



PRODUCT MANUAL

Always Perfect Under Pressure

Symmetron

www.symmetron.ru



SENSE WORLD, GUIDE FUTURE

COMPANY PROFILE

We are CFSensor, located in Wuhu, China, and composed of a team who devote many years to MEMS sensor chip. We are a high-tech enterprise dedicated to the research, design and manufacturing of MEMS sensors and application.

Since company establishment, we has successfully developed various kinds of MEMS chip including pressure, flow, temperature and gas etc.,. Currently we own hundreds of sensor, including piezoresistive pressure sensor, ceramic pressure sensor, oil-filled pressure sensor, infrared sensors, flow sensors, gas sensor(CO₂,CH₄,SF₆) and many automotive sensor, which are widely used in healthcare, consumer electronics, home appliances,automotive electronics, Internet of Things and other fields. Relying on advanced MEMS manufacturing technology, scientific production management system, strict package & test standards and extremely competitive prices, CFSensor products are not only widely applied in China, but also exported to more than 150 countries and regions around the world with high praise on our quality and service.

We insists on independent innovation and has obtained more than 20 patent authorizations on invention patents and IC layout designs, and has obtained ISO9001 quality management system certification and high-tech enterprises and other authoritative qualifications. The IATF-16949 system and AEC-Q103 cetification have been launching since 2022. We intend to provide our customers the best appropriate sensor and solution with affordable price, as well as the quickest delivery and comprehensive technical support. We are committed to becoming a world-renowned provider of MEMS sensor products and solutions.

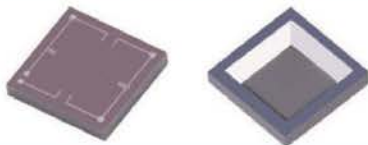
CFSensor, Always Perfect Under Pressure!!!



Honor&Property



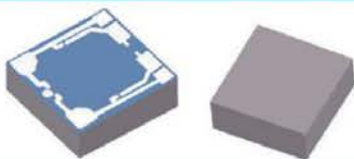
XGZP2604 Pressure Sensor Die ➤



I OVERVIEW I

- Piezoresistive MEMS Technology
- Range: 1/3/7/40/700/1000kPa
- Type: Gauge pressure
- Media: Non-corrosive gases or liquid
- Power Supply: $\leq 15\text{VDC}$ or $\leq 3.0\text{mADC}$
- Output: mV signal output
- Bridge Resistance: $4\text{k}\Omega - 6\text{k}\Omega$
- Working Temp.: $-30^\circ\text{C} - +120^\circ\text{C}$
- Overload Pressure: 1.5-5X FS
- Die Dimension: $2.6^*2.6^*0.4\text{mm}$
- Application: Medical&healthy, Appliance&Consumer, Automotive etc.,
- Cost-effective with good performance

XGZP0703 Pressure Sensor Die ➤



I OVERVIEW I

- Piezoresistive MEMS Technology
- Range: 0 to 100kPa - 2000kPa
- Type: Absolute pressure
- Media: Non-corrosive gases or liquid
- Power Supply: $\leq 15\text{VDC}$ or $\leq 3.0\text{mADC}$
- Output: mV signal output
- Bridge Resistance: $4\text{k}\Omega - 6\text{k}\Omega$
- Working Temp.: $-30^\circ\text{C} - +120^\circ\text{C}$
- Overload Pressure: 2X FS
- Die Dimension: $0.78^*0.78^*0.3\text{mm}$
- Application: Medical&healthy, Appliance, Meter, Automotive etc.,
- Small size, Cost-effective with good performance

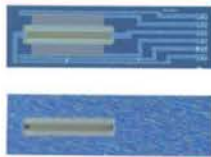
XGZP2406 Pressure Sensor Die ➤



I OVERVIEW I

- Piezoresistive MEMS Technology
- Range: 1/2/3/4/5MPa
- Type: Gauge pressure
- Media: Non-corrosive gases or liquid
- Power Supply: $\leq 15\text{VDC}$ or $\leq 3.0\text{mADC}$
- Output: mV signal output
- Bridge Resistance: $4\text{k}\Omega - 6\text{k}\Omega$
- Working Temp.: $-40^\circ\text{C} - +180^\circ\text{C}$
- Overload Pressure: 1.5X FS
- Die Dimension: $2.4^*2.4^*0.6\text{mm}$
- Application: Industrial, Automotive, Oil-filled transmitter etc.,
- SOI Structure, High-temp resisted

XGZF9304 Air flow Sensor die ➤



I OVERVIEW I

- Thermal mass flow die
- Thermopile resistance: $230 \pm 30\text{K}\Omega$
- Working pressure: 15bar
- Die diameter: $150 \pm 0.5\text{mm}$
- Die thickness: 400 um
- Dicing channel width: 80 um
- Response time: 5ms
- Working temperature: $-50 - 150^\circ\text{C}$
- pad (L*W*H): 150^*70^*1um
- Offset output: $1.5 \pm 0.3\text{V}$ or $30 \pm 10\text{mV}$
- Available quantity per wafer: $> 5350\text{pcs}$
- High sensitivity, response, vibration resistance
- Application: medical, HAVC, automotive etc.,airflow sensor.

