the zero point.

PCM400B pressure transmitter meets the flameproof requirements, suitable for high-end occasions, and stable performance can replaceforeign brands. The products are widely used in industrial process control, petroleum, chemical, gas, metallurgyand other industries.

Characteristic

- Diffusion silicon piezoresistive sensors
- Strong and well-sealed aluminum alloy junction box
- Suitable for pressure measurement of gases, liquids and steam for outdoor installation use
- LED digital tube and LCD display are optional
- A variety of styles, suitable for various occasions in the industry
- A variety of output signals are available and can be customized according to customer requirements
- Provide low-pressure, medium-pressure, high-8 pressure abundant pressure range isolation explosion-proof type
- Passed the explosion-proof certification of the National Explosion-proof Electrical Products Supervision and Inspection Center

Technical Performance

Range range	-100~20Kpa~100Mpa
Type of pressure	Gauge pressure, absolute pressure
Output signal	4-20mA 0-5V 0-10V
Power supply	12~24VDC (typical).
Accuracy class	0.5%FS (typical) 0.3%FS 0.2%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS (max)
Sensitivity, temperature drift	0.5%FS (max)
Pressure overload	10 times below 2Mpa ; 25Mpa above 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Housing material	Housing low copper aluminum alloy; 304 stainless steel fitting
Degree of protection	IP65
Explosion-proof rating	EXd Ⅱ BT4
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM400F Industrial Flange Type Pressure Transmitter

Product Introduction

APM400F flanged pressure transmitter adopts 2-time vacuum sealing technology, the diffused silicon pressure transmitter is installed and sealed at the rear end of the stainless steel flange, and the silicone oil filling between the sensor and the flange isused, which has small temperature drift, high performance and strong economy. The flange diaphragm can directly measure the pressure, and the product has the characteristics of good anti-blocking, acid and alkali resistance and high temperature resistance; The product structure is stable, the form structure is diversified, the installation and use are convenient, and it is widely used inmedicine and hygiene, winemaking, beverages, papermaking, glue and other viscous and easy to block occasions.

The PCM400F flange pressure transmitter diaphragm is stainless steel 316L, and C276 Hastelloy and tantalum diaphragms can be customized according to customer needs, and can also be lined with tetrafluoride according to customer requirements.

Characteristic

- The diaphragm is made of 316L stainless steel
- Flat membrane type, anti-scaling, anti-blocking
- Economical, flange diversification can be selected
- High sealing performance and strong corrosion resistance
- Digital display LED,LCD digital display meter head optional
- A variety of flanges are available and can be customized according to customer requirements
- EXd II. BT4,Exia II. CT6 Ex certification is optional

Technical Performance

Range range	0~0.6Mpa~4Mpa
Type of pressure	Gauge pressure
Output signal	4-20mA
Power supply	12~24VDC
Accuracy class	0.5%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	≤ 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Degree of protection	IP65
Media compatible	A wide range of fluid media compatible with 316L stainless steel
Explosion-proof rating	Exia II. CT6
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM450 Industrial Flat Film Pressure Transmitter

Product Introduction

The APM450 flat film pressure transmitter is a custom product that meets customer flange mounting requirements. The product adopts imported diffused silicon pressure-sensitive elements, which is the crystallization of diffused silicon precision machining, temperature compensation, analog signal processing technology, and has stable and reliable product performance after long-term aging and stability screening. The PCM450 flat film pressure transmitter uses an international standard flange as the interface standard, which can realize the flange installation method at the user's site. The main industrial material is advanced, sealing and curing is completely isolated from the outside, which can meet the requirements of moisture-proof, waterproof, explosion-proof and other harsh working conditions, and this series of products are widely used in industrial process control, petroleum, chemical, metallurgy and other industries.

