Wibbow

SG Sensor 2

Wibbow International Co., Limited

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SGSS315A Speed Sensor
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SGSS469JA Magnetoelectric Speed Sensor
SGSSSQZ Crankshaft Speed Sensor
SGSSSTL Camshaft Speed Sensor
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Composite Sensor
SGHSSD Humidity Sensor
SGHTSD Temperature and Pressure Sensor
SGHTSD Temperature, Humidity and Pressure Integrated Sensor
SGHTSD404A Temperature and Humidity Sensor
SGTPD452A Dual-channel Temperature and Pressure Sensor
SGHTSD397A Temperature and Pressure Sensor
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SGHFHS Series Heat Flux Sensors
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Noise Sensor
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Special-Purpose Sensor
SGSPOQ335 Oil Quality Sensor
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SGDS356A Displacement Sensor
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SGDS356D4 Displacement Sensor
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Lidar
SGDFS34 Diffuse Reflection Sensor
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SGDFS43A Diffuse Reflection Sensor
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Measurement System
DAQ (Data Acquisition) Unit
Integrated Acquisition and Processing Unit for Engines
Engine Test Run Signal Acquisition System
Launch Site Environmental Monitoring System
Real-time Wireless Sensor System for Rockets (Missiles)
Wireless Sensor Network System for On-board Propellant Leakage Monitoring
Wireless Sensor System for Ground Test Stands
Wireless Temperature, Humidity and Pressure Acquisition System
Tire Pressure Monitoring System
Handheld Wireless Tire Pressure Monitoring System
Refrigerant Concentration Monitoring System
Multi-channel Temperature Acquisition System

Series Pressure Sensors

Overview

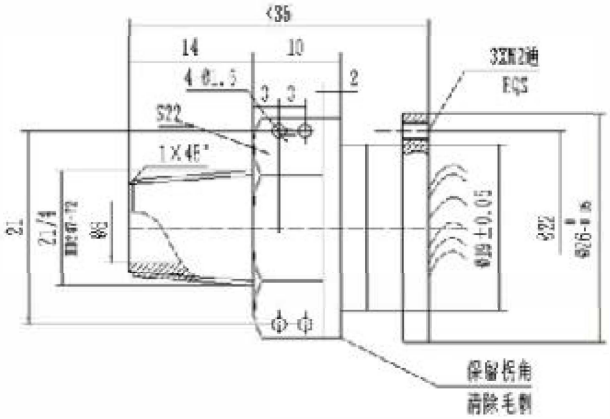
The SGPS45438F series pressure sensors use silicon piezoresistive pressure sensors as sensitive elements. For the temperature part, high-precision PT1000 is used as the temperature-sensing component. The overall structure is made of stainless steel. The front end has a Z1/4 thread, and the rear end is designed with a base for the amplifier circuit. Users can design a suitable amplifier circuit according to the corresponding dimensions and then assemble it into the required transmitter. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Sensor
Model	SGPS45438F
Power Supply Voltage	6.2V±0.01V
Insulation Resistance	>100MΩ/100V
Output	30mV~60mV
Accuracy	≤±1%FS
Operating Temperature	-55°C~125°C

Dimension

Outline Structure (Unit: mm)



Series Pressure Sensors

Overview

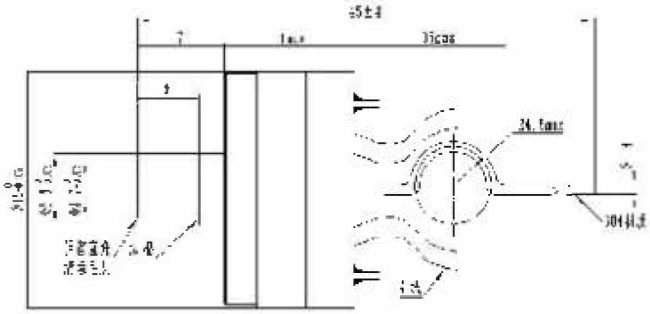
The SGPSTO13484A series pressure sensors use silicon piezoresistive pressure sensors as sensitive elements. The overall structure is made of stainless steel, and a base for the amplifier circuit is designed at the rear end. Users can design a suitable amplifier circuit according to the corresponding dimensions and then assemble it into the required transmitter. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Sensor
Model	SGPSTO13484A
Voltage	1.5mA±0.005mA
Insulation Resistance	>100MΩ/100V
Output	30mV~60mV
Accuracy	≤±0.3%FS
Operating Temperature	-55°C~125°C

Dimension

Outline Structure (Unit: mm)



Series Pressure Sensors

Overview

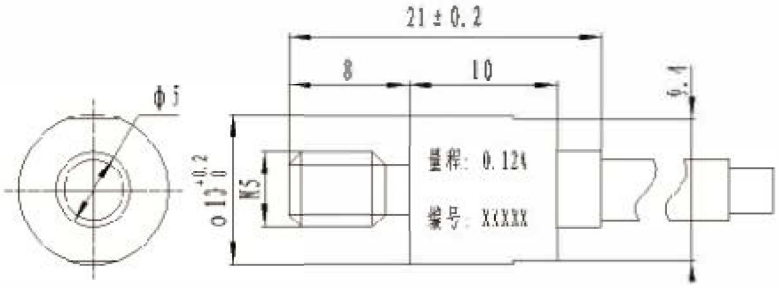
The SGPS43547 series pressure sensors use silicon piezoresistive pressure sensor cores as sensitive elements, and the overall structure is made of stainless steel. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Sensor
Model	SGPS43547
Power Supply Voltage	8VDC
Insulation Resistance	>250MΩ/250VDC
Output	50mV~60mV
Accuracy	≤±0.3.5%FS
Operating Temperature	-55°C~125°C

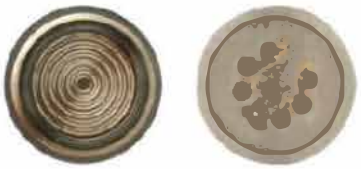
Dimension

Outline Structure (Unit: mm)



Series Titanium Alloy Pressure Sensors

Overview



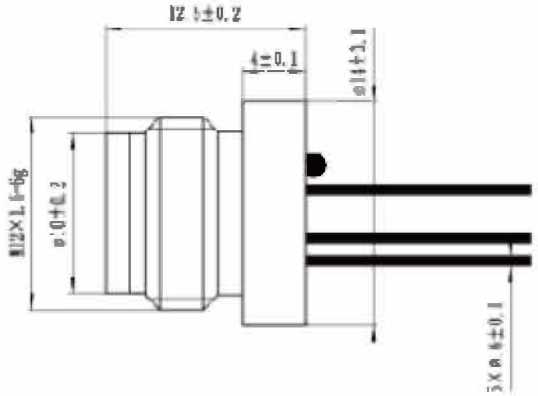
The SGPSK4368S series titanium alloy pressure sensors use silicon piezoresistive pressure sensor cores as sensitive elements. The overall structure is made of titanium alloy, and a base for the amplifier circuit is designed at the rear end. Users can design a suitable amplifier circuit according to the corresponding dimensions and then assemble it into the required transmitter. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Titanium Alloy Pressure Sensor
Model	SGPSK4368S
Power Supply Voltage	6.2V±0.01V
Insulation Resistance	>100MΩ/100V
Output	30mV~60mV
Accuracy	≤±1%FS
Operating Temperature	-55°C~125°C

Dimension

Outline Structure (Unit: mm)



SGPTSD356K63

Pressure Transmitter

Overview

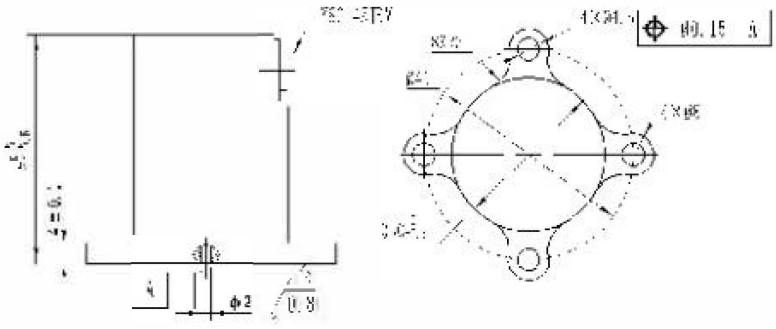
The SGPTSD356K63 pressure transmitter is composed of a sensitive element, a conversion circuit and a housing. The sensitive element adopts the principle of diffused silicon piezo resistance: four resistors are fabricated on a semiconductor silicon wafer through semiconductor processes to form a Wheatstone bridge. Under external pressure, the resistance values of the bridge change, generating a millivolt voltage signal that has a linear relationship with the pressure value. This millivolt signal is conditioned by the conversion circuit and outputs a standard signal as required by the user. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD356K63
Scale Range	0MPa~30Mpa
Drive Voltage Supply	15VDC±3VDC
Insulation Resistance	>100MΩ/100VDC
Output	0.2~5.2V
Accuracy	±0.5%FS (including non-linearity, hysteresis, and repeatability)
Temperature Error	±1.5%FS (0°C~75°C); ±2%FS (-40°C~0°C、75°C~135°C)
Operating Temperature	-40°C~135°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

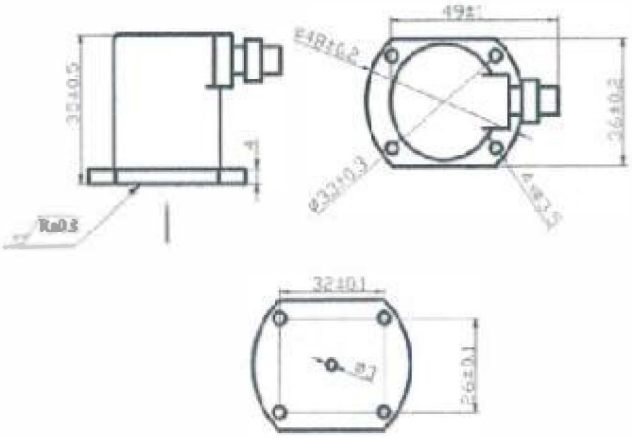
The SGPTSD356Q pressure transmitter integrates pressure sensing, temperature compensation circuit and signal amplification circuit. The sensitive core adopts the diffused silicon piezoresistive principle and is used to measure the pressure of gases or media that are compatible with 316L stainless steel and 321 stainless steels. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD356Q
Scale Range	0~2Mpa (gauge pressure)
Drive Voltage Supply	15V±0.5V
Insulation Resistance	≥100MΩ/100VDC
Null Output	0.2~4.5VDC
Accuracy	±0.5%FS (including non-linearity, hysteresis, and repeatability)
Operating Temperature	-40°C~125°C

Dimension

Outline Structure (Unit: mm)



Series Pressure Transmitters

Overview

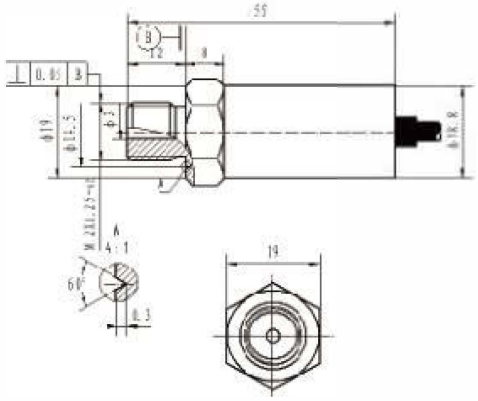
The SGPTSD358j series pressure transmitters use piezoresistive sensors as sensitive elements and domestic instrumentation amplifiers to convert millivolt signals into standard voltage signals. They feature small size, light weight, and high reliability, and can be used for pressure measurement of various gas storage tanks. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD358j
Scale Range	0Mpa~50Mpa
Drive Voltage Supply	15VDC±1VDC
Insulation Resistance	100MΩ/50V
Output	0.2~5.2V
Accuracy	0.5%FS
Temperature Drift	0.055%FS/°C
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



High-Temperature Pressure Transmitter

Overview

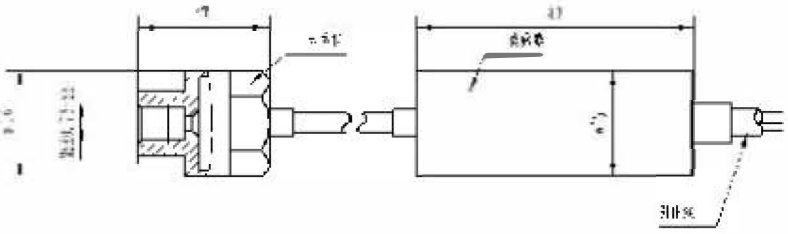
The SGPTSD358j5 high-temperature pressure transmitter adopts the silicon piezoresistive principle and the form of double oil-filled diaphragms. The built-in circuit performs temperature compensation and linear correction on the zero point and full scale. It features a wide operating temperature range and high frequency response. This product is mainly used for engine ignition testing.

Specifications

Product Name	High-Temperature Pressure Transmitter
Model	SGPTSD358j5
Scale Range	0Mpa~10Mpa
Drive Voltage Supply	12VDC~24VDC
Insulation Resistance	100MΩ/100V
Output	4~20mA
Accuracy	≤0.5%FS
Operating Temperature	-40°C~125°C

Dimension

Outline Structure (Unit: mm)



Series Pressure Transmitters

Overview

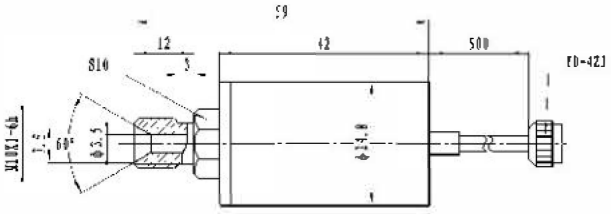
The sensitive core of the SGPTSD358q series pressure transmitter adopts high-reliability and high-temperature resistant sputtered film sensors. The internal dedicated integrated circuit converts the millivolt signals of the sensors into standard voltage output. This product is easy and simple to install and has high resistance to vibration and impact. It is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD358q
Scale Range	0Mpa~90Mpa
Drive Voltage Supply	± (12±1) VDC
Insulation Resistance	>100MΩ/100VDC
Null Output	0.1~4.9V
Accuracy	±0.5%
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



SGPTSD358r/rA

Series Pressure Transmitters

Overview

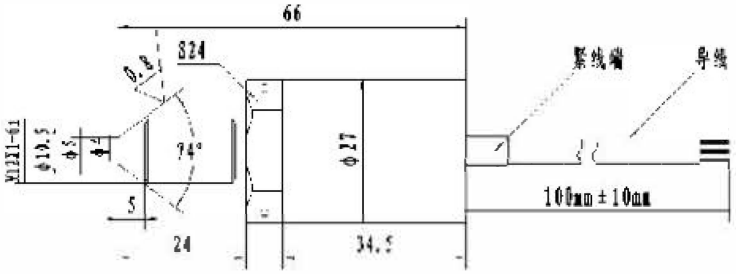
The SGPTSD358r/rA series pressure transmitters consist of a sensitive element, a conversion circuit and a housing. The sensitive element adopts the diffused silicon piezoresistive principle: four resistors are fabricated on a semiconductor silicon wafer through semiconductor technology to form a Wheatstone bridge. Under external pressure, the resistance value of the bridge changes, generating a millivolt voltage signal that has a linear relationship with the pressure value. This millivolt signal is conditioned by the conversion circuit to output the standard signal required by the user. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD358r/rA
Scale Range	0Mpa~3/25/40Mpa
Drive Voltage Supply	5VDC~24VDC
Insulation Resistance	>100MΩ/50VDC
Output	0.5~4.0V
Accuracy	±0.5% (including non-linearity, hysteresis, and repeatability)
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Series Pressure Transmitters

Overview

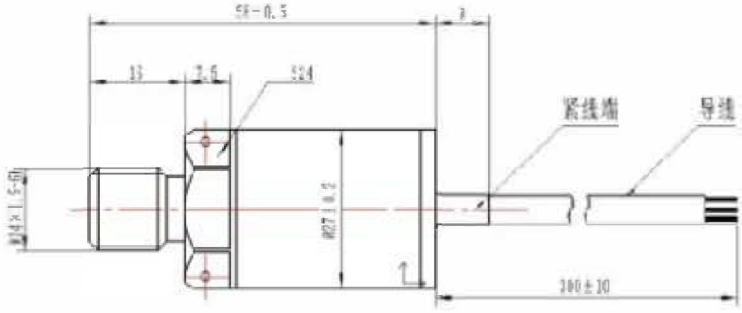
The sensitive element of the SGPTSD358T series pressure transmitters adopts the diffused silicon piezoresistive principle. Four resistors are fabricated on a semiconductor silicon wafer through semiconductor processes to form a Wheatstone bridge. A cavity is etched on the back of the silicon wafer. When external pressure is applied, the silicon cavity deforms, causing a change in the resistance value and generating a millivolt voltage signal that has a linear relationship with the pressure value. This millivolt signal is conditioned by the conversion circuit to output the standard signal required by the user. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD358T
Pressure Scale Range	(0~3) MPa; (0~40) MPa
Operating Voltage	Range: (23~29) VDC
Output	0.2-5VDC
Accuracy at Room Temperature	≤0.5%FS (including error of non-linearity, hysteresis, and repeatability)

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

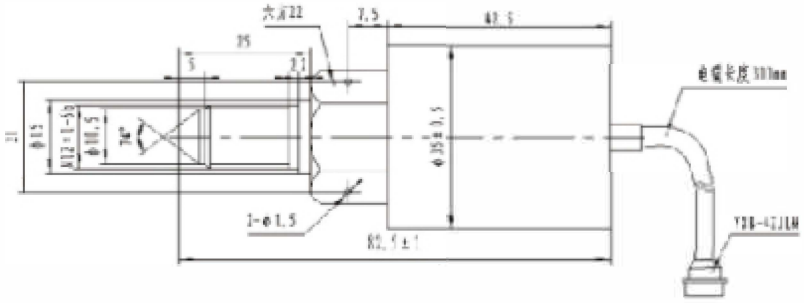
The SGPTSD475A pressure transmitter is composed of five parts: the sensitive element, the processing circuit, the housing, the shock-absorbing shell, and the signal lead-out. The sensitive element adopts the diffused silicon piezoresistive principle: four resistors are fabricated on a semiconductor silicon wafer through semiconductor processes to form a Wheatstone bridge. A cup is etched on the back of the silicon wafer. Under external pressure, the silicon cup deforms, causing a change in the resistance value and generating a millivolt voltage signal that has a linear relationship with the pressure value. This millivolt signal is conditioned by the conversion circuit to output the standard signal required by the user. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD475A
Pressure Scale Range	0~20kPa (Absolute pressure)
Operating Voltage	(±15±0.5) VDC
Output Voltage	(0.1±0.1) V ~ (4.9±0.1) V
Accuracy	±4%FS(-40°C~+60°C)
Operating Temperature	-40°C~80°C

Dimension

Outline Structure (Unit: mm)



SGPTSD380A

Fluid Pressure Transmitter

Overview

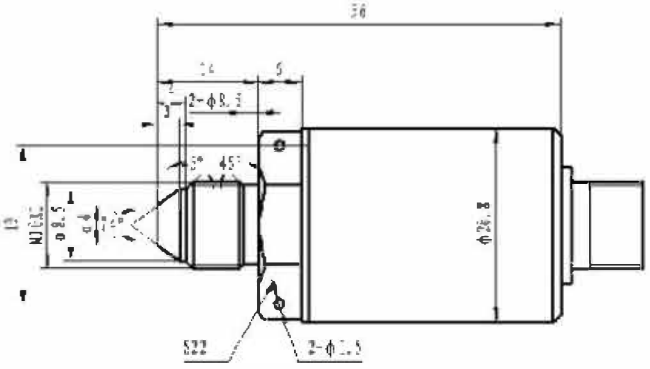
The SGPTSD380A fluid pressure transmitter adopts the silicon piezoresistive principle. It corrects the zero point and full-scale temperature drift of the transmitter. The sensor component converts the fluid pressure into a voltage signal and amplifies it to the required amplitude, which is then supplied to the detection device. The overall structure is a special full-welded one, which ensures reliable performance and convenient installation. It is suitable for fluid pressure measurement in aerospace and aviation engineering. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD380A
Scale Range	0~5MPa
Drive Voltage Supply	12±1VDC
Insulation Resistance	100MΩ/100V
Output	1~6V
Accuracy	≤±0.5%FS
Operating Temperature	-55°C~125°C

Dimension

Outline Structure (Unit: mm)



Oil Pressure Transmitter

Overview

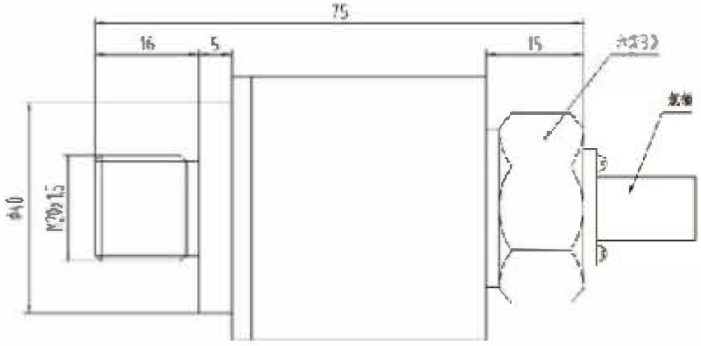
The SGPTSD382 oil pressure transmitter adopts special technology and a full-welded structure, featuring strong resistance to pressure shocks. It outputs standard signals through an amplifier circuit. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Oil Pressure Transmitter
Model	SGPTSD382
Scale Range	0MPa~25MPa
Drive Voltage Supply	24VDC±4VDC
Insulation Resistance	100MΩ/100V
Output	4~20mA
Accuracy	≤±0.5%FS
Operating Temperature	-40°C~100°C

Dimension

Outline Structure (Unit: mm)



Water Outlet Transmitter

Overview

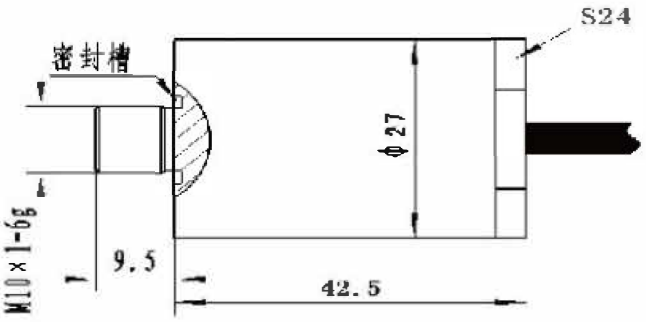
The SGPTSD317A water outlet transmitter uses a silicon piezoresistive pressure core as the sensitive element, outputting voltage analog quantities and status signals. The water outlet threshold can be set according to the usage requirements. It features a small size, light weight, and a fully stainless-steel sealed structure, and can operate in corrosive environments. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD317A
Scale Range	0MPa~1MPa
Drive Voltage Supply	27V±3V
Insulation Resistance	>100MΩ/100V
Output	0.5~4.5VDC high and low levels
Accuracy	0.5%FS
Operating Temperature	-10°C~50°C

Dimension

Outline Structure (Unit: mm)



Digital Pressure Transmitter

Overview

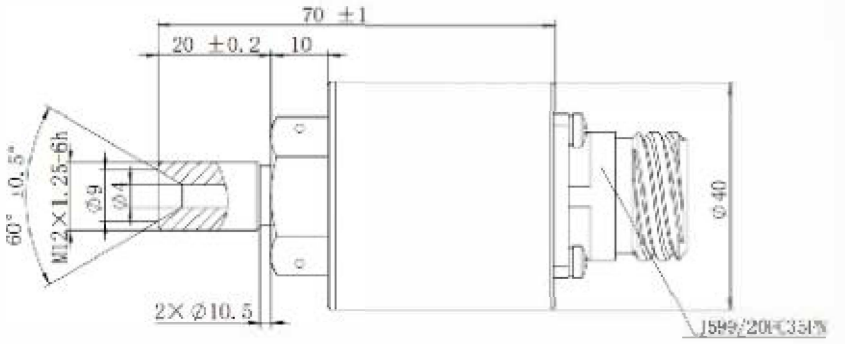
The SGPTHSP39334A digital pressure transmitter is a pressure measurement transmitter that uses a silicon piezoresistive pressure core as the sensitive element. The whole sensor has a stainless-steel welded structure. The front end adopts a pipe thread sealing structure, and the rear end conducts signal processing through the built-in integrated circuit, and then outputs RS422 signals through the electrical connector. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTHSP39334A
Scale Range	0MPa~6MPa (Absolute pressure)
Drive Voltage Supply	15±1VDC
Insulation Resistance	>100MΩ/50VDC
Operating Current	≤100mA
Output	RS422 output
Accuracy	±0.5%FS (including linearity, hysteresis, and repeatability)
Operating Temperature	-40°C~80°C

Dimension

Outline Structure (Unit: mm)



Series Low-Temperature Pressure Transmitters

Overview

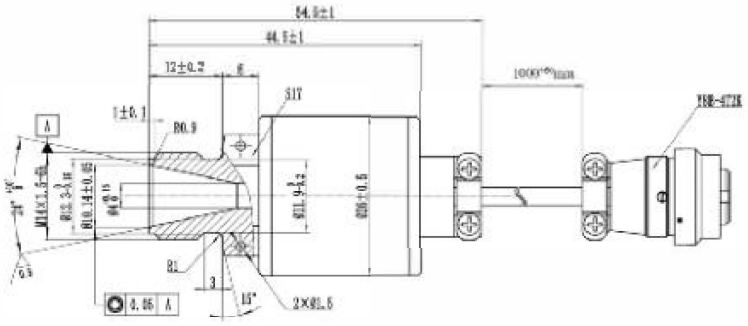
The SGPTHSPXXXMAL low-temperature pressure transmitter is a pressure measurement transmitter that takes the sputtered film pressure core as the sensitive element. The whole sensor features a stainless-steel welded structure. The front end adopts a double-step sealing structure, and the rear end conducts signal conditioning and amplification through the circuit, and then outputs voltage signals via the electrical connector. This product is mainly used for the pressure measurement of the liquid oxygen storage tanks of rockets.

Specifications

Product Name	Low-Temperature Pressure Transmitter
Model	SGPTHSPXXXMAL
Scale Range	0MPa~1MPa (Absolute pressure)
Drive Voltage Supply	15VDC±1VDC
Weight	≤300g
Insulation Resistance	>100MΩ/100VDC
Null Output	0.2V±0.05V
Full Scale Output	4.8V±0.05V
Accuracy at Low Temperature	±3%FS (-196°C)
Overload	150%FS
Medium Temperature	-196°C~60°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

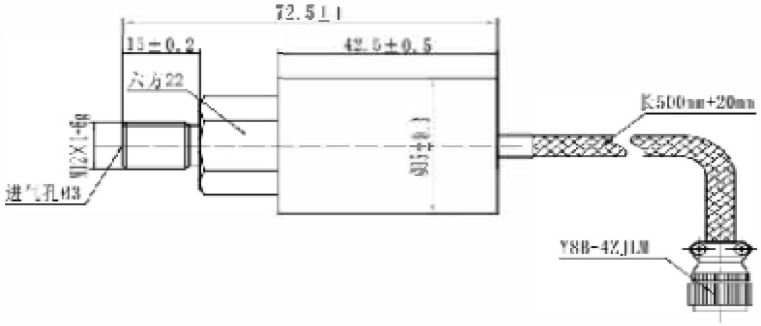
The SGPTSD319f7 pressure transmitter consists of several parts, including a sensitive element, a conversion circuit, and a housing. The sensitive element adopts the diffused silicon piezoresistive principle: four resistors are fabricated on a semiconductor silicon wafer through semiconductor processes to form a Wheatstone bridge. A cup is etched on the back of the silicon wafer. Under external pressure, the silicon cup deforms, causing a change in the resistance value and generating a millivolt voltage signal that has a linear relationship with the pressure value. This millivolt signal is conditioned by the conversion circuit to output the standard signal required by the user.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD319f7
Scale Range	0KPa~3KPa
Drive Voltage Supply	(15±1.5) V
Insulation Resistance	Normal environment:>100MΩ/50VDC
Null Output	0.2V~4.8V
Accuracy	≤3%FS (Full temperature range)
Operating Temperature	-55°C~60°C

Dimension

Outline Structure (Unit: mm)



Pulsating Pressure Transmitter

Overview

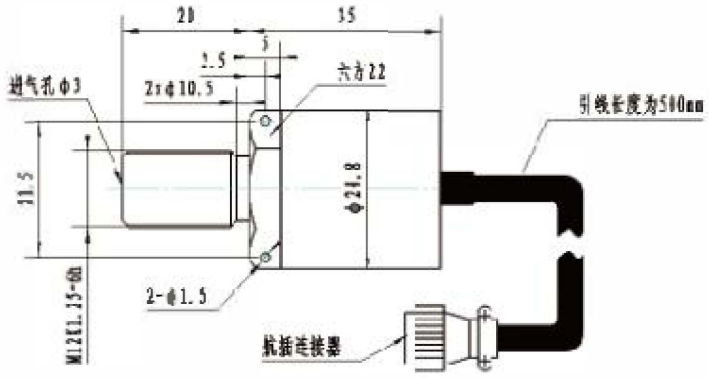
The SGPTSD319G pulsating pressure transmitter is used to measure the pulsating pressure of air. The transmitter is composed of a sensitive element, a conversion circuit and a housing. The sensitive element adopts the diffused silicon piezoresistive principle. Under the action of external positive or negative pressure, it generates a millivolt voltage signal that has a linear relationship with the pressure value. This millivolt signal is conditioned by the conversion circuit to output the standard signal required by the user.

Specifications

Product Name	Pulsating Pressure Transmitter
Model	SGPTSD319G
Scale Range	±20KPa
Drive Voltage Supply	± (15±1.5) VDC
Insulation Resistance	>100MΩ/50VDC
-20KPa Output	0.15V±0.05V
Output	2.5V±0.05V
+20KPa Output	4.85V±0.05V
Accuracy	±3%FS
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



SGPTSD319H4/H5

Pressure Transmitter

Overview

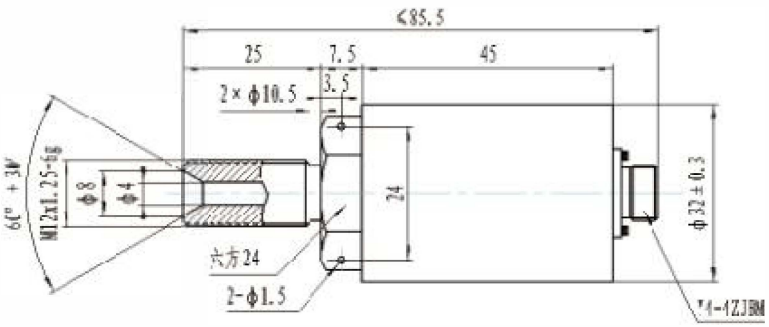
The SGPTSD319H4/H5 pressure transmitter consist of three parts: high-performance and highly reliable silicon piezoresistive pressure sensors, compensation circuits, and conversion circuits. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD319H4/H5
Scale Range	JC086E1: (0~110) KPa Absolute pressure JC086E2: (0~40) KPa Absolute pressure
Drive Voltage Supply	± (15±0.5) VDC
Insulation Resistance	>100MΩ/50VDC
Output	0.1~4.9V
Accuracy	±2%FS (Full temperature range, including non-linearity, hysteresis, and repeatability)
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

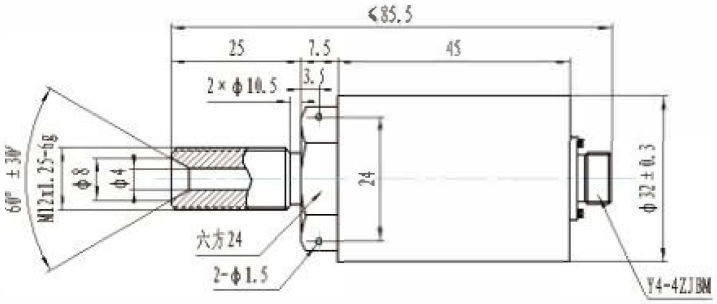
The SGPTSD319K pressure transmitter is composed of three parts: a high-performance and highly reliable silicon piezoresistive pressure sensor, a compensation circuit, and a conversion circuit. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD319K
Scale Range	0KPa~200KPa Absolute pressure
Drive Voltage Supply	± (15±0.5) VDC
Insulation Resistance	>100MΩ/50VDC
Full Scale Output	0.1~4.9V
Accuracy	±2%FS (Full temperature range, including non-linearity, hysteresis, and repeatability)
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

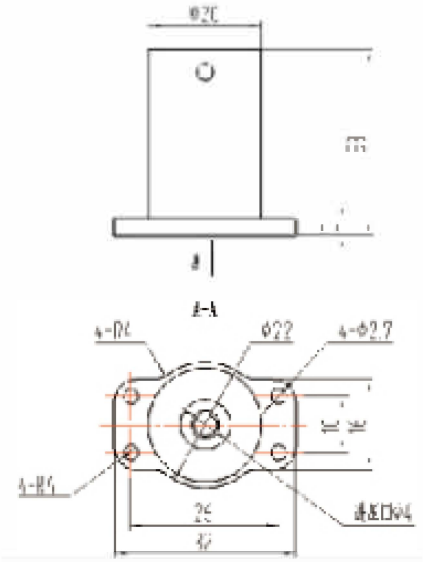
The SGPTSD320J pressure transmitter uses a silicon piezoresistive pressure chip as the sensitive element and has a built-in digital conditioning chip. It compensates for and corrects the temperature drift and linearity of the sensor, and directly outputs a standard voltage signal. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD320J
Scale Range	0MPa~2MPa (Absolute pressure)
Drive Voltage Supply	12VDC
Insulation Resistance	>50MΩ/100V
Output	0.5~4.5VDC
Accuracy	0.6%FS
Operating Temperature	-40°C~85°C

Dimension

Outline Structure (Unit: mm)



High-Temperature Pressure Transmitter

Overview

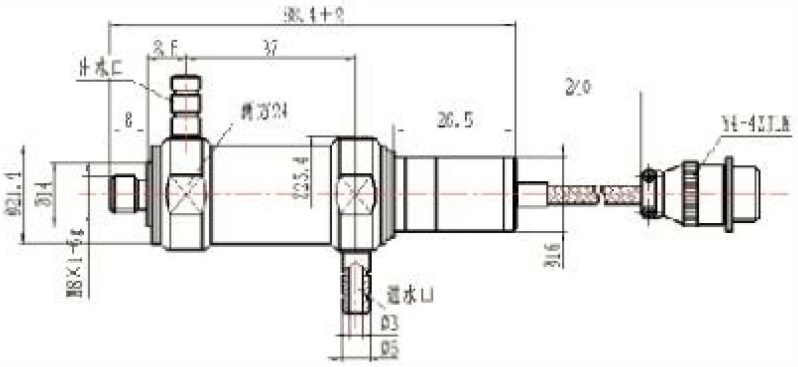
The pressure-sensitive core of the SGPTSD460E high-temperature pressure transmitter adopts a high-performance silicon piezoresistive oil-filled pressure core. Combined with the capillary secondary oil-filling technology, the flowing water directly discharges the heat from the water outlet, enabling the transmitter to be used in high-temperature environments. The internal dedicated integrated resistor converts the millivolt signal of the transmitter into a standard current signal, which can be directly and conveniently connected to a computer interface card, a control instrument, an intelligent instrument, a PLC, etc.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD460E
Scale Range	0MPa~12MPa (Absolute pressure)
Drive Voltage Supply	21VDC~27VDC
Output	4~20mV
Accuracy	≤±0.5%FS
Operating Temperature	-196°C~60°C (capable of measuring the medium at 500°C)

Dimension

Outline Structure (Unit: mm)



Dual-Redundancy Pressure Transmitter

Overview

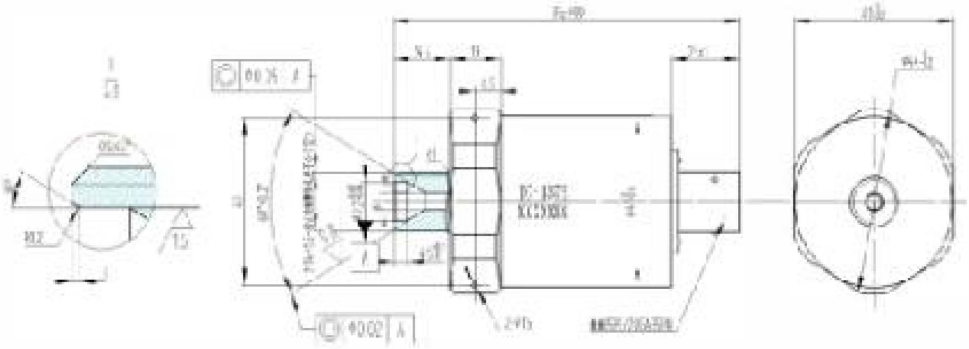
The SGPTSD460H dual-redundancy pressure transmitter is a pressure measurement transmitter that uses a silicon piezoresistive pressure core as the sensitive element. The whole transmitter has a stainless-steel welded structure. The front end adopts an M14 x 1.5-6h, 60° flared double-sealing structure. The rear end amplifies the signal through a micro-power consumption amplifier circuit, and then outputs dual-channel voltage signals through an electrical connector. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Dual-Redundancy Pressure Transmitter
Model	SGPTSD460H
Scale Range	0MPa~60MPa (Absolute pressure, dual channels)
Drive Voltage Supply	15VDC±1VDC
Insulation Resistance	>100MΩ/100VDC
Output	0.2~4.8V (Dual channels)
Accuracy	±0.5%FS (including linearity, hysteresis, and repeatability)
Dual-channel Inconsistency	≤0.5%FS
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Series Pressure Transmitters

Overview

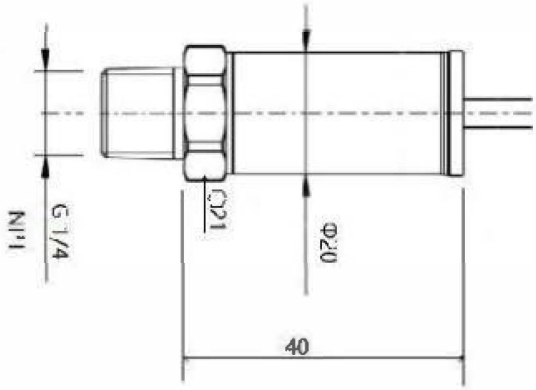
The SGPPT533W series pressure transmitters use silicon piezoresistive pressure cores as sensitive elements. The overall structure of the transmitters is made by welding stainless steel. The front end is equipped with a G1/4 pipe thread, and the back end amplifies the signal through a digital circuit. Then, a current signal is output via an electrical connector. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPPT533W
Scale Range	0MPa~60MPa (Absolute pressure) (Range customization supported)
Drive Voltage Supply	12VDC~36VDC
Insulation Resistance	≥100MΩ/100VDC
Output	4mA~20mA
Accuracy	≤±0.5%FS (Full temperature range)
Operating Temperature	Environment Temperature: -40°C~80°C

Dimension

Outline Structure (Unit: mm)