XGZP6146 Pressure Transmitter(Engine Oil) ➤



OVERVIEW I

- Silicon Piezoresistive MEMS Technology
- Stainless Steel Diaphragm Construction
- Pressure Range: 0 ~ 1.1MPa(Customizable)
- Pressure Type: Sealed Gauge
- Power Supply: 5V/ 2~10Vdc
- Output: 0.5 ~ 4.5V/ proportional output
- Accuracy: $\pm 1\%$ Span in room temp.
- Pressure Port: G1/4(Customizable)
- Electrical Connection: Parkard
- Operating Temp.: $-40 \sim 130^{\circ}\text{C}$
- Protection Grade: IP66
- Application: Engine oil&cooling fluid Pressure etc..
- Anti EMC interference, Anti-overload&Shock&Vibration.

XGZP6182 Pressure Sensor (Evaporative Fuel) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: $-3.75\text{kPa} \sim 1.25\text{kPa}$
- Type: Gage Pressure
- Media: Air and non-corrosive gas
- Power Supply: 4.75 ~ 5.25V
- Output: Analog Amplified output
- Accuracy: $\pm 1\%$ (Span)
- Working Temp.: $-40^{\circ}\text{C} \sim +115^{\circ}\text{C}$
- Response time.: $\leq 2\text{ms}$
- Application: Monitoring the pressure difference between vehicle fuel tank and the ambient pressure.
- Economical, high reliability and stability.

XGZR6191 Rotational Speed Sensor (Magnetolectricity) ➤



OVERVIEW I

- Small-volume, low-cost samarium cobalt magnets
- Resistance: $860 \pm 86 \Omega$
- Inductance: $370 \pm 60\text{mH}$
- Low speed performance: $\geq 0.25\text{Vp}$
- High speed performance: $\leq 100\text{Vp}$
- Protection Grade: IP67
- Insulating resistance: $\geq 10\text{M}\Omega/500\text{VDC}$
- Working Temp.: $-40^{\circ}\text{C} \sim +150^{\circ}\text{C}$
- Storage Temp.: $-40^{\circ}\text{C} \sim +160^{\circ}\text{C}$
- Application: Measuring the speed and position of camshaft, crankshaft, and ABS wheel speed.
- Whole consistency injection, High ruggedness, High reliability and stability.

XGZR6192 Rotational Speed Sensor (Hall) ➤



OVERVIEW I

- Advanced Speed Hall Chip
- Power Supply: 4.75 ~ 5.25V or $\leq 15\text{mA}$
- Working Air Gap: 0.2 ~ 2.0mm
- Working Frequency: 0 ~ 5KHz
- Insulating resistance: $\geq 10\text{M}\Omega/500\text{VDC}$
- Protection Grade: IP69K
- Working Temp.: $-40^{\circ}\text{C} \sim +150^{\circ}\text{C}$
- Application: Measuring the speed and position of camshaft, crankshaft, and ABS wheel speed.
- Whole consistency injection, High ruggedness, High reliability and stability.

XGZP6832 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: 0 ~ 100kPa...1600kPa
- Type: Absolute pressure
- Media: Gas or non-conductive liquid
- Power Supply: 4.75 ~ 5.25V Optional
- Output: Standard output or proportional voltage output
- Accuracy: ± 1.0 (% FS)
- Working Temp.: $-40^{\circ}\text{C} \sim +130^{\circ}\text{C}$
- High-temperature-resistant and corrosion-resistant materials
- Vehicle exhaust gas-resistant glue, great corrosion-resistant performance
- Over voltage protection: 28V, reverse voltage protection: 24V
- Application: Automotive, Instrumentation, Medical, etc.,
- Support customization (range/output etc.,)

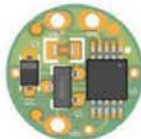
XGZP6845 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: $-100\text{kPa} \dots 0 \dots 40\text{kPa} \dots 200\text{kPa}$
- Type: Gauge pressure
- Media: Non-corrosive gases
- Power Supply: 4.75 ~ 5.25V
- Output: Analog Amplified output
- Accuracy: ± 1.5 (% Span)
- Working Temp.: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Compensation Temp.: $-30^{\circ}\text{C} \sim +85^{\circ}\text{C}$ (Customizable)
- Application: DFP/GPF differential automotive
- Economical, Vehicle exhaust gas resistant, easy installation
- Support customization (range/output etc.,)