Characteristic

- Diffusion silicon isolated sensors
- Flat membrane type flange installation
- Large size diaphragm, fully welded seal
- Strong and well-sealed aluminum alloy junction box, outdoor installation and use
- Suitable for pressure measurement of gases, liquids, steam
- Corrosion-resistant metal diaphragm optional
- LED digital tube and LCD LCD display areoptional
- Availablefor high-temperature viscous liquids
- The flange size can be customized, and the installation is flexible and convenient

Technical Performance

Range range	-100Kpa~0~10Mpa
Type of pressure	Gauge pressure, absolute pressure
Output signal	4-20mA、0-5V、0-10V
Power supply	12~24VDC
Accuracy class	0.5%FS、0.2%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	≤ 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Housing material	Housing low copper aluminum alloy; Diaphragm 316L
Explosion-proof rating	Exia II. CT6
Degree of protection	IP65
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM480 Intelligent Pressure Transmitter

Product Introduction

The APM480 intelligent pressure transmitter is an intelligent pressure measurement product with high accuracy and high stability. The product adoptsimported diffusion silicon chip and ADI professional chip and combined with microprocessor technology to develop, with on-site display, data processing, zero point and full-scale softwareor button adjustment, 4-20mA output,RS485Hart communication function, small size, high precision, light weight, wide range coverage, suitable for various industries need to accurately measure fluid pressure.

The PCM480 Smart Pressure Transmitter operates in 2-wire mode and is a direct replacement for analog 2-wire 4-20mA output transmitters.

Characteristic

- RS485 communication interface or Hart communication protocol optional
- Digital field display
- Supports networking applications
- Digital compensation and nonlinear correction techniques are used
- High sensitivity, high precision,
- No moving parts, reliable performance
- Excellent field interchangeability, can be customized according to customer requirements

Technical Performance

Range range	-0.1~0~100Mpa
Type of pressure	Gauge pressure, absolute pressure
Power supply	12~24VDC
Output signal	RS485-MODBUS,4-20mA+Hart protocol
Accuracy class	0.5%FS、0.2%FS、0.1%FS
Compensate for temperature	-10~70℃
Operating temperature	-20~80℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	≤ 1.5 times
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
Degree of protection	IP65
Housing material	Housing low copper aluminum alloy; Diaphragm 316L
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM260 Cable-Based Level Transmitter

Product Introduction

APM260 cable liquid level transmitter is made of high-performance diffusion silicon piezoresistive pressure sensor as the measurement element, the liquid static pressure proportional to the liquid level depth is accurately measured, converted into standard (voltage or voltage) signal output by the signal conditioning circuit, and the linear correspondence between the output signal and the liquid level depth is established to realize the measurement of liquid depth. The product has high precision, small size, and can measure the height of the liquid from the end of the transmitter to the liquid level directly into the liquid, which is convenient to use. It is suitable for liquid level measurement and control in the fields of petroleum, chemical industry, power plant, urban water supply and hydrological exploration.

After long-term aging and stable screening, the product performance is stable and reliable, and can be applied to the open field with harsh environment, and at the same time can be displayed on site, point and full range migration.

Characteristic

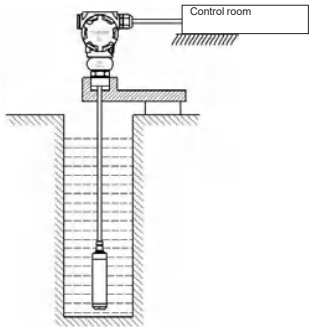
- Diffusion silicon piezoresistive sensors
- The probe is a submersible measurement method, which is easy to install
- For static level measurement
- Multiple protection structure design, high protection ability
- LCD display is available
- A variety of styles, suitable for various occasions in the industry require
- Selection of anti-corrosion stainless steel materials, suitable for a variety of occasions