Series Pressure Transmitters

Overview

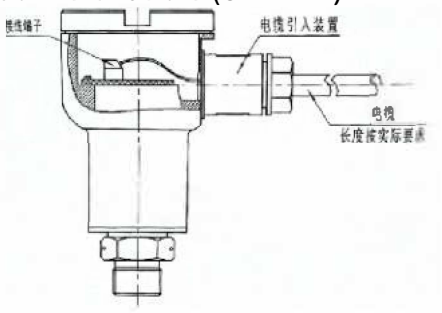
The SGPPT663W series pressure transmitters use silicon piezoresistive pressure cores as sensitive elements. The overall structure of the transmitters is a stainless-steel welded structure. The front end is equipped with an M20x1.5mm thread, and the back end amplifies the signal through a digital circuit. Then, a current signal is output via an electrical connector. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPPT663W
Scale Range	0MPa~60MPa (Absolute pressure) (Range customization supported)
Drive Voltage Supply	12VDC~36VDC
Insulation Resistance	≥100MΩ/100VDC
Output	4mA~20mA
Accuracy	≤±0.5%FS (Full temperature range)
Operating Temperature	Environment Temperature: -40°C~80°C

Dimension

Outline Structure (Unit: mm)



Series Pressure Transmitters

Overview

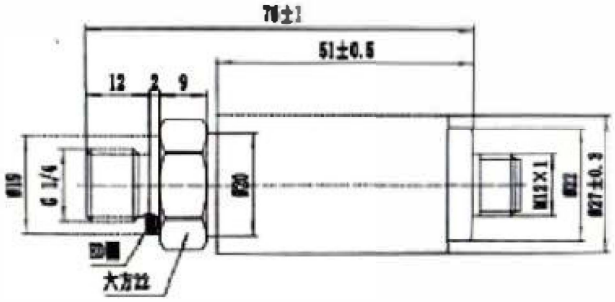
The SGPPT733W series pressure transmitters use silicon piezoresistive pressure cores as sensitive elements. The overall structure of the transmitters is a stainless-steel welded structure. The front end is equipped with a G1/4 pipe thread, and the back end amplifies the signal through a digital circuit. Then, a current signal is output via an electrical connector. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPPT733W
Scale Range	0MPa~60MPa (Absolute pressure) (Range customization supported)
Drive Voltage Supply	18VDC~36VDC
Insulation Resistance	≥100MΩ/100VDC
Output	4mA~20mA
Accuracy	≤±0.5%FS (Full temperature range)
Operating Temperature	Environment Temperature: -40°C~80°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

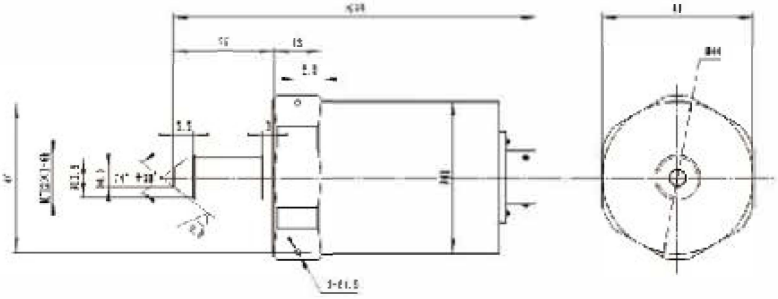
The SGPTY442 pressure transmitter uses two silicon piezoresistive pressure cores as sensitive elements. It has an overall stainless-steel welded structure and contains completely independent amplifier circuits inside. It can simultaneously convert the millivolt signals of the sensor into dual-channel standard current signals for output. This product is mainly used for pressure measurement in aircraft braking and hydraulic systems.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY442
Scale Range	0MPa~35MPa (Absolute pressure, dual channels)
Drive Voltage Supply	27VDC±3VDC
Insulation Resistance	≥100MΩ/100VDC
Output	4~20mA (Dual channels)
Accuracy	±0.5%FS
Dual-channel Inconsistency	0.5%
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

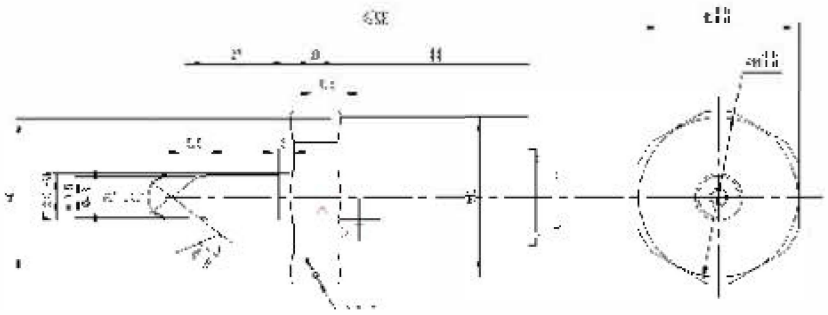
The SGPTY476 pressure transmitter adopts a special process and a fully welded structure, featuring strong resistance to pressure shocks. It outputs standard signals through an amplifier circuit. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY476
Scale Range	0MPa~1.2MPa
Drive Voltage Supply	27VDC
Insulation Resistance	100MΩ/100V
Output	4~20mA
Accuracy	≤±0.5%FS
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

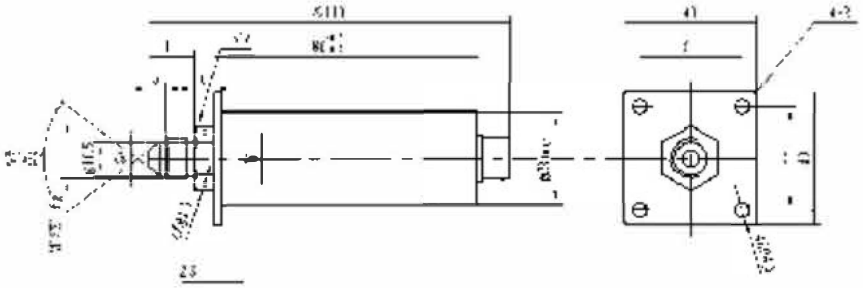
The SGPTY477 pressure transmitter adopts a special manufacturing process and a fully welded structure. It has strong resistance to pressure shocks and outputs standard signals via an amplifier circuit. This product is primarily employed for measuring the pressure of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY477
Scale Range	0MPa~0.5MPa
Drive Voltage Supply	27VDC
Insulation Resistance	100MΩ/100V
Output	4~20mA
Accuracy	≤±0.5%FS
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

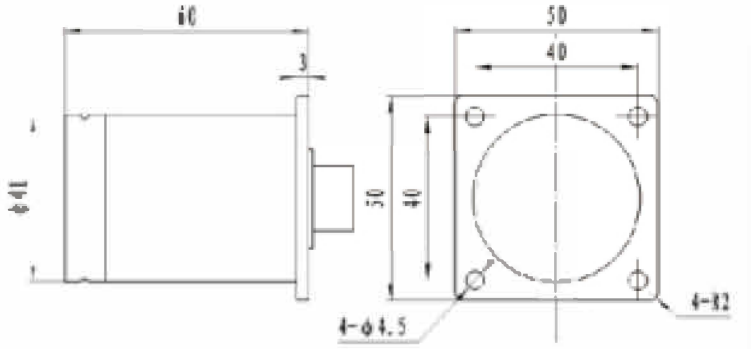
The SGPTY479 pressure transmitter adopts a special process and a fully welded structure, which gives it strong resistance to pressure shock. It outputs standard signals through an amplifier circuit. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY479
Scale Range	0KPa~150KPa
Drive Voltage Supply	27VDC±3VDC
Insulation Resistance	100MΩ/100V
Output	4~20mA
Full Scale Output	20mA±0.08mA
Accuracy	≤±0.5%FS
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

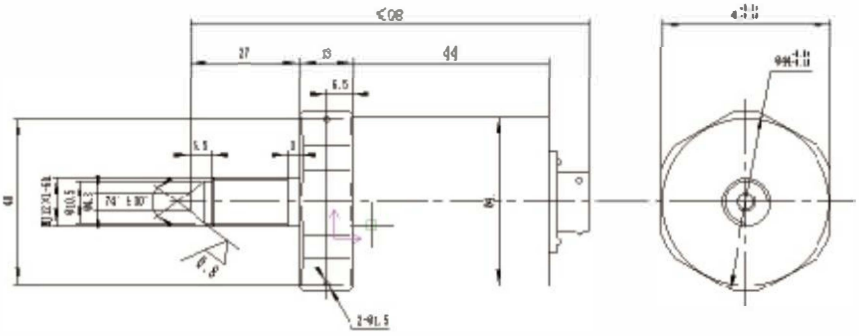
The SGPTY470 pressure transmitter adopts a special process and a fully welded structure, which gives it strong resistance to pressure shock. It outputs standard signals through an amplifier circuit. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY470
Scale Range	0KPa~200KPa
Drive Voltage Supply	27VDC
Insulation Resistance	100MΩ/100V
Output	4~20mA
Accuracy	≤±0.5%FS
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



SGPTY471

Pressure Transmitter

Overview

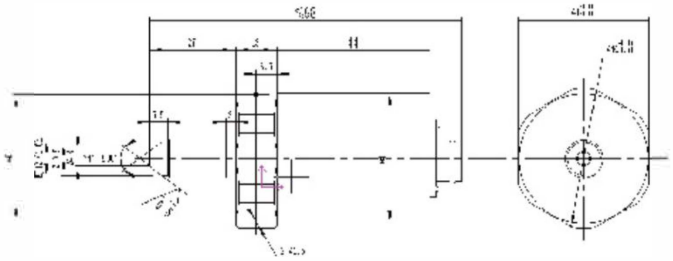
The SGPTY471 pressure transmitter adopts a special process and a fully welded structure, which gives it strong resistance to pressure shock. It outputs standard signals through an amplifier circuit. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY471
Scale Range	0MPa~0.6MPa
Drive Voltage Supply	27VDC
Insulation Resistance	100MΩ/100V
Output	4~20mA
Accuracy	≤±0.5%FS
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Hydraulic Pressure Transmitter

Overview

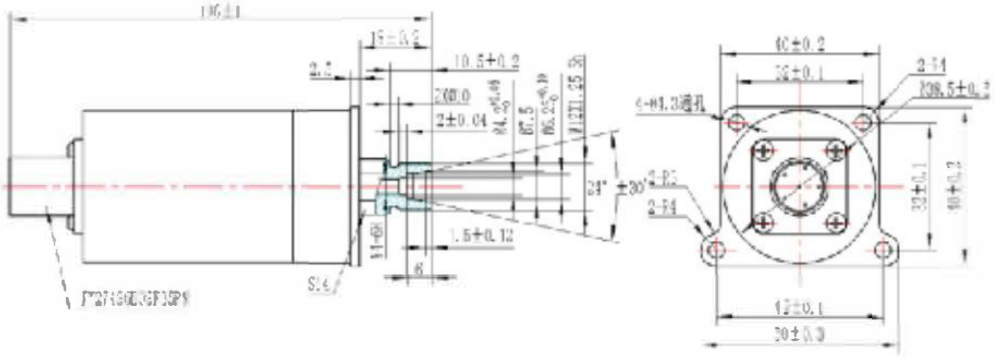
The SGPTYY84 hydraulic pressure transmitter adopts a silicon piezoresistive pressure core as the sensitive element. The transmitter has an overall stainless-steel welded structure. The front end adopts an M12 x 1.25-6h thread. The back end amplifies the signal through a digital circuit and then outputs a current signal via an electrical connector. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Hydraulic Pressure Transmitter
Model	SGPTYY84
Scale Range	0MPa~25MPa (Absolute pressure)
Drive Voltage Supply	15VDC±0.2VDC
Insulation Resistance	≥100MΩ/100VDC
Null Output	4~20mA
Accuracy	≤±0.8%FS (Full temperature range)
Dual-channel Inconsistency	≤1%FS (Full temperature range)
Operating Temperature	-55°C~85°C
Medium Temperature	-55°C~135°C

Dimension

Outline Structure (Unit: mm)



SGPTY405

Pressure Transmitter

Overview

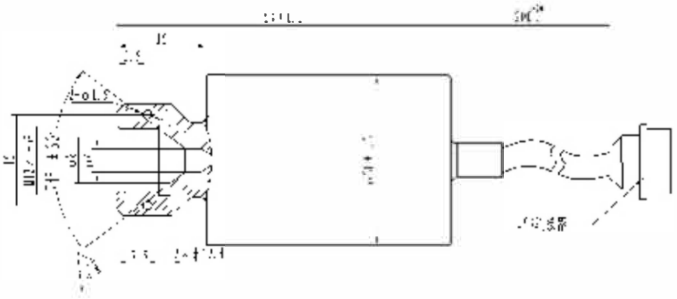
The SGPTY405 pressure transmitter uses a sputtered film pressure core as the sensitive element. The overall structure of the transmitter is a stainless-steel welded structure. The front end adopts a pipe thread sealing structure, and the back end amplifies the signal through an amplification and conditioning circuit. Then, a voltage signal is output via an electrical connector. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY405
Scale Range	0MPa~25MPa (Absolute pressure)
Drive Voltage Supply	9VDC~16VDC
Insulation Resistance	>100MΩ/50VDC
Output	0.5~5V
Accuracy	±0.5%FS (including linearity, hysteresis, and repeatability)
Operating Temperature	-55°C~125°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

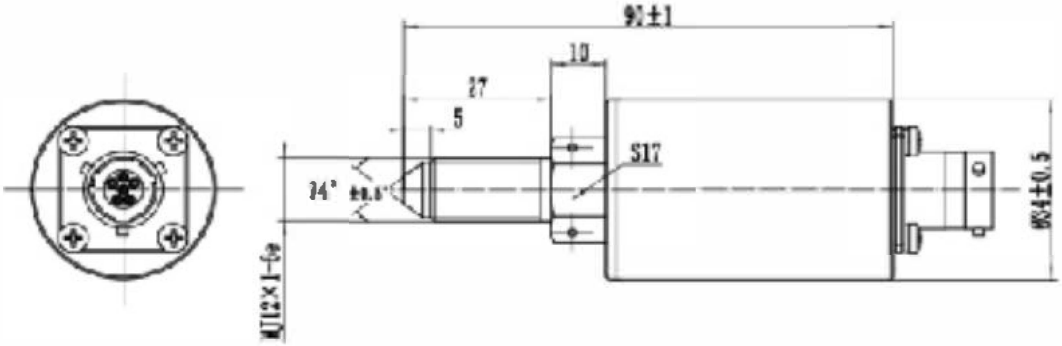
The SGPTY442E electromechanical transmitter-dual-redundancy pressure transmitter is used to detect the pressure difference between the inlet and outlet of the return oil filter of the hydraulic housing, and it should be able to truly reflect the pressure difference value between the inlet and outlet of the return oil filter of the hydraulic housing. This product has the characteristics of convenient installation, small size, stable performance, high reliability, etc. It is applied to the measurement of oil and air pressure in the aviation field.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY442E
Scale Range	0MPa~35MPa (Absolute pressure)
Drive Voltage Supply	28±3VDC
Insulation Resistance	>100MΩ/100VDC
Output	4~20mA
Accuracy	±0.5%FS (including linearity, hysteresis, and repeatability)
Operating Temperature	-55°C~130°C

Dimension

Outline Structure (Unit: mm)



SGPTY442G

Pressure Transmitter

Overview

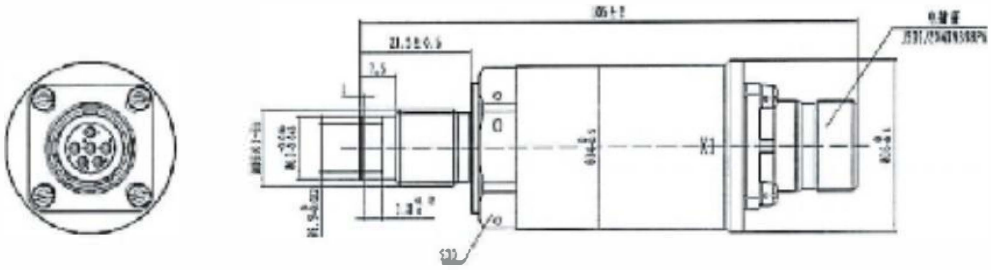
The SGPTY442G pressure transmitter is used to detect the outlet pressure of the hydraulic high-pressure oil filter and should be able to truly reflect the outlet pressure value of the hydraulic high-pressure oil filter. It has the characteristics of stable performance, high sensitivity, strong reliability, etc. This product has a dual-redundancy function for pressure. When one channel fails, the other channel can still work normally. This product is applied to the pressure measurement of oil and gas in the aviation field.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY442G
Scale Range	0MPa~35MPa (Absolute pressure, dual channels)
Drive Voltage Supply	28VDC
Insulation Resistance	≥100MΩ/100VDC
Output	Dual channels 4mA~20mA
Pressure Measurement Accuracy	At room temperature: ≤±0.5%FS At high and low temperatures: ≤±1.5%FS
Dual-channel Output Inconsistency of Pressure Measurement	≤±1.5%FS
Operating Temperature	-55°C~125°C

Dimension

Outline Structure (Unit: mm)



SGPTY530

Pressure Transmitter

Overview

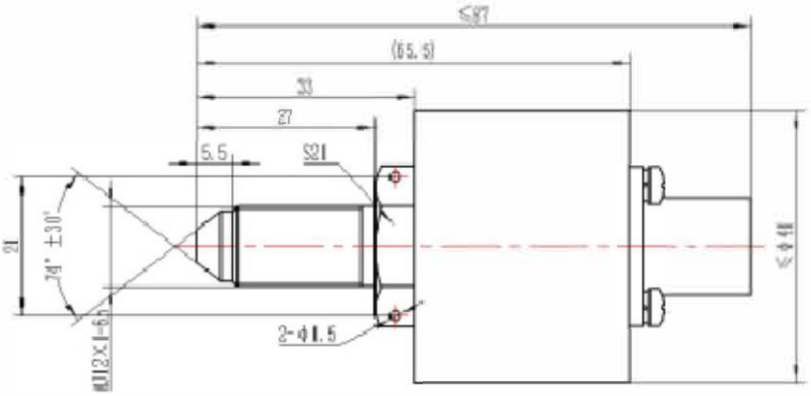
The SGPTY530 pressure transmitter uses a silicon piezoresistive pressure core as the sensitive element. The overall structure is a stainless steel welded structure. The front end adopts an MJ12x1-6h thread, and the back end processes the signal through a signal conditioning circuit, and then outputs an electrical signal via an electrical connector. This product has the characteristics of convenient installation, small size, high reliability, etc. This product has a redundancy function. When one channel fails, the other channel can still work normally. This product is applied to the pressure measurement of oil and gas in the aviation field.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY530
Scale Range	0MPa~25MPa (Absolute pressure, dual channels)
Drive Voltage Supply	15VDC±0.5VDC
Pressure Output Signal	Dual channels 4mA~20mA
Pressure Measurement Accuracy	At room temperature: ≤±0.5%FS At high and low temperatures: ≤±1.5%FS
Dual-channel Output Inconsistency of Pressure Measurement	≤±3%FS
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-55°C~70°C at a maximum temperature of 140°C (5min)

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

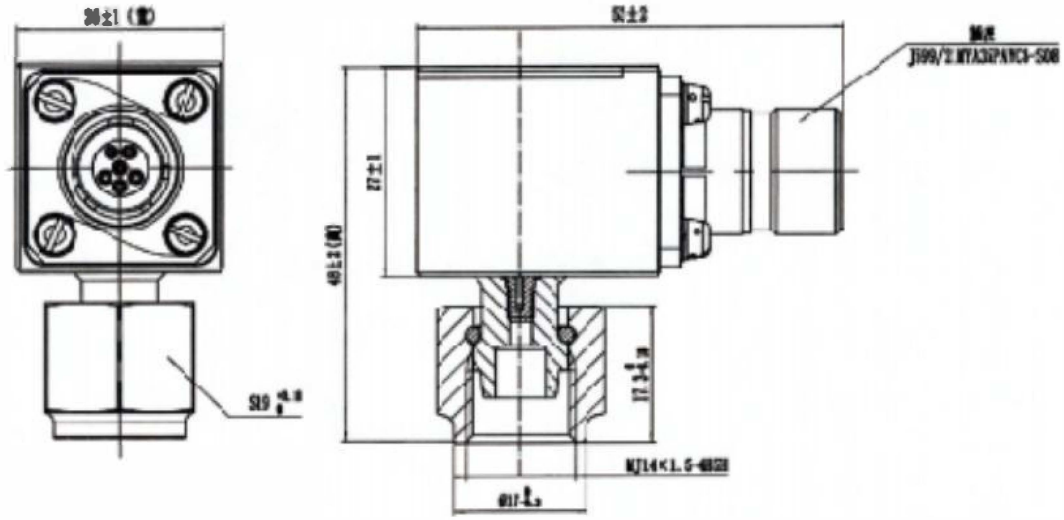
The SGPTY567 pressure transmitter is used to measure the pressure of the medium at the medium-pressure part of the hydraulic system and convert it into an electrical signal for output. This product has the characteristics of convenient installation, small size, high reliability, etc. It is applied to the pressure measurement of oil and gas in the aviation field.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY567
Scale Range	0MPa~10MPa (Absolute pressure)
Drive Voltage Supply	15VDC±0.5VDC
Pressure Output Signal	mV signal
Pressure Measurement Accuracy	At room temperature: ≤±0.8%FS At high and low temperatures: ≤±1.5%FS
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-55°C~150°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

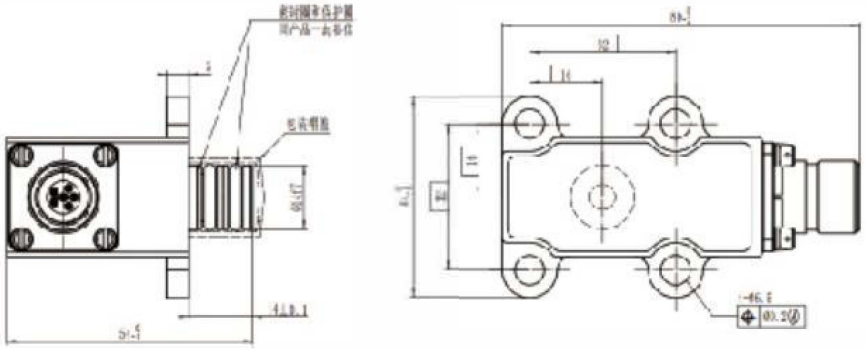
The SGPTY560 pressure transmitter uses a silicon piezoresistive pressure core as the sensitive element. The overall structure is a stainless steel welded structure. It is installed by means of a flange. The rear end processes the signal through a signal conditioning circuit, and then outputs an electrical signal via an electrical connector. This product has the characteristics of convenient installation, small size, high reliability, etc. It has a redundancy function. When one channel fails, the other channel can still work normally.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY560
Scale Range	0MPa~28MPa (Absolute pressure, dual channels)
Drive Voltage Supply	15VDC±0.5VDC
Pressure Output Signal	Dual channels 4mA~20mA
Pressure Measurement Accuracy	At room temperature: ≤±0.5%FS At high and low temperatures: ≤±1.5%FS
Dual-channel Output Inconsistency of Pressure Measurement	≤0.5%FS
Insulation Resistance	>100MΩ/100VDC
Environment Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



SGPTY646

Pressure Transmitter

Overview

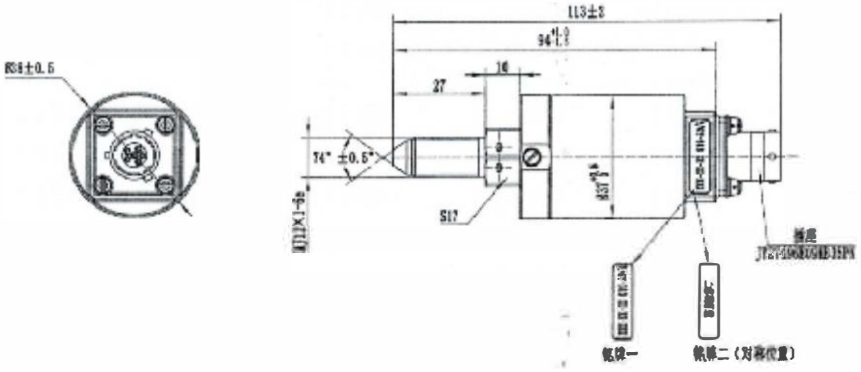
The SGPTY646 pressure transmitter uses a silicon piezoresistive pressure core as the sensitive element. The rear end processes the signals through a signal conditioning circuit and then outputs electrical signals via an electrical connector. This product features easy installation, a compact size and high reliability. It has a redundancy function, which means that if one channel malfunctions, the other can still operate normally. This product is used for measuring the pressure of oil and gas in the aviation field.

Specifications

Product Name	Pressure Transmitter
Model	SGPTY646
Scale Range	0MPa~35MPa (Absolute pressure, dual channels)
Drive Voltage Supply	28VDC
Pressure Output Signal	Dual channels 4mA~20mA
Pressure Measurement Accuracy	At room temperature: ≤±0.5%FS At high and low temperatures: ≤±1%FS
Dual-channel Output Inconsistency of Pressure Measurement	≤0.5%FS
Insulation Resistance	>100MΩ/100VDC
Environment Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Brake Pressure Signal Device

Overview

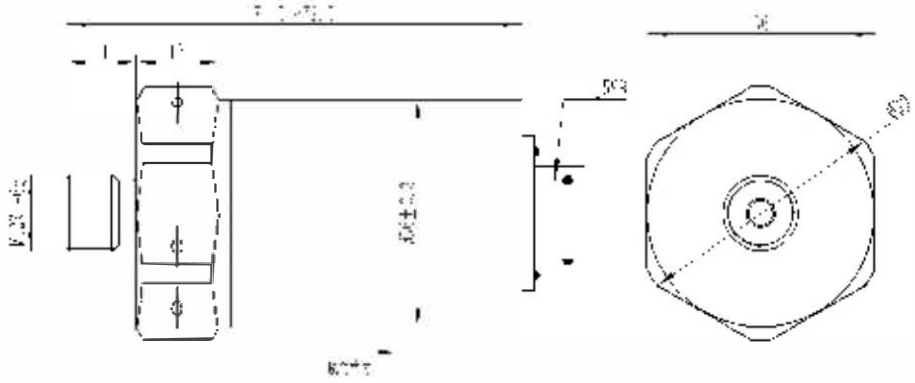
The SGPTY499 brake pressure signal device uses a silicon piezoresistive pressure core as the sensitive element. The rear end processes the signals through a signal conditioning circuit, and then outputs electrical signals and switch level signals via an electrical connector. This product features convenient installation, a small size, and high reliability. It is applied in aviation brake systems.

Specifications

Product Name	Brake Pressure Signal Device
Model	SGPTY499
Scale Range	0MPa~32MPa (Absolute pressure)
Switch Point Pressure	10MPa±0.5MPa
Drive Voltage Supply	28VDC
Pressure Output Signal	0.5~4.5VDC high and low levels
Insulation Resistance	>100MΩ/100VDC
Environment Temperature	-45°C~+135°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

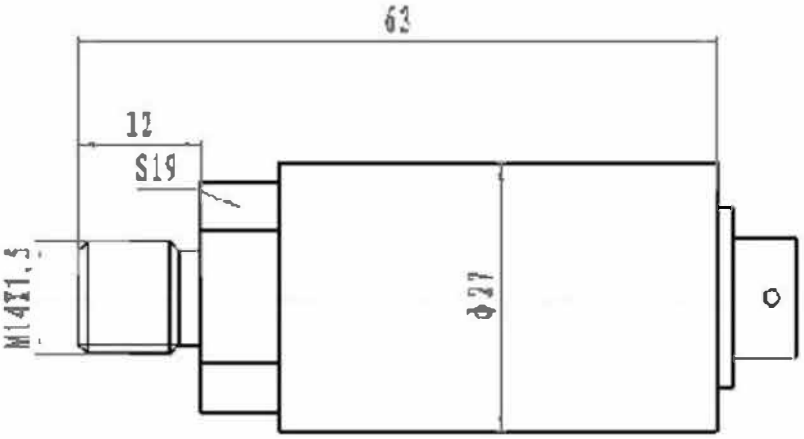
The SGPTCY pressure transmitter uses a silicon piezoresistive pressure core as the sensitive element. It has a fully welded stainless-steel structure and is equipped with a built-in voltage booster circuit. It can work normally with a power supply of 3-5V. The amplifier circuit converts the millivolt signals of the sensor into standard voltage signals for output. It is suitable for measuring the pressure of fuel and lubricating oil in harsh environments.

Specifications

Product Name	Pressure Transmitter
Model	SGPTCY
Scale Range	0MPa~1MPa
Drive Voltage Supply	5V±2V
Insulation Resistance	>100MΩ/100V
Null Output	0.5~4.5V
Accuracy	0.5%FS
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Pressure Transducer

Overview

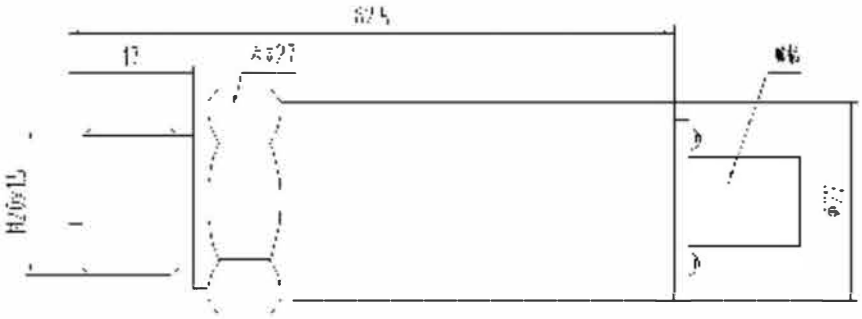
The SGPTSDB pressure transmitter uses a silicon piezoresistive pressure core as the sensitive element, features a fully welded stainless-steel structure and is equipped with a high-precision pressure-current amplifier circuit. It converts the millivolt signals of the sensor into standard current signals for output and is suitable for measuring the pressure of fuel and lubricating oil in harsh environments.

Specifications

Product Name	Pressure Transducer
Model	SGPTSDB
Scale Range	0MPa~1MPa
Drive Voltage Supply	15V±3V
Insulation Resistance	>100MΩ/100V
Output	4~20mA
Accuracy	0.5%FS
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Type Pressure Switch

Overview

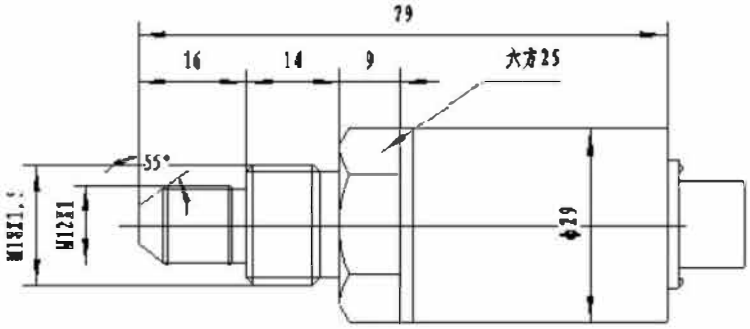
The SGPTSDK pressure switch adopts silicon piezoresistive technology and features an overall fully welded stainless-steel structure. It has a built-in switching circuit that adjusts the linear signals of the sensor into TTL level output. The sensor is characterized by a wide operating temperature range and high reliability, making it suitable for pressure measurement and control in the tank armor system under harsh environments.

Specifications

Product Name	Pressure Switch
Model	SGPTSDK
Threshold Value	10MPa
Drive Voltage Supply	12V (Typical)
Insulation Resistance	⩾100MΩ/250VDC
Null Output	<1VDC
Full Scale Output	>10VDC
Temperature Drift	0.055%FS/°C
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



SGPTSD335A541

Series Pressure Transmitters

Overview

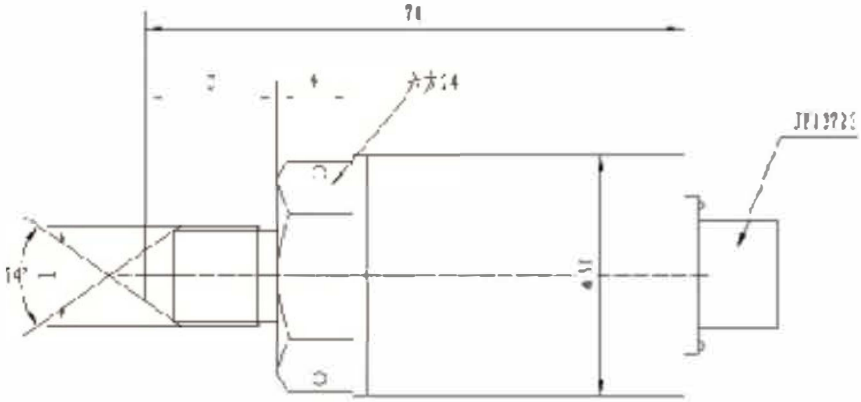
The SGPTSD335A541 series pressure transmitters adopt silicon piezoresistive technology, feature an overall stainless-steel welded structure, and are equipped with high-precision instrumentation amplifiers. They can compensate and correct the temperature drift and linearity of the sensors, and output standard voltage signals. They are equipped with output protection circuits, which can prevent damage to the rear-end acquisition system in case of sensor failure. The product is mainly used for hydraulic pressure measurement in tanks and armored vehicles.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD335A541
Scale Range	0MPa~30MPa
Drive Voltage Supply	12V
Insulation Resistance	>100MΩ/100V
Output	2.2~7.2VDC
Accuracy	1%FS
Operating Temperature	-43°C~70°C

Dimension

Outline Structure (Unit: mm)



Type Pressure Transmitter

Overview

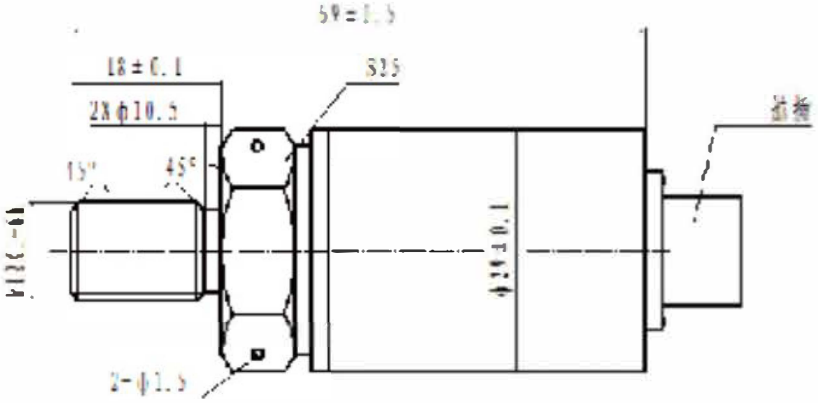
The SGPTSD335J type pressure transmitter adopts silicon piezoresistive technology and has an overall fully welded stainless-steel structure. It is powered by ±12V and equipped with a high-precision instrumentation amplifier to compensate and correct the temperature drift and linearity of the sensor, and output standard voltage signals. The product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, weapons and ships.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD335J
Scale Range	0MPa~2MPa
Drive Voltage Supply	±12V
Insulation Resistance	>100MΩ/100V
Output	0~5VDC
Accuracy	1%FS
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



SGPTSD335Q

Type Pressure Transmitter

Overview

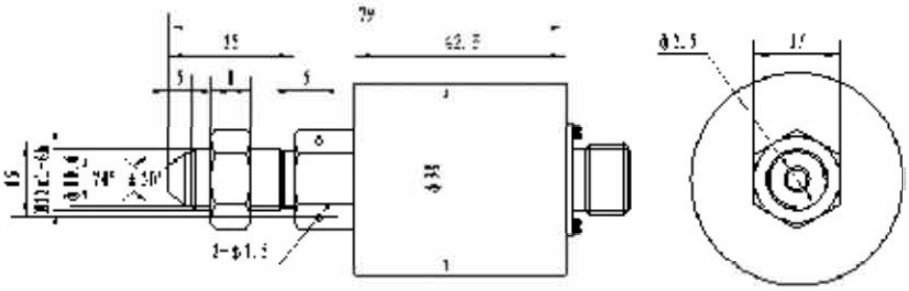
The SGPTSD335Q type pressure transmitter adopts silicon piezoresistive technology and has an overall fully welded stainless-steel structure. It is equipped with a high-precision instrumentation amplifier, which compensates and corrects the temperature drift and linearity of the sensor, and outputs standard voltage signals. It also has an output protection circuit, so when the sensor fails, it will not cause damage to the rear-end acquisition system. The sensor features a wide operating temperature range and high reliability, and is suitable for pressure measurement of the hydraulic systems of tanks and armored vehicles in harsh environments.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD335Q
Scale Range	0MPa~1MPa
Drive Voltage Supply	12V (Typical)
Insulation Resistance	>100MΩ/100V
Output	2.2~7.2VDC
Accuracy	1%FS
Operating Temperature	-43°C~85°C

Dimension

Outline Structure (Unit: mm)



Pressure Transmitter

Overview

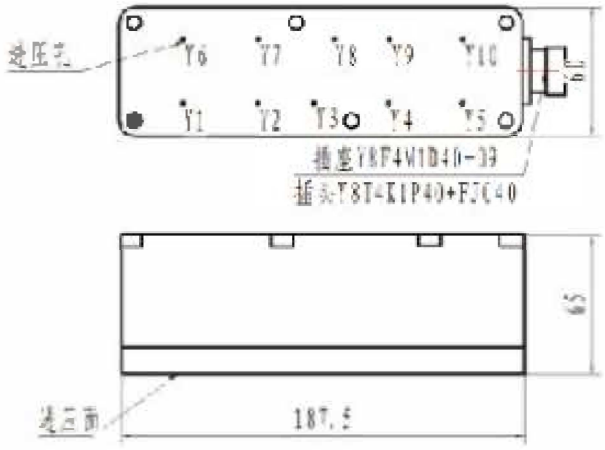
The SGPTSD335CAN43 pressure transmitter adopts a silicon piezoresistive pressure core as the sensing element, with a stainless-steel pressure measurement surface and an aluminum shell. The transmitter is equipped with a digital conditioning module, which converts the millivolt signals of the ten pressure cores of the sensor into CAN bus signals for output. It is suitable for fuel and lubricating oil pressure measurement in harsh environments.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD335CAN43
Scale Range	0MPa~2.5MPa
Drive Voltage Supply	12±0.2V
Insulation Resistance	>100MΩ/100V
Output	CAN signal
Baud Rate	250kbps
Accuracy	0.5%FS
Operating Temperature	-43°C~130°C

Dimension

Outline Structure (Unit: mm)



SGPTSD24 (SGPTSD48)

Type Pressure Transmitters

Overview

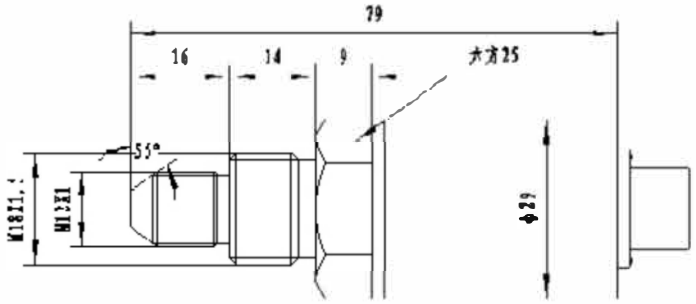
The SGPTSD24 (SGPTSD48) pressure transmitter adopts silicon piezoresistive technology, with a fully welded structure of the pressure interface and isolation diaphragm. It is equipped with a high-precision instrumentation amplifier to compensate and correct the temperature drift and linearity of the sensor, and outputs standard voltage signals. It features a wide operating temperature range and high reliability, and is suitable for pressure measurement of tank armor systems in harsh environments.