XGZP6846 Pressure Sensor (Calibrated) ➤



PCBA
Customizable

OVERVIEW I

- Piezoresistive MEMS Technology
- Range: 0 ~ 100kPa...2000kPa
- Type: Absolute pressure
- Media: Gas or non-conductive liquid
- Power Supply: 4.75~5.25V
- Output: Standard output or proportional voltage output
- Accuracy: ± 1.5 (% Span)
- Working Temp.: $-40^{\circ}\text{C} \sim +130^{\circ}\text{C}$
- Compensation Temp.: $-20^{\circ}\text{C} \sim +85^{\circ}\text{C}$ (Customizable)
- Application: Engine oil pressure detection system
- Economical, high liability, automotive level.
- Support customization (range/output etc.,)

XGZP6878 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: 0 ~ 100kPa...2500kPa
- Type: Absolute pressure
- Media: Gas or non-conductive liquid
- Power Supply: 3.3 ~ 5.5V
- Output: Analog Amplified output
- Accuracy: ± 1 (% Span)
- Working Temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Compensation Temp.: $0^{\circ}\text{C} \sim +60^{\circ}\text{C}$ (Customizable)
- Application: Medical, Consumer, Automotive, Industrial control
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6802 Pressure Transmitter ➤



I OVERVIEW I

- Industrial Design, High Stability
- Oil-filled Stainless Steel Diaphragm
- Pressure Range: -100kPa ~ 0 ~ 100MPa
- Pressure Type: Gauge/Absolute
- Power Supply: 5V/9~30VDC
- Output: 0.5 ~ 4.5V/0 ~ 5V/4~20mA etc.,
- Accuracy: $\pm 0.1\%$ Span; $\pm 0.25\%$ Span
- Pressure Port: G1/4 or NPT1/8
- Electrical Connection: Cable / Aviation/Hirs.
- Operating Temp.: -40 ~ 120°C
- Protection Grade: IP66
- Application: Industrial or Rough application etc.,
- Anti EMC interference, Anti-overload&Shock&Vibration.

XGZP6147 Pressure Transmitter ➤



I OVERVIEW I

- Smart and Exquisite, High Stability
- MEMS Silicon Sensor
- Pressure Range: -100 ~ 0 ~ 200kPa
- Pressure Type: Sealed Gauge
- Power Supply: 10 ~ 30VDC
- Output: 0.5 ~ 4.5V or 4 ~ 20mA
- Accuracy: $\pm 1.5\%$ Span
- Pressure Port: G1/4
- Electrical Connection: Cable
- Operating Temp.: -30 ~ 120°C
- Protection Grade: IP65
- Application: Liquid level, Compressor, HVAC, Process Control etc.,
- Cost-effective, Range and output mode can be customized

XGZP6171 Pressure Transmitter ➤



I OVERVIEW I

- Smart and Exquisite, High Stability
- Ceramic Diaphragm Construction
- Pressure Range: 0 ~ 1/1.6/2.5MPa
- Pressure Type: Sealed Gauge
- Power Supply: 5V
- Output: 0.5 ~ 4.5V
- Accuracy: $\pm 1.5\%$ Span
- Pressure Port: G1/4 or NPT1/8
- Electrical Connection: Cable / Aviation Plug
- Operating Temp.: -30 ~ 120°C
- Protection Grade: IP66
- Application: Air compressor, Water supply& treatment etc.,
- Anti EMC interference, Anti-overload&Shock&Vibration.

XGZP6103 Pressure Transmitter ➤



I OVERVIEW I

- Smart and Exquisite, High Stability
- Ceramic Diaphragm Construction
- Pressure Range: 0 ~ 1/1.6/2.5MPa
- Pressure Type: Sealed Gauge
- Power Supply: 10 ~ 30VDC
- Output: 4 ~ 20mA
- Accuracy: $\pm 1.5\%$ Span
- Pressure Port: G1/4 or NPT1/8
- Electrical Connection: Cable / Aviation Plug
- Operating Temp.: -30 ~ 120°C
- Protection Grade: IP66
- Application: Air compressor, Water supply& treatment etc.,
- Anti EMC interference, Anti-overload&Shock&Vibration.