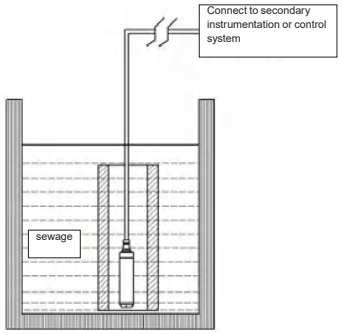
Technical Performance

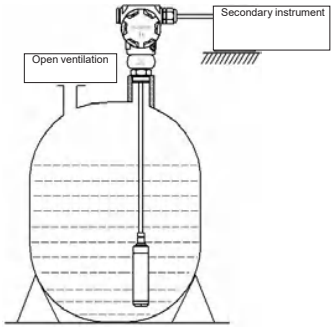
Range range	0~ 1 ~ 100m water column
Type of pressure	Gauge pressure
Power supply	1 2~ 24VDC
Output signal	4- 20m A、0- 5V、0- 1 0V
Compensate for temperature	0~ 60℃
Media temperature	0~ 40℃
Storage temperature	0~ 30℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Degree of protection	IP68
Pressure overload	200%FS
Mechanical vibration	20g(20-5000HZ)
Comprehensive accuracy	0.5 (typical)0.2
Long-term stability	± 0.2% FS/ year
Sample time	1 second 20times
insulation	1 00M Ω/250VDC
Material	Junction box low copper aluminum alloy; The level probe is all stainless steel; Cable material: polyurethane conductor
Media compatible	A wide range of fluid media compatible with 316L stainless steel

Installation Instructions (For Reference Only)

1. Installation in still water (deep wells, pools, liquid irrigation, etc.)







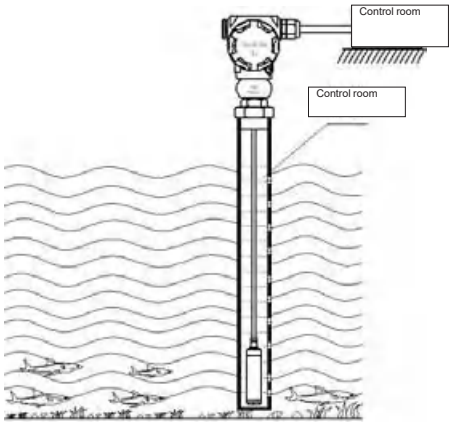
Installation Tips:

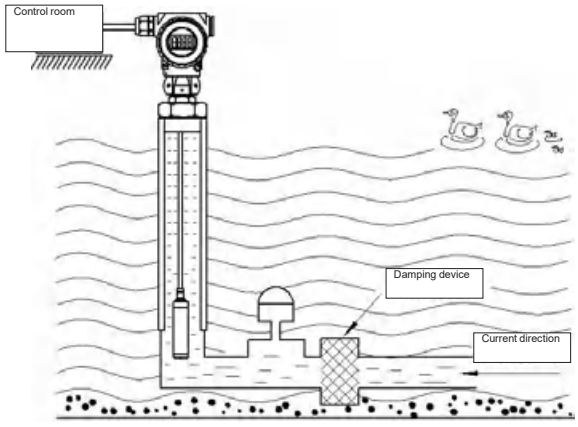
1. When measuring the liquid level of the static fluid in the open container, put the level transmitter vertically into the bottom of the container, and fix the cable and junction box connecting the transmitter at the opening of the container.

2. When the medium viscosity is large (such as a sewage tank), a casing or bracket can be installed to ensure that the transmitter can be put into the bottom of the container.

3. When installing in the open air, the transmitter junction box should be placed in a ventilated and dry place as much as possible to avoid direct light and rain, causing the shell temperature to be too high or water ingress, and then damage the internal circuit board.

2. Installation in moving water (rivers, rivers, lakes, etc.)





Installation Tips:

1. When measuring the liquid level of the static fluid in the open container, put the level transmitter vertically into the bottom of the container, and fix the cable and junction box connecting the transmitter at the opening of the container.

2. When the medium viscosity is large (such as a sewage tank), a casing or bracket can be installed to ensure that the transmitter can be put into the bottom of the container.

3. When installing in the open air, the transmitter junction box should be placed in a ventilated and dry place as much as possible to avoid direct light and rain, causing the shell temperature to be too high or water ingress, and then damage the internal circuit board.

APM261 Metal Armor Level Transmitter

Product Introduction

APM261 metal armored liquid level transmitter is made of high-performance diffusion silicon piezoresistive pressure sensor as the measurement element, the liquid static pressure proportional to the liquid level depth is accurately measured, through the signal conditioning circuit converted to standard(voltage or voltage) signal output, establish a linear correspondence between the output signal and liquid level depth, and realize the measurement of liquid depth. The installation flange can be customized, the cable is encapsulated in an armored stainless steel metal pipe, the material quality is reliable, suitable for liquid level measurement and control in the fields of petroleum, chemical industry, power plant, urban water supply and hydrological exploration.