Specifications

Product Name	Pressure Transmitter
Model	SGPTSD24 (SGPTSD48)
Scale Range	0MPa~1.5 (3.0) MPa
Drive Voltage Supply	12 (Typical)
Insulation Resistance	>100MΩ/100V
Output	2.2~7.2VDC
Accuracy	1%FS
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Series Pressure Transmitters

Overview

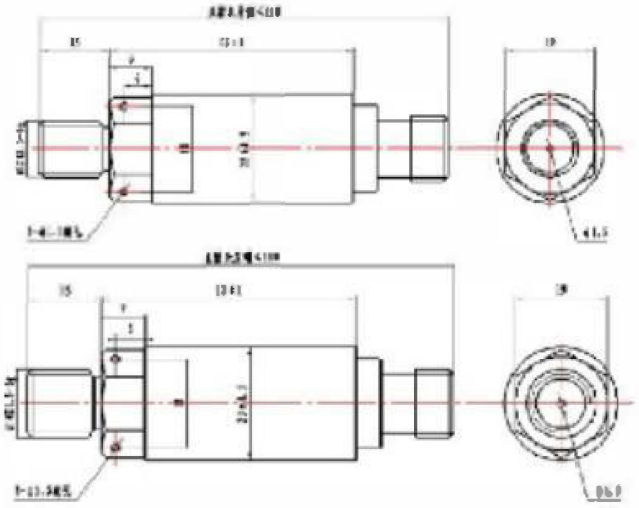
The SGPTZHCDYL series pressure transmitters adopt silicon piezoresistive technology. They have a fully welded structure for the pressure interface and the isolation diaphragm. A high-precision instrumentation amplifier is built-in to compensate and correct the temperature drift and linearity of the sensors, and then output standard voltage signals. These sensors feature a wide operating temperature range and high reliability, and are suitable for pressure measurement in the tank armor system under harsh environments.

Specifications

Product Name	Pressure Transmitter
Model	SGPTZHCDYL
Scale Range	0MPa~60MPa
Drive Voltage Supply	12VDC
Insulation Resistance	>100MΩ/250V
Output	1~5VDC
Accuracy	1%FS
Operating Temperature	-43°C~130°C

Dimension

Outline Structure (Unit: mm)



SGPPT783

Pressure Transmitter

Overview

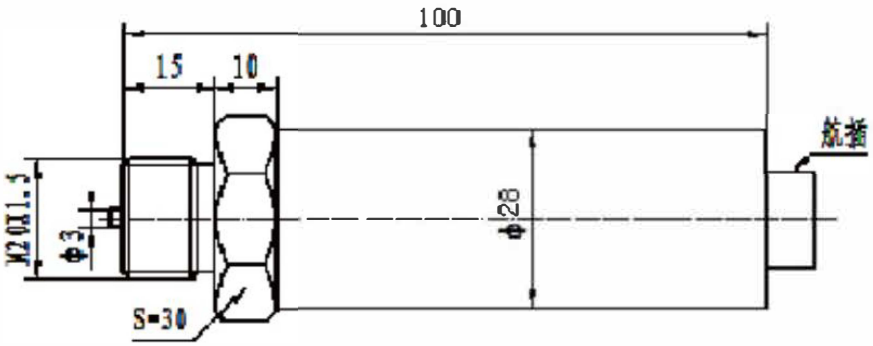
The SGPPT783 pressure transmitters adopt a silicon piezoresistive pressure core as the sensitive element. It has an overall stainless steel welded structure and is equipped with a high-precision piezoelectric conversion module and a digital temperature compensation module. These modules convert the millivolt analog signals from the pressure core into CAN2.0 or RS232 digital signals for output. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, weapons, and ships.

Specifications

Product Name	Pressure Transmitter
Model	SGPPT783
Scale Range	0MPa~30MPa
Pressure mode	Absolute pressure, gauge pressure
Drive Voltage Supply	24V±1V
Output	CAN2.0B/ RS232
Accuracy	0.25%FS
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



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SGPPT38

Pressure Transmitter

Overview

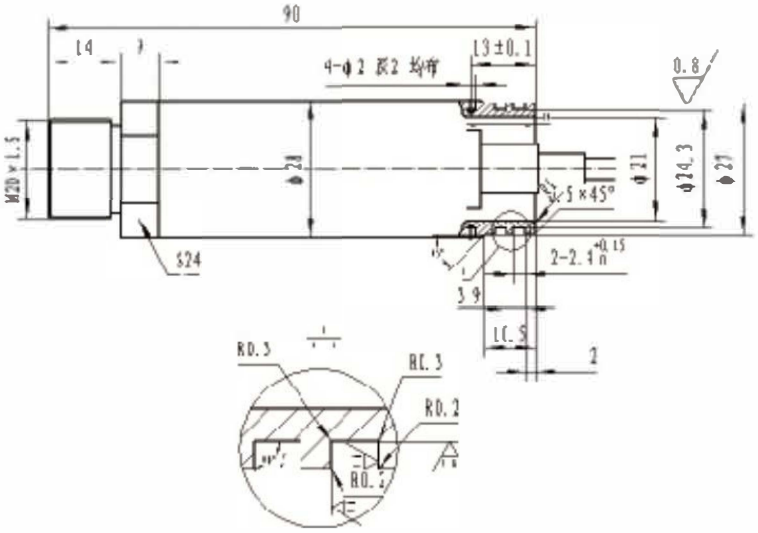
The SGPPT38 pressure transmitter adopts a silicon piezoresistive pressure core as the sensitive element. The pressure inlet head has a stainless steel welded structure, with a threaded structure at the front end. At the rear end, there is a transmitter with a transducin circuit. Users can design a suitable amplifier circuit according to the corresponding dimensions. This product is mainly used in ship systems.

Specifications

Product Name	Pressure Transmitter
Model	SGPPT38
Scale Range	0MPa~0.4MPa (Sealed gauge pressure)
Drive Voltage Supply	24VDC
Insulation Resistance	>100MΩ/100VDC
Output	4~20mA
Accuracy	<±0.2%FS
Operating Temperature	-55°C~125°C

Dimension

Outline Structure (Unit: mm)



Micro Pressure Transmitter

Overview

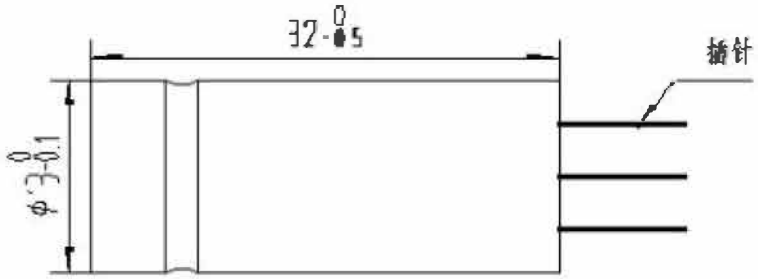
The SGPTXC34 micro pressure transmitter adopts a fully welded stainless-steel isolated membrane oil-filled pressure sensor as the sensitive element. It is amplified through an ASIC circuit and outputs a standard signal. With the structure of glass-sintered terminal leads, the overall outer package of the sensor can withstand a relatively large measurement range of pressure. This product is mainly applied to ship systems.

Specifications

Product Name	Micro Pressure Transmitter
Model	SGPTXC34
Scale Range	0MPa~5MPa
Drive Voltage Supply	±5VDC
Insulation Resistance	50MΩ/100V
Null Output	0~4V
Accuracy	1%FS
Operating Temperature	-10°C~50°C

Dimension

Outline Structure (Unit: mm)



SGPPT9E / SGPPT9EH

Pressure Transmitter & Signal Converter

Overview

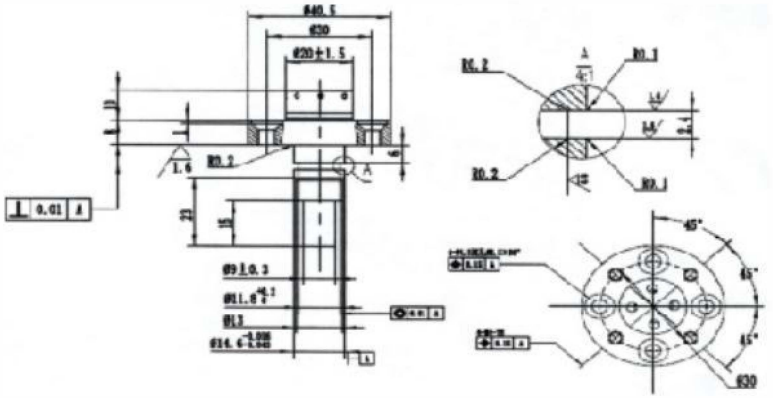
The SGPPT9E / SGPPT9EH pressure transmitter and the SGPPT9EH signal converter use a silicon piezoresistive sensor as the sensitive element and a dedicated compensation resistor network. They perform temperature compensation and linear correction on the sensor, and convert the submersion depth and draft of the naval vessel into corresponding electrical signals for output.

Specifications

Product Name	Pressure Transmitter Signal Converter
Model	SGPPT9E / SGPPT9EH
Scale Range	Pressure transmitter: pressure range (0~6) MPa; Signal converter: range of sound velocity (8800.05Hz~10057.2Hz), Square wave signal
Operating Voltage	12VDC+1VDC
Insulation Resistance	>250MΩ/250VDC
Accuracy at Room Temperature	Error of pressure measurement: {[D*(±2%)] ±1} meters; Error of sound velocity measurement: ±0.5 m/s
Operating Temperature	-40°C~+80°C

Dimension

Outline Structure (Unit: mm)



Dual-Redundancy Pressure Transmitter

Overview

The SGPTSD364W dual-redundant pressure transmitter is designed for dual-redundant pressure measurement. It uses a silicon piezoresistive pressure core as the sensitive element. The internal application-specific integrated circuit converts the millivolt voltage signals from the two-channel pressure cores into two-channel 4mA-20mA current outputs.

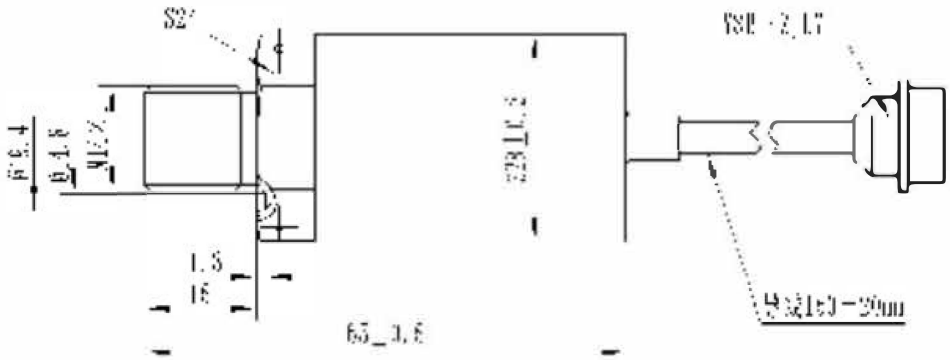
The SGPTSD364W dual-redundant pressure sensor features a fully stainless-steel sealed structure, which is convenient and simple to install. It has high resistance to vibration and shock. This product is characterized by easy installation, small size and high reliability.

Specifications

Product Name	Dual-Redundancy Pressure Transmitter
Model	SGPTSD364W
Scale Range	0MPa~15MPa (Absolute pressure)
Drive Voltage Supply	24VDC±10%
Insulation Resistance	>100MΩ/100VDC
Output Signal	Dual channels 4mA~20mA
Accuracy	±1%FS (including linearity, hysteresis, and repeatability)
Operating Temperature	-10°C~55°C

Dimension

Outline Structure (Unit: mm)



SGPTSD302Q

Pressure Transmitter

Overview

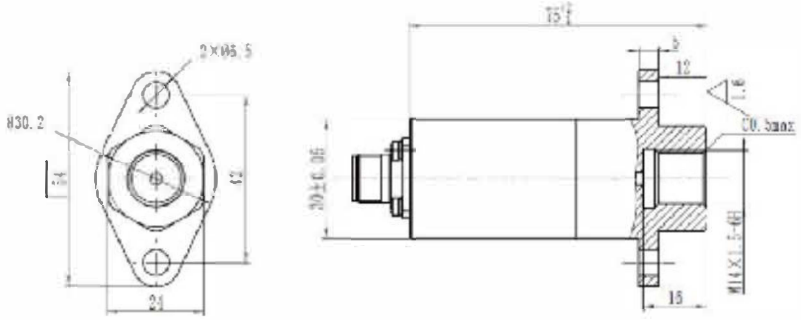
The SGPTSD302Q pressure transmitter is a pressure sensor that uses a silicon piezoresistive pressure core as the sensing element. The overall structure of the transmitter is made of stainless steel by welding. The front end adopts M18 x 1.5-69, and the rear end amplifies the signal through a digital circuit and then outputs the current signal through an electrical connector. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, weapons and ships.

Specifications

Product Name	Dual-Redundancy Pressure Transmitter
Model	SGPTSD302Q
Scale Range	0MPa~30MPa (Absolute pressure)
Drive Voltage Supply	12VDC~36VDC
Insulation Resistance	≥100MΩ/100VDC
Null Output	4~20mA
Accuracy	±0.5%FS (Full temperature range)
Operating Temperature	-40°C~85°C

Dimension

Outline Structure (Unit: mm)



SGPTSD302R

Pressure Transmitter

Overview

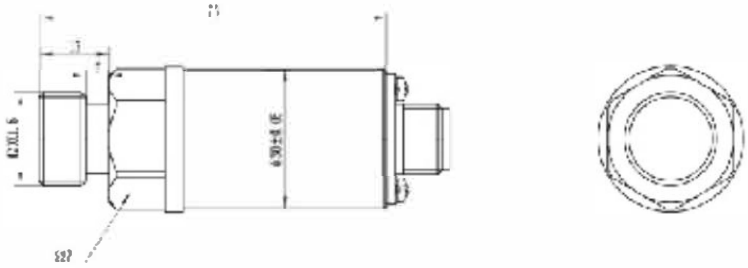
The SGPTSD302R pressure transmitter is a pressure sensor that uses a silicon piezoresistive pressure core as the sensing element. The overall structure of the transmitter is made of stainless steel by welding. The front end adopts M20 x 1.5, and the rear end amplifies the signal through a digital circuit and then outputs the current signal through an electrical connector. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, weapons and ships.

Specifications

Product Name	Dual-Redundancy Pressure Transmitter
Model	SGPTSD302R
Scale Range	0MPa~4MPa (Absolute pressure)
Drive Voltage Supply	24VDC±6V
Weight	≤300g (Plug and tail accessory are included)
Insulation Resistance	100MΩ/100VDC
Null Output	4mA±0.08mA
Full Scale Output	20mA±0.08mA
Accuracy	±0.5%FS (Full temperature range)
Overload	10MPa
Operating Temperature	Environment Temperature: -40°C~+85°C

Dimension

Outline Structure (Unit: mm)



Series Titanium Alloy Pressure Transmitters

Overview

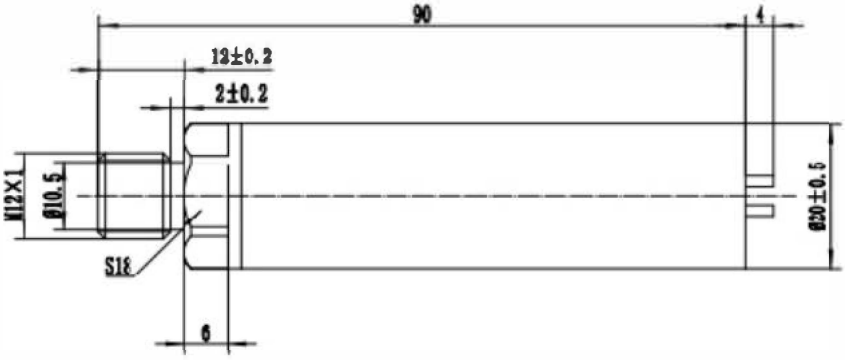
The SGPTSD363U5333 series titanium alloy pressure transmitters are designed for use in corrosive seawater environments. The casings of these transmitters are made of seawater-resistant titanium alloy. They adopt the piezoresistive working principle and have very high resistance to continuous vibration and corrosion, fast response time and high measurement accuracy. They are applicable to various types of seawater pressure measurements in underwater robots, seawater desalination systems, ship and navigation systems, underwater sonar systems, seawater cooling and chemical treatment.

Specifications

Product Name	Titanium Alloy Pressure Transmitter
Model	SGPTSD363U5333
Pressure Scale Range	(0~20) MPa Sealed Gauge Pressure
Operating Voltage	(6~30) VDC
Output	RS485
Insulation Resistance	>100MΩ/100VDC
Accuracy	-10°C~50°C: 0.25% -20°C~80°C: 0.5%
Operating Temperature	-20°C~+80°C

Dimension

Outline Structure (Unit: mm)



Differential Pressure Transmitter

Overview

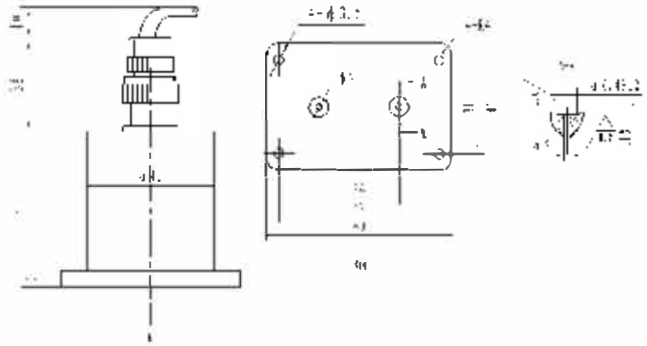
The SGPTSD356j differential pressure transmitter comprises a sensitive element, a conversion circuit, and a housing. The sensitive element adopts the principle of a diffused silicon piezoresistive sensor: on a semiconductor silicon wafer, four resistors are fabricated through semiconductor technology to form a Wheatstone bridge. Under external pressure, the resistance of the bridge changes, generating a millivolt voltage signal that has a linear relationship with the pressure value. This millivolt signal is conditioned by the conversion circuit to output a standard signal as required by the user. This product is mainly used for pressure measurement of liquids and gases in the fields of aviation, aerospace, weapons, and ships.

Specifications

Product Name	Differential Pressure Transmitter
Model	SGPTSD356j
Scale Range	±30 MPa
Drive Voltage Supply	15VDC±1VDC
Insulation Resistance	>100MΩ/100VDC
Operating Current	≤20mA
Null Output	3V±0.04V
Full Scale Output	-30MPa: 1V±0.04V +30MPa: 5V±0.04V
Error	±2%FS (-40°C~60°C)
Operating Temperature	-40°C~60°C

Dimension

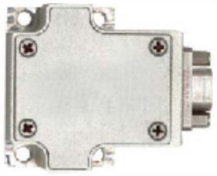
Outline Structure (Unit: mm)



Differential Pressure Transmitter

Overview

The SGPTSD356R differential pressure transmitter integrates a pressure-sensitive element, a temperature compensation circuit, and a signal amplification circuit. The sensitive core adopts the principle of diffused silicon piezoresistive. It is used for measuring the pressure of gases or media that are compatible with 316L stainless steel and 321 stainless-steel. This product is applied to the measurement of the differential pressure of liquids and gases in the fields of aviation, aerospace, and weapons.

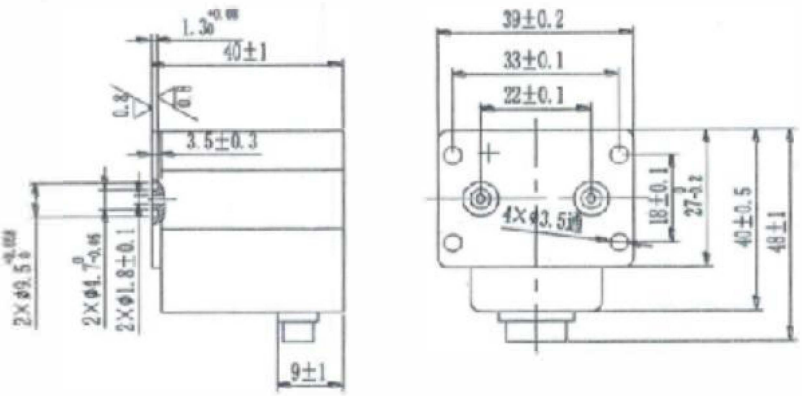


Specifications

Product Name	Differential Pressure Transmitter
Model	SGPTSD356R
Scale Range	-25MPa~+25MPa
Drive Voltage Supply	±12VDC
Weight	≤300g (Plug and tail accessory are included)
Insulation Resistance	⩾100MΩ/100VDC
Null Output Full Scale Output	-5V~+5V (Differential pressure signal output)
Accuracy	⩽±0.25%FS
Operating Temperature	-40°C~100°C

Dimension

Outline Structure (Unit: mm)



Differential Pressure Transmitter

Overview

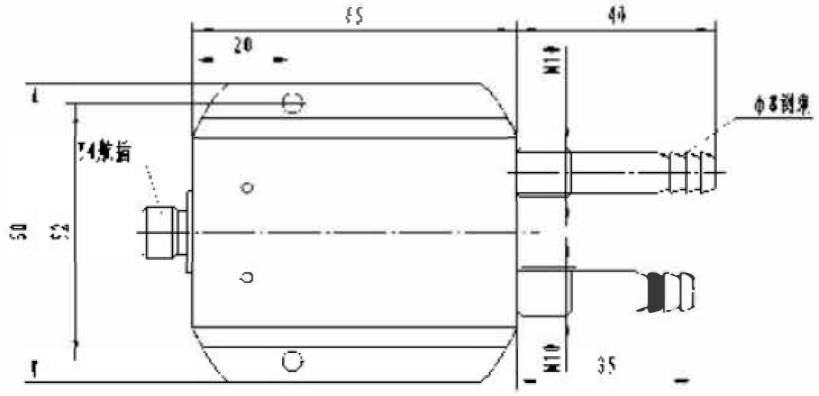
The SGPTSD397A differential pressure transmitter adopts a piezoresistive sensor as the sensitive element, with an aluminum alloy casing. The gas inlet is connected by a rubber tube, which makes the installation convenient. Inside the sensor, a dedicated circuit is used to carry out zero-point, full-scale temperature compensation and linear correction for the sensor. It features a small size, light weight, and high reliability. This product is applied to the measurement of the differential pressure of liquids and gases in the fields of aviation, aerospace, and weapons.

Specifications

Product Name	Differential Pressure Transmitter
Model	SGPTSD397A
Scale Range	0KPa~2KPa
Drive Voltage Supply	24VDC
Insulation Resistance	100MΩ/50V
Output	1~5V
Accuracy	1%FS
Operating Temperature	-40°C~80°C

Dimension

Outline Structure (Unit: mm)



SGPTY647A

Differential Pressure Transmitter

Overview

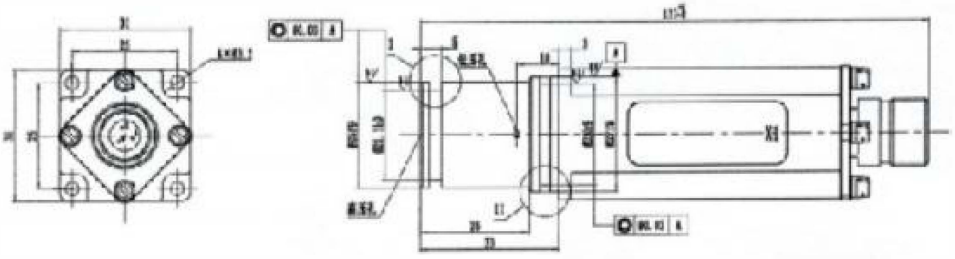
The SGPTY647A differential pressure transmitter is used to detect the differential pressure before and after the filter element, truly reflecting the pressure difference value between the inlet and outlet of the filter element. This product has the characteristics of convenient installation, small size, stable performance, high reliability, etc., and can be applied to the differential pressure measurement in the aviation field.

Specifications

Product Name	Differential Pressure Transmitter
Model	SGPTY647A
Rated Operating Pressure	3MPa
Differential Pressure Scale Range	0MPa~0.12MPa
Drive Voltage Supply	28VDC
Output Signal	Differential pressure: 4mA~20mA
Differential Pressure Measurement Accuracy	At room temperature: ≤±1%FS At high and low temperatures: ≤±1.5%FS
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-55°C~71°C

Dimension

Outline Structure (Unit: mm)



SGPTY534

Temperature-Pressure Transmitter

Overview

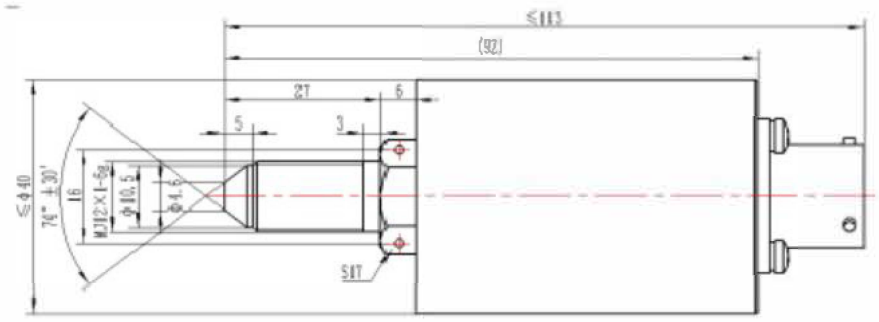
The SGPTY534 temperature-pressure transmitter consists of three parts: a high-performance and high-reliability Pt100 platinum resistor, a high-performance silicon piezoresistive pressure-sensitive chip, and a conditioning circuit and electromagnetic compatibility circuit. It features stable performance, high sensitivity and strong reliability. The pressure of this product has a dual redundancy function. When one channel fails, the other channel can still work normally. This product can be applied to temperature and pressure measurement in the aviation field.

Specifications

Product Name	Temperature-Pressure Transmitter
Model	SGPTY534
Scale Range	Pressure 0MPa~30MPa (Absolute pressure)
Drive Voltage Supply	28VDC
Output Signal	Pressure: Dual channels 4mA~20mA Temperature: 4mA~20mA
Pressure Measurement Accuracy	At room temperature: ≤±0.5%FS At high and low temperatures: ≤±1.5%FS
Dual-channel Output Inconsistency of Pressure Measurement	≤±1.5%FS
Temperature Measurement Accuracy	≤±1°C
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-60°C~100°C

Dimension

Outline Structure (Unit: mm)



SGPTY582

Temperature-Pressure Transmitter

Overview

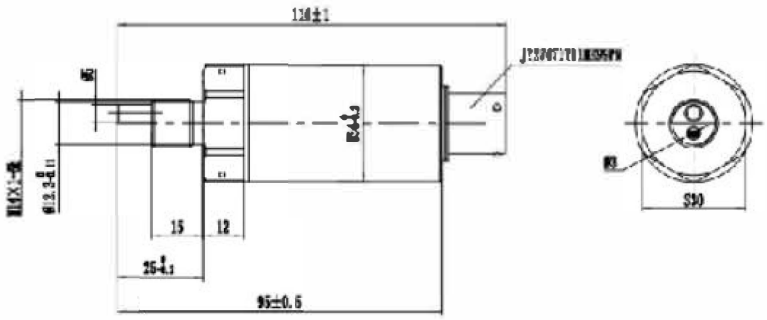
The SGPTY582 temperature-pressure transmitter is used to monitor and output the pressure of the hydraulic chamber in the hydraulic oil tank and the temperature signal of the oil. This product is characterized by convenient installation, small size, stable performance and high reliability, and is applied to temperature and pressure measurement in the aviation field.

Specifications

Product Name	Temperature-Pressure Transmitter
Model	SGPTY582
Scale Range	0.5MPa~1.5MPa (Absolute pressure) -55°C~150°C
Environment Temperature	For long-term operation: -55°C~70°C For short-term operation: -55°C~130°C
Drive Voltage Supply	28VDC
Output Signal	Pressure: 4mA~20mA Temperature: 4mA~20mA
Pressure Measurement Accuracy	At room temperature: ≤±0.5%FS At high and low temperatures: ≤±1.5%FS
Dual-channel Output Inconsistency of Pressure Measurement	≤±1.5%FS
Temperature Measurement Accuracy	≤±1°C
Insulation Resistance	>100MΩ/100VDC

Dimension

Outline Structure (Unit: mm)



Main Landing Gear Buffer Pressure Monitoring Device

Overview

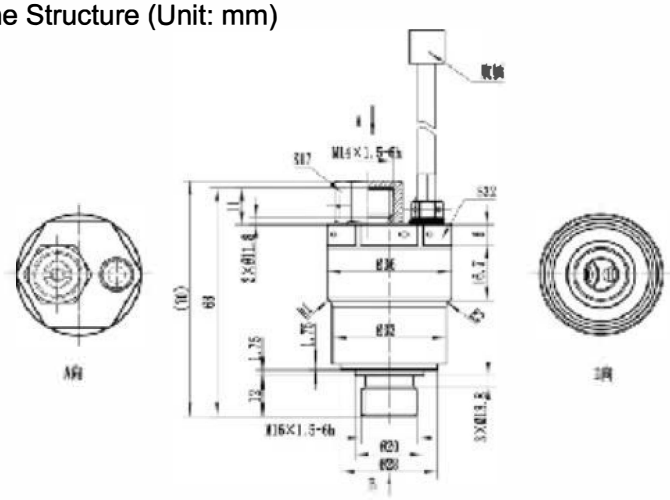
The SGPTY586 main landing gear buffer pressure monitoring device is installed on the landing gear to detect the pressure and temperature status inside the buffer of the landing gear. It sends the measured data in the form of electrical signals to the rear end for processing and recording. This device has two functions:
a) It provides an inflation interface for the landing gear buffer.
b) It measures the physical quantities of pressure and temperature inside the landing gear buffer and outputs electrical signals.

Specifications

Product Name	Main Landing Gear Buffer Pressure Monitoring Device
Model	SGPTY586
Rated Operating Pressure	0MPa~15MPa (Absolute pressure)
Temperature Measurement Scale Range	-55°C~+85°C
Drive Voltage Supply	15VDC
Pressure Measurement Accuracy	At room temperature: ≤±1%FS
Temperature Measurement Accuracy	≤±1%FS
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-55°C~85°C

Dimension

Outline Structure (Unit: mm)



Buffer Pressure Monitoring Device

Overview

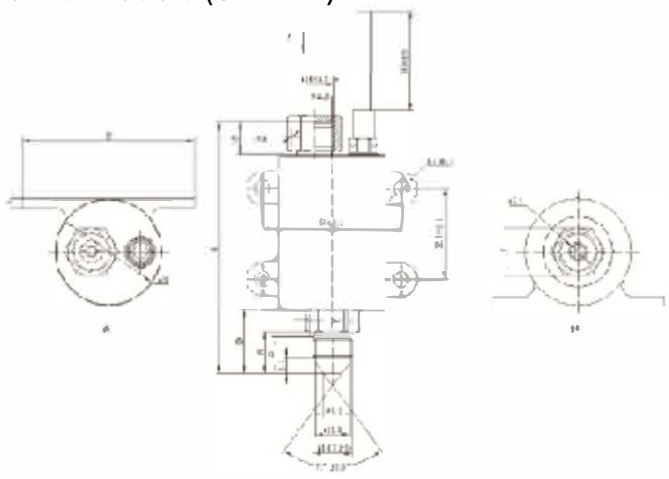
The SGPTY689 buffer pressure monitoring device is used to monitor and output the pressure inside the buffer and the temperature signal of the oil, and at the same time, it provides an inflation interface for the landing gear buffer. This product is characterized by convenient installation, small size, stable performance, high reliability, etc.

Specifications

Product Name	Main Landing Gear Buffer Pressure Monitoring Device
Model	SGPTY689
Scale Range	0MPa~15MPa (Absolute pressure) -55°C~+85°C
Drive Voltage Supply	28VDC
Output Signal	Pressure: 4mA~20mA Temperature: 4mA~20mA
Pressure Measurement Accuracy	≯±1%FS (-30°C~50°C) Allowed to be in the range of -55°C~30°C with≯+2.5%FS; in the range of 50°C~85°C with≯+1.5%FS
Dual-channel Output Inconsistency of Pressure Measurement	≤±1.5%FS
Temperature Measurement Accuracy	≤±1%FS
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-55°C~100°C

Dimension

Outline Structure (Unit: mm)



Air Pressure Monitoring Device

Overview

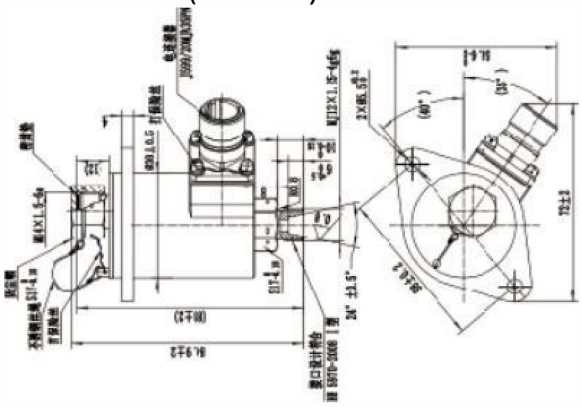
The SGPTY768 air pressure monitoring device adopts an integrated design of an inflation valve, a pressure sensor and a temperature sensor to realize the functions of an inflation interface and temperature and pressure measurement. This product is characterized by convenient installation, small size, stable performance and high reliability.

Specifications

Product Name	Main Landing Gear Buffer Pressure Monitoring Device
Model	SGPTY768
Scale Range	0MPa~35MPa (Absolute pressure) -55°C~+120°C
Drive Voltage Supply	28VDC
Output Signal	Pressure: 4mA~20mA Temperature: 4mA~20mA
Pressure Measurement Accuracy	At room temperature: ≤±0.5%FS At high and low temperatures: ≤±1.5%FS
Dual-channel Output Inconsistency of Pressure Measurement	≤±1.5%FS
Temperature Measurement Accuracy	≤±1%FS
Environment Temperature	Environment temperature: -55°C~+70°C Medium temperature: -55°C~+135°C

Dimension

Outline Structure (Unit: mm)



Pressure Monitoring Device

Overview

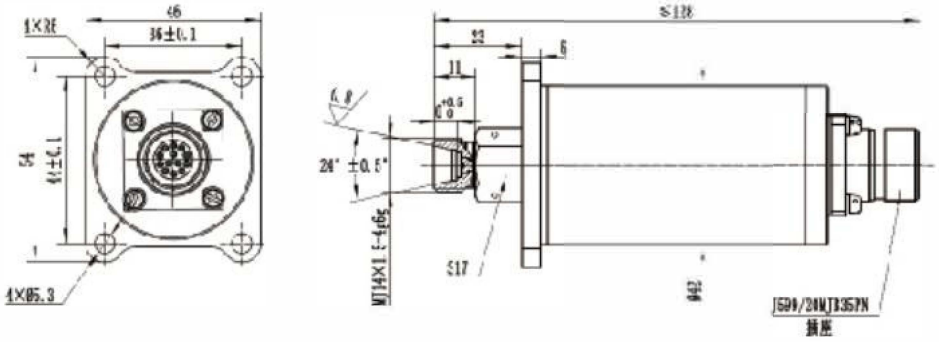
The SGPTY769 pressure monitoring device is used to monitor the operating pressure of the hydraulic subsystem. With a four-redundancy design, it is able to output two 4-20mA current signals and two switch signals for the pressure measurement results. It features reliable performance and easy installation, and can be applied to pressure measurement in the aviation field.

Specifications

Product Name	Main Landing Gear Buffer Pressure Monitoring Device
Model	SGPTY769
Scale Range	0MPa~35MPa
Drive Voltage Supply	28VDC
Insulation Resistance	100MΩ/100V
Output	4mA~20mA Switch Quantity (Dual channels)
Accuracy	≤±0.5%FS
High and Low Temperature Error	≤±1.5%FS
Inconsistency of Dual-channel Analog Output	≤±1.5%FS
Operating Temperature	-55°C~110°C

Dimension

Outline Structure (Unit: mm)



Series Buffer Pressure Monitoring Devices

Overview

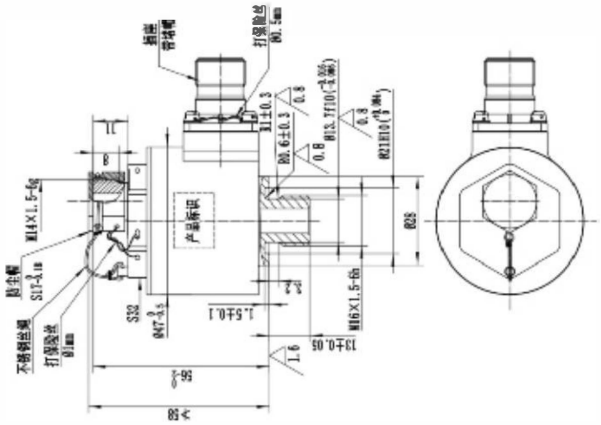
The SGPTY776/777 series buffer pressure monitoring devices are installed in the high-pressure cavity of the nose landing gear strut. They feature an integrated design of an inflation valve, a pressure sensor, and a temperature sensor to achieve the functions of an inflation interface as well as temperature and pressure measurement.

Specifications

Product Name	Buffer Pressure Monitoring Device
Model	SGPTY776/777
Differential Pressure Scale Range	0MPa~60MPa
Temperature Scale Range	-55°C~+85°C
Drive Voltage Supply	28VDC
Output Signal	Pressure: 4mA~20mA Temperature: 4mA~20mA
Pressure Measurement Accuracy	≯±1%FS (-30°C~50°C) Allowed to be in the range of -55°C~30°C with ≯+2.5%FS; in the range of 50°C~85°C with ≯+1.5%FS
Temperature Measurement Accuracy	≤±1%FS
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-55°C~110°C

Dimension

Outline Structure (Unit: mm)



Temperature-Differential Pressure Transmitter

Overview

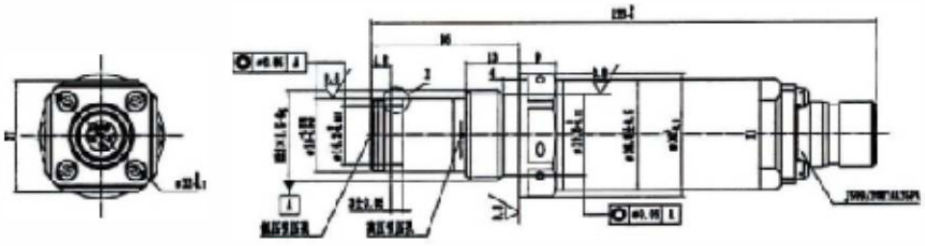
The SGPTY578A temperature-differential pressure transmitter is used to detect the differential pressure at the inlet and outlet of the return oil filter of the hydraulic housing, and it should be able to truly reflect the pressure difference value at the inlet and outlet of the return oil filter of the hydraulic housing. This product has the characteristics of convenient installation, small size, stable performance, high reliability, etc., and can be applied to temperature and pressure measurement in the aviation field.

Specifications

Product Name	Temperature-Differential Pressure Transmitter
Model	SGPTY578A
Rated Operating Pressure	5MPa
Differential Pressure Scale Range	0MPa~1.5MPa
Temperature Scale Range	-55°C~+200°C
Drive Voltage Supply	28VDC
Output Signal	Differential Pressure: 4mA~20mA Temperature: 4mA~20mA
Differential Pressure Measurement Accuracy	At room temperature: ≤±0.5%FS At high and low temperatures: ≤±1.5%FS
Temperature Measurement Accuracy	±1°C (80°C≤T≤150°C) ±1.5°C (-25°C≤T<80°C) ±3°C (-55°C≤T<-25°C、150°C<T≤200°C)
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



SGPTY578

Temperature-Differential Pressure Transmitter

Overview

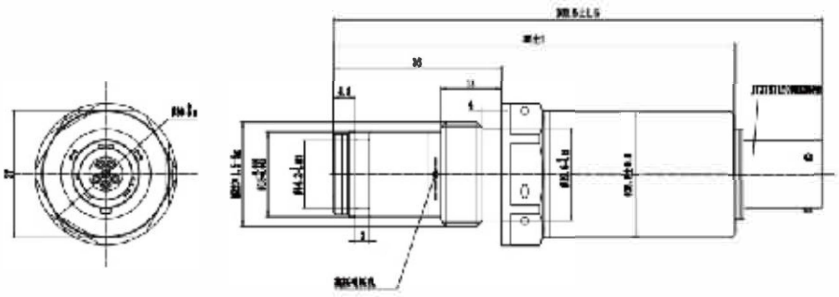
The SGPTY578 temperature-differential pressure transmitter is used to detect the differential pressure at the inlet and outlet of the return oil filter of the hydraulic housing, and it should be able to truly reflect the pressure difference value at the inlet and outlet of the return oil filter of the hydraulic housing. This product has the characteristics of convenient installation, small size, stable performance, high reliability, etc., and can be applied to temperature and pressure measurement in the aviation field.

Specifications

Product Name	Temperature-Differential Pressure Transmitter
Model	SGPTY578
Rated Operating Pressure	5MPa
Differential Pressure Scale Range	0MPa~1.5MPa
Temperature Scale Range	-55°C~+200°C
Drive Voltage Supply	28VDC
Output Signal	Differential Pressure: 4mA~20mA Temperature: 4mA~20mA
Differential Pressure Measurement Accuracy	At room temperature: ≤±0.5%FS At high and low temperatures: ≤±1.5%FS
Temperature Measurement Accuracy	±1°C (80°C≤T≤150°C) ±1.5°C (-25°C≤T<80°C) ±3°C (-55°C≤T<-25°C、150°C<T≤200°C)
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Temperature-Differential Pressure Transmitter

Overview

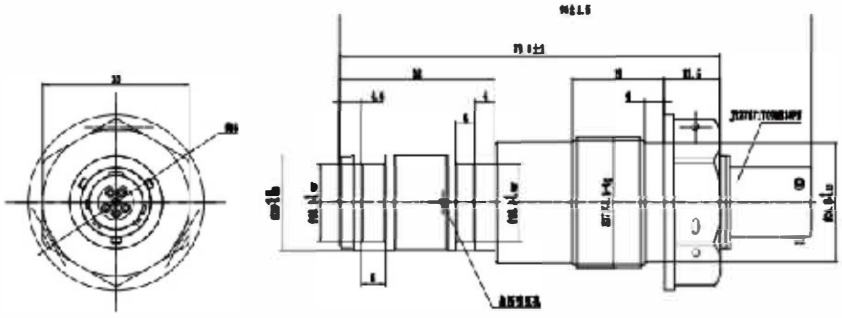
The SGPTY570 temperature-differential pressure transmitter is used to detect the differential pressure at the inlet and outlet of the return oil filter of the hydraulic housing, and it should be able to truly reflect the pressure difference value at the inlet and outlet of the return oil filter of the hydraulic housing. This product has the characteristics of convenient installation, small size, stable performance, high reliability, etc., and can be applied to temperature and pressure measurement in the aviation field.

Specifications

Product Name	Temperature-Differential Pressure Transmitter
Model	SGPTY570
Rated Operating Pressure	28MPa
Differential Pressure Scale Range	0MPa~1.5MPa
Temperature Scale Range	-55°C~200°C
Drive Voltage Supply	28VDC
Output Signal	Differential Pressure: 4mA~20mA Temperature: 4mA~20mA
Differential Pressure Measurement Accuracy	At room temperature: ≤±0.5%FS At high and low temperatures: ≤±1.5%FS
Temperature Measurement Accuracy	±1°C (80°C≤T≤150°C) ±1.5°C (-25°C≤T<80°C) ±3°C (-55°C≤T<-25°C、150°C<T≤200°C)
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-55°C~135°C

Dimension

Outline Structure (Unit: mm)



Differential Pressure Transducer

Overview

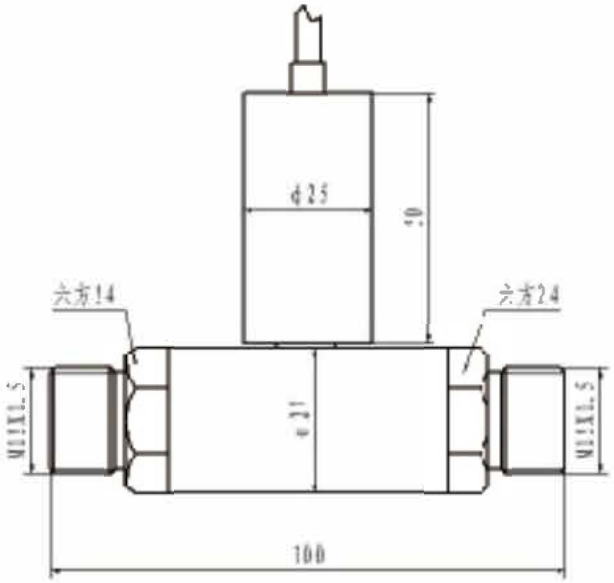
The SGPPT843 differential pressure transducer uses a high-precision double-filled oil differential pressure sensor as the sensitive element. It utilizes special compensation and correction software to perform zero-point, full-scale correction and temperature compensation on the output signal of the sensor. With a built-in ASIC circuit, it has a standard signal output, reliable performance and is easy to install. There are multiple interface modes available for selection. This product is mainly used for the pressure measurement of liquids and gases in the fields of aviation, aerospace, weapons and ships.

Specifications

Product Name	Temperature-Differential Pressure Transmitter
Model	SGPPT843
Scale Range	10MPa
Drive Voltage Supply	24VDC
Insulation Resistance	100MΩ/100VDC
Output	4mA~20mA
Accuracy	0.5%FS
Operating Temperature	-40°C~85°C

Dimension

Outline Structure (Unit: mm)



Wibbow

SGISMHVS

Series Integrated Vibration Sensors

Overview

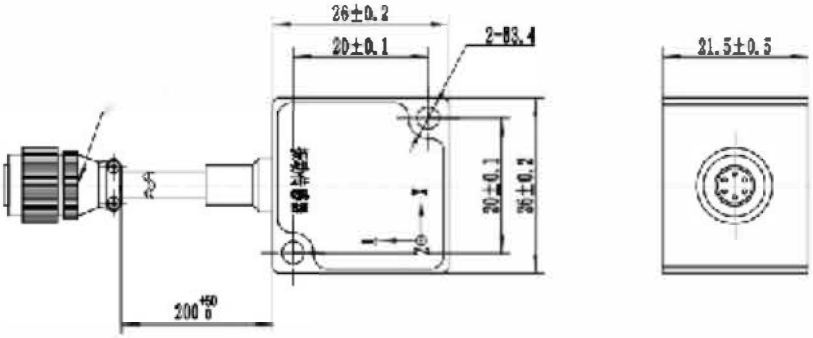
The SGISMHVS vibration sensor selects a MEMS capacitive acceleration sensitive core to sense the vibration signal. It is mainly composed of a capacitive acceleration core (MEMS+ASIC), a conditioning circuit, a housing, an electrical connector, etc. The MEMS capacitive acceleration core forms a movable mass block and electrodes on a single crystal silicon wafer through technologies such as photolithography, bonding, and etching. A capacitor is formed between the movable mass block and the electrodes. When the mass block is displaced due to the acceleration effect, the capacitance value formed between the fixed electrodes and the movable electrodes changes. The capacitance value is converted into a voltage signal output by the ASIC circuit inside the core, and then, through the signal conditioning circuit, it is converted into a standard voltage signal output.

Specifications

Product Name	Vibration Sensor
Model	SGISMHVS
Scale Range	2~200g (Range customization supported)
Axial Direction	Three axes (two axes or a single axis are also acceptable)
Operating Voltage	+15VDC±1.5VDC
Amplitude-frequency Characteristic	Flatness within the passband is less than 3dB, flatness of 2fL-0.95fH is less than 1dB, attenuation in the 2-octave band outside the passband is not less than 40dB
Weight	≤100g
Insulation Resistance	⩾100MΩ/100VDC
Output	0.2V~4.8V
Accuracy	≤10%FS (Full temperature range)
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Series Integrated Overload Sensors

Overview

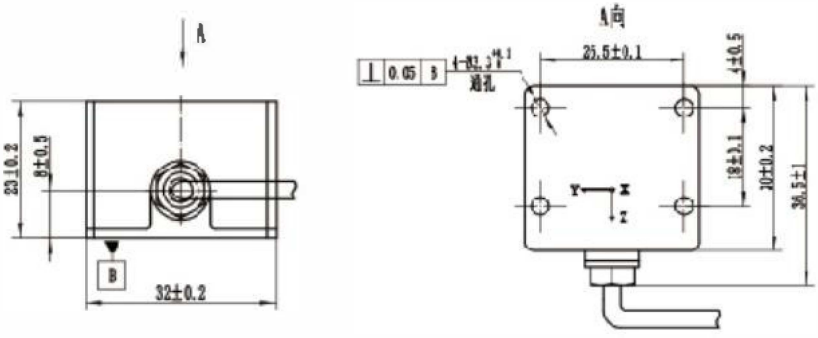
The SGISMHOS series overload sensors use MEMS capacitive acceleration sensors to sense overload signals. The overload sensor is mainly composed of a capacitive acceleration core (MEMS+ASIC), a conditioning circuit, a housing, an electrical connector, etc. This type of sensor features the ability to filter out interference signals, amplify measurement signals, and has high reliability. The product is easy to install and has high resistance to vibration and shock.

Specifications

Product Name	Overload Sensor
Model	SGISMHOS
Scale Range	0~30g
Axial Direction	Three axes (two axes or a single axis are also acceptable)
Operating Voltage	+15VDC±1.5VDC
Amplitude-frequency Characteristic	Flatness within the passband is less than 3dB, flatness of 2fL-0.95fH is less than 1dB, attenuation in the 2-octave band outside the passband is not less than 40dB
Weight	≤100g
Insulation Resistance	⩾100MΩ/100VDC
Output	0.2V~4.8V
Accuracy	≤2%FS
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Series Shock Sensors

Overview

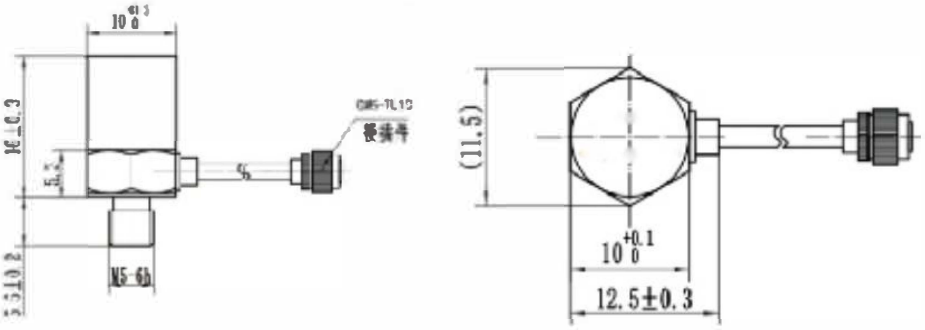
The SGISMHSS series shock sensors work based on the principle of the piezoelectric effect. They are mainly composed of piezoelectric sensitive elements, signal conditioning circuits, housings and other components.

Specifications

Product Name	Shock Sensor
Model	SGISSGISMHSS
Scale Range	200~30000g (Customizable)
Operating Voltage	+15VDC±1.5VDC
Amplitude-frequency Characteristic	Flatness within the passband is less than 1dB
Weight	≤20g
Frequency Response	2Hz~10000Hz (Customizable)
Amplitude Linearity	≤5%
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



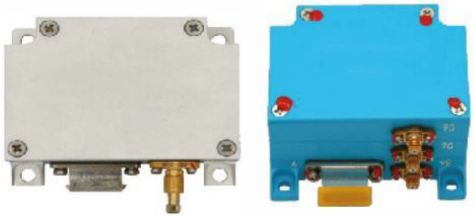
Wibbow

SGISMHST

Series Shock Transducers

Overview

The unidirectional and three-axis impact transducers are signal conditioning circuits supporting unidirectional impact sensors composed of amplification circuits and filtering circuits. This type of transducer has the characteristics of filtering out interference signals, amplifying measurement signals and high reliability. The product is easy to install and has high resistance to vibration and impact.

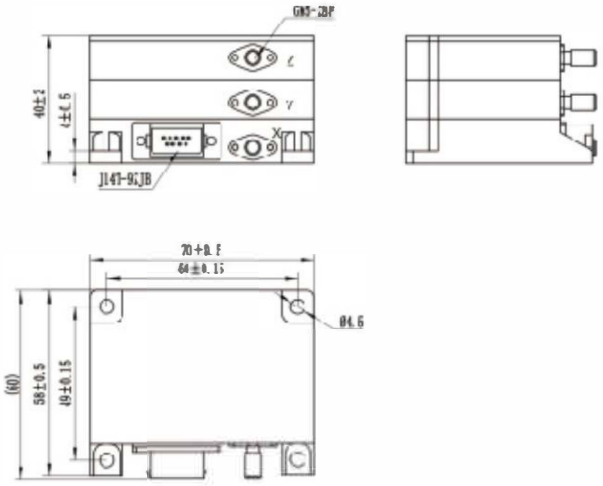


Specifications

Product Name	Shock Transducer
Model	SGISMHST
Scale Range	200~30000g
Operating Voltage	+15VDC±1.5VDC
Amplitude-frequency Characteristic	Flatness within the passband is less than 1dB, attenuation in the 2-octave band outside the passband is not less than 40dB
Weight	≤250g
Insulation Resistance	⩾100MΩ/100VDC
Output	0.2V~4.8V
Non-linearity	≤1%
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Overload Sensor

Overview

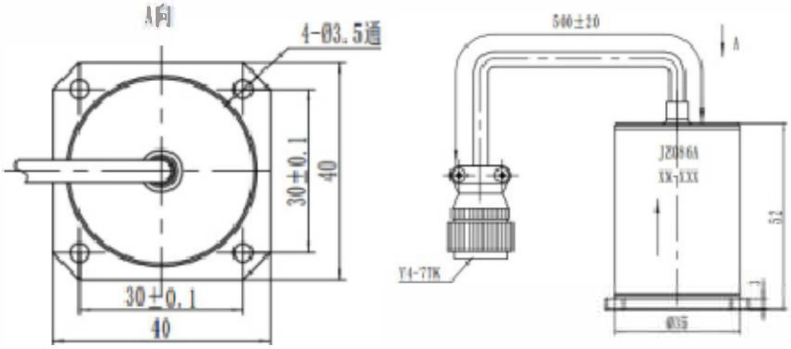
The SGISOS319A overload sensor uses a silicon piezoresistive acceleration chip as the sensitive element, with a fully welded stainless steel structure. It has a built-in high-precision piezoelectric conversion module and compensation module, which can convert the overload signal of the sensor into standard current and voltage signals for output. It is suitable for the measurement of overload parameters in harsh environments.

Specifications

Product Name	Overload Sensor
Model	SGISOS319A
Scale Range	±50g
Drive Voltage Supply	15V±0.2V
Output	0.15V±0.13V~4.85V±0.13V
Accuracy	≤5%
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Overload Sensor

Overview

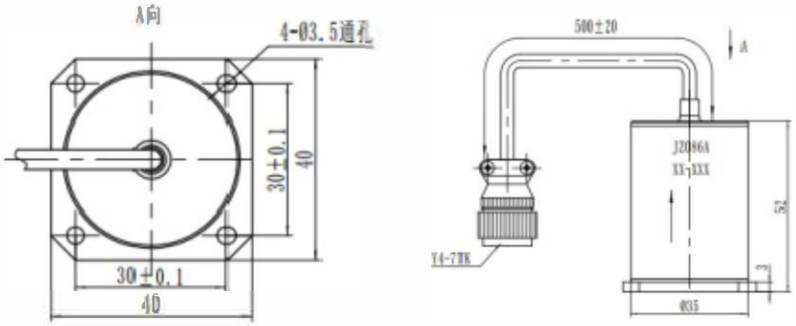
The SGISOS319B overload sensor uses a silicon piezoresistive acceleration chip as the sensitive element and has built-in high-precision piezoelectric conversion and compensation modules. It converts the overload signal of the sensor into a standard voltage signal for output and is suitable for the measurement of overload parameters in harsh environments.

Specifications

Product Name	Overload Sensor
Model	SGISOS319B
Scale Range	-2~+10g
Drive Voltage Supply	15V±0.2V
Output	0.15V±0.13V~4.85V±0.13V
Accuracy	0.5%FS
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Wibbow

SGISVSSDA

Series Vibration Sensors

Overview

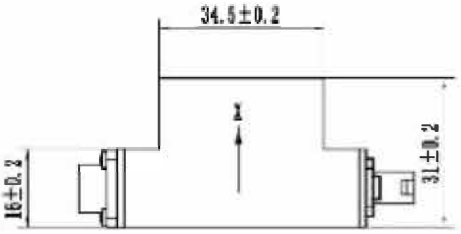
The SGISVSSDA series vibration sensors work based on the piezoelectric effect principle of piezoelectric sensitive elements. The shell is made of aluminum alloy with a screw-mounted structure. The interior is equipped with thick-film integrated circuits and integrated signal loading detection. Modules such as vibration signal acquisition, charge-to-voltage conversion, and signal conditioning convert the charge signal into a standard voltage signal for output. It is suitable for vibration measurement in harsh environments.

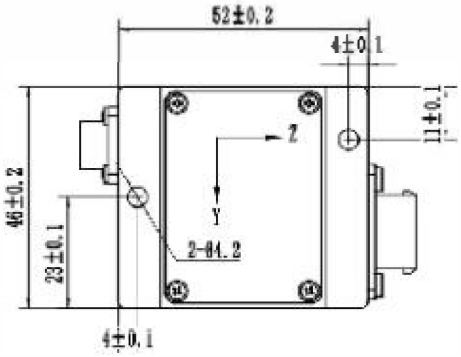
Specifications

Product Name	Vibration Sensor
Model	SGISVSSDA
Scale Range	0g~800g
Drive Voltage Supply	15V±1V
Null Output	2.5V±0.1V~4.9V±0.08V
Accuracy	1%FS
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)

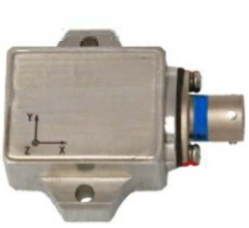


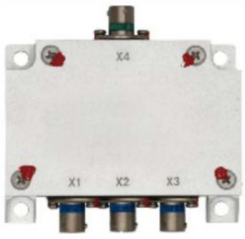


Wibbow SGISVS-347A1 / SGISVT-347A1

Vibration Sensor / Transducer

Overview





The SGISVS-347A1 vibration sensor selects a MEMS capacitive acceleration sensitive core to sense vibration signals. It is mainly composed of a capacitive acceleration core (MEMS+ASIC), a conditioning circuit, a housing, and an electrical connector.

The MEMS capacitive acceleration core forms a movable mass block and electrodes on a single-crystal silicon wafer through technologies such as photolithography, bonding, and etching. A capacitor is formed between the movable mass block and the electrodes. When the mass block is displaced due to the acceleration effect, the capacitance formed between the fixed electrode and the movable electrode changes. The capacitance value is converted into a voltage signal output by the ASIC circuit inside the core, and then converted into a standard voltage signal output through the signal conditioning circuit.

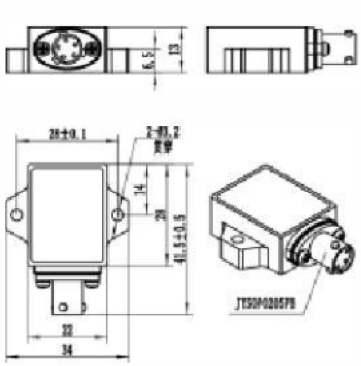
The SGISVT-347A1 vibration transducer is a signal acquisition, conditioning, and transmission circuit supporting the SGISVS-347A1 vibration sensor, and is composed of a digital-to-analog conversion circuit and a microcontroller. This type of converter has the characteristics of filtering out interference signals, amplifying measurement signals, and high reliability. The product is easy to install and has high resistance to vibration and shock.

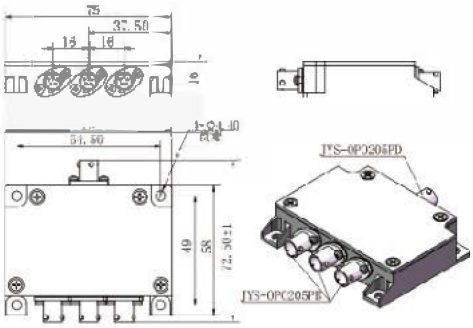
Specifications

Product Name	Vibration Sensor
Model	SGISVS-347A1 / SGISVT-347A1
Scale Range	±10g
Drive Voltage Supply	9~36VDC±1VDC
Null Output	CAN signal
Error	≤1%FS
Operating Temperature	-40°C~85°C

Dimension

Outline Structure (Unit: mm)





SGISIMU24

Inertial Measurement Unit

Overview

The SGISIMU24 is a small, GPS-free inertial measurement unit weighing only 120 grams, which is suitable for inertial parameter measurement in high-impact environments. It includes three-axis acceleration, three-axis gyro, and three-axis geomagnetic intensity. The SGISIMU24 provides an external synchronous signal input. This IMU has full operating range temperature compensation, and all axes are mechanically and electrically aligned relative to the package reference plane. Its output format, sampling rate, filter settings, and datagram content can all be set by the customer.

Specifications

Model		SGISIMU24
IMU	Parameter	Inertial Measurement Unit
Gyroscope	Scale Range	±450°/s
	Non-linearity	≤0.005
	Cross-coupling	≤0.001
	Resolution	0.005°/s
	Zero Bias	≤150°/h(3σ)
	Zero Bias Repeatability	≤150°/h(3σ)
	Zero Bias Stability	≤150°/h(3σ)
	Output Noise	0.2°/s rms
	Bandwidth (-3dB)	≥100Hz
Accelerometer	Scale Range	±10g
	Non-linearity	≤0.005
	Cross-coupling	≤0.001
	Resolution	0.1mg
	Zero Bias	5mg
	Zero Bias Repeatability	4.5mg
	Zero Bias Stability	4.5mg
	Output Noise	3g rms
	Bandwidth (-3dB)	≥100Hz
Geomagnetism	Scale Range	±2.5gauss
	Sensitivity	0.1mgauss
	Cross-coupling	≤0.001
	Non-linearity	0.50%
	Output Noise	0.5mgauss rms
	Bandwidth (-3dB)	≥200Hz

Wibbow

SGISIMU95

Inertial Measurement Unit

Overview

The SGISIMU95 is a small inertial measurement unit weighing only 50 grams, with built-in GNSS/GPS BeiDou assistance. It is suitable for various commercial and military guidance and navigation applications. The SGISIMU95 is capable of outputting information such as roll, pitch, and heading, and provides an external synchronous signal input. Three inclinometers are built-in to ensure accurate system leveling, and an external synchronous signal input is provided. This IMU has full operating range temperature compensation, and all axes are mechanically and electrically aligned relative to the package reference plane. Its output format, sampling rate, filter settings, and datagram content can all be set by the customer.

Specifications

Model		SGISIMU95
IMU	Parameter	Inertial Measurement Unit
Gyroscope	Scale Range	±450°/s
	Zero Bias	≤250°/h(1σ)
	Zero Bias Repeatability	≤20°/h (1σ, 1-second smoothing)
	Zero Bias Stability	≤30°/h(1σ)
	Non-linearity	≤0.005
	Cross-coupling	≤0.005
	Resolution	0.005°/s
	Output Noise	0.2°/s rms
	Output Frequency	200Hz
	Frequency response	>800Hz (-3dB)
Accelerometer	Scale Range	The x-axis: ±10g, Y-axis and Z-axis: ±30g
	Zero Bias	≤0.01g(1σ)
	Zero Bias Repeatability	≤0.01g (1σ, 1-second smoothing)
	Zero Bias Stability	≤0.003g(1σ)
	Non-linearity	≤0.005
	Cross-coupling	≤0.1
	Resolution	≤0.002g
	Output Noise	10mg rms
	Output Frequency	200Hz
	Frequency response	>800Hz (-3dB)

SGISIMU97S

Inertial Measurement Unit

Overview

The SGISIMU97S is a small inertial measurement unit weighing only 80 grams, without GPS assistance. It is suitable for various commercial and military guidance and navigation applications. The SGISIMU97S has three built-in inclinometers to ensure accurate system leveling and provides an external synchronous signal input. This IMU has full operating range temperature compensation, and all axes are mechanically and electrically aligned relative to the package reference plane. The SGISIMU97S is insensitive to magnetic fields. For the relatively expensive and heavy FOG (Fiber Optic Gyro)-based systems, it is an ideal, highly reliable and cost-effective alternative product. Its output format, sampling rate, filter settings and datagram content can all be set by the customer.

Specifications

Model		SGISIMU97S
IMU	Parameter	Inertial Measurement Unit
Gyroscope	Scale Range	±400°/s
	Zero Bias	≤250°/h(1σ)
	Zero Bias Repeatability	≤20°/h (1σ, 1-second smoothing)
	Zero Bias Stability	≤30°/h(1σ)
	Non-linearity	≤0.005
	Cross-coupling	≤0.005
	Resolution	0.005°/s
	Output Noise	0.2°/s rms
	Output Frequency	200Hz
	Frequency response	>800Hz (-3dB)
Accelerometer	Scale Range	The x-axis: ±50g, Y-axis and Z-axis: ±30g
	Zero Bias	≤0.01g(1σ)
	Zero Bias Repeatability	≤0.01g (1σ, 1-second smoothing)
	Zero Bias Stability	≤0.003g(1σ)
	Non-linearity	≤0.005
	Cross-coupling	≤0.1
	Resolution	≤0.002g
	Output Noise	10mg rms
	Output Frequency	200Hz
	Frequency response	>800Hz (-3dB)

Tilt Sensors

Overview

The SGISDTS53/73X tilt sensors are dynamic tilt sensors based on the industrial-grade IMU platform. They are suitable for tilt measurement in motion or vibration states and can measure the attitude parameters (roll, pitch, and azimuth angle) of the moving carrier and the carrier's real-time motion data. They have a built-in attitude fusion algorithm based on extended Kalman filtering, which can effectively suppress the influence of dynamic interference on attitude accuracy and ensure the stability of attitude accuracy.

Specifications

Parameter	Tilt Sensor
Model	SGISDTS53/73X
Scale Range	Roll angle: ±80°; Pitch angle: ±180°
Angle Repeatability	<0.05°
Angular Velocity Measurement Range	±450°/s
Gyroscope Bias Instability	4.5°/h
Measurement Range	±6g
Accelerometer Bias Instability	30μg
Static Accuracy	0.1°@rms
Dynamic Accuracy	0.4°@rms
Resolution	0.01°
Operating Temperature	-40~85°C
Input Voltage	Minimum value 9V, typical value 12V, maximum value 36V
Output Sampling Rate	100Hz (Configurable)

Temperature Sensor

Overview

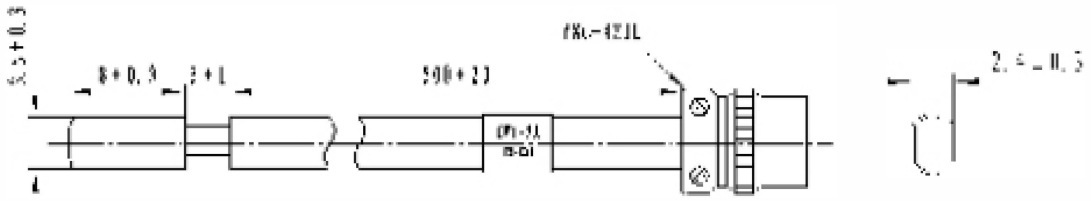
The SGTS455 temperature sensor uses the excellent temperature-resistance effect of platinum resistors to achieve temperature measurement. It features high precision, high reliability, and a small volume. This product is widely used for temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Sensor
Model	SGTS455
Scale Range	(-50~200) °C, (In short time 300°C)
Temperature Sensing Element	Pt100 or pt1000
Insulation Resistance	100MΩ/100V
Output	Pt100 or pt1000 output

Dimension

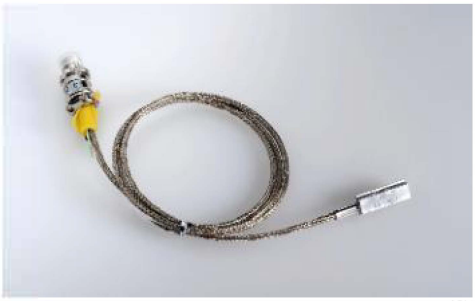
Outline Structure (Unit: mm)



Temperature Sensor

Overview

The SGTS444 temperature sensor uses the excellent temperature-resistance effect of platinum resistors to achieve temperature measurement. It features high precision, high reliability, and a small volume. This product is widely used for temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

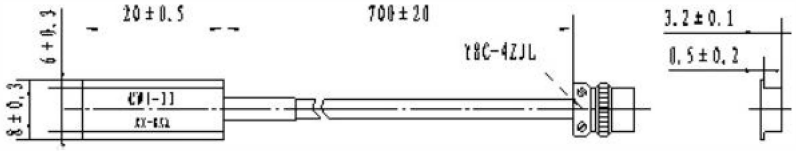


Specifications

Product Name	Temperature Sensor
Model	SGTS444
Scale Range	(-50~+300) °C, (In short time 400°C)
Temperature Sensing Element	Pt100 or pt1000
Insulation Resistance	100MΩ/100V
Output	Pt100 or pt1000 output

Dimension

Outline Structure (Unit: mm)



Temperature Sensor

Overview

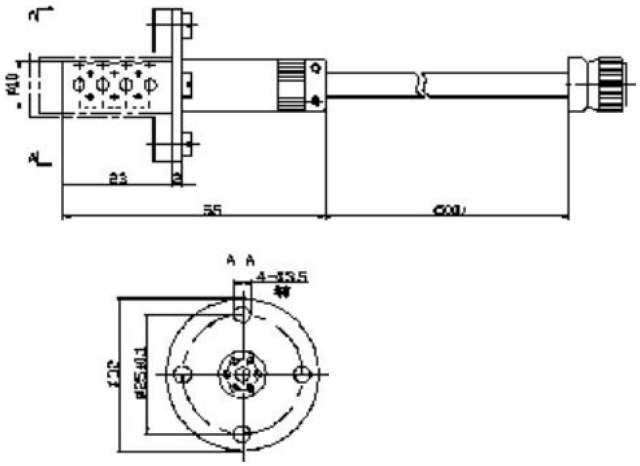
The temperature sensing probe of the SGTS544 temperature sensor transmits the measured temperature to the platinum resistor inside it. The platinum resistor outputs a resistance signal corresponding to the measured temperature, and the resistance signal is transmitted through a shielded wire. This product is widely used in the temperature measurement of the aviation, aerospace, ordnance, and shipbuilding fields.

Specifications

Product Name	Temperature Sensor
Model	SGTS544
Scale Range	(-40~200) °C
Insulation Resistance	Normal environment: ≥100MΩ/100V High humidity environment: ≥2MΩ/100V
Output	Resistance value signal
Accuracy	±(0.5+0.005|t|) °C

Dimension

Outline Structure (Unit: mm)



Temperature Sensor

Overview

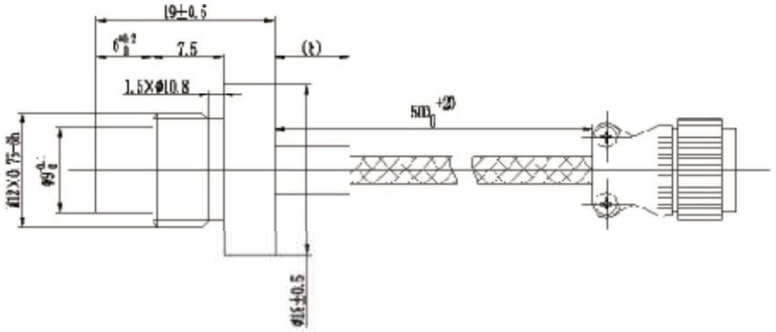
The temperature sensing probe of the SGTS645 temperature sensor transmits the measured temperature to the hot end of the thermocouple inside it. The hot end outputs a millivolt voltage signal corresponding to the measured temperature, and the millivolt signal is transmitted through a shielded wire. This product is widely used in the temperature measurement of the aviation, aerospace, ordnance, and shipbuilding fields.

Specifications

Product Name	Temperature Sensor
Model	SGTS645
Scale Range	(-40~1000) °C
Insulation Resistance	Normal environment: ≥100MΩ/100V High humidity environment: ≥2MΩ/100V
Output	Millivolt signal
Accuracy	<400 °C: ±(0.5+0.005|t|) °C >400 °C: 0.75%|t|°C

Dimension

Outline Structure (Unit: mm)



Temperature Sensor

Overview

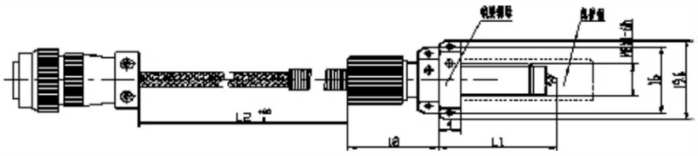
The temperature sensing probe of the SGTS754 temperature sensor transmits the measured temperature to the hot end of the thermocouple inside it. The hot end outputs a millivolt voltage signal corresponding to the measured temperature, and the millivolt signal is transmitted through a shielded wire. This product is widely used in the temperature measurement of the aviation, aerospace, ordnance, and shipbuilding fields.

Specifications

Product Name	Temperature Sensor
Model	SGTS754
Scale Range	(-40~1500) °C
Insulation Resistance	Normal environment: ≥100MΩ/100V High humidity environment: ≥2MΩ/100V
Output	Millivolt signal
Accuracy	<400 °C: 4°C >400 °C: 1%|t|°C

Dimension

Outline Structure (Unit: mm)



Temperature Sensor

Overview

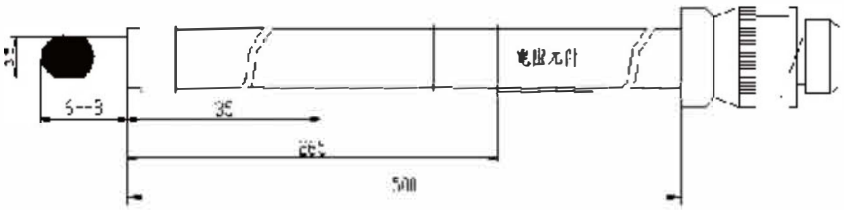
The temperature sensing probe of the SGTS854 temperature sensor transmits the measured temperature to the thermistor inside it. The thermistor outputs a resistance signal corresponding to the measured temperature. The internal circuit of the sensor converts this resistance signal into a corresponding voltage signal, which is then transmitted through a shielded wire. This product is widely applied to temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Sensor
Model	SGTS854
Scale Range	(-60~70) °C
Insulation Resistance	≥100MΩ/100V
Power Supply Voltage	(+5±0.5) V
Output	Voltage signal
Accuracy	±0.5 °C

Dimension

Outline Structure (Unit: mm)



Temperature Sensor

Overview

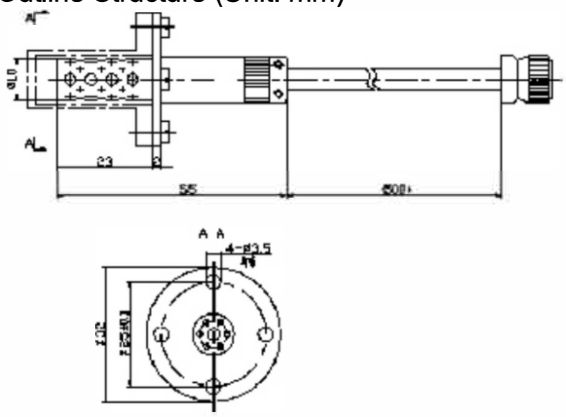
The temperature sensing probe of the SGTS954 temperature sensor transmits the measured temperature to the thermistor inside it. The thermistor outputs a resistance signal corresponding to the measured temperature. The internal circuit of the sensor converts this resistance signal into a corresponding voltage signal, which is then transmitted through a shielded wire. This product is widely applied to temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Sensor
Model	SGTS954
Scale Range	(-40~200) °C
Insulation Resistance	≥100MΩ/50V
Power Supply Voltage	(+5±0.5) V
Output	Voltage signal
Accuracy	±0.5 °C

Dimension

Outline Structure (Unit: mm)



Series Temperature Sensor

Overview

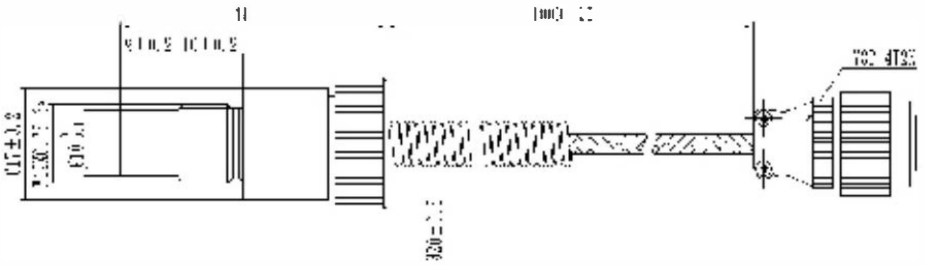
The SGTSSDBW series temperature sensors achieve temperature measurement by utilizing the corresponding linear relationship between temperature-sensitive devices and temperature. According to the different temperature measurement principles of temperature-sensitive devices, they can be made into temperature sensors such as platinum resistors, thermocouples, and thermistors, which have the characteristics of high precision, high reliability, and small size. This product is widely used in the temperature measurement of the aviation, aerospace, ordnance, and shipbuilding fields.