After long-term aging and stable screening, the product performance is stable and reliable, and can be applied to the open air site with harsh environment, and at the same time can be displayed on site, zero point, full range migration.

Characteristic

- Diffusion silicon piezoresistive sensors
- Probe submersible measurement method or in-line measurement method, simple and convenient installation,
- Flange or pipe fittings can be customized
- All-metal armored, high-strength steel tube construction
- Multiple protection design, high protection performance
- Can be displayed live LED、LCD Optional
- The use of anti-corrosion stainless steel material is suitabl

Technical Performance

Range range	0~ 1 ~ 100m water column
Type of pressure	Gauge pressure
Power supply	1 2~ 24VDC
Output signal	4- 20m A、0- 5V、0- 1 0V
Compensate for temperature	0~ 80℃
Media temperature	0~ 1 00℃
Storage temperature	0~ 30℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Degree of protection	IP68
Pressure overload	200%FS
Mechanical vibration	20g(20-5000HZ)
Comprehensive accuracy	0.5 (typical)0.2
Long-term stability	± 0.2% FS/ year
Sample time	1 second 20times
insulation	1 00M Ω/250VDC
Material	Junction box low copper aluminum alloy; The level probe is all stainless steel; Cables and flanges are all stainless steel
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM262 Gas Collector Cartridge Level Transmitter

Product Introduction

The APM262 gas collector level transmitter consists of a stainless steel cylinder, stainless steelcapillary tube and junction box. The sensor and signal processing circuit are designed inside the junction box, and the gas collector submersible type needs to measure the inside of the liquid and is responsible for collecting thepressure signal. The level pressure signal collected by the gas in the gas collection barrel transmits the pressure to the sensor through the stainless steel capillary, which avoids the direct contact between the sensor and the measured medium, which is suitable for high temperature corrosive occasions, and effectively solves the problem of high temperature corrosive liquid and sewagelevel measurement.

Products are widely used in environmental protection, frequency conversion water supply, high temperature oil pool, industrial process control, chemical industry and other fields of liquid level measurement and control. When measuring sewage, sludge and other media, the filter structure can be added according to customer requirements.

Technical Performance

Range range	0~ 1 ~ 100m water column
Type of pressure	Gauge pressure
Power supply	1 2~ 24VDC
Output signal	4- 20m A、0- 5V、0- 1 0V
Compensate for temperature	0~ 80℃
Media temperature	0~ 1 00℃
Storage temperature	0~ 30℃
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Degree of protection	IP68
Pressure overload	200%FS
Mechanical vibration	20g(20-5000HZ)
Comprehensive accuracy	0.5 (typical)0.2
Long-term stability	± 0.2% FS/ year
Sample time	1 second 20times
insulation	1 00M Ω/250VDC
Material	Junction box low copper aluminum alloy; The level probe is all stainless steel; Cables and flanges are all stainless steel
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM500 Series Digital Pressure Gauges

Product Introduction

The digital pressure gauge is fully electronic and uses 36V battery operation for easy field installation. The front end adopts a high-precision piezoresistive pressure sensor, and the output signal is amplified and processed by a high-precision, low-temperature drifting amplifier, sent to a high-precision A/D converter, converted into a digital signal that can be processed by a microprocessor, and processed by LCD The display shows the actual pressure value.

The intelligent digital pressure gauge is flexible in use, simple in operation, easy in commissioning, safe and reliable. Widely used in hydropower, tap water, petroleum, chemical, machinery, hydraulic and other industries, the pressure of fluid medium measurement display.