Specifications

Product Name	Temperature Sensor
Model	SGTSSDBW
Maximum Scale Range	SGTSSDBW-B-X: (-40~+200) °C (In short time 400°C) SGTSSDBW-D-X: (-40~+200) °C (In short time 800°C) SGTSSDBW-M-X: (0~+100) °C
Insulation Resistance	100MΩ/50V
Output	Resistance value or millivolt voltage signal output

Dimension

Outline Structure (Unit: mm)



Series Temperature Sensors

Overview

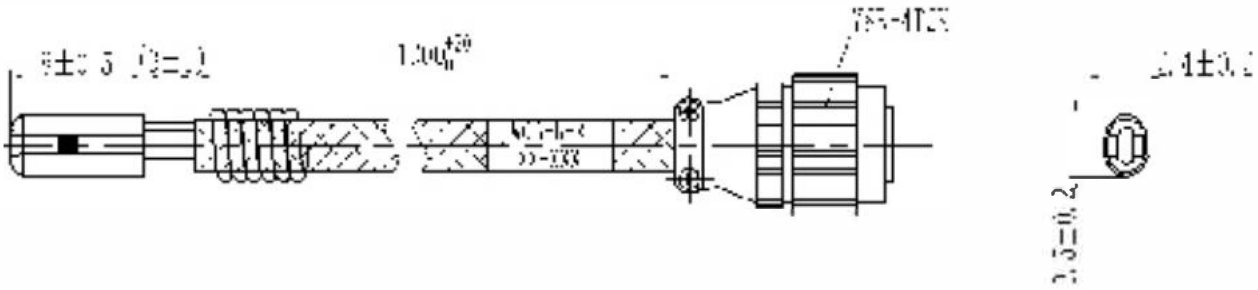
The SGTSSDEB series temperature sensors achieve temperature measurement by utilizing the corresponding linear relationship between platinum resistors and temperature. The products are characterized by high precision, high reliability and small size. They are widely used in temperature measurement in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Temperature Sensor
Model	SGTSSDEB
Maximum Scale Range	(-50~300) °C (In short time 400°C)
Temperature Sensing Element	Pt100 or pt1000
Insulation Resistance	100MΩ/50V
Output	Resistance value output

Dimension

Outline Structure (Unit: mm)



Series Temperature Sensors

Overview

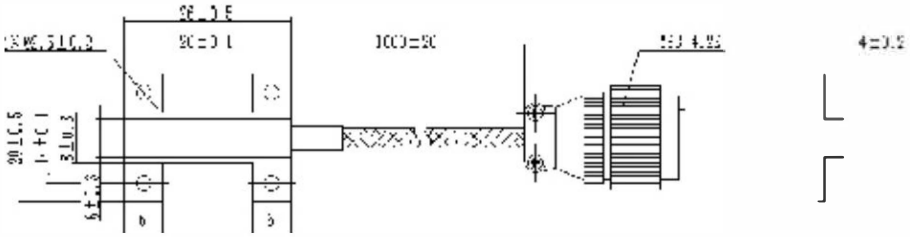
The SGTSSDEH series temperature sensors achieve temperature measurement by utilizing the corresponding linear relationship between thermocouples and temperature. The products are characterized by high precision, high reliability and small size. They are widely used in temperature measurement in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Temperature Sensor
Model	SGTSSDEH
Maximum Scale Range	(-50~600) °C
Temperature Sensing Element	Thermocouple (K, J, T etc.)
Insulation Resistance	100MΩ/50V
Output	Millivolt voltage signal output

Dimension

Outline Structure (Unit: mm)



Series Temperature Sensors

Overview

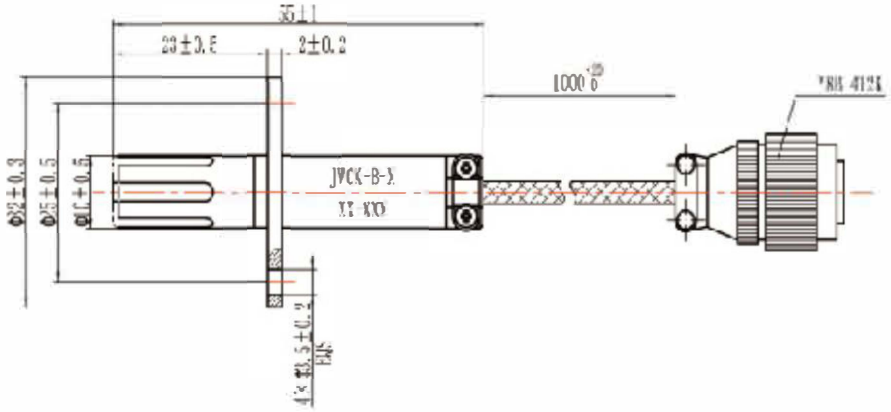
The SGTSSDKB series temperature sensors achieve temperature measurement by utilizing the corresponding linear relationship between platinum resistors and temperature. They are characterized by high precision, high reliability and small size, and are widely used in temperature measurement in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Temperature Sensor
Model	SGTSSDKB
Scale Range	(-40~300) °C
Temperature Sensing Element	Pt100 or pt1000
Insulation Resistance	100MΩ/50V
Output	Resistance value output

Dimension

Outline Structure (Unit: mm)



Series Temperature Sensors

Overview

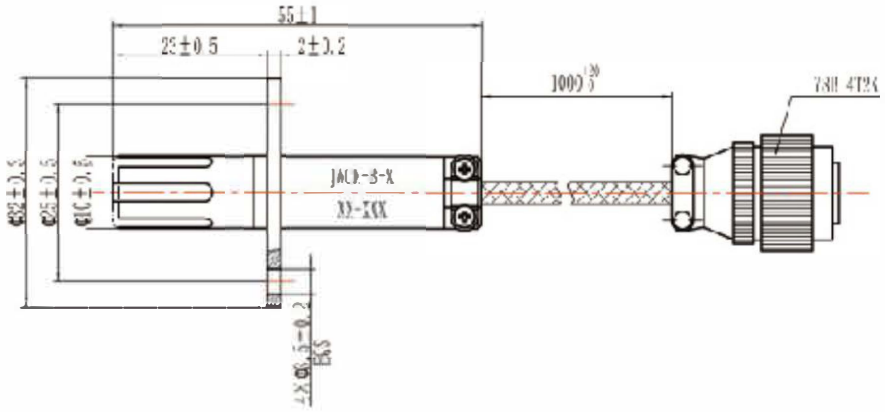
The SGTSSDKH series temperature sensors achieve temperature measurement by utilizing the corresponding linear relationship between thermocouples and temperature. They are characterized by high precision, high reliability and small size, and are widely used in temperature measurement in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Temperature Sensor
Model	SGTSSDKH
Scale Range	(-40~400) °C
Temperature Sensing Element	Thermocouple (K, J, T etc.)
Insulation Resistance	100MΩ/50V
Output	Millivolt voltage signal output

Dimension

Outline Structure (Unit: mm)



Series Temperature Sensors

Overview

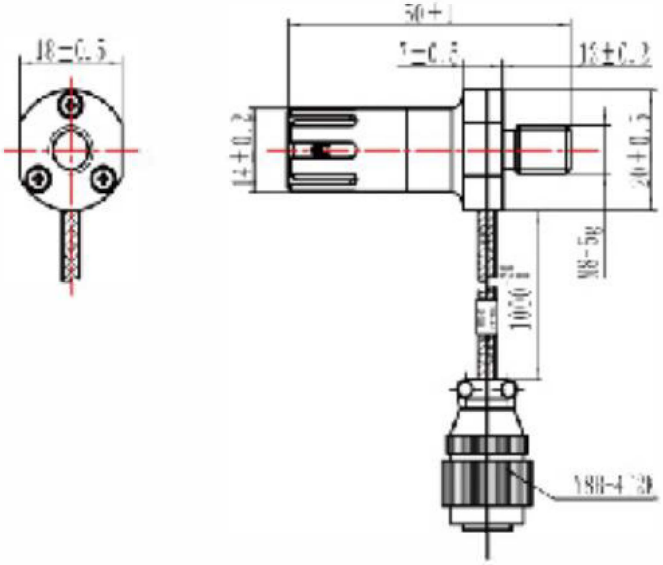
The SGTSSDKQ series temperature sensors achieve temperature measurement by utilizing the exponential relationship between the resistance value of thermistors and temperature. They are characterized by high sensitivity, high precision, high reliability and small size, and are widely used in temperature measurement in the fields of aviation, aerospace, ordnance and shipbuilding.

Specifications

Product Name	Temperature Sensor
Model	SGTSSDKQ
Scale Range	(-40~100) °C
Temperature Sensing Element	NTC thermistor
Insulation Resistance	100MΩ/50V
Output	Voltage signal output

Dimension

Outline Structure (Unit: mm)



Series Insertion Ultra-Low Temperature Sensors

Overview

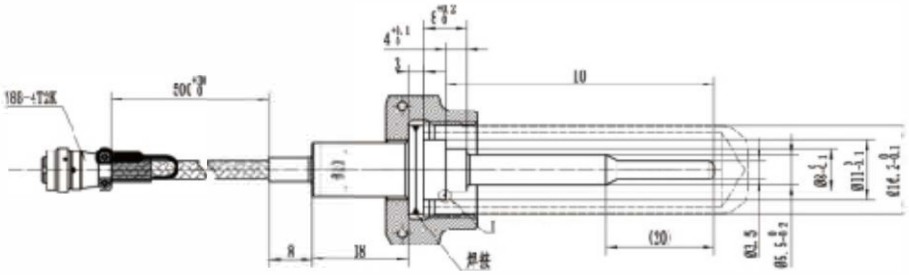
The SGTTMHSTTG series ultra-low temperature sensors realize temperature measurement based on the corresponding linear relationship between platinum resistor and temperature. They are characterized by high precision, high reliability and small volume, and are widely used in temperature measurement in the fields of aviation, aerospace, weapons and ships.

Specifications

Product Name	Ultra-Low Temperature Sensor
Model	SGTTMHSTTG
Scale Range	(-200~800) °C
Temperature Sensing Element	Pt100 or pt1000
Insulation Resistance	100MΩ/50V
Output	Resistance value output

Dimension

Outline Structure (Unit: mm)



Stratified Temperature Sensor

Overview

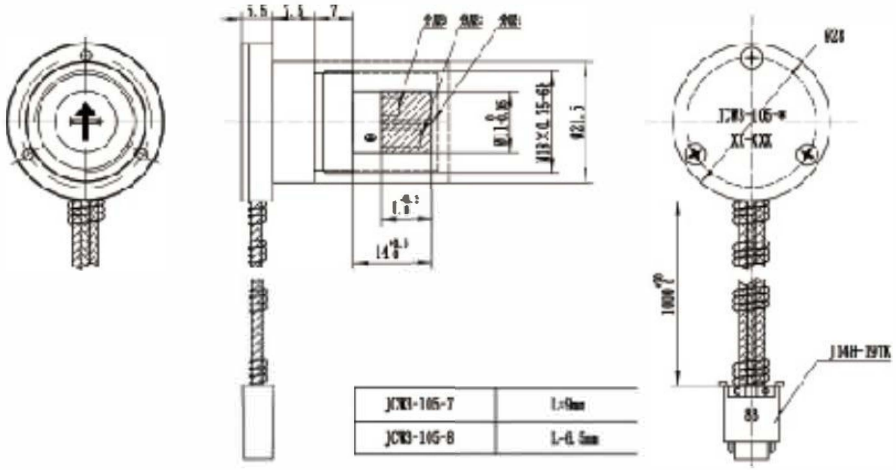
The SGTSSD63840/1 stratified temperature sensor is used to measure the surface temperature of aircraft. It is characterized by small volume, light weight, standardized structure and easy installation. This product is widely used in temperature measurement in the fields of aviation, aerospace, weapons and ships.

Specifications

Product Name	Stratified Temperature Sensor
Model	SGTSSD63840/1
Scale Range	Channel 1: (-50~+1200) °C; channel 2: (-50~+600) °C; channel 3: (-50~+250) °C
Temperature Sensing Element	Thermocouple
Insulation Resistance	100MΩ/100V
Output	mV signal

Dimension

Outline Structure (Unit: mm)



SGTSHfTS755

Digital Temperature Sensor

Overview

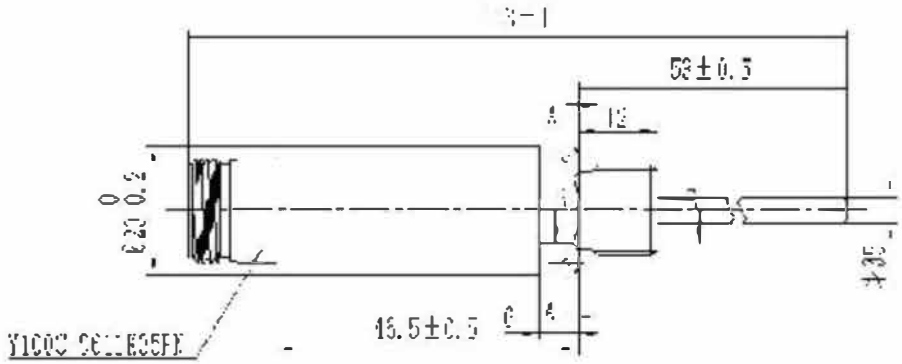
The SGTSHfTS755 digital temperature sensor is used to measure the fuel temperature of the engine. The temperature sensor collects the fuel temperature, converts it into a digital quantity, and then sends it to the superior system via the RS-485 protocol. This product is widely applied to temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Digital Temperature Sensor
Model	SGTSHfTS755
Scale Range	-45°C~+120°C
Temperature Sensing Element	Platinum resistor
Insulation Resistance	20MΩ/50V
Output	485 signal

Dimension

Outline Structure (Unit: mm)



Oil Temperature Sensor

Overview

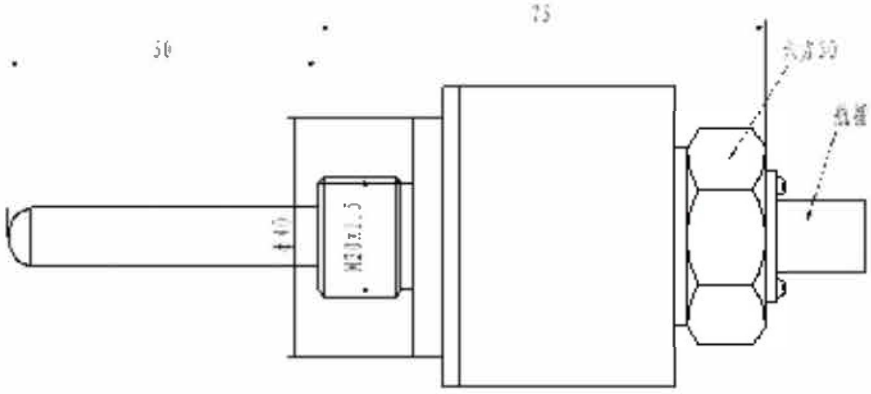
The SGTTSD433382E oil temperature sensor uses a Pt100 platinum resistor as the temperature sensing element. The resistance value of the platinum resistor changes correspondingly with the change of temperature. Through the rear-end amplifier conditioning circuit, the resistance signal is converted into a standard current signal for output. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Oil Temperature Sensor
Model	SGTTSD433382E
Scale Range	-40°C~125°C
Drive Voltage Supply	24VDC±4VDC
Insulation Resistance	>250MΩ/250VDC
Output	4mA~20mA
Accuracy	±1.5%FS

Dimension

Outline Structure (Unit: mm)



Wibbow

SGTTSDK459E

Temperature Transmitter

Overview

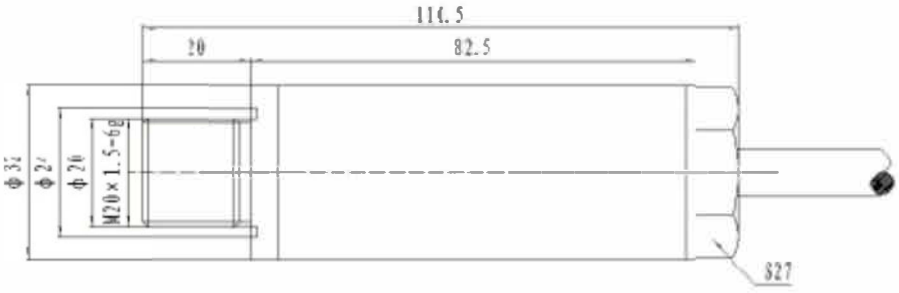
The SGTTSDK459E temperature transmitter uses a thermocouple element as the temperature sensing device. It converts the millivolt signal generated by the thermocouple into a standard current signal through an integrated circuit, and can be directly and conveniently connected to computer interface cards, control instruments, intelligent instruments, PLCs, etc. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance and shipping.

Specifications

Product Name	Temperature Transmitter
Model	SGTTSDK459E
Scale Range	(0~1200) °C (Instantaneous high temperature)
Insulation Resistance	100MΩ/100VDC
Power Supply	(12±1) VDC
Output	1~5) V
Accuracy	2%FS
Water-tight Test	Execute according to IP67 rating

Dimension

Outline Structure (Unit: mm)



SGTTSD446A

Temperature Sensor

Overview

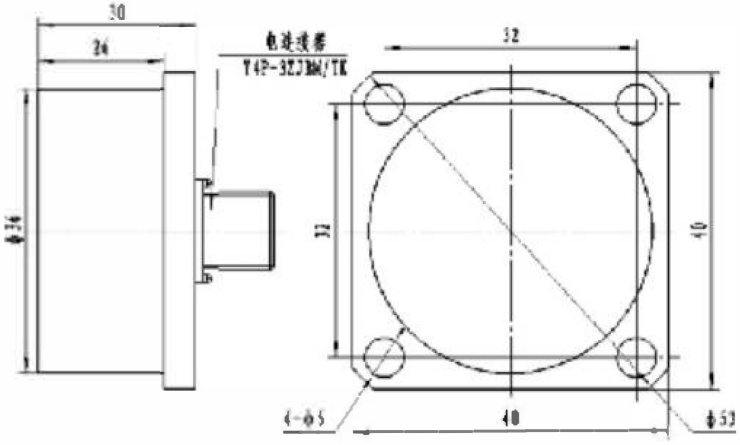
The SGTTSD446A temperature sensor realizes temperature measurement by taking advantage of the excellent temperature-resistance effect of the platinum resistor. Its stainless-steel shell features high precision, high reliability and convenient installation. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance and shipping.

Specifications

Product Name	Temperature Sensor
Model	SGTTSD446A
Scale Range	(-43~170) °C
Power Supply	26V
Insulation Resistance	100MΩ/100V
Output	1~5V
Accuracy	1%

Dimension

Outline Structure (Unit: mm)



SGTTG436

Temperature Sensor

Overview

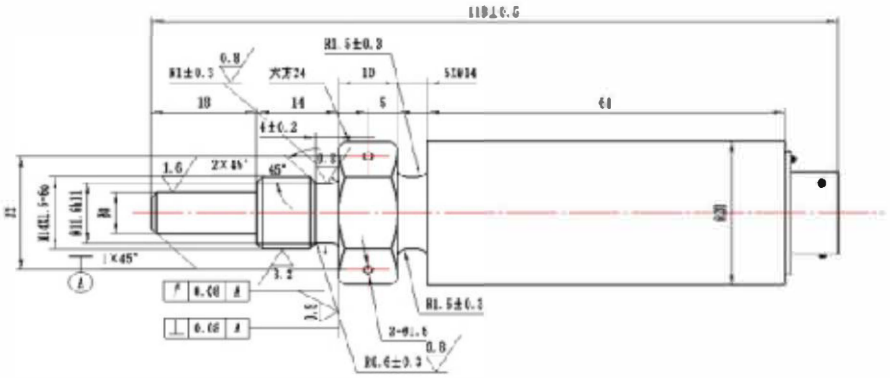
The SGTTG436 temperature sensor features a small size, high frequency response, and a wide operating temperature range. These characteristics are conducive to its integration and intelligentization. It outputs a standard current signal and is equipped with an output protection circuit. When the sensor malfunctions, it will not cause damage to the rear-end acquisition system. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Sensor
Model	SGTTG436
Scale Range	(-60~200) °C
Drive Voltage Supply	27±3V
Insulation Resistance	>100MΩ/100V
Output	4~20mA
Accuracy	±1°C (80°C~150°C); ±1.5°C (-25°C~80°C); ±3°C (-60°C~-25°C; 150°C~200°C)

Dimension

Outline Structure (Unit: mm)



Temperature Sensor

Overview

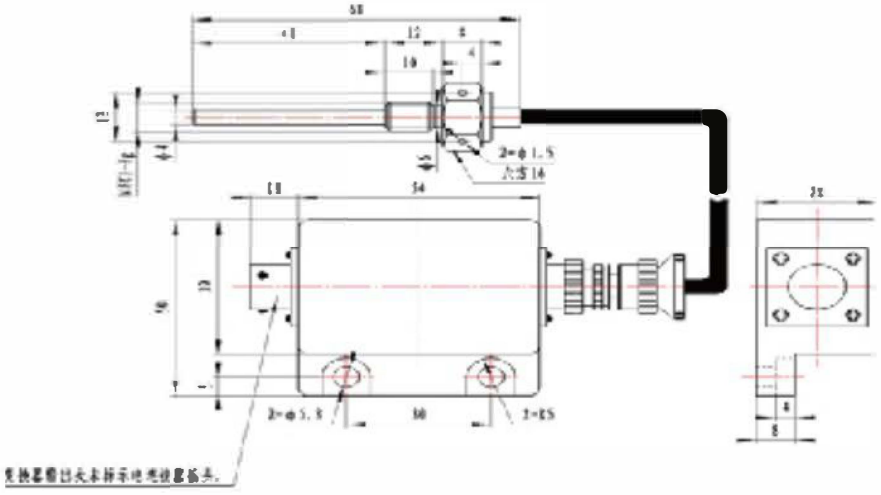
The SGTTG437 temperature sensor features a wide operating temperature range and other characteristics. It outputs a standard current signal and is equipped with an output protection circuit. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Sensor
Model	SGTTG437
Scale Range	(-60~220) °C
Drive Voltage Supply	27±3V
Insulation Resistance	>100MΩ/100V
Output	1~10V
Accuracy	±1.5°C (-20°C~150°C); ±3°C (-60°C~-20°C; 150°C~220°C)
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Temperature Sensor

Overview

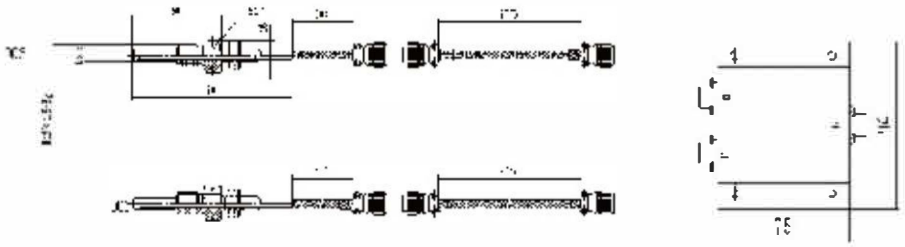
The SGTTG486 temperature sensor assembly uses a thermocouple element as the temperature sensing device. It converts the millivolt signal generated by the thermocouple into a standard current signal through an integrated circuit, and can be directly and conveniently connected to computer interface cards, control instruments, intelligent instruments, PLCs, etc. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Sensor
Model	SGTTG486
Scale Range	D01: -20°C~600°C; D03: -20°C~400°C
Drive Voltage Supply	27VDC
Insulation Resistance	100MΩ/100V
Output	4m~20mA
Operating Temperature	(-55°C~+125) °C

Dimension

Outline Structure (Unit: mm)



Temperature Sensor

Overview

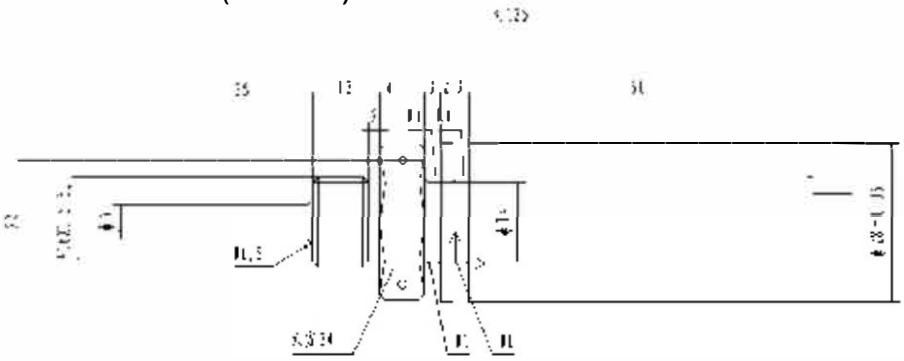
The SGTTG487 temperature sensor selects a thin-film platinum resistor as the measuring element. It has the characteristics of small size, high frequency response, a wide operating temperature range, and high reliability, which is conducive to integration and intelligentization. It outputs a standard current signal and is equipped with an output protection circuit. When the sensor malfunctions, it will not cause damage to the rear-end acquisition system. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Sensor
Model	SGTTG487
Scale Range	(-45°C~120) °C
Drive Voltage Supply	27±2.7V
Insulation Resistance	>100MΩ/100V
Output	4m~20mA
Accuracy	±1°C (80°C~120°C); ±1.5°C (-25°C~80°C); ±3°C (-45°C~--25°C)
Operating Temperature	-50°C~70 °C

Dimension

Outline Structure (Unit: mm)



Water Temperature Sensor

Overview

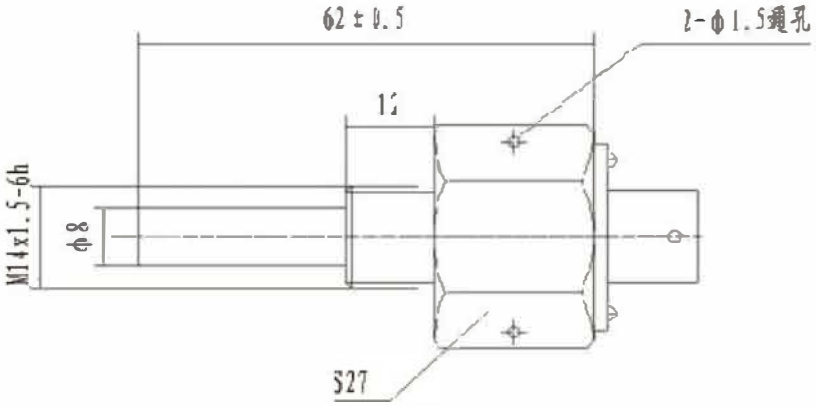
The SGTSY water temperature sensor realizes temperature measurement by taking advantage of the excellent temperature-resistance effect of the platinum resistor. It features high precision, high reliability, and flexible usage. It can be used independently or directly connected to a control system or a display instrument. This product is widely applied to temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Water Temperature Sensor
Model	SGTSY
Scale Range	(-50°C~150) °C
Temperature Sensing Element	Pt100 or pt1000
Insulation Resistance	100MΩ/100V
Output	Pt100 or pt1000 output
Accuracy	Grade A

Dimension

Outline Structure (Unit: mm)



Temperature Sensor

Overview

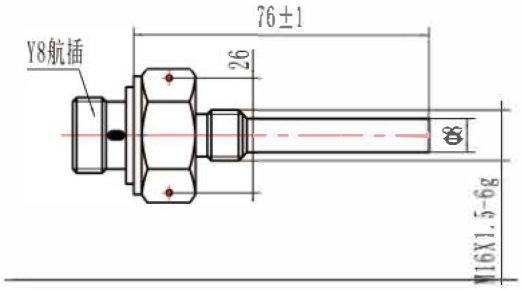
The JW temperature sensor realizes temperature measurement by taking advantage of the excellent temperature-resistance effect of the platinum resistor. It has the characteristics of high precision, high reliability, and convenient installation. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Sensor
Model	/
Scale Range	(-50°C~150) °C
Temperature Sensing Element	Pt100 or pt1000
Insulation Resistance	100MΩ/100V
Output	Pt100 or pt1000 output
Accuracy	Grade A

Dimension

Outline Structure (Unit: mm)



Temperature Transmitter

Overview

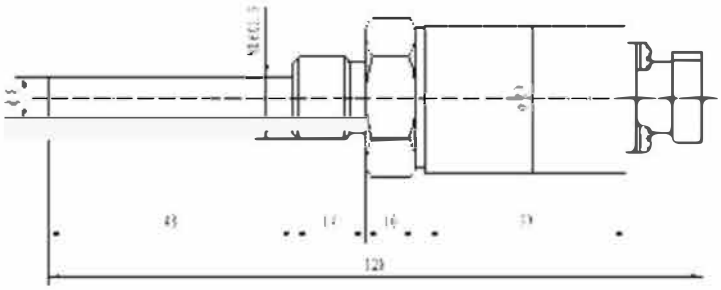
The SGTTSD533 temperature transmitter realizes temperature measurement by taking advantage of the excellent temperature-resistance effect of the platinum resistor. The built-in ASIC circuit converts the resistance value signal into a standard electrical signal for output. It is suitable for the temperature measurement of various corrosive media that are compatible with stainless steel, and features high precision, reliable performance, and easy installation. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Transmitter
Model	SGTTSD533
Scale Range	(-43°C~150) °C
Insulation Resistance	100MΩ/100V
Voltage Supply	12VDC
Output	0.5~5.5v
Accuracy	±0.5°C
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



SGTTSD335H

Temperature Sensor

Overview

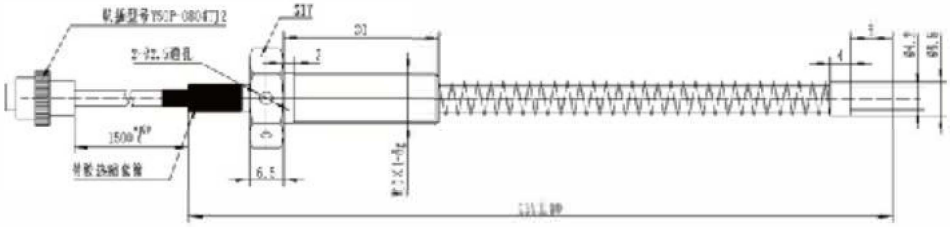
The SGTTSD335H temperature sensor adopts a high-performance and high-reliability Grade A Pt1000 platinum resistor. The resistance value of the platinum resistor changes correspondingly with the change in temperature. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Transmitter
Model	SGTTSD335H
Scale Range	(-43°C~450) °C
Insulation Resistance	100MΩ/100VDC
Accuracy	1%FS
High and Low temperature, Shock and Vibration Tests	Execute relevant standards such as GJB150

Dimension

Outline Structure (Unit: mm)



Series Temperature Sensors

Overview

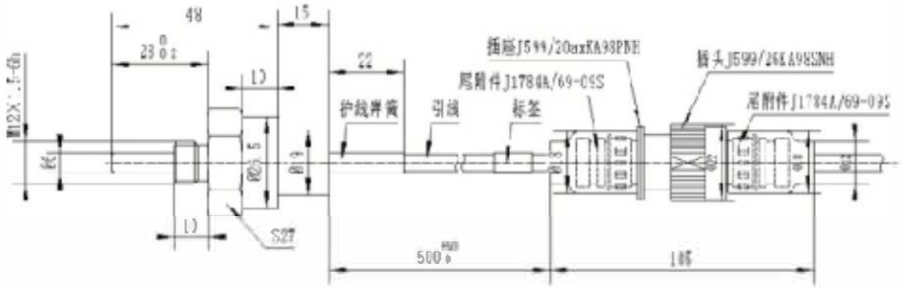
The SGTTHTF series temperature sensors use high-performance and highly reliable Pt1000 platinum resistors for temperature sensing, and adopt the impedance output mode, which can be directly and conveniently connected to computer interface cards, control instruments, intelligent instruments, PLCs, etc. This series of products features a small size, light weight, and convenient and simple installation, and has extremely high anti-vibration and anti-shock performance. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Intake Air/Coolant/Fuel Temperature Sensor
Model	SGTTHTF
Scale Range	(-55°C~150) °C
Insulation Resistance	500MΩ/500VDC
Operating Current	≤0.3mA
Accuracy	±(0.5+0.005|t|) °C
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



SGTTSD302Q

Temperature Sensors

Overview

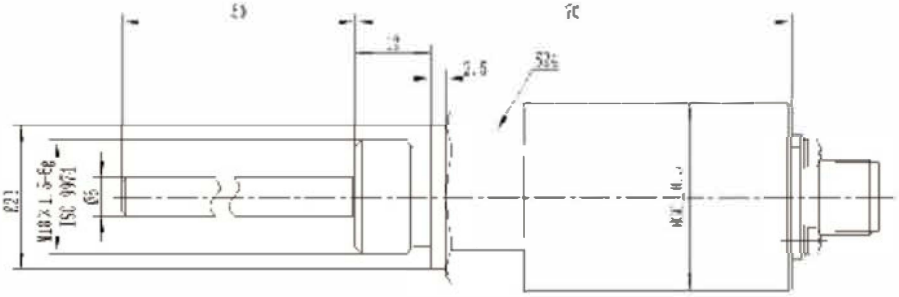
The SGTTSD302Q temperature sensor adopts a high-performance and highly reliable Grade B Pt100 platinum resistor. It integrates a temperature compensation circuit and a signal amplification circuit. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Sensor
Model	SGTTSD302Q
Scale Range	-40°C~+85°C
Drive Voltage Supply	12VDC~36VDC
Insulation Resistance	≥100MΩ/100VDC
Null Output	4~20mA
Accuracy	±1%FS
Operating Temperature	-40°C~85°C

Dimension

Outline Structure (Unit: mm)



SGTTSD302R

Temperature Sensors

Overview

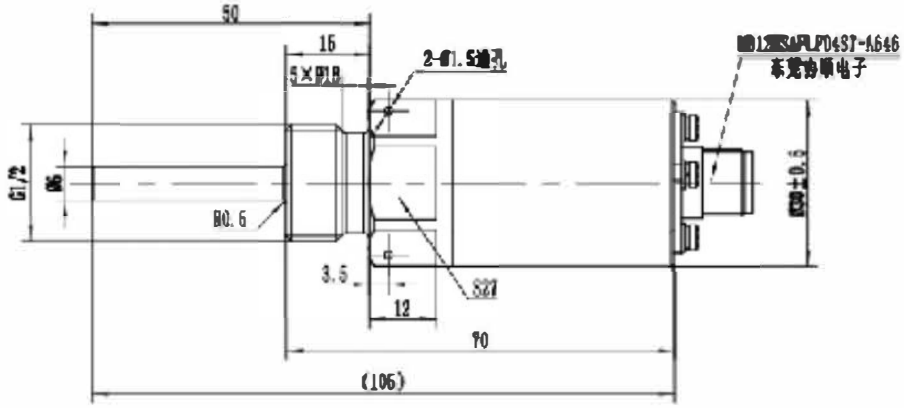
The SGTTSD302R temperature sensor adopts a high-performance and highly reliable Grade B Pt100 platinum resistor. It integrates a temperature compensation circuit and a signal amplification circuit. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Sensor
Model	SGTTSD302R
Scale Range	-50°C~+85°C
Drive Voltage Supply	24VDC±6V
Insulation Resistance	≥100MΩ/100VDC
Null Output	4~20mA
Accuracy	±1%FS
Operating Temperature	-40°C~85°C

Dimension

Outline Structure (Unit: mm)



Temperature Transducer

Overview

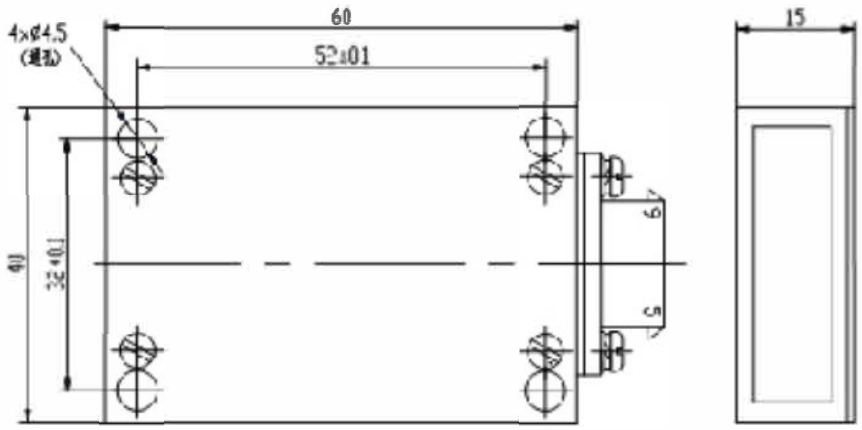
The SGTT41 temperature transducer is composed of a reference source and a limiter amplifier circuit. The reference source supplies a constant voltage to the resistance bridge. The output voltage of the bridge is amplified by the amplifier circuit and then outputs a voltage of a specified amplitude. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Transducer
Model	SGTT41
Scale Range	-(40~400) °C
Insulation Resistance	Normal environment: 100MΩ/50VDC High humidity environment: 2MΩ/50VDC
Operating Voltage	(±15±1.5) VDC
Output	0.2~4.8VDC
Non-linearity Error	≤0.2%
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Series Temperature Transducers

Overview

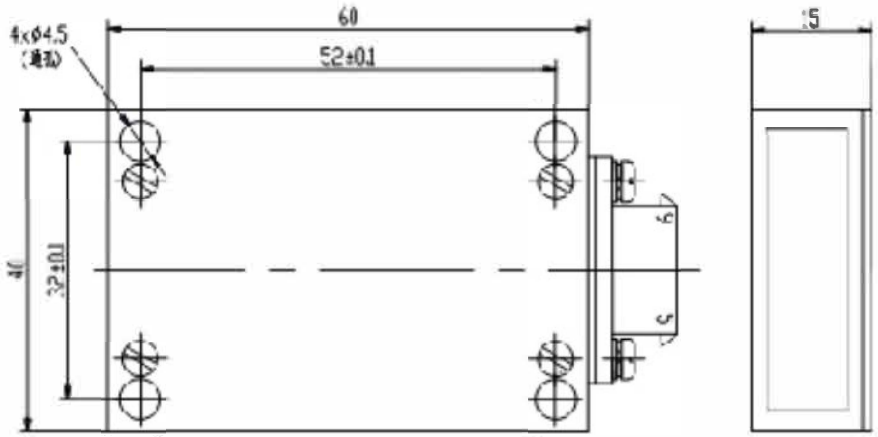
The SGTT5 series temperature transducer is composed of a power supply circuit, a differential amplifier, a proportional amplifier, a cold junction compensation circuit, and an output circuit, etc. The proportional amplifier adjusts the signal of the output voltage from the differential amplifier and the cold junction compensation circuit, and outputs a standard signal. The output circuit is composed of limiting diodes and current-limiting resistors. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Transducer
Model	SGTT5
Scale Range	SGTT5-5: (-40~1000) °C SGTT5-6: (-40~1500) °C
Insulation Resistance	Normal environment: 100MΩ/50VDC
Operating Voltage	(±15±1.5) VDC
Output	(0.2~4.8VDC
Non-linearity Error	≤0.2%
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



SGTTSDEB / SGTTSDKB

Series Temperature Transducers

Overview

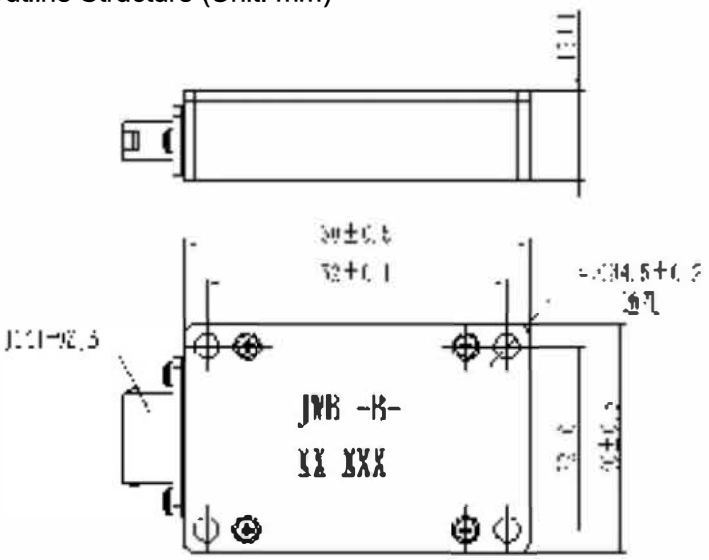
The SGTTSDEB / SGTTSDKB series transducers are composed of a reference source and a limiter amplifier circuit. The reference source supplies a constant voltage to the resistance bridge. The output voltage of the bridge is amplified by the amplifier circuit and then outputs a voltage of a specified amplitude. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Transducer
Model	SGTTSDEB / SGTTSDKB
Voltage Supply	(±15±0.1) VDC
Insulation Resistance	>100MΩ/50VDC
Output	0.15~4.85V
Non-linearity Error	±2%FS
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



SGTTSDEH / SGTTSDKH

Series Temperature Transducers

Overview

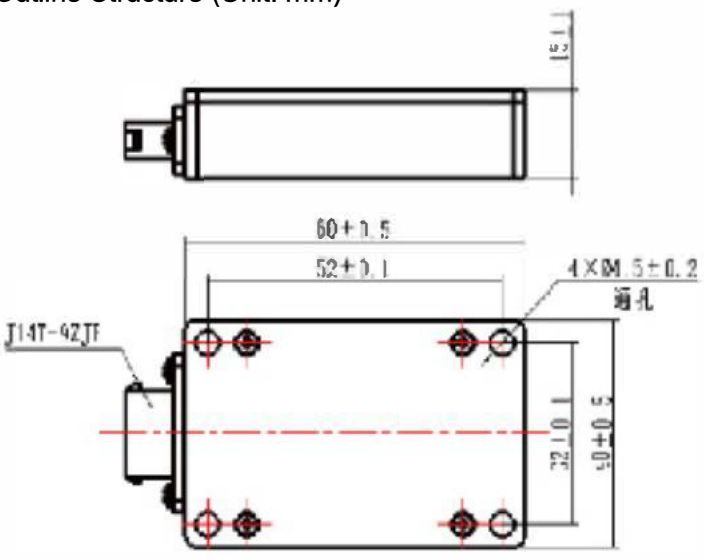
The SGTTSDEH / SGTTSDKH series transducers are composed of a reference source, a temperature compensation circuit and a limiter amplifier circuit. The reference source provides a constant voltage. The temperature compensation circuit is used to eliminate the influence of the cold junction temperature of the thermocouple sensor on its output. The input voltage is amplified by the amplifier circuit and then outputs a voltage of a specified amplitude. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

Specifications

Product Name	Temperature Transducer
Model	SGTTSDEH / SGTTSDKH
Voltage Supply	(±15±0.1) VDC
Insulation Resistance	>100MΩ/50VDC
Output	0.15~4.85V
Non-linearity Error	±2%FS
Operating Temperature	-40°C~60°C

Dimension

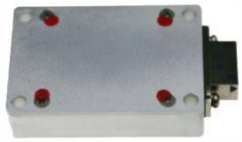
Outline Structure (Unit: mm)



Temperature Transducer

Overview

The SGTTY47549/53 temperature transducer is composed of a reference source and a limiter amplifier circuit. The reference source supplies a constant voltage to the resistance bridge. The output voltage of the bridge is converted into a standard voltage signal by the amplifier circuit and then outputs a voltage of a specified amplitude. This product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance, and shipping.

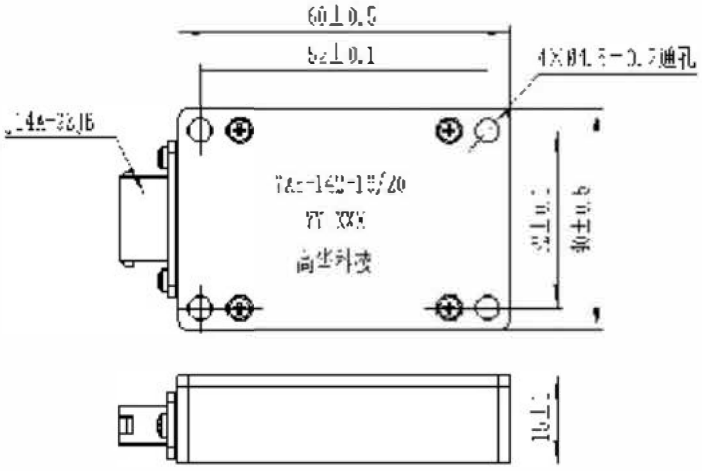


Specifications

Product Name	Temperature Transducer
Model	SGTTY47549/53
Scale Range	SGTTY47549: (-50~300) °C SGTTY47553: (-50~400) °C
Voltage Supply	(±15±0.5) VDC
Insulation Resistance	Normal environment: ≥100MΩ/50V High humidity environment: ≥2MΩ/50V
Output	0.2~4.8V
Input and Output Non-linearity Error	≤0.2%
Operating Temperature	-40°C~60°C (Transducer)

Dimension

Outline Structure (Unit: mm)



SGTTSD360A34 / SGTTSD360AEH

Temperature Sensor/Transducer

Overview

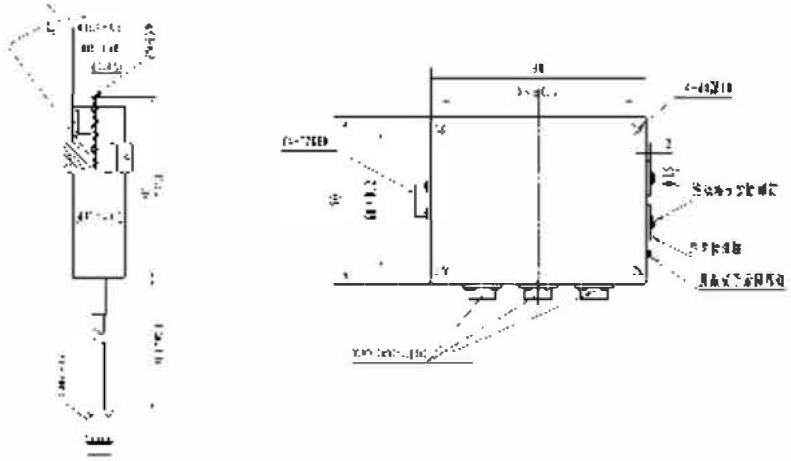
The SGTTSD360A34 temperature sensor uses a Class I precision K-type thermocouple temperature measurement wire as the temperature sensing device. This product is easy and simple to install, has extremely high vibration and impact resistance performance, and can simultaneously convert 4 channels of thermocouple signals. The product is widely used in temperature measurement in the fields of aviation, aerospace, ordnance and shipping.

Specifications

Product Name	Temperature Sensor and Transducer
Model	SGTTSD360A34 / SGTTSD360AEH
Scale Range	(-50~300) °C
Voltage Supply	15VDC±1VDC
Insulation Resistance	>100MΩ/100V
Output	0.2~4.9V
Input and Output Non-linearity Error	±2%FS
Operating Temperature	-40°C~60°C (Transducer)

Dimension

Outline Structure (Unit: mm)



Magnetoresistive Speed Sensor

Overview

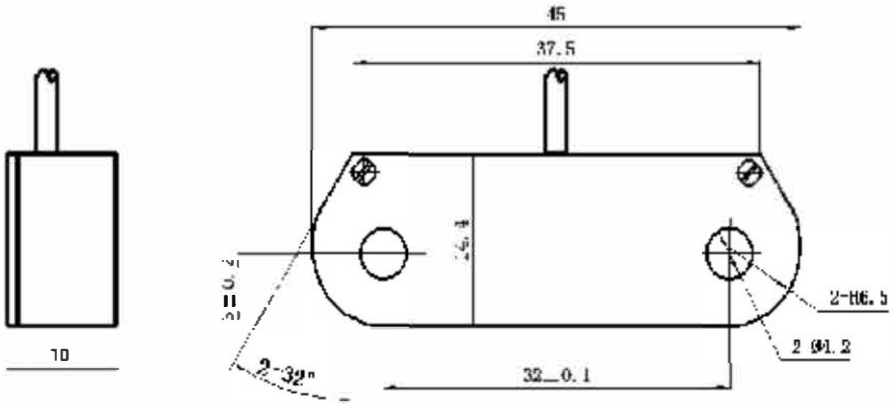
The SGSS360F magnetoresistive speed sensor adopts a highly reliable magnetoresistive sensor device and is triggered by a steel magnetic conductor. It can be directly connected and used with control instruments and intelligent instruments. It has the characteristics of wide frequency response, good stability, high sensitivity and strong reliability, and can work in a vibrating environment. This product is easy and simple to install, has high vibration and impact resistance performance, and can be widely used in speed measurement and control systems of aero engines, large motors, machine tools, vehicles, etc., and is suitable for matching with the complete machine.

Specifications

Product Name	Magnetoresistive Speed Sensor
Model	SGSS360F
Scale Range	0r/min~125000r/min
Drive Voltage Supply	3VDC~12VDC
Insulation Resistance	>100MΩ/100V
Output Signal	Rectangular wave
Operating Distance	0mm~100mm
Output Amplitude	5V±0.2V
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Wibbow

SGSS315A

Speed Sensor

Overview

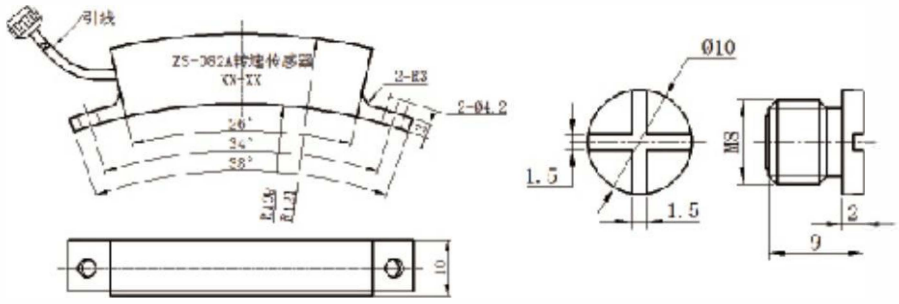
The SGSS315A speed sensor is composed of three parts: a magnetic field sensitive element, a conversion circuit, and a signal lead-out. It has the characteristics of high sensitivity and strong reliability, and is widely used in speed measurement and control systems. The sensor is used in conjunction with magnetic screws.

Specifications

Product Name	Speed Sensor
Model	SGSS315A
Scale Range	0r/min~800r/min
Drive Voltage Supply	5VDC±0.1VDC
Weight	≤100g
Insulation Resistance	>100MΩ/100VDC
Operating Current	≤20mA
Output	Square wave
Error	±1Hz
Operating Temperature	-30°C~150°C

Dimension

Outline Structure (Unit: mm)



Magnetic Speed Sensor

Overview

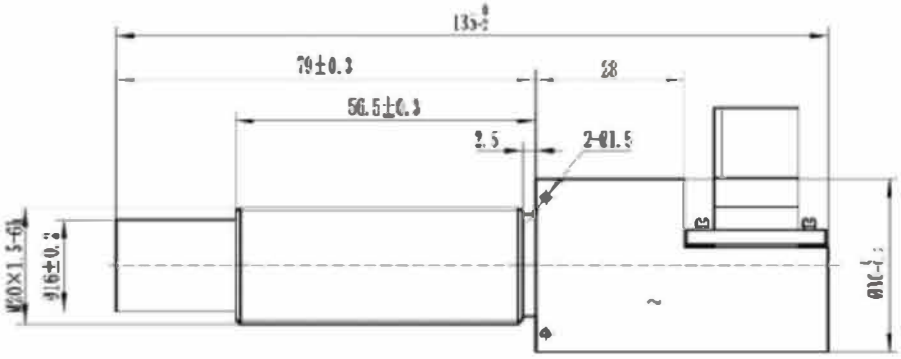
The SGSSY27 magnetic speed sensor adopts highly reliable magnetoelectric sensor devices and incorporates a self-checking function. It is triggered by a magnetic conductor made of steel. It can be directly connected and used with control instruments, intelligent instruments, etc. It has the characteristics of a wide frequency response, good stability, high sensitivity, and strong reliability. This series of products is easy and simple to install, has high anti-vibration and anti-impact performance, and can be widely used in speed measurement and control systems of aero engines, large motors, machine tools, vehicles, etc.

Specifications

Product Name	Magnetic Speed Sensor
Model	SGSSY27
Scale Range	0Hz~3kHz
Drive Voltage Supply	(18~30) VDC
Insulation Resistance	≥20MΩ/500VDC
Operating Current	≤20mA
Output Signal	Square wave
Output Amplitude	≥10V
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Speed Sensor

Overview

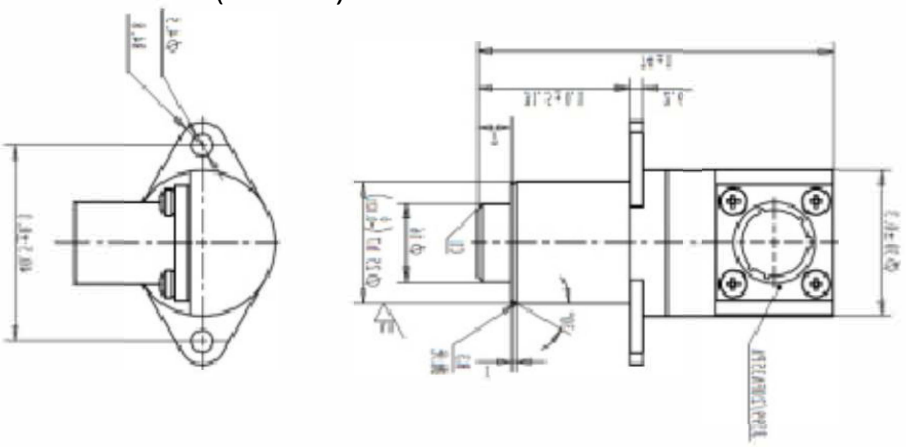
The SGSSY434 speed sensor uses imported high-precision digital Hall elements as the speed-measuring sensitive components. The measurement range is as high as 15kHz. It adopts a wide voltage power supply input internally. At the same time, an anti-electromagnetic interference circuit is designed, which has a good protective effect on the internal circuit. The exterior features a fully welded and sealed stainless steel structure, providing strong resistance to corrosion and external interference.

Specifications

Product Name	Speed Sensor
Model	SGSSY434
Scale Range	10HZ~12KHZ
Drive Voltage Supply	18V~30V
Insulation Resistance	>100MΩ/100V
Output Signal	Square wave
Distance Measurement	1.5mm~2mm
Accuracy	0.2%FS
Operating Temperature	-55°C~125°C

Dimension

Outline Structure (Unit: mm)



Magnetic Speed Sensor

Overview

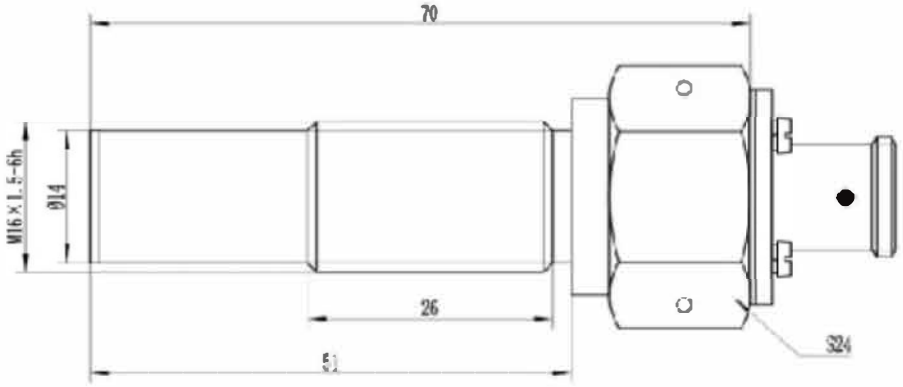
The SGSS335A magnetic speed sensor measures the rotational speed based on the principle of electromagnetic induction and outputs a sine-wave signal. It has the advantages of not requiring an external power supply, non-contact measurement, and a stable output waveform. The product has excellent environmental adaptability and good reliability, and is suitable for measuring the rotational speed of cams, crankshafts, turbines, etc. in harsh environments.

Specifications

Product Name	Magnetic Speed Sensor
Model	SGSS335A
Scale Range	50Hz~10kHz
Drive Voltage Supply	No power supply
Insulation Resistance	>100MΩ/100V
Output Signal	Sine wave
Operating Distance	0mm~2mm
Output Amplitude	>0.5V
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



SGSS335E

Magnetic Speed Sensor

Overview

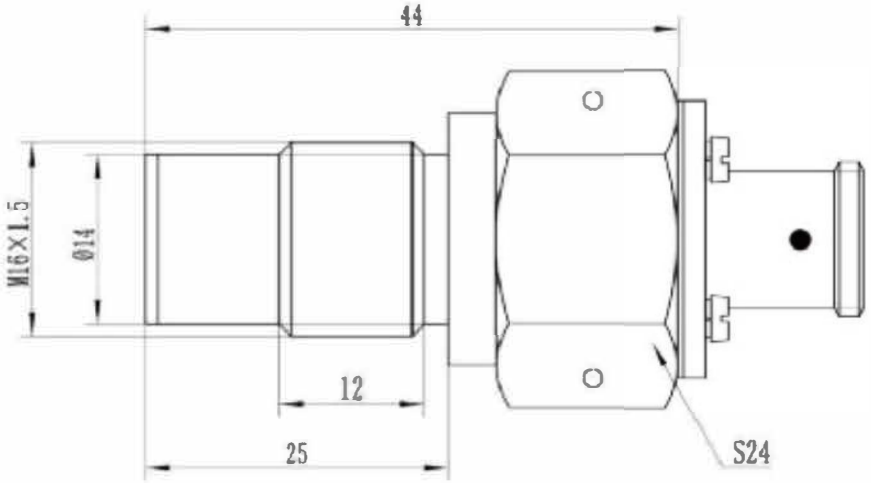
The SGSS335E magnetic speed sensor measures the rotational speed based on the principle of electromagnetic induction and outputs a sine-wave signal. It has the advantages of not requiring an external power supply, non-contact measurement, and a stable output waveform. The product has excellent environmental adaptability and good reliability, and is suitable for measuring the rotational speed of cams, crankshafts, turbines, etc. in harsh environments.

Specifications

Product Name	Magnetic Speed Sensor
Model	SGSS335E
Scale Range	50Hz~10kHz
Drive Voltage Supply	No power supply
Insulation Resistance	>100MΩ/100V
Output Signal	Sine wave
Operating Distance	0mm~2mm
Output Amplitude	>0.5V
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Hall Effect Speed Sensor

Overview

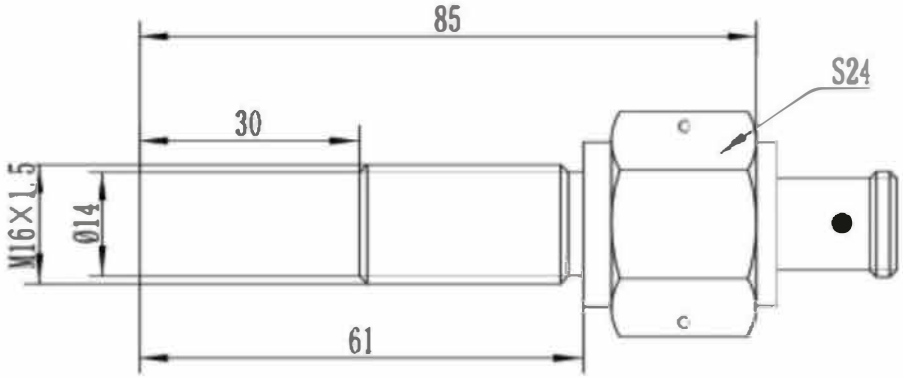
The SGSS335F Hall effect speed sensor uses highly reliable Hall sensor devices and is triggered by a magnetic conductor made of steel. It can be directly connected to and used with control instruments, intelligent instruments, etc. It features a wide frequency response, good stability, high sensitivity, and strong reliability, and can operate in a vibrating environment. This product is easy and simple to install, has high anti-vibration and anti-impact performance, and can be widely used in speed measurement and control systems for aero-engines, large motors, machine tools, vehicles, etc. It is suitable for being matched with complete machines.

Specifications

Product Name	Hall Effect Speed Sensor
Model	SGSS335F
Scale Range	0Hz~10kHz
Drive Voltage Supply	9VDC~32VDC
Insulation Resistance	>100MΩ/100V
Output Signal	Rectangular wave
Operating Distance	0mm~2mm
Output Amplitude	Power Supply Voltage±1V
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Hall Effect Speed Sensor

Overview

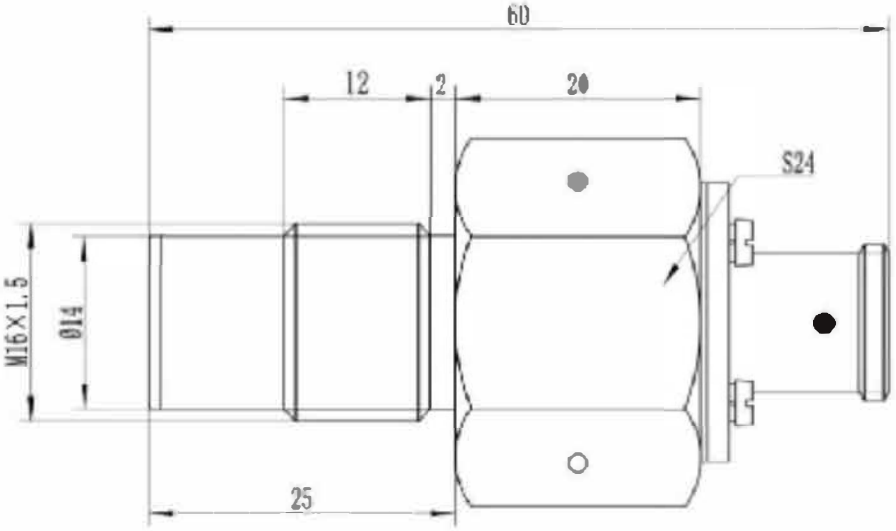
The SGSS335H Hall effect speed sensor uses highly reliable Hall sensor devices and is triggered by a magnetic conductor made of steel. It can be directly connected to and used with control instruments, intelligent instruments, etc. It features a wide frequency response, good stability, high sensitivity, and strong reliability, and can operate in a vibrating environment. This product is easy and simple to install, has high anti-vibration and anti-impact performance, and can be widely used in speed measurement and control systems for aero-engines, large motors, machine tools, vehicles, etc. It is suitable for being matched with complete machines.

Specifications

Product Name	Hall Effect Speed Sensor
Model	SGSS335H
Scale Range	0Hz~10kHz
Drive Voltage Supply	9VDC~32VDC
Insulation Resistance	>100MΩ/100V
Output Signal	Rectangular wave
Operating Distance	0mm~2mm
Output Amplitude	Power Supply Voltage±1V
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Hall Effect Speed Sensor

Overview

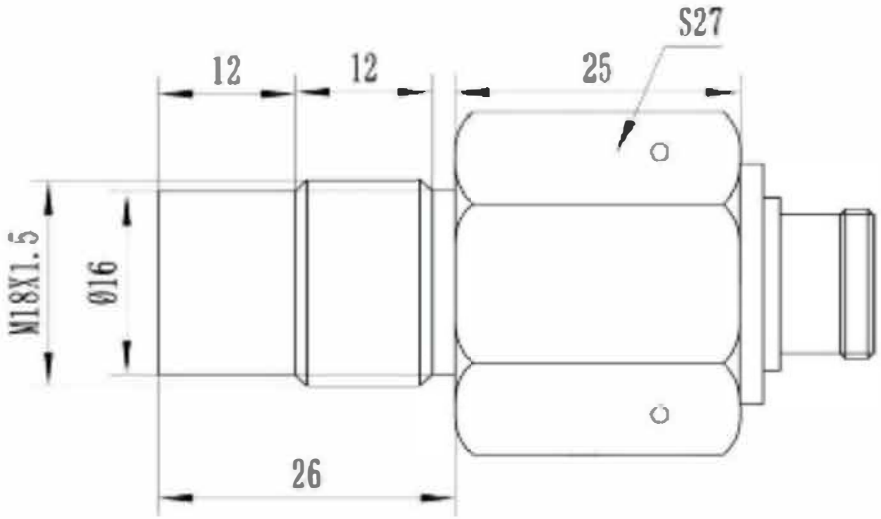
The SGSS335K Hall effect speed sensor uses highly reliable Hall sensor devices and is triggered by a magnetic conductor made of steel. It can be directly connected to and used with control instruments, intelligent instruments, etc. It features a wide frequency response, good stability, high sensitivity, and strong reliability, and can operate in a vibrating environment. This product is easy and simple to install, has high anti-vibration and anti-impact performance, and can be widely used in speed measurement and control systems for aero-engines, large motors, machine tools, vehicles, etc. It is suitable for being matched with complete machines.

Specifications

Product Name	Hall Effect Speed Sensor
Model	SGSS335K
Scale Range	0Hz~10kHz
Drive Voltage Supply	9VDC~32VDC
Insulation Resistance	>100MΩ/100V
Output Signal	Rectangular wave
Operating Distance	0mm~2mm
Output Amplitude	Power Supply Voltage±1V
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Magnetoelectric Speed Sensor

Overview

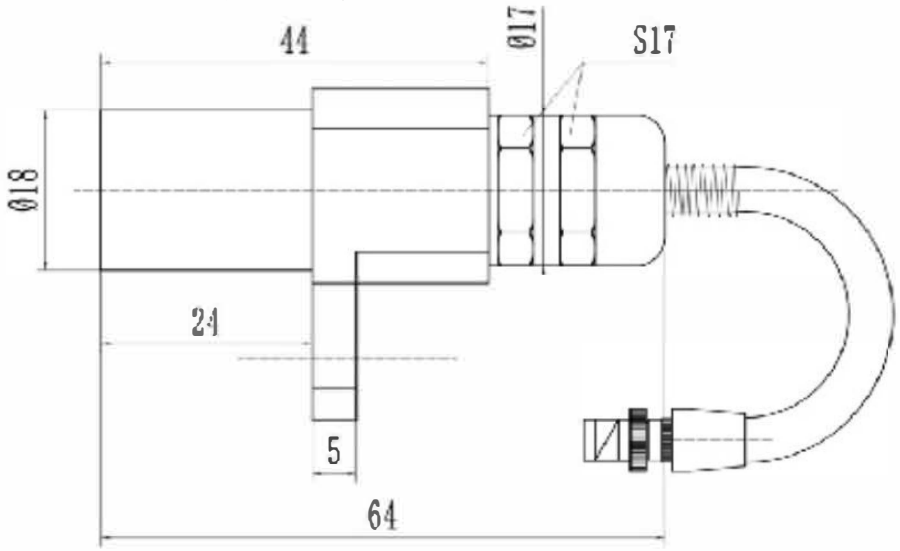
The SGSS469E magnetoelectric speed sensor measures rotational speed based on the principle of electromagnetic induction and outputs a sine-wave signal. It has advantages such as not requiring an external power supply, non-contact measurement, and a stable output waveform. The product boasts excellent environmental adaptability and high reliability, and is suitable for measuring the rotational speed of cams, crankshafts, turbines, etc. in harsh environments.

Specifications

Product Name	Magnetoelectric Speed Sensor
Model	SGSS469E
Scale Range	50Hz~10kHz
Drive Voltage Supply	No power supply
Insulation Resistance	>100MΩ/100V
Output Signal	Sine wave
Operating Distance	0mm~2mm
Output Amplitude	>0.5v
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Magnetoelectric Speed Sensor

Overview

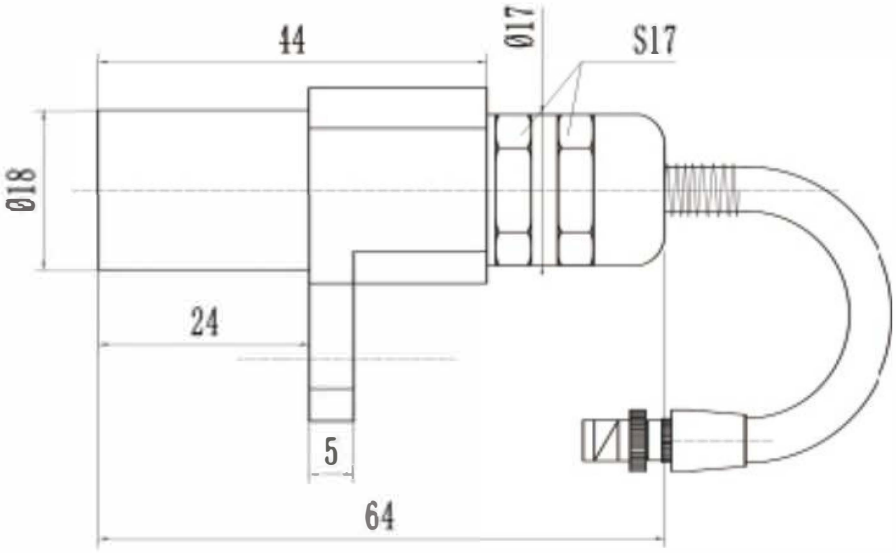
The SGSS469JA magnetoelectric speed sensor measures rotational speed based on the principle of electromagnetic induction and outputs a sine-wave signal. It has advantages such as not requiring an external power supply, non-contact measurement, and a stable output waveform. The product boasts excellent environmental adaptability and high reliability, and is suitable for measuring the rotational speed of cams, crankshafts, turbines, etc. in harsh environments.

Specifications

Product Name	Magnetoelectric Speed Sensor
Model	SGSS469JA
Scale Range	50Hz~10kHz
Drive Voltage Supply	No power supply
Insulation Resistance	>100MΩ/100V
Output Signal	Sine wave
Operating Distance	0mm~2mm
Output Amplitude	>0.5V
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Crankshaft Speed Sensor

Overview

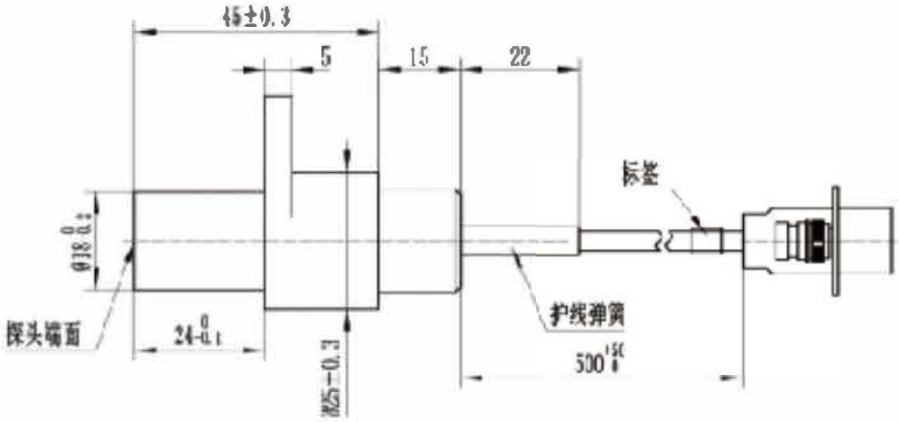
The SGSSSQZ crankshaft speed sensor measures rotational speed based on the principle of electromagnetic induction and outputs a sine-wave signal. It has advantages such as not requiring an external power supply, non-contact measurement, and a stable output waveform. The product boasts excellent environmental adaptability and high reliability, and is suitable for measuring the rotational speed of cams, crankshafts, turbines, etc. in harsh environments.

Specifications

Product Name	Crankshaft Speed Sensor
Model	SGSSSQZ
Scale Range	50Hz~5kHz
Drive Voltage Supply	No power supply
Insulation Resistance	>500MΩ/500VDC
Output Signal	Sine wave
Operating Distance	0.5mm~2.0mm
Output Amplitude	≥2V
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Camshaft Speed Sensor

Overview

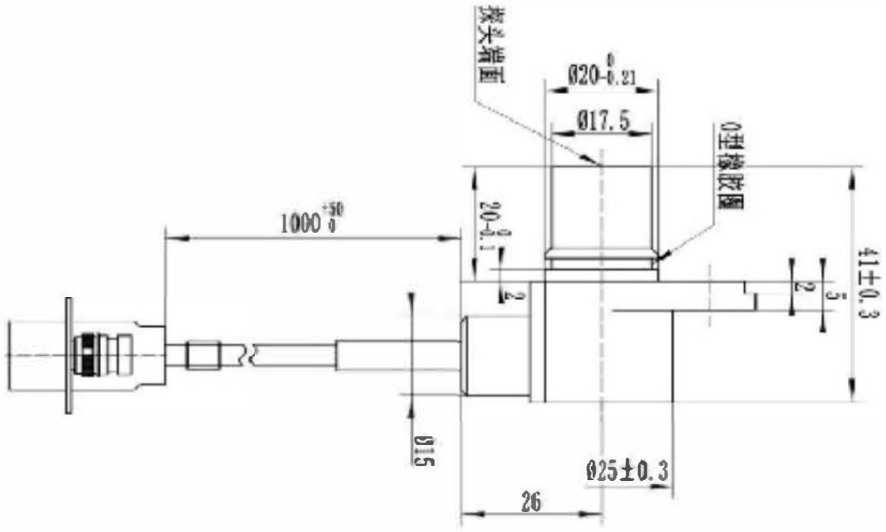
The SGSSSTL camshaft speed sensor measures rotational speed based on the principle of electromagnetic induction and outputs a sine-wave signal. It has advantages such as not requiring an external power supply, non-contact measurement, and a stable output waveform. The product boasts excellent environmental adaptability and high reliability, and is suitable for measuring the rotational speed of cams, crankshafts, turbines, etc. in harsh environments.

Specifications

Product Name	Camshaft Speed Sensor
Model	SGSSSTL
Scale Range	3.3Hz~2kHz
Drive Voltage Supply	No power supply
Insulation Resistance	≥500MΩ/500VDC
Output Signal	Sine wave
Operating Distance	0.5mm~2.0mm
Output Amplitude	≥2V
Operating Temperature	-43°C~125°C

Dimension

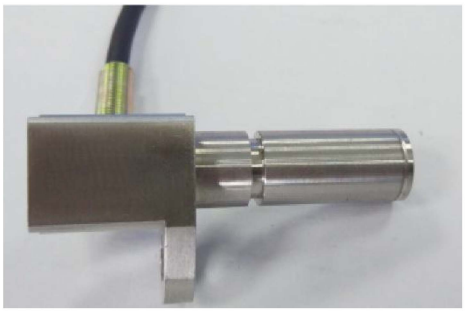
Outline Structure (Unit: mm)



Speed Sensor

Overview

The SGSSS speed sensor measures rotational speed based on the principle of electromagnetic induction and outputs a sine-wave signal. It has advantages such as not requiring an external power supply, non-contact measurement, and a stable output waveform. The product boasts excellent environmental adaptability and high reliability, and is suitable for measuring the rotational speed of cams, crankshafts, turbines, etc. in harsh environments.

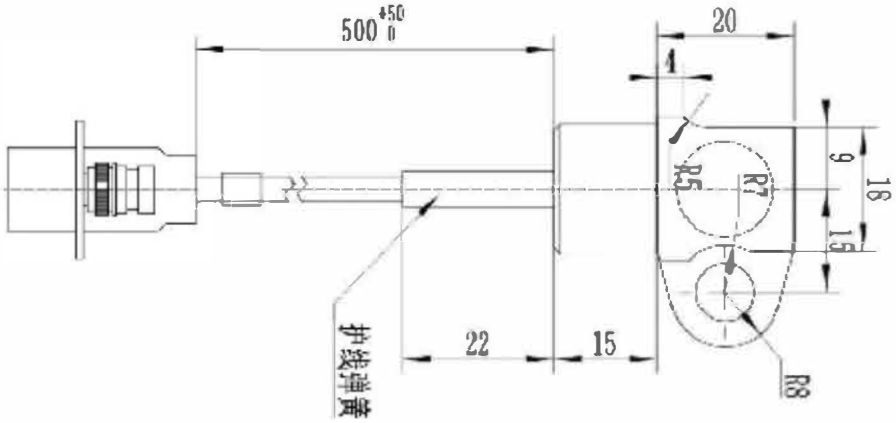


Specifications

Product Name	Speed Sensor
Model	SGSSS
Scale Range	80Hz~10kHz
Drive Voltage Supply	No power supply
Insulation Resistance	≥500MΩ/500VDC
Output Signal	Sine wave
Operating Distance	0.5mm~2.0mm
Output Amplitude	≥2V
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Series Magnetic Speed Sensors

Overview

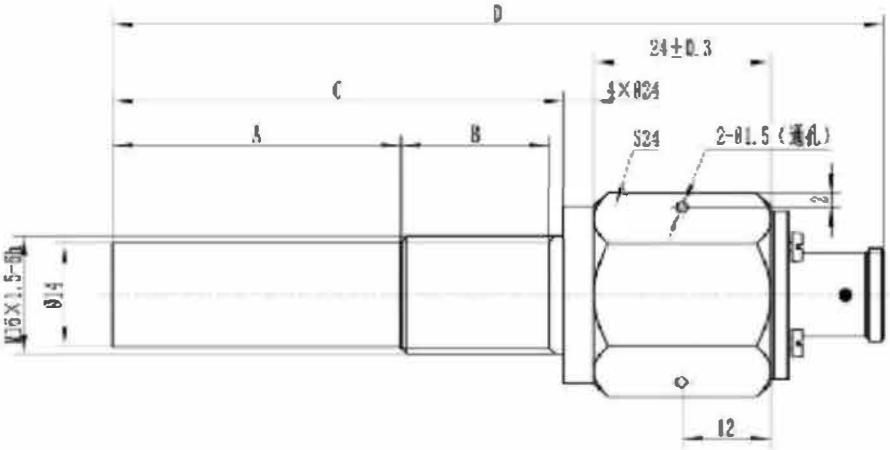
The SGSSSV7MN series magnetic speed sensors adopt highly reliable magnetoelectric sensor devices and are triggered by steel magnetic conductors. They can be directly connected and used with control instruments and intelligent instruments. They feature a wide frequency response, good stability, high sensitivity and strong reliability, and can work in a vibrating environment. The products in this series are easy and simple to install, have high anti-vibration and anti-impact performance, and can be widely used in speed measurement and control systems of aero-engines, large motors, machine tools, vehicles, etc., and are suitable for being matched with complete machines.

Specifications

Product Name	Magnetic Speed Sensor
Model	SGSSSV7MN
Scale Range	50Hz~10kHz
Drive Voltage Supply	No power supply
Insulation Resistance	≥100MΩ/250VDC
Output Signal	Sine wave
Operating Distance	0.5mm~2.0mm
Output Amplitude	≥0.7V
Operating Temperature	-43°C~150°C

Dimension

Outline Structure (Unit: mm)



Series Hall Effect Speed Sensors

Overview

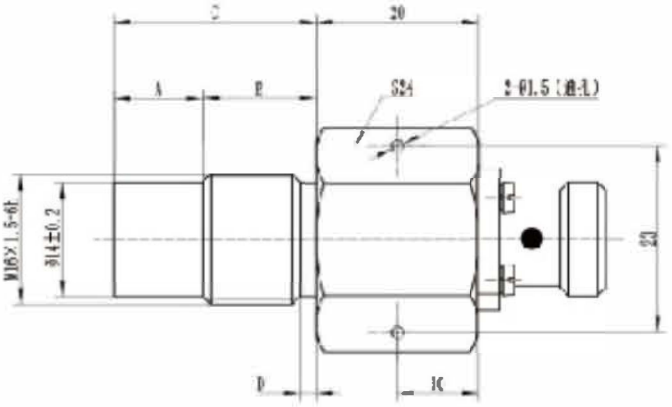
The SGSSSBHE series Hall effect speed sensors use highly reliable Hall sensor devices and are triggered by magnetic conductors made of steel. They can be directly connected to and used with control instruments, intelligent instruments, etc. These sensors feature a wide frequency response, good stability, high sensitivity, and strong reliability, and can operate in a vibrating environment. The products in this series are easy and simple to install, with high anti-vibration and anti-impact performance. They can be widely applied in the speed measurement and control systems of aero-engines, large motors, machine tools, vehicles, etc.