Characteristic

- Main screen 5 Bit real-time pressure display
- Tracking mode and peak mode buttons are switched
- Overvoltage flashing indication to prevent instrument overvoltage damage
- White backlight , Easy to view at night
- Pressure unit conversions, internationally available
- Acquisition rates from 2 sec/time to 8 times/sec are selectable
- Automatic shutdown function extends battery life for a wider range of applications
- The product structure is diversified, and the panel mount is optional

Technical Performance

Measuring range	-0.1~0~0.01~100MPA
Type of pressure	Gauge pressure, absolute pressure
Measuring medium	Gases, liquids, steam, etc
Measurement accuracy	≤ ±0.2%FS
stability	≤ ±0.2% / year
Display accuracy	±0.01%F.S
How it is displayed	5-digit LCD display
Display range	-19999~99999
Power supply	3.6V lithium battery
Standby current	≤ 5 μ amperes
Ambient temperature	-20℃ ~70℃
Media temperature	-40℃ ~85℃
Storage temperature	-40℃ ~85℃
relative humidity	0~80%
Pressure overload	10 times below 2Mpa ; 25Mpa above 1.5 times
Sample time	2~8 times / sec
Housing material	All stainless steel integrated structure
Degree of protection	IP67
Media compatible	A wide range of fluid media compatible with 316L stainless steel

APM600 Differential Pressure Transmitter

Product Introduction

APM600 differential pressure transmitter is assembled from imported diffused silicon differential pressure punching core. The joints are made of stainless steel, the junction box adopts a high-strength cast aluminum shell with strong corrosion resistance and protection, and the two pressureconnections are threaded connections, which can be installed directly on the measuring pipe or connected by the impulse pipe.

PCM600 Series available with standard current,4-20Ma+RS485、4-20mA+HART Signal selectable, Widely used in process control, aviation, aerospace, automotive medical equipment,HVAC Differential pressure, liquid level,flow rate Control.

Characteristic

- The 316L stainless steel isolation diaphragm structure
- Convenient for measuring differential pressure values
- Intelligent digital dedicated circuit
- With current line system and reverse polarity protection
- LCD liquid crystal display, passive migration
- Anti-impact, anti-vibration, anti-electromagnetic interference
- The shape and structure are diversified, and can be customized according to customer requirements

Technical Performance

Measuring range	0~20Kpa-100KPa-2Mpa
Measuring medium	Gases, liquids, steam, etc
Type of pressure	Differential pressure
Power supply	12~24VDC
Output signal	4-20mA、4-20Ma+RS485、4-20mA+HART
Compensate for temperature	-20~80℃
Operating temperature	-20~100℃
Accuracy class	0.5%FS (typical) 0.3%FS 0.2%FS 0.1%FS
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	No more than 5~10 times of the range
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
insulation	100MΩ/250VDC
Degree of protection	IP65
Explosion-proof rating	Exia II. CT6
Housing material	Housing low copper aluminum alloy; 304 stainless steel fitting
Media compatible	A wide range of fluid media compatible with 316L stainless steel
Service life	1X107 PRESSURE CYCLING

APM610 Air Differential Pressure Transmitter

Product Introduction

APM610 integrated differential pressure transmitter is assembled from imported diffused silicon differential pressure punching core. The outer shell is made of stainless steel for strong corrosion resistance, and the two pressure connections are threaded, which can be mounted directlyon the measuring pipe or connected by impulse pipe.

PCM610 series has standard voltage, current, RS485 signal options, widely used in process control, aviation, aerospace, automotive medical equipment, HVAC and other fields of differential pressure, liquid level, flow measurement and control.

Characteristic

- 316L Stainless steel diaphragm construction
- Convenient to measure the differential pressure value
- Intelligent digital dedicated circuit
- With current line system and reverse polarity protection
- Integrated and compact structure, easy to install, anti-shock, anti-vibration,
- Anti-electromagnetic interference 7 LED digital tube on-site display optional
- The shape and structure are diversified, and can be customized according to customer requirements