Specifications

Product Name	Hall Effect Speed Sensor
Model	SGSSSBHE
Scale Range	0Hz~10kHz
Drive Voltage Supply	(12±1) V
Insulation Resistance	≥100MΩ/250VDC
Output Signal	Rectangular wave
Operating Distance	0.5mm~2.0mm
Output Amplitude	≥9V
Operating Temperature	-43°C~150°C

Dimension

Outline Structure (Unit: mm)



Humidity Sensor

Overview

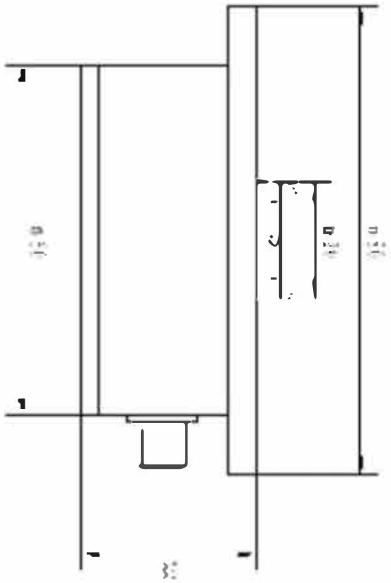
The SGHSSD humidity sensor uses a high-precision and highly reliable polymer film humidity-sensitive capacitive sensor as the humidity-sensing element. The humidity-sensing mechanism is based on the fact that the dielectric constant of the chemically and physically stable polymer humidity-sensitive material changes linearly with the change of environmental humidity, and the capacitance value also changes correspondingly. The built-in ASIC circuit then converts the capacitance signal into a standard current and voltage signal for output. The sensor adopts a fully welded stainless steel structure and is installed with a flange, featuring reliable performance. This product is mainly used for humidity measurement in aerospace ships and launch boxes.

Specifications

Product Name	Humidity Sensor
Model	SGHSSD
Scale Range	0~100%RH
Insulation Resistance	100MΩ/100V
Output	4~20mA
Accuracy	3%RH (20%RH~80%RH ensured)
Operating Temperature	0°C~100°C

Dimension

Outline Structure (Unit: mm)



Temperature and Pressure Sensor

Overview

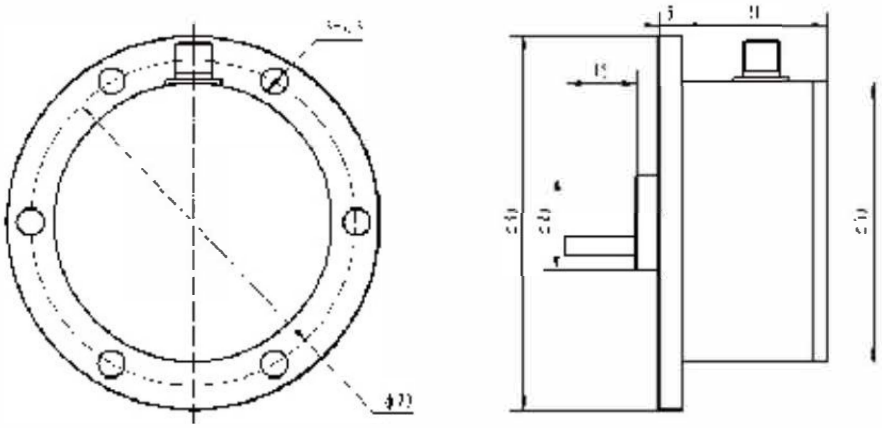
The SGHTSD temperature and pressure sensor is composed of several parts including a sensing element, a conversion circuit and a housing. The sensor uses a high-performance silicon piezoresistive pressure oil-filled core and a high-precision Pt100 platinum resistance as the sensing components. The signals of each sensing component are converted into standard signals by the conversion circuit for the subsequent use. This product is mainly used for temperature and pressure measurement in aerospace, ships and launch boxes.

Specifications

Product Name	Temperature and Pressure Sensor
Model	SGHTSD
Scale Range	Temperature: -40°C~85°C Pressure: -0.02MPa~+0.03MPa (Gage pressure)
Drive Voltage Supply	24VDC±2VDC
Insulation Resistance	>250MΩ/250VDC
Output	4mA~20mA
Error	Temperature: ±1%FS Pressure: ±1%FS
Overload	200%FS

Dimension

Outline Structure (Unit: mm)



Temperature, Humidity and Pressure Integrated Sensor

Overview

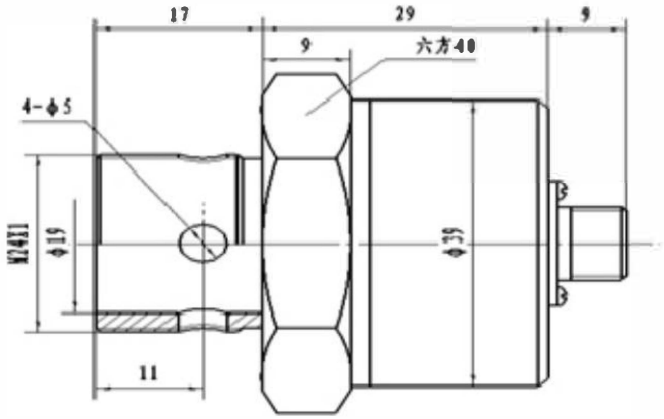
The SGHTPSD temperature, humidity and pressure integrated sensor integrates a silicon piezoresistive pressure sensor, a high-precision platinum resistor, and a high-precision humidity sensor in the same stainless-steel housing as the sensing element. Based on the principle that the pressure sensor, thin-film platinum resistor, and humidity sensor have corresponding linear outputs according to changes in pressure, temperature, and humidity respectively, it is equipped with a built-in ASIC conversion circuit to output three channels of standard current or voltage signals. The sensor adopts a fully welded stainless steel structure, has a variety of threaded interfaces, and features reliable performance and convenient installation. This product is mainly used for measuring gas pressure, temperature, and humidity in the fields of aviation, aerospace, ordnance, and shipbuilding.

Specifications

Product Name	Temperature, Humidity and Pressure Integrated Sensor
Model	SGHTPSD
Pressure Scale Range	0~150KPa
Humidity Scale Range	0~100%RH
Temperature Scale Range	-45~65°C
Drive Voltage Supply	5~24V
Insulation Resistance	100MΩ/100V
Output	4~20mA
Temperature Accuracy	0.5°C
Humidity Accuracy	3%RH (20%RH~80%RH ensured)
Pressure Accuracy	0.3%FS

Dimension

Outline Structure (Unit: mm)



Temperature and Humidity Sensor

Overview

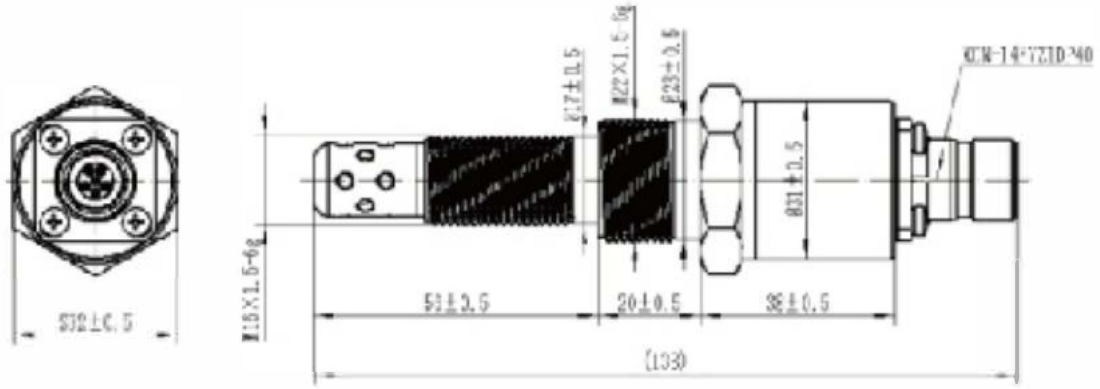
The SGHTSD404A temperature and humidity sensor uses high-precision platinum resistors and highly stable humidity sensors as sensing elements. The internal dedicated integrated circuit converts temperature and humidity signals into dual-channel 4mA~20mA current outputs. The sensor adopts a fully stainless-steel sealed structure, which is convenient and simple to install and has high vibration and impact resistance. This product is characterized by convenient installation, small size and high reliability. It is widely used in temperature and humidity measurement in the national defense field.

Specifications

Product Name	Humidity Sensor
Model	SGHTSD404A
Humidity Scale Range	0%RH~100%RH
Temperature Scale Range	-40~80°C
Drive Voltage Supply	24VDC
Insulation Resistance	>20MΩ/250VDC
Output	Dual channels 4~20mA

Dimension

Outline Structure (Unit: mm)



Wibbow

SGTPD452A

Dual-channel Temperature and Pressure Sensor

Overview

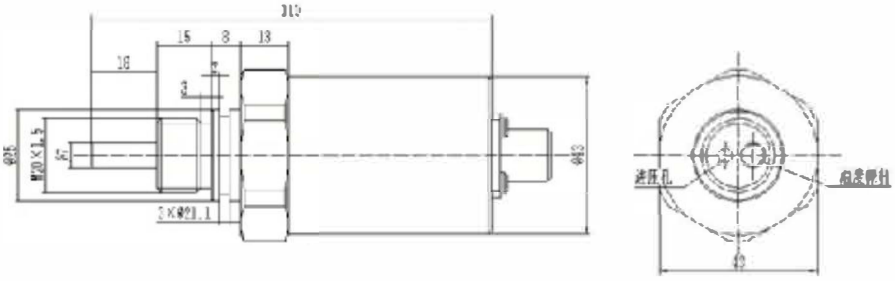
The SGTPD452A dual-channel temperature and pressure sensor is composed of several parts including a platinum resistor, a silicon piezoresistive pressure sensor, a conversion circuit and a housing. The signals of each sensing component are converted into standard signals by the conversion circuit for the subsequent use. The dual-channel sensor has two completely independent channels of temperature and pressure sensors inside, which do not interfere with each other and have extremely high reliability. This product is mainly used for the measurement of pressure and temperature of liquids in various types of equipment.

Specifications

Product Name	Dual-channel Temperature and Pressure Sensor
Model	SGTPD452A
Temperature Scale Range	-60°C~150°C (Dual channels)
Pressure Scale Range	0MPa~2.5MPa (Absolute pressure, dual channels)
Drive Voltage Supply	24VDC±3VDC
Insulation Resistance	>250MΩ/250VDC
Output	4mA~20mA
Temperature Error	±1.5°C
Pressure Error	±1%FS
Overload	200%FS

Dimension

Outline Structure (Unit: mm)



SGHTSD397A

Temperature and Humidity Sensor

Overview

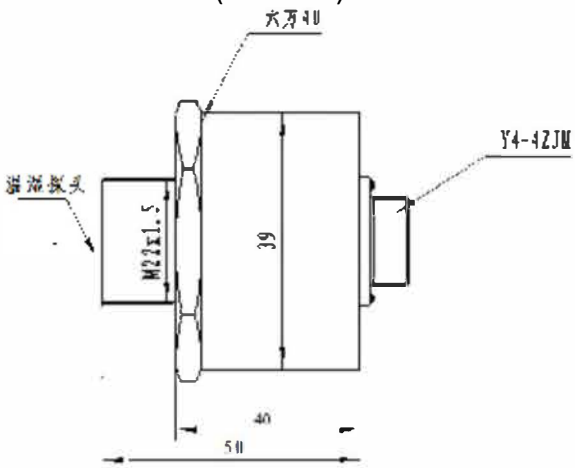
The SGHTSD397A temperature and humidity sensor selects a high-precision Pt100 platinum temperature resistor and a highly stable HIH4602 humidity sensor as the sensing elements. It has the characteristics of small size, wide measurement range, high reliability, etc. This product is convenient and simple to install, and has high vibration and impact resistance. It is used for the measurement of temperature and humidity in the aviation field.

Specifications

Product Name	Temperature and Humidity Sensor
Model	SGHTSD397A
Scale Range (Temperature)	-50°C~80°C
Scale Range (Humidity)	0%RH~100%RH
Drive Voltage Supply	18V~36V
Insulation Resistance	>100MΩ/100V
Null Output	4±0.08mA
Full Scale Output	20±0.08mA
Non-linearity	0.5%FS
Hysteresis	0.2%FS
Repeatability	0.2%FS
Accuracy	0.5%FS
Overload	300%FS
Zero Drift	0.25%FS/4h
Temperature Drift	0.05%FS/°C

Dimension

Outline Structure (Unit: mm)



Wibbow

SGHSSD364A

Dual-redundancy Humidity Sensor

Overview

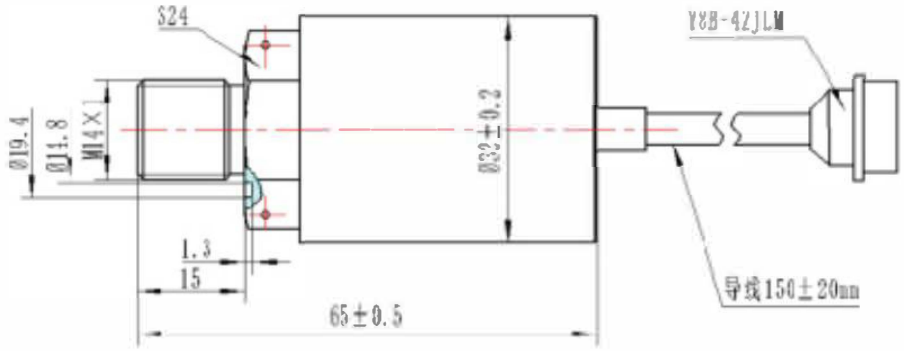
The SGHSSD364A dual-redundancy humidity sensor is designed for dual-redundancy humidity measurement, using a capacitive humidity sensor as the sensing element. The internal dedicated integrated circuit converts the dual-channel humidity signals into dual-channel 4mA~20mA current outputs. The SGHSSD364A dual-redundancy humidity sensor adopts a fully stainless-steel sealed structure, which is convenient and simple to install and has high vibration and impact resistance. This product is characterized by convenient installation, small size, high reliability, etc. It is widely used in the humidity measurement of gases.

Specifications

Product Name	Dual-redundancy Humidity Sensor
Model	SGHSSD364A
Scale Range	0%RH~100%RH (Dual channels)
Drive Voltage Supply	24VDC±10%
Insulation Resistance	>100MΩ/100VDC
Operating Current	≤100mA
Output	Dual channels 4~20mA
Accuracy	±5%FS (including linearity, hysteresis, and repeatability)

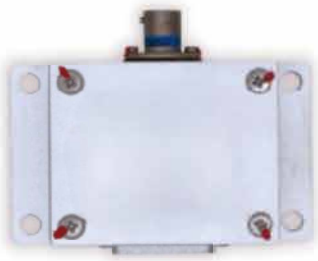
Dimension

Outline Structure (Unit: mm)



Temperature and Humidity Integrated Sensor

Overview



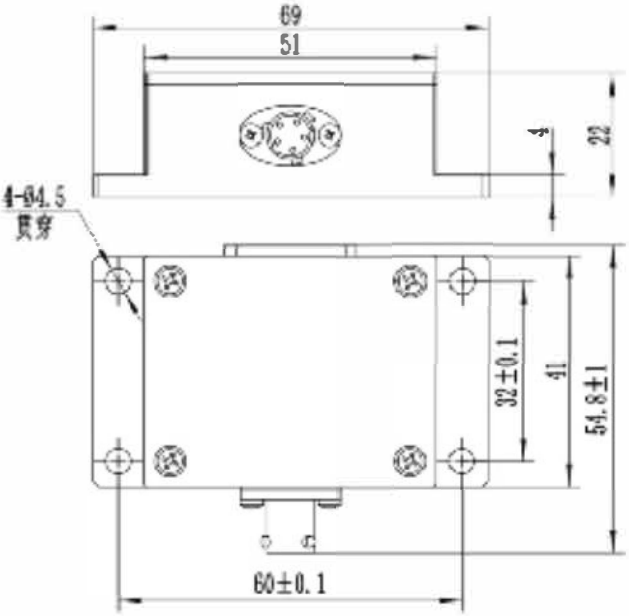
The SGHTS347A4 integrated temperature and humidity sensor selects the SHT35 to collect temperature and humidity signals. The SHT35 is based on a brand-new and optimized CMOSens® chip, which further improves the product's reliability and accuracy specifications. The SHT35 provides a series of new functions, such as enhanced signal processing, two unique and user-selectable I2C addresses, an alarm mode with programmable temperature and humidity limits, and a communication speed of up to 1MHz. The integrated temperature and humidity sensor is mainly composed of a temperature and humidity chip, a conditioning circuit, a microcontroller, a housing, an electrical connector, etc. This product is widely used in the measurement of temperature and humidity in the national defense field.

Specifications

Product Name	Temperature and Humidity Integrated Sensor
Model	SGHTS347A4
Scale Range	10%~90%RH/-40°C~120°C
Drive Voltage Supply	9V~36V
Operating Current	≤20mA\ every channel
Output	Dual channels 4mA~20mA
Humidity Accuracy	≤±4%RH (0°C~50°C, 20%~80%RH); ±6%RH (for others)
Temperature Accuracy	≤2%FS (-40°C~120°C)

Dimension

Outline Structure (Unit: mm)



Wibbow SGHFSD319A / SGHFSD319AT

Heat Flux Sensor/Transducer

Overview

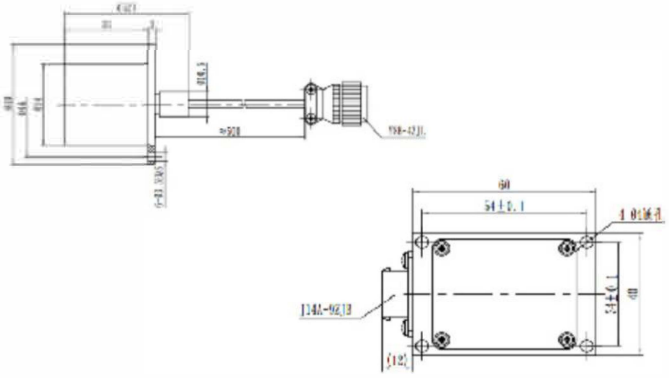
The SGHFSD319A heat flux sensor uses a constantan foil-copper heat sink as the sensing element. The product is convenient and simple to install and has high vibration and impact resistance.
The SGHFSD319AT heat flux transducer is the signal conditioning circuit of the SGHFSD319A heat flux sensor and is composed of an amplifier circuit and a filter circuit. The product is convenient and simple to install and has high vibration and impact resistance. This product is used for heat measurement in the space and on the outer wall of each section of the rocket.

Specifications

Product Name	Heat Flux Sensor/Transducer
Model	SGHFSD319A / SGHFSD319AT
Scale Range	0~25kw/m^2
Power Supply Voltage	±15V±0.1V
Output Voltage	0.3V±0.1V~4.7V±0.1V
Input-output Nonlinear Error of Transducer	≤0.1%
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Series Heat Flux Sensors

Overview

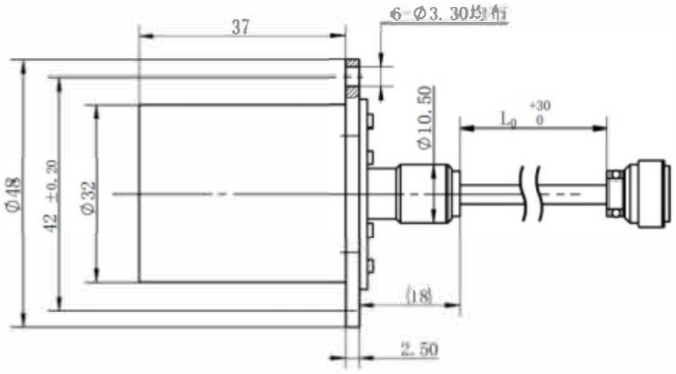
The SGHFSDS series heat flux sensors adopt highly reliable sensing cores. The products are convenient and simple to install and have high vibration and impact resistance. With the features of convenient and simple installation as well as high vibration and impact resistance, these products are used for the measurement of heat flux in the space and on the outer wall of each section of the rocket.

Specifications

Product Name	Heat Flux Sensor
Model	SGHFSDS
Scale Range	0~50kw/m^2
Path Resistance at Room Temperature	≤10Ω
Weight	≤250g
Insulation Resistance	≥100MΩ/100VDC
Output	Voltage signal
Accuracy	≤±3%FS
Operating Temperature	-40°C~60°C

Dimension

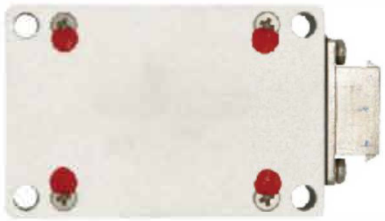
Outline Structure (Unit: mm)



Series Heat Flux Transducers

Overview

The SGHFSD1T series heat flux transducers are signal conditioning circuits supporting the SGHFSDS series heat flux sensors and consist of an amplification circuit and a filtering circuit. The products are convenient and simple to install and have high vibration and impact resistance. They are used for the measurement of heat flux in the space and on the outer wall of each section of the rocket.

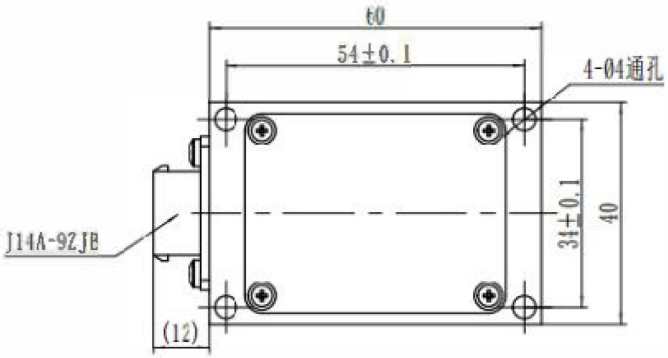


Specifications

Product Name	Heat Flux Transducer
Model	SGHFSD1T
Scale Range	The sensor range matched
Insulation Resistance	Normal environment: 100MΩ/50VDC High humidity environment: 2MΩ/50VDC
Operating Voltage	(±15±1.5) VDC
Output	0.2~4.8VDC
Non-linearity Error	≤0.2%
Weight	≤80g
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Series Heat Flux Sensors

Overview

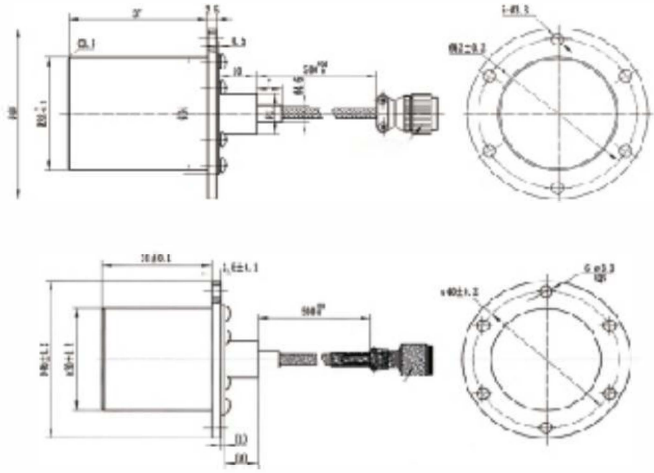
The heat flux sensor is a circular foil/thermopile heat flux sensor, which realizes the measurement of total heat flux by adopting the circular foil/thermopile measurement principle. The sensor has the characteristics of fast response, high measurement accuracy and strong reliability. It is used in cooperation with the heat flux converter. The product is convenient and simple to install and has high vibration and impact resistance. It is used for heat flux measurement in the aerospace field.

Specifications

Product Name	Heat Flux Sensor
Model	SGHFHS
Scale Range	30~3000kw/m^2
Path Resistance at Room Temperature	≤10Ω
Weight	≤250g
Insulation Resistance	≥100MΩ/100VDC
Output	Voltage signal
Accuracy	≤±3%FS
Operating Temperature	-40°C~60°C

Dimension

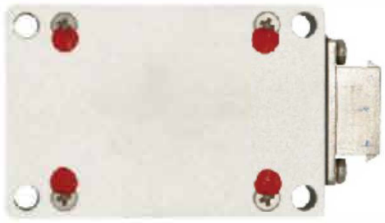
Outline Structure (Unit: mm)



Series Heat Flux Transducers

Overview

The SGHFHT heat flux converter is a signal conditioning circuit supporting heat flux sensors and consists of an amplification circuit and a filtering circuit. This type of converter has the characteristics of filtering out interference signals, amplifying measurement signals and high reliability. The product is easy to install and has high vibration and impact resistance.

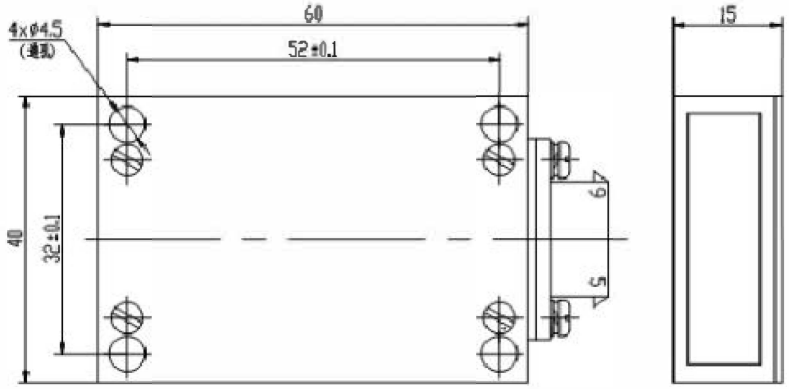


Specifications

Product Name	Heat Flux Transducer
Model	SGHFHT
Scale Range	The sensor range matched
Insulation Resistance	Normal environment: 100MΩ/50VDC High humidity environment: 2MΩ/50VDC
Operating Voltage	(±15±1.5) VDC
Output	0.2~4.8VDC
Non-linearity Error	≤0.2%
Weight	≤80g
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)



Series Noise Sensors and Transducers

Overview

The SGNHS noise sensor adopts an electret noise sensor, which is used for high-noise measurement. It uses a titanium alloy diaphragm and a stainless-steel housing and adopts the latest laser welding packaging process, thus having extremely high long-term stability. The noise sensor is used in conjunction with a noise transducer.

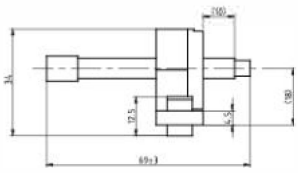
The noise sensor transducers the noise physical quantity at each measurement point into the corresponding charge signal, and the noise transducer converts the charge signal into the corresponding voltage signal for the subsequent acquisition system. It is mainly used for environmental noise measurement.

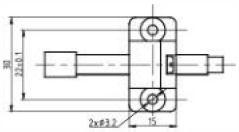
Specifications

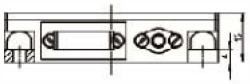
Product Name	Noise Sensor
Model	SGNHS / SGNHT
Scale Range	70~180dB (Customizable)
Power Supply Voltage	+15VDC±1.5VDC
Amplitude-frequency Characteristic	Flatness within the passband is less than 1dB
Weight	Sensor≤70g, transducer≤100g
Frequency Response	50Hz~8000Hz (Customizable)
Amplitude Nonlinearity	≤3%
Operating Temperature	-30°C~70°C

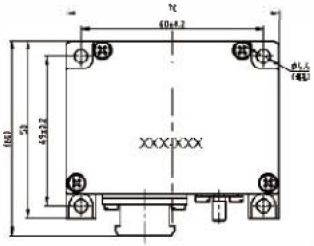
Dimension

Outline Structure (Unit: mm)









Oil Quality Sensor

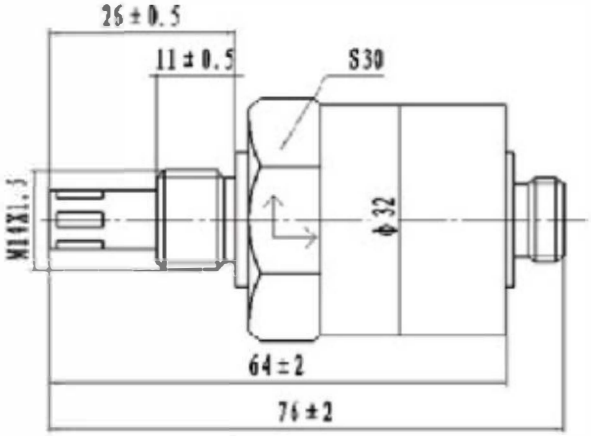
Overview

The SGSPOQ335 oil quality sensor adopts capacitive sensing components, a fully welded stainless steel structure, and has a built-in high-precision capacitance-to-voltage conversion module and a digital compensation module. It converts the millivolt signal of the sensor into a standard CAN2.0A/B digital signal for output, and is suitable for the analysis and measurement of the quality of fuel oil and lubricating oil in harsh environments.

Specifications

Product Name	Oil Quality Sensor
Model	SGSPOQ335
Drive Voltage Supply	12V±3V
Insulation Resistance	>100MΩ/100V
Viscosity	0.5~50mPa-s
Viscosity Accuracy	±5% Value
Density	0.65~1.50gm/cc
Density Accuracy	±5% Value
Permittivity	1.0~6.0
Permittivity Accuracy	TBD% Value
Temperature Accuracy	0.1°C
Output Refresh Rate	60 times/s
Operating Temperature	-30°C~70°C

Dimension



Dual-channel Frequency-to-Voltage Transducer

Overview

The SGSPFVC319A dual-channel frequency-voltage transducer is used in measurement systems and matches with turbine speed sensors. It converts the speed signal (0~48000r/min) into a standard voltage signal (0.1V~4.9V) for output to the measurement system. The shell adopts an aluminum alloy and screw installation structure, and has a built-in frequency-voltage conversion module and signal conditioning module to convert the frequency signal into a standard voltage signal for output. It is suitable for frequency measurement in harsh environments.

Specifications

Product Name	Dual-channel Frequency-to-Voltage Transducer
Model	SGSPFVC319A
Scale Range	≤320g
Drive Voltage Supply	15V±0.2V
Insulation Resistance	>100MΩ/50VDC
Null Output	0.1±0.05V
Full Scale Output	4.9±0.08V
Non-linearity	0.4%FS
Hysteresis	0.1%FS
Repeatability	0.1%FS
Accuracy	0.2%FS
Zero Drift	0.05%FS/H
Temperature Drift	0.5%FS/°C
Operating Temperature	-40°C~60°C

Dimension

Outline Structure (Unit: mm)

SGSPHE833D34

Hall Current and Voltage Sensor

Overview

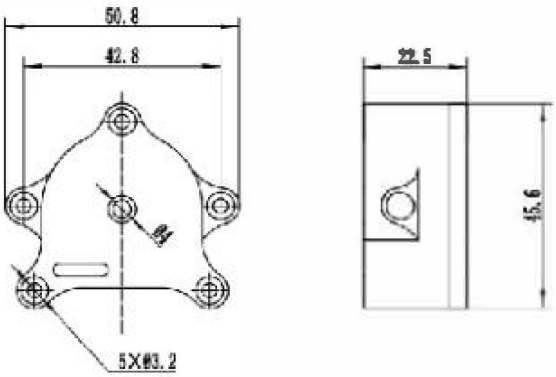
The SGSPHE833D34 Hall sensor is a magnetic field sensor made based on the Hall effect. Hall sensors can measure currents and voltages of arbitrary waveforms, such as direct current, alternating current, pulse waveforms, etc., and can even measure transient peaks. The secondary side current faithfully reflects the waveform of the primary side current.

Specifications

Product Name	Hall Current and Voltage Sensor
Model	SGSPHE833D34
Scale Range	0~500ADC、0~1000VDC
Drive Voltage Supply	±12VDC
Isolation Voltage	50Hz, 1min, 3kV
Impulse Withstand Voltage	1.2/50us, >8kV
Non-linearity	≤±0.1%FS
Measurement Accuracy (Full Scale)	≤±0.5%FS
Frequency Bandwidth	≥100kHZ
Operating Temperature	-40°C~85°C

Dimension

Outline Structure (Unit: mm)



Wibbow

SGSPSAFS

Series Six-dimensional Force Sensors

Overview

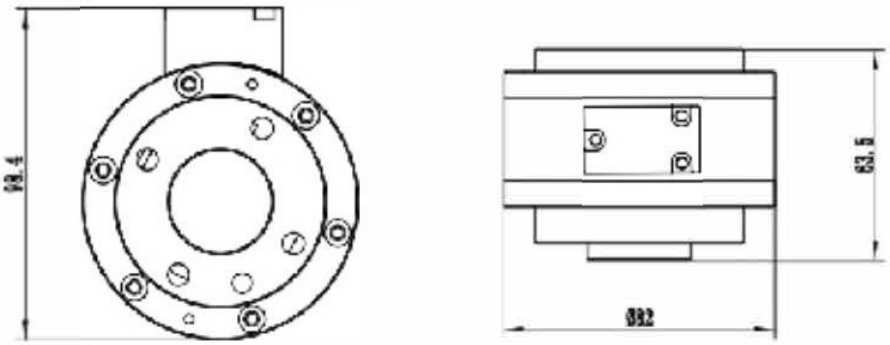
The SGSPSAFS series six-dimensional force sensors measure the output voltage of the Wheatstone bridge through the strain principle and bridge technology to indirectly measure the force applied to an object. The force sensor measures the forces acting on the object in the X, Y, and Z directions, while the torque sensor measures the torques of the object around the X, Y, and Z axes.

Specifications

Product Name	Six-dimensional Force Sensor
Model	SGSPSAFS
Scale Range	200N/200N/200N、10Nm
Drive Voltage Supply	±12VDC
Output	Ethernet port、485
Resolution	0.1%FS
Non-linearity	0.2%FS
Accuracy	0.5%FS
Operating Temperature	-40°C~85°C

Dimension

Outline Structure (Unit: mm)



Displacement Sensor

Overview

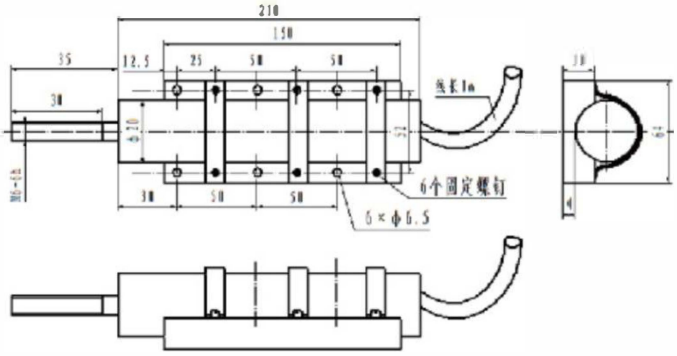
SGDS356A adopts the principle of LVDT (Linear Variable Differential Transformer) and consists of an integrated structure of a linear differential transformer and an operational amplifier. It converts the displacement of linear movement into corresponding current or voltage output to achieve the automatic measurement and control of displacement. It is mainly used for displacement measurement of aerospace servo mechanisms.

Specifications

Product Name	Displacement Sensor
Model	SGDS356A
Linear Stroke	-45~+45mm
Drive Voltage Supply	±12VDC
Output	-5V~5V
Basic Error	≤0.5%FS
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-40°C~85°C

Dimension

Outline Structure (Unit: mm)



Displacement Sensor

Overview

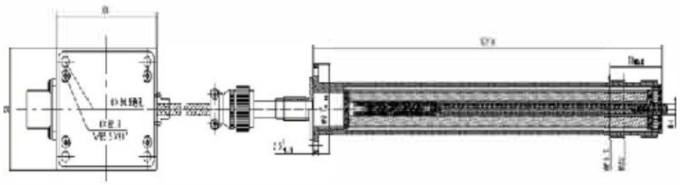
SGDS356C adopts the principle of LVDT (Linear Variable Differential Transformer) and consists of a split structure of a linear differential transformer and an operational amplifier. It converts the displacement of linear movement into corresponding current or voltage output to achieve the automatic measurement and control of displacement. It is mainly used for displacement measurement of aerospace servo mechanisms.

Specifications

Product Name	Displacement Sensor
Model	SGDS356C
Linear Stroke	-47~+47mm
Drive Voltage Supply	±15VDC
Output	-10V~10V
Basic Error	≤0.5%FS
Insulation Resistance	>50MΩ/100VDC
Operating Temperature	-40°C~100°C

Dimension

Outline Structure (Unit: mm)



Displacement Sensor

Overview

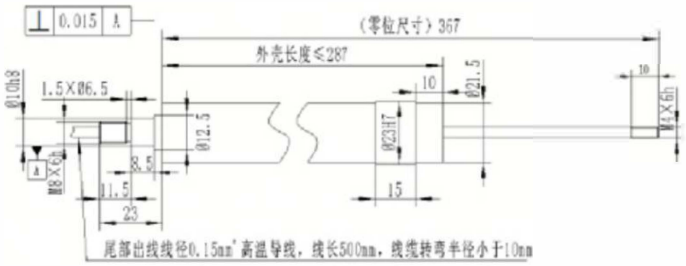
SGDS356C383 adopts the principle of LVDT (Linear Variable Differential Transformer) and consists of a split structure of a linear differential transformer and an operational amplifier. It converts the displacement of linear movement into corresponding current or voltage output to achieve the automatic measurement and control of displacement. It is mainly used for displacement measurement of aerospace servo mechanisms.

Specifications

Product Name	Displacement Sensor
Model	SGDS356C383
Linear Stroke	-70~+70mm
Drive Voltage Supply	±15VDC
Output	-5V~5V
Basic Error	≤0.5%FS
Insulation Resistance	>100MΩ/100VDC
Operating Temperature	-40°C~100°C

Dimension

Outline Structure (Unit: mm)



Displacement Sensor

Overview

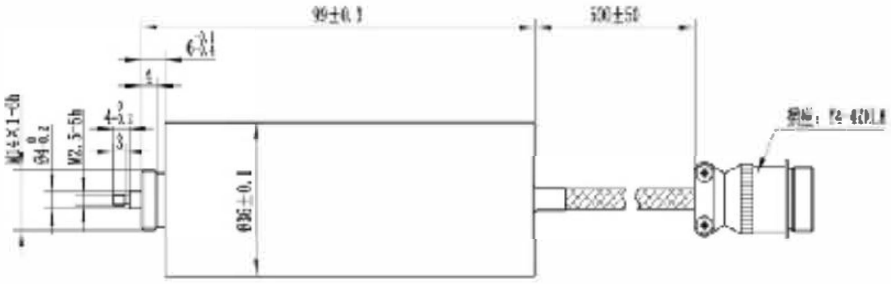
SGDS356D4 adopts the principle of LVDT (Linear Variable Differential Transformer) and consists of an integrated structure of a linear differential transformer and an operational amplifier. It converts the displacement of linear movement into corresponding current or voltage output to achieve the automatic measurement and control of displacement. It is mainly used for displacement measurement of aerospace servo mechanisms.