Technical Performance

Measuring range	0~20Kpa-100KPa-2Mpa
Measuring medium	Gases, liquids, steam, etc
Type of pressure	Differential pressure
Power supply	12~24VDC
Output signal	4-20mA、1-5、0-10V
Compensate for temperature	-20~80℃
Operating temperature	-20~100℃
Accuracy class	0.5%FS (typical) 0.3%FS 0.2%FS 0.1%FS
Zero temperature drift	0.5%FS（max）
Sensitivity, temperature drift	0.5%FS（max）
Pressure overload	No more than 5~10 times of the range
Mechanical vibration	20g(20-5000HZ)
Sample time	1 second 20 times
Long-term stability	≤ 0.2% FS/ year
insulation	100MΩ/250VDC
Degree of protection	IP65
Explosion-proof rating	Exia II. CT6
Media compatible	A wide range of fluid media compatible with 316L stainless steel
Service life	1X107 PRESSURE CYCLING

APT100 Platinum Resistance Temperature Sensor

Product Introduction

The APT100 platinum resistance temperature sensor uses the characteristics of platinum resistance value changing with temperature and showing a certain function relationship to measure the temperature of the measured medium.

The PC100 is commonly used in conjunction with transmitter display instruments and computers to directly measure the temperature of liquid and gaseous media and solid surfaces in the range of –50℃ ~ 400℃ in various production processes.

Characteristic

- High strength, anti-vibration, anti-high pressure
- Response fast
- Explosion-proof signs：（Exia Ⅱ CT6Intrinsically safe type
- Can work stably for a long time
- Easy to install
- Indexing numbers Pt100, Pt1000 optional

Technical Performance

Range range	-50℃ ~400℃
Indexing number	C1, Pt100 or Pt1000(platinum resistance).
RTD base	At platinum resistance class 0, the allowable deviation value of the resistance value (Ω) is △℃
This margin of error	A 级 100±0.06 ±（0.15+0.002 丨t丨）
Allowable current	≤ 5mA
Dielectric strength	100MΩ/250VDC
Long-term stability	≤ 0.2% FS/ year
Response time	≤ 30ms
Placement depth	≥ 10mm (special requirements can be customized).
Loading diameter	F8 (special requirements can be customized).
Nominal pressure	The static external pressure of the protection tube at operating temperature
Explosion-proof rating	Exia II. CT6
Enclosure protection	IP65
Electrical connection	Hersman, special customizable

Note: The thermal resistance should be installed too close to the hot body. It should be installed in a place with very little vibration as much as possible, and at the same time it should be easy to construct and maintain. The mounting position should be as vertical as possible, but should be angled when there is a flow rate. The hole in the junction box should be downward. The thermal resistance should be wired according to the regulations, generally using the three-wire system. The connecting wire should be insulated (preferably RVVP tinned shielded wire)copper wire, its cross-sectional area should be ≥ 1.0 square millimeters, and the resistance value of the wire should be

APT120 Armored Temperature Sensor

Product Introduction

The APT120 RTD temperature sensor measures the temperature of the measured medium by using the characteristic that the platinum resistance value changes with temperature and is afunction of the relationship. The temperature sensor adopts high-performance, high-reliability imported platinum resistance, and the shell is integrated processing of all stainless steel, which has the characteristics of small size and fast response; The wire adopts special shielded wire, and the use temperature range is wide; The product is easy to install and has extremely high vibration and shock resistance.

PC120 is commonly used in petroleum machinery, chemical machinery, pumps and compressors, electric power, boilers, natural gas and other automated temperature measurement and control systems, directly measuring the temperature of liquid and gas media and solid surfaces in various production processes within the range of −100℃ ~ 400℃ .

Characteristic

- High strength, anti-vibration
- Anti-high pressure response fast
- Explosion-proof signs：（Exia Ⅱ CT6Intrinsically safe type
- Work stably for a long time
- Asy to install
- Indexing numbers Pt100,Pt1000 optional

Technical Performance

Range range	−50℃ ~400℃
Indexing number	C1, Pt100 or Pt1000(platinum resistance).
RTD base	At platinum resistance class 0, the allowable deviation value of the resistance value (Ω) is △℃
This margin of error	A 级 100±0.06 ±（0.15+0.002 丨t丨）
Allowable current	≤ 5mA
Dielectric strength	100MΩ/250VDC
Long-term stability	≤ 0.2% FS/ year
Response time	≤ 30ms
Placement depth	≥ 10mm (special requirements can be customized).
Loading diameter	F16 (special requirements can be customized).
Nominal pressure	The static external pressure of the protection tube at operating temperature
Explosion-proof rating	Exia II. CT6
Enclosure protection	IP65
Electrical connection	BP3 housing, special can be determined