Specifications

Product Name	Displacement Sensor
Model	SGDS356D4
Linear Stroke	0~8mm
Drive Voltage Supply	24VDC
Output	1V~9V
Basic Error	≤0.5%FS
Insulation Resistance	>100MΩ/250VDC
Operating Temperature	-20°C~60°C

Dimension

Outline Structure (Unit: mm)



Displacement Sensor

Overview

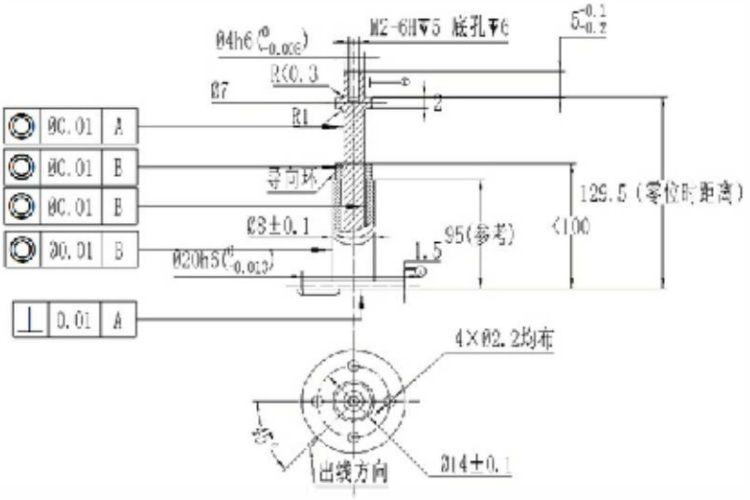
SGDS417E adopts the principle of LVDT (Linear Variable Differential Transformer) and converts the displacement of linear movement into corresponding current or voltage output to achieve the automatic measurement and control of displacement. It is mainly used for displacement measurement of aerospace servo mechanisms.

Specifications

Product Name	Displacement Sensor
Model	SGDS417E
Linear Stroke	-47~+47mm
Drive Voltage Supply	±15VDC
Output	-10V~10V
Basic Error	≤0.5%FS
Insulation Resistance	>50MΩ/100VDC
Operating Temperature	-40°C~100°C

Dimension

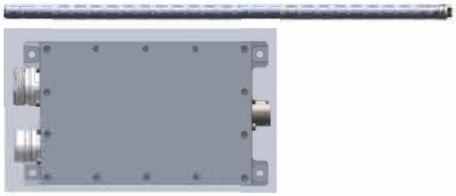
Outline Structure (Unit: mm)



Series Cryogenic Liquid Level Sensor

Overview

The product adopts the capacitance principle and is mainly used for measuring the liquid level in liquid oxygen storage tanks.

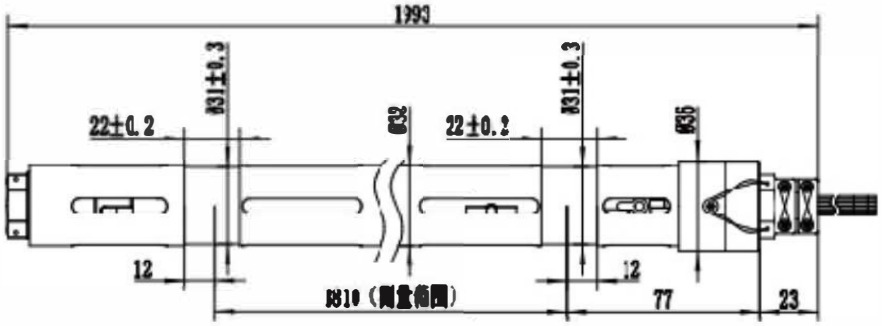


Specifications

Product Name	Cryogenic Liquid Level Sensor
Model	SGDSYT
Linear Stroke	0~1810mm
Environment Temperature	80~500K
Drive Voltage Supply	32.8VDC
Null Output	0.2V
Full Scale Output	4.8V
Non-linearity	<±0.05%FS
Operating Temperature	-267°C~125°C

Dimension

Outline Structure (Unit: mm)



Liquid Level Sensor

Overview

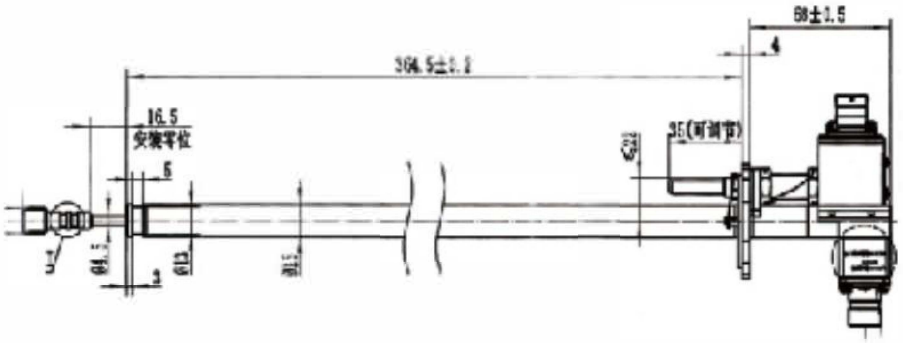
The SGDSY571A/B liquid level sensor belongs to the aircraft's hydraulic/energy system. It is used to monitor and output the oil quantity signal of the hydraulic chamber in the hydraulic oil tank and give an alarm when the oil level is low. The whole is of stainless-steel welded structure. The front end is installed with a flange, and the rear end processes the signal through a conditioning circuit and then outputs an electrical signal through an electrical connector. This product is characterized by convenient installation, small size and high reliability.

Specifications

Product Name	Liquid Level Sensor
Model	SGDSY571A/B
Electrical Stroke	The output current is 20 mA when the oil tank is at full oil level, and 4 mA when the oil level is zero
Drive Voltage Supply	28V±2.7V
Output	（4~20）mA
Linearity	<±0.5%FS
Dual-channel Inconsistency	≤±0.5%FS
Operating Temperature	-55°C~70°C
Medium Temperature	-55°C~135°C

Dimension

Outline Structure (Unit: mm)



Oil Level Sensor

Overview

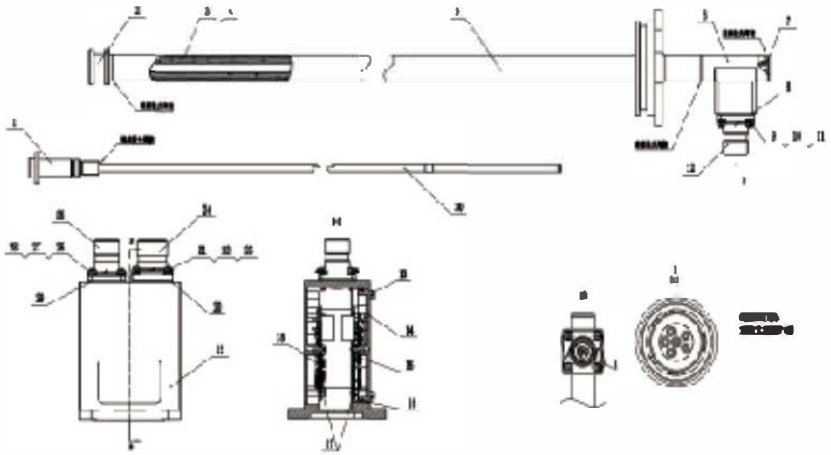
The SGDSO5345 oil level sensor is used to measure the oil quantity of the self-pressurized oil tank assembly, that is, the oil quantity value is obtained by measuring the extension length of the oil tank piston rod and converting it. The sensor is of stainless-steel welded structure. The front end is installed with a flange, and the rear end processes the signal through the conditioning circuit of the transmitter and then outputs an electrical signal through an electrical connector. This product is characterized by convenient installation, small size and high reliability. It adopts a dual-redundancy conditioning circuit design and a dual-redundancy power supply design. Even if one of the power supply circuits fails, both output circuits will still work effectively.

Specifications

Product Name	Liquid Level Sensor
Model	SGDSO5345
Electrical Stroke	343mm±0.5mm
Mechanical Stroke	≥348mm
Drive Voltage Supply	28V±2V
Output	（4~20）mA
Basic Error	≤±1%FS
Insulation Resistance	>50MΩ/100VDC
Operating Temperature	-55°C~70°C

Dimension

Outline Structure (Unit: mm)



Displacement Sensor

Overview

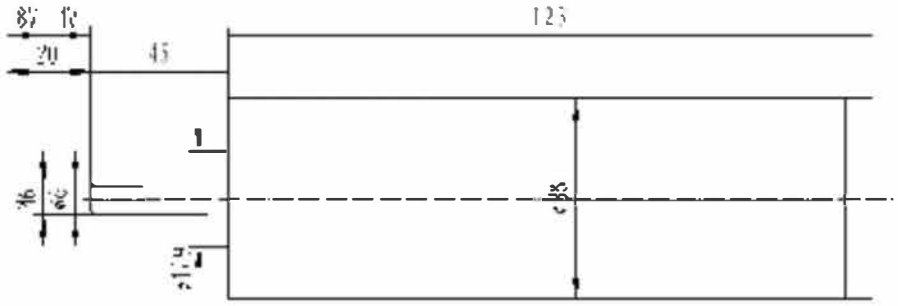
The SGDS53A linear displacement sensor adopts the principle of LVDT (Linear Variable Differential Transformer). It converts the displacement of linear movement into corresponding current or voltage output, thus achieving the automatic measurement and control of the displacement.

Specifications

Product Name	Displacement Sensor
Model	SGDS53A
Linear Stroke	-10~+10mm
Drive Voltage Supply	±15V
Null Output	1±0.05V
Full Scale Output	8±0.05V
Sensitivity Drift	<50mV
Operating Temperature	-43°C~125°C

Dimension

Outline Structure (Unit: mm)



Magnetostrictive Displacement Sensor

Overview

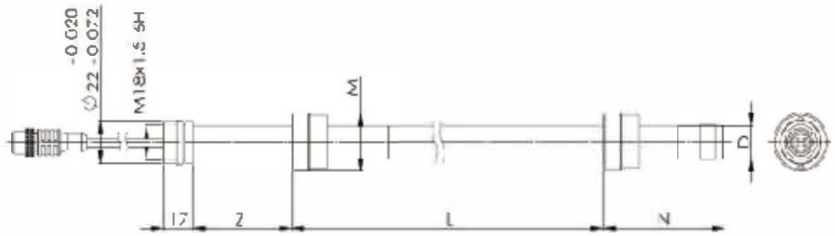
The magnetostrictive displacement/liquid level sensor is a new type sensor developed based on the magnetostrictive effect of ferromagnetic materials. It can continuously, accurately and in real-time detect the displacement or liquid level of the measured target in harsh industrial environments. It has special advantages such as high measurement accuracy, fast response speed, low hysteresis and high reliability. After installation, the product does not need to be recalibrated and does not require regular maintenance, so it is widely used in various fields of precise displacement and liquid level measurement.

Specifications

Product Name	Displacement Sensor
Model	SGDSM233V
Linear Stroke	0~900mm
Drive Voltage Supply	12VDC
Null Output	0.5V
Full Scale Output	4.5V
Non-linearity	<±0.05%FS
Operating Temperature	-40°C~85°C

Dimension

Outline Structure (Unit: mm)



SGDFS34

Diffuse Reflection Sensor

Overview

LiDAR (Light Detection and Ranging) is an advanced detection method that combines laser and photoelectric detection technologies. The system is composed of a transmitting device, a receiving device, and an information processing part. The SGDFS34 model product is mainly used for detection at the micrometer level and can detect the looseness of screws and the degree of warping of printed circuit boards.

Specifications

Laser Light Source	Laser diode 650mm, <1.3mW
Laser Level	Class 2
Ranging Frequency	1~2000Hz (Adjustable)
Operating Distance	25mm~100mm
Response Time	<10ms (Adjustable)
System Error	±0.1MM
Continuous Error	±0.05MM
Operating Voltage	5V/24V
Interface	3.3VTTL serial port
Power Consumption	<100mW
Weight	<50g
Dimensions (Length × Width × Height)	33mm×20mm×11mm
Protection Level	IP65
Operating Temperature	-40°C-+85°C
Storage Temperature	-40°C-+100°C
Ambient Light Resistance	>3000lux

SGDFS43CS

Diffuse Reflection Sensor

Overview

LiDAR (Light Detection and Ranging) is an advanced detection method that combines laser and photoelectric detection technologies. The system is composed of a transmitting device, a receiving device, and an information processing part. The SGDFS35 model product is mainly used for workpiece position detection on automated production lines, material detection on conveyor belts, position monitoring of automated production lines, and precise control of edge distance.

Specifications

Laser Light Source	Laser diode 650mm, <1.3mW
Laser Level	Class 1
Ranging Frequency	1~2000Hz (Adjustable)
Operating Distance	0.01mm~10mm
10% Reflectivity	5m
Response Time	<10ms (Adjustable)
System Error	±3mm
Continuous Error	±1mm
Operating Voltage	5V/24V
Interface	3.3VTTL serial port
Power Consumption	<100mW
Weight	<50g
Dimensions (Length × Width × Height)	33mm×20mm×11mm
Protection Level	IP65
Operating Temperature	-40°C-+85°C
Storage Temperature	-40°C-+100°C
Ambient Light Resistance	>3000lux

SGDFS43CS

Diffuse Reflection Sensor

Overview

LiDAR (Light Detection and Ranging) is an advanced detection method that combines laser and photoelectric detection technologies. The system is composed of a transmitting device, a receiving device, and an information processing part. The SGDFS43CS model product is mainly used for anti-collision and anti-fall monitoring of moving carriers, reliably measuring and detecting extremely dark or shiny materials, position monitoring of automated production lines, precise control of edge distance, and so on.

Specifications

Laser Light Source	Laser diode 650mm, <1.3mW
Laser Level	Class 2
Ranging Frequency	1~2000Hz (Adjustable)
Operating Distance	0.01mm~10mm
10% Reflectivity	5m
Response Time	<10ms (Adjustable)
System Error	±3mm
Continuous Error	±1mm
Operating Voltage	5V/24V
Interface	3.3VTTL serial port
Power Consumption	<100mW
Weight	<85g
Dimensions (Length × Width × Height)	41mm×37.5mm×23mm
Protection Level	IP67
Operating Temperature	-40°C-+85°C
Storage Temperature	-40°C-+100°C
Ambient Light Resistance	>10klux

SGDFS43A

Diffuse Reflection Sensor

Overview

LiDAR (Light Detection and Ranging) is an advanced detection method that combines laser and photoelectric detection technologies. The system is composed of a transmitting device, a receiving device, and an information processing part. The SGDFS43A model product is mainly used for anti-collision and anti-fall monitoring of moving carriers, reliably measuring and detecting extremely dark or shiny materials, position monitoring of automated production lines, precise control of edge distance, etc.

Specifications

Laser Light Source	Laser diode 905nm, ≤10mW Complies with GB7247.1-2001, Class I laser eye safety requirements
Laser Level	Class 1
Indicating Laser	Laser diode 650mm, ≤5mW
Ranging Frequency	1~2000Hz (Adjustable)
Operating Distance	0.01mm~10mm (50m Customizable)
10% Reflectivity	10m
Response Time	<10ms (Adjustable)
System Error	±3mm
Continuous Error	±1mm
Operating Voltage	5V/24V
Interface	3.3VTTL serial port
Power Consumption	<100mW
Weight	<85g
Dimensions (Length × Width × Height)	55mm×44mm×31mm
Protection Level	IP67
Operating Temperature	-40°C-+85°C
Storage Temperature	-40°C-+100°C
Ambient Light Resistance	>10klux

Wibbow

SGDFS83

Diffuse Reflection Sensor

Overview

LiDAR (Light Detection and Ranging) is an advanced detection method that combines laser and photoelectric detection technologies. The system is composed of a transmitting device, a receiving device, and an information processing part. The SGDFS83 model product is mainly used for feeding detection in the hot rolling workshop of steel plants, feeding detection in chemical plants, hot metal detection and detection in harsh environments.

Specifications

Laser Light Source	Laser diode 905nm, ≤10mW Complies with GB7247.1-2001, Class I laser eye safety requirements
Light Spot Area	≤10*10cm (50m)
Weight	1.5kg
Power Supply Voltage	220V
Measurement Accuracy	±0.02m @50m @80% reflectivity
Standard Measuring Range	≥50m @80% reflectivity & visibility>10km
Range Resolution	1cm
Absolute Accuracy	±0.02m @50m
Output Interface	PNP, switching value, analog quantity
Ranging Frequency	1KHz (Allowed to be upgraded to 20kHz)
Return Data	Directly measuring distance, reflected light intensity and operating status
Protection Level	IP67
Operating Temperature	-40°C-+85°C
Storage Temperature	-45°C-+105°C
Operating Humidity	0%~80%RH
Ambient Light Resistance	>100klux
Laser Light Source	Laser diode 905nm, ≤10mW Complies with GB7247.1-2001, Class I laser eye safety requirements

SGDFS533

Diffuse Reflection Sensor

Overview

LiDAR (Light Detection and Ranging) is an advanced detection method that combines laser and photoelectric detection technologies. The system is composed of a transmitting device, a receiving device, and an information processing part. The SGDFS533 model product is mainly used for long-distance outdoor ranging in places such as ports and docks, ranging in military fields, and controlling the thrust, shelf occupancy, or loading height in logistics applications.

Specifications

Laser Light Source	Laser diode 905nm, ≤10mW Complies with GB7247.1-2001, Class I laser eye safety requirements
Laser Level	Class 1
Ranging Frequency	20~5000Hz (Adjustable)
Operating Distance	0.05mm~200mm (Allowed to be expanded to 1500m)
80% Reflectivity	250m
Response Time	1~10ms (Adjustable)
System Error	±50mm
Continuous Error	±30mm
Operating Voltage	15~40V (24V is recommended)
Interface	RS232 serial port, 4~20mA, PNP, NPN
Power Consumption	<2W
Weight	<220g
Dimensions (Length × Width × Height)	72mm×53mm×34mm
Protection Level	IP67
Operating Temperature	-40°C-+85°C
Storage Temperature	-50°C-+105°C
Ambient Light Resistance	>100klux

Unit

Overview

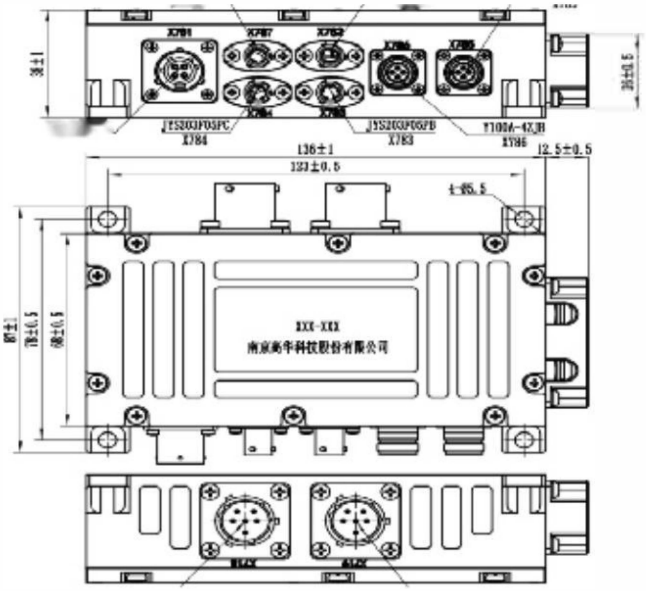
The condition monitoring sensors and supporting signal collectors for the XX engine are composed of 3 pressure sensors, 3 temperature sensors, 1 vibration sensor, 1 speed sensor and a signal collector. They monitor the pressure, temperature, vibration and speed of the engine, and send the measured quantities to the host computer in the form of RS422.

Specifications

Operating Temperature	(-55~+55) °C (started at-40°C)
Storage Temperature	(-50~+65) °C
Operating Height	(0~12) km
Humidity	≤ (95±5) % (30°C~60°C)
Temperature of Cold End Compensation in Temperature Conversion Part	(-40~+80) °C
Power Supply Voltage Range	(18~36) V; The input of the power supply design should have filtering and isolation functions.
Signal Output	422 serial port / 614.4 Kbps / 100 Hz update rate Arbitrary combinations are possible between the collector and the sensors, or the calibration parameters can be directly written by the host computer.

Dimension

Outline Structure (Unit: mm)



Wibbow

Integrated Acquisition and Processing Unit for Engines

Overview

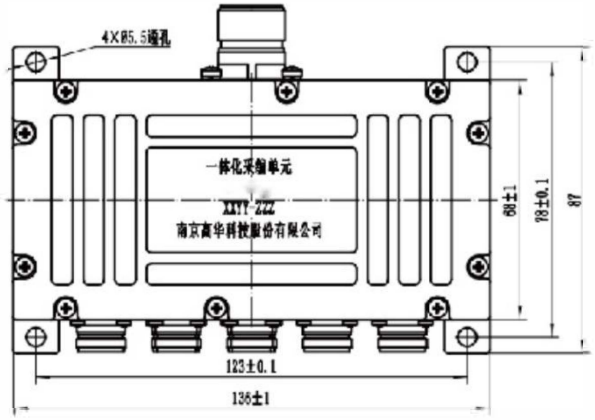
The signal collector provides power excitation for the sensors, and amplifies, filters and collects the tiny pressure signals and temperature signals, and also collects the speed signals and voltage signals. The converter and the digital controller communicate with each other through an RS422 interface circuit, so that the collectors of the same model (or the same configuration) and the matched sensor probes are interchangeable. In the design, calibration parameters are input via an external USB-to-422 converter, realizing the interchangeability between the collector and the matched sensor probes. At the same time, it also has edge computing functions such as intelligent internal fault judgment, early warning, and multi-parameter data preprocessing, which improves the degree of intelligence and the credibility of the data.

Specifications

Temperature Scale	-40°C~60°C
Operating Voltage	23~34V floating ground power supply
Operating Current	≤ 120mA
Signal Output	Dual-channel redundant RS-422 transmission
Sampling Bit Number	Not less than 10 bits
Input Signal	For Channel 1, a sinusoidal signal is input from the coil; for Channels 2 to 6, signals are input from the pressure sensors; for Channel 7, a signal is input from the temperature sensor; for Channel 8, a voltage is input. The sampling frequency of each channel can be programmably configured, and the conversion error is not greater than 0.5%.

Dimension

Outline Structure (Unit: mm)

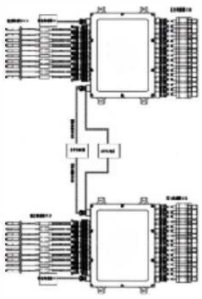


Wibbow

Engine Test Run Signal Acquisition System

Overview

The system can collect signals from multiple pressure, temperature and speed sensors, and multiple collectors can be connected in parallel to expand the number of channels. Each sensor inputs the collected analog signals into the signal collector. The signal collector collects, calculates and packets the analog signals through the analog-to-digital conversion circuit, and finally transmits the packetized data to the digital controller via the RS422 bus.

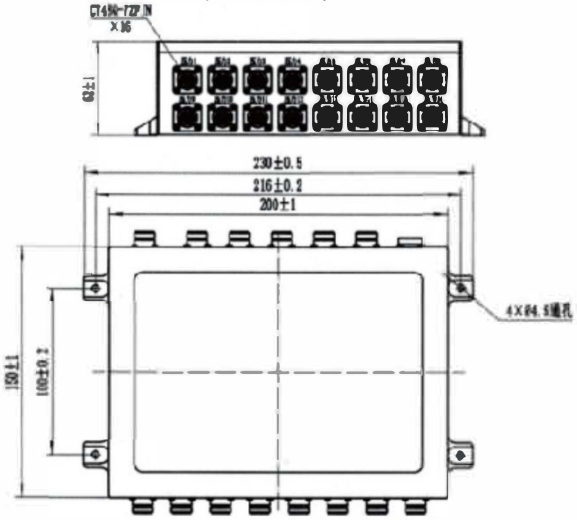


Specifications

Number of Channels of a Single Collector	Pressure 16, temperature 10, revolution speed 1
Operating Voltage	DC18~36V
Rated Voltage	28.5V±3V(DC)
Operating Current	≤ 600mA
Data Transmission Cycle	10ms
Insulation Resistance	When measuring with 50 VDC, the insulation resistance value between the core wire on the power supply side and the housing is greater than 20 MΩ.
Signal Output	422 serial port / 614.4 Kbps / 100 Hz update rate Arbitrary combinations are possible between the collector and the sensors, or the calibration parameters can be directly written by the host computer.

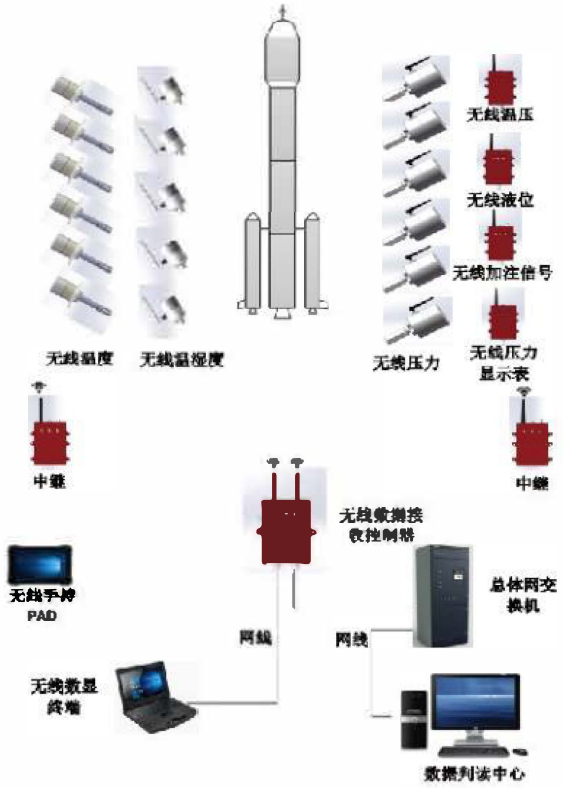
Dimension

Outline Structure (Unit: mm)



Launch Site Environmental Monitoring System

Overview



The ground wireless monitoring equipment is based on wireless information transmission technology. It transmits temperature and humidity, box pressure, and temperature signals to the ground data terminal and the back-end master control network via a wireless network for monitoring and interpretation. The system is designed according to a star topology structure. The main devices are the wireless receiving controller and the wireless handheld terminal, while the slave devices include multi-channel wireless temperature and humidity sensors, wireless pressure sensors, wireless micro-pressure converters, and wireless temperature-pressure converters. When the distance between the wireless receiving controller and the wireless sensors is long or there are obstacles in between, the wireless relay device can play a role in data relaying. The wireless digital display meter is placed on the gas distribution table and is used to receive signals from the wireless pressure sensors and display them digitally. The wireless monitoring terminal serves as a system debugging and terminal display device, which displays the data from the wireless sensors received by the wireless receiving controller in real time on the human-machine interaction interface for on-site operators to view the real-time data changes. At the same time, it has functions such as network control and mode switching. The battery charging equipment charges the supporting batteries.

The wireless receiving controller (main node) mainly completes the collection and processing of data from various sensors, and transmits the processed data to the front-end switch of the master control network and the wireless data display terminal in the form of Ethernet.

Specifications

(1) Self-check function: Before conducting a test, ensure that the device is operating normally and meets the measurement requirements.

(2) Time synchronization function: It is able to receive the time synchronization frames sent by multicast from the master control network to complete the device time synchronization.

(3) Data receiving function: It can receive the data sent back by the wireless sensors or relayed back by the wireless relay devices through wireless means.

(4) Parameter configuration function: It can receive the software instructions from the wireless data display terminal via Ethernet, forward the sensor parameters, and download them wirelessly to the temperature-pressure wireless converter of the booster coal oil tank.

(5) Working mode switching function: It can receive the software instructions from the wireless data display terminal via Ethernet to achieve the mutual switching of various sensors/converters between the high-speed/normal modes, as well as the switching from the working mode to the silent mode and other functions.

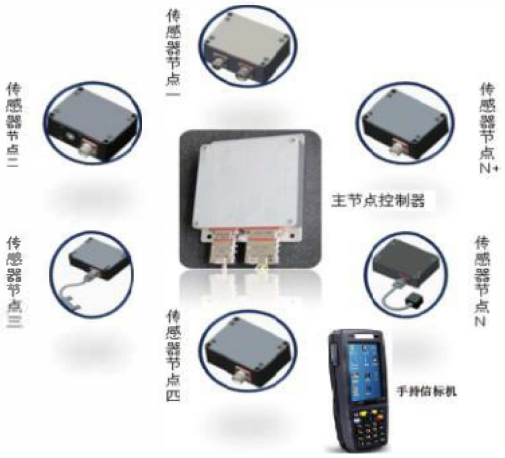
(6) Function of sending data to the wireless data display terminal: The second network interface is connected to the wireless data display terminal, and it sends the names of each acquisition channel, temperature and pressure values, battery power levels, etc. to the wireless data display terminal via Ethernet.

(7) Redundancy function: The two wireless receiving controllers serve as hot backups for each other to

ensure that data reception, processing, and sending are all carried out through dual channels.

Real-time Wireless Sensor System for Rockets (Missiles)

Overview



The wireless sensor system on the rocket (missile) is composed of wireless sensors such as wireless pressure sensors, temperature sensors, vibration sensors, heat flux sensors, etc., which are installed inside the compartment sections, and a wireless receiving controller. Various wireless sensors convert physical quantities into digital quantities, and then transmit the data through wireless communication. The wireless receiving controller uploads the data to the data integrator on the rocket (missile) for the use of the back-end acquisition equipment, realizing the sensitive acquisition of various non-electric quantity parameters on the rocket (missile). Implementing the wireless subsystem on the rocket (missile) can solve problems such as excessive weight of the traditional sensor network on the rocket (missile), complex cables, and crowded installation space. The wireless sensor system provides a more convenient measurement method for the rocket (missile).

Specifications

(1) The wireless sensor can receive various command signals sent by the wireless data receiving controller and the handheld beacon machine, adjust its own working state according to the requirements of specific command signals, and feedback corresponding data and status information.
(2) The wireless sensor can correct its own time scale according to the broadcast timing packet; and it can manage its own energy after confirming the time slot status.
(3) The wireless sensor should have a unique factory serial number, and the sensor node ID can be individually set during the system test.
(4) Receive the frame synchronization signal of the data integrator in real time, form a broadcast timing packet, and periodically send it to the wireless sensor to synchronize each sensor sub-node.
(5) Call the roll of each sensor sub-node, cooperate with each sensor sub-node to complete dynamic network formation, be able to generate a dynamic time slot allocation table, and realize the matching between the sensor node ID and the allocated time slot.
(6) Receive the data of each sensor sub-node in a time division multiplexing manner, analyze, reorganize and cache it locally, and wait for the data integrator to read it.
(7) The antennas of each stand-alone product in the wireless subsystem adopt the design of a plate microstrip antenna integrated with the housing. The sensitive angle should at least meet the full coverage of 270 degrees. Coaxial cables are used for feeding. The antenna of the wireless sensor is linearly polarized, and the antenna of the wireless data receiving controller is circularly polarized.
(8) The wireless system operates in the communication frequency bands of 868MHz (first-stage compartment) and 872MHz+902MHz (nose cone).

Wireless Sensor Network System for On-board Propellant Leakage Monitoring

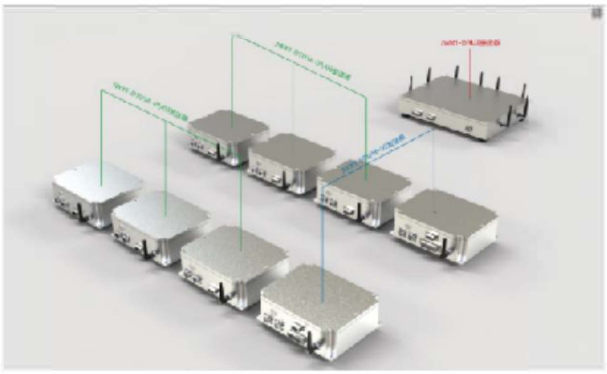
Overview

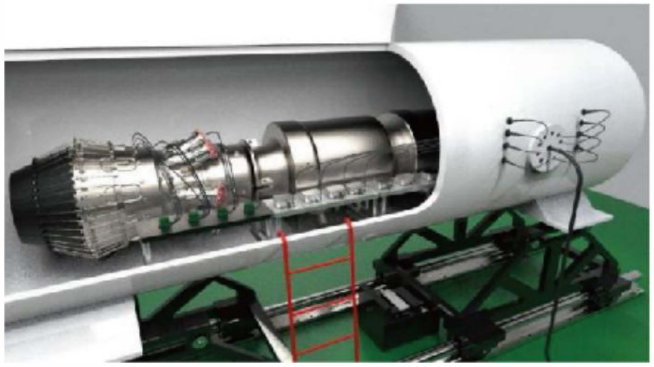
The vehicle-mounted wireless monitoring system is mainly composed of a wireless NO_2 converter, a wireless UDMH converter, a wireless radiation converter, and a safety monitoring terminal. It is mainly used to monitor the concentration of the combustion agent and catalyst in the power system of vehicle-mounted weapons, the Y metering rate, the n dose rate, the neutron counts rate, the measured value of the tritium concentration, and the specific activity of the alpha aerosol. The monitoring data are transmitted to the leakage monitoring terminal equipment wirelessly to achieve the regular monitoring of the propellant concentration and ensure the safe operation of the power system.

Specifications

Working Frequency Band	2405~2480MHz
Networking Protocol	ZigBee
Gas Measurement Accuracy	0.5ppm
Communication Distance	50m
Number of Channels	16

Wireless Sensor System for Ground Test Stands





Overview

The wireless sensor network of the ground test bench completes the collection and conversion of slowly changing parameters such as temperature and pressure by reasonably deploying sensing nodes, and transmits the data through wireless signals. As the vibration signal is a rapidly changing variable, a wired channel is mainly adopted for transmission in the network. The wireless data receiver synchronizes the wireless data acquisition converter and initiates the collection of data from each sensor. It also receives, analyzes and uploads the wireless data transmitted by the wireless sensor nodes. After the software of the host computer receives the data from the wireless data receiver through the RS422 interface, it saves the data of each sensor, generates a quasi-real-time physical quantity curve graph, and has the function of data query.

Specifications

Transmission Frequency Band	868MHz
Number of Test Points	Temperature 64, pressure 64, revolution speed 8, vibration 8
Transmission Distance	⩾200m
Wireless Transmission Rate	10Mbps

Wireless Temperature, Humidity and Pressure Acquisition System

Overview

The temperature, humidity and pressure sensor is mainly used to monitor the environmental parameters inside the launch tube, including three types: temperature, humidity and pressure. It records and stores the monitored environmental parameters inside the tube, and wirelessly transmits the data to the outside. It can carry out data transmission and communication with the portable environmental monitoring collector through the wireless module. The sensor allows data such as the launch tube number and the collection period to be written into it via the portable instrument. The stored data can also be read through the portable instrument. A single portable collector can be configured with 400 integrated wireless temperature, humidity and pressure sensors.

Specifications

	Scale Range
Temperature	-40°C~65°C
Humidity	0%RH~100%RH; (20%RH~60%RH)
Pressure	-0.02MPa~+0.03MPa (Gauge pressure)
	Scale Accuracy
Temperature	≤±1°C
Humidity	≤±4%RH (When the temperature is between 0°C and 50°C and the measured value is between 20%RH and 80%RH), ≤8%RH (Under other conditions). When the temperature is below 0°C, the humidity sensor should display “0”
Pressure	≤±0.5kPa (At normal temperature); ≤±1kPa (At -40°C and 50°C)
	Response Time
Temperature	No more than 15s
Humidity	No more than 60s
Pressure	No more than 1s (Design ensured)

Tire Pressure Monitoring System

制动温度传感器

胎压旋转执行器

主机箱

Overview

The main mission of the wheel temperature and pressure monitoring device is to conduct real-time monitoring of the tire pressure of the 12 main wheels of the entire aircraft and the temperatures of 12 braking circuits, and transmit the monitored data to the tire pressure main control board in the form of an RS485 bus.

Specifications

Pressure Monitoring Component Environmental Temperature	-55°C~+170°C (It should not fail when the temperature reaches 180℃ for a short time.)
Environmental Temperature of Products Installed Inside the Axle	-55°C~120°C
Circuit Board Assembly Environmental Temperature	-55°C~70°C
Measurement Range of Main Wheel Braking Temperature	0°C~1000°C
Temperature Measurement Accuracy	±20°C
Measurement Range of Main Landing Gear Tire Pressure	0kPa~1500kPa
Tire Pressure Monitoring Accuracy	At room temperature (25±5°C) ±20KPa; others ±40KPa
Operating Voltage	28VDC

Handheld Wireless Tire Pressure Monitoring System

Overview

The passive wireless tire pressure sensor itself does not require external power supply or battery power. It can meet the sensor data collection needs by being powered by the radio frequency of the supporting handheld wireless collector. Currently, it is used for monitoring the tire pressure and temperature of the X51 aircraft, and the monitored data is displayed on the handheld device's screen. Meanwhile, the handheld device has the functions of drawing historical data curves, storing data, querying data, and exporting data.

Specifications

Power Supply Mode	Powered by radio frequency induction technology, and the central frequency of the wireless signal is 13.56 MHz.
Pressure Scale Range	0Mpa~5Mpa
Pressure Scale Accuracy	4‰FS
Temperature Scale Range	-40°C~120°C
Temperature Scale Accuracy	±3°C
Temperature Range for Product Use	-55°C~120°C
Overall Weight of the Product	No more than 120g
Data Collection	The handheld device has the function of vibrating and beeping after collecting data.
Lighting Function	The handheld device is equipped with a lighting function to meet the needs of ground crew monitoring at night.

Refrigerant Concentration Monitoring System

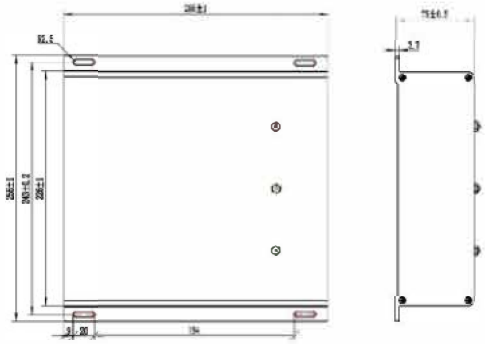
Overview

The system is capable of collecting and processing the data from 32 refrigerant leakage sensors.
The measurement range of the leakage concentration is 10~1000 ppm, and the measurement accuracy is ±15%.
It supports the output of 2 relay dry contact points (AC220) and has the function of accessing audible and visual alarms.
It has the BIT function to realize the status monitoring of the sensitive heads of each refrigerant leakage monitoring sensor.
The collector has a watchdog function and can automatically recover after the program freezes.
Through the CAN bus, centralized uploading of multi-channel sensing data is achieved.
Through Ethernet communication, centralized uploading of data from multi-channel sensors is realized.

Note: The above technical indicators, external dimensions, and test specifications can be customized according to specific requirements.

Dimension

Outline Structure (Unit: mm)

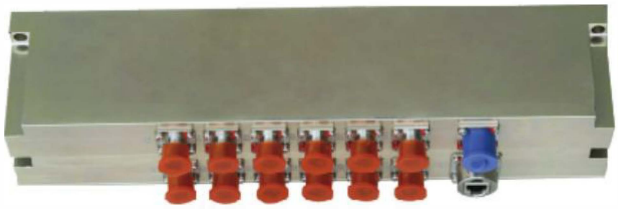


Multi-channel Temperature Acquisition System

Overview

The system enables the monitoring of air temperature.
It completes the collection and processing of data from 12 temperature sensors.
It can achieve data transmission via the network port.
It has the BIT function to monitor the status of the sensitive heads of each temperature sensor.
It is equipped with an internal resettable fuse.
It has a power switch and three status indicator lights, namely power indicator, operation indicator, and power-on indicator.
It has a watchdog function and can automatically recover after the program freezes.

Note: The above technical indicators, external dimensions, and test specifications can be customized according to specific requirements.



Dimension

Outline Structure (Unit: mm)