APT200 Armored Temperature Transmitter

Product Introduction

The APT200 armored temperature sensor uses the characteristics of platinum resistance value to change with temperature and has a certain functionrelationship to measure the temperature of the measured medium. The PCT200 temperature transmitter adopts high-performance, high-reliabilityimported platinum resistance, after precise temperature compensation and nonlinear correction, adopts intelligent modular signal processing technology with good performance, measures and calibrates the temperature of the medium, and outputs the industrial control standard signal.

PC200 shell adopts all stainless steel integrated processing, which has the characteristics of small size and fast response; The wiresare dedicated to 2x0.42 tinned shielded wire, wide temperature range; The product is easy to install and has extremely highvibration and shock resistance. Commonly used in petroleum machinery, chemical machinery, pumps and compressors, electric power, boilers, natural gas and other automated temperature measurement and control systems, directly measuring therange of −150° C ~ 400℃ in various production processes The temperature of media such as liquid and gaseous media and solid surfaces.

Characteristic

- High strength, anti-vibration, anti-high pressure
- Response fast
- One-piece structure, amplified and linearized transmitter modules are installed in the junction box
- Explosion-proof signs：（Exia Ⅱ CT6Intrinsically safe type
- Can work stably for a long time
- Easy to install
- A variety of connection methods, a variety of output signals
- Can be customized

Technical Performance

Range range	−150℃ ~400℃
Output signal	4~20mA
Supply voltage	24VDC
Platinum resistance indexing number	C1, Pt100 or Pt1000(platinum resistance).
Dielectric strength	100MΩ/250VDC
Long-term stability	≤ 0.2% FS/ year
Response time	≤ 20ms
Placement depth	≥ 10mm (special requirements can be customized).
Loading diameter	F16 (special requirements can be customized).
Nominal pressure	The static external pressure of the protection tube at operating temperature
Explosion-proof rating	Exia II. CT6
Enclosure protection	IP65
Power consumption	< 0.5W
Electrical connection	BP3 housing, special customizable
	1: Ambient temperature:−40℃ ~ 80℃
Working environment	2: Relative humidity: 0~95%RH
	3: Mechanical vibration :f < 55HZ, amplitude < 0.15mm

APT300 Integrated Temperature Transmitter

Product Introduction

The APT300 integrated temperature transmitter uses the resistance of platinum resistance to change with temperature, and it is a function relationship tomeasure the temperature of the measured medium. The product is composed of three parts: temperature sensor, compensation circuit and conversion circuit, which has the advantages of stable performance, high sensitivity and strong reliability.

The product adopts all-welded structure and front strength shell, which is widely used in automatic temperature measurement and control systems such as petroleum machinery, chemical machinery, compressors, electric power, boilers, natural gas, etc.

Characteristic

- Stainless steel high-strength shell structure, impact resistance,
- High pressure resistance and high precision, high stability, strong anti-interference ability
- A variety of connection methods, a variety of output signals
- Easy to install, and can work stably for a long time
- Fast response
- A variety of connection methods, a variety of output signals
- Can be customized according to customer requirements

Technical Performance

Range range	-150℃ ~400℃
Output signal	4~20mA
Supply voltage	24VDC
Platinum resistance indexing number	C1, Pt100 or Pt1000(platinum resistance).
Dielectric strength	100MΩ/250VDC
Long-term stability	≤ 0.2% FS/ year
Response time	≤ 20ms
Placement depth	≥ 10mm (special requirements can be customized).
Loading diameter	F7 (can be customized on special requirements).
Nominal pressure	The static external pressure of the protection tube at operating temperature
Explosion-proof rating	Exia II. CT6
Enclosure protection	IP65
Power consumption	< 0.5W
Electrical connection	BP3 housing, special customizable
	1: Ambient temperature:-40℃ ~ 80℃
Working environment	2: Relative humidity:0~95%RH
	3:Mechanical vibration:f < 55HZ, amplitude < 0.15mm

APT302 Explosion-proof temperature transmitter

Product Introduction

The APT302 explosion-proof temperature transmitter is a transmitter specially designed for eas installation. The transmitter adopts high-performance, high-reliability imported platinum resistance, afte precise temperature compensation and nonlinear correction, adopts intelligent modular signal processin process technology with good performance, measures and calibrates the temperature of the mediun andoutputs the industrial control standard signal.

The product shell adopts all stainless steel integrated processing, which has the characteristics c small size and fast thermal response; The conductor is dedicated to 2x0.42 tinned shielded wire, wid temperature range; The product is easy to install and has extremely high vibration andshock resistance.

Characteristic

- Movable joint, easy to install, high strength
- High pressure resistance
- Integrated structure, transmission module for amplification and linearization processing is installed in the junction box
- Explosion-proof sign: (Exia Ⅱ CT6) intrinsically safe
- Fast thermal response, long-term stable work
- A variety of connection methods, a variety of signal outputs
- Can be customized according to customer requirements

Technical Performance

Range range	-150℃ ~400℃
Output signal	4~20mA
Supply voltage	24VDC
Platinum resistance indexing number	C1, Pt100 or Pt1000(platinum resistance).
Dielectric strength	100MΩ/250VDC
Long-term stability	≤ 0.2% FS/ year
Response time	≤ 20ms
Placement depth	≥ 10mm (special requirements can be customized).
Loading diameter	Φ7 (can be customized on special requirements).
Nominal pressure	The static external pressure of the protection tube at operating temperature
Explosion-proof rating	Exia II. CT6
Enclosure protection	IP65
Power consumption	< 0.5W
Electrical connection	BP3 housing, special customizable
	1: Ambient temperature:-40℃ ~ 80℃
Working environment	2: Relative humidity:0~95%RH
	3:Mechanical vibration:f < 55HZ, amplitude < 0.15mm

APT400 Industrial Temperature Transmitter

Product Introduction

The APT400 industrial temperature transmitter uses the resistance of platinum resistance to change with temperature transmission and shows a certain functionrelationship to measure the temperature of the measured medium. The transmitter adopts high-precision thermal resistance as the detection element, uses high-stability circuit for signal processing, realizes continuous temperature measurement, outputs industry-standard control signals and can realize display, remote and other functions.

The temperature measurement part of the product adopts all-stainless steel integrated processing technology, limit and adopts high-strength cast aluminum shell, and the product has the characteristics of strong seismic ability and fast thermal response; The wire adopts a special shielded conductor and has a wide operating temperature range. The product is easy to install and suitable for various automatic control systems for temperature measurement.

Characteristic

- Anti-vibration
- Fast thermal response
- High strength, high pressure resistance
- One-piece structure, digital circuitry with amplification and linear processing installed in the junction box
- LCD andLED display optional
- Easy to install, can work stably for a long time
- A variety of connection methods, can be customized according to customer requirements

Technical Performance

Range range	-150℃ ~400℃
Output signal	4~20mA
Supply voltage	24VDC
Platinum resistance indexing number	C1, Pt100 or Pt1000(platinum resistance).
Dielectric strength	100MΩ/250VDC
Long-term stability	≤ 0.2% FS/ year
Response time	≤ 20ms
Placement depth	≥ 10mm (special requirements can be customized).
Loading diameter	Φ16 (special requirements can be customized).
Nominal pressure	The static external pressure of the protection tube at operating temperature
Explosion-proof rating	Exia II. CT6
Enclosure protection	IP65
Power consumption	< 0.5W
Electrical connection	Integrated structure stainless steel shell, high-strength cast aluminum shell
	1: Ambient temperature:-40℃ ~ 80℃
Working environment	2: Relative humidity:0~95%RH
	3:Mechanical vibration:f < 55HZ, amplitude < 0.15mm


Pressure Control
Temperature difference control
Temperature Control
Water quality PH control
Level Control
Heat control
Flow Control
Differential pressure control

The Design Of Humanized Function,

The Design Idea Of People Oriented

Excellent Interpersonal Skills,Scientific Design

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