XGZF3000 Air Flow Sensor >

I OVERVIEW I

- Thermal MEMS mass flow chip
- High precision ASIC, Low flow measurement
- Internal compensation and calibration, Fast response
- Linear analog output, High accuracy, High resolution
- Range: 200/400/1000/2000/3000SCCM(Customizable)
- Power Supply: 8~24VDC(Default 12V)
- Output: Analog signal(1~5V) or IIC
- Operating Temp.: -30~120°C
- Materiala: PA66+GF30
- Medical instruments and equipment(Respirator, Oxygen generator, CPAP, Anesthesia delivery intensive care equipment), Micro flow measurement and control such as air purification



XGZF4000 Air Flow Sensor >

I OVERVIEW I

- Thermal MEMS mass flow chip
- High precision ASIC, Wide measuring range
- Internal compensation and calibration, Fast response
- Linear analog output, High accuracy, High resolution
- Range: 50/100/200/300/400/500SCCM(Customizable)
- Power Supply: 8~24VDC(Default 12V)
- Output: Analog signal(1~5V) or IIC
- Operating Temp.: -30~120°C
- Materiala: Silicon carbide, Epoxy resin, Polyphenylene sulfide (PPS), FR4, Sealing silicone
- Medical instruments and equipment(Respirator, Oxygen generator, CPAP, HVAC, Equipment control)



XGZF5000 Air Flow Sensor >

I OVERVIEW I

- Thermal MEMS mass flow chip
- High precision ASIC, Wide measuring range
- Internal compensation and calibration, Fast response
- Linear analog output, High accuracy, High resolution
- Range: 20/50/100/150/200/300SLM(Customizable)
- Power Supply: 8~24VDC(Default 12V)
- Output: Analog signal(1~5V) or IIC
- Operating Temp.: -30~120°C
- Materiala: Aluminum alloy(stainless steel is available)
- HVAC, Air conditioning and gas measurement, Equipment control, Fuel cell control, Environmental climate monitoring, Mass spectrometer, Medical instruments and equipment



XGZT263 Thermopile Sensor ➤



I OVERVIEW I

- MEMS thermopile chip
- 5.5 μm LWP Filter
- High sensitivity and accuracy
- Field of view: 90°
- Chip size: 1.1 X 1.1 mm
- Thermopile resistance: 129 ± 30kΩ
- Sensitive area: 0.76 X 0.76mm
- Operating Temp.: -30 ~ 120°C
- TO46 Package
- High accuracy NTC
- NTC: 100 ± 1%kΩ
- Application: Non-contact temperature measurements, Ear thermometers, Forehead thermometer, Home appliance temperature measurement

XGZT264 Thermopile Sensor ➤



I OVERVIEW I

- MEMS thermopile chip
- Field of view: 8°
- High sensitivity and accuracy
- 20-60cm distance measurement
- Chip size: 1.1 X 1.1 mm
- Thermopile resistance: 129 ± 30kΩ
- TO39 Package
- Operating Temp.: -30 ~ 120°C
- High accuracy NTC
- 5.5 ~ 14um infrared filter
- Application: Remote temperature measurement and monitoring, Home smart and comfortable air-conditioning control, Intelligent microwave and oven heating temperature control feedback

XGZG360 CO2 Sensor ➤



View Angle
Customizable

I OVERVIEW I

- MEMS Thermopile principle
- 4.26 μm Narrow band Filter
- TO46 Package(Double Channel refer to XGZG361)
- Operating Temp.: -30 ~ 100°C
- Fast response, high sensitive signal
- Chip size: 1.1 X 1.1 mm
- Sensitive area: 0.76 X 0.76 mm
- High accuracy NTC
- NTC: 100 ± 1%KΩ
- Application: NDIR CO2 Gas detector, Indoor, outdoor air quality monitor, HVAC System, Air conditioner, Greenhouse monitoring

XGZG360M CO2 Sensor Module ➤



I OVERVIEW I

- Measurement Method: NDIR
- Measurement Span.: 400 ~ 5000ppm
- Power Supply: 4.9 ~ 5.5VDC
- Accuracy: ± (50ppm+5% reading)
- Operating Temp.: -10 ~ 50°C
- High sensitivity, low power consumption
- Support serial-port (UART), PWM etc output
- Method of measurement: NDIR
- Response Time: <=2min
- Application: Indoor, outdoor air quality monitor, HVAC System, Air conditioner, Greenhouse monitoring

XGZP6881 Pressure Sensor (Calibrated) ➤



I OVERVIEW I

- Piezoresistive MEMS Technology
- Range: -100kPa...0 ~ 0.5kPa...200kPa
- Type: Gauge pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 ~ 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ±1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Appliance, Automotive, Industrial control, IoT, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6891 Pressure Sensor (Calibrated) ➤



I OVERVIEW I

- Piezoresistive MEMS Technology
- Range: -100kPa...0 ~ 1kPa...200kPa
- Type: Differential pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 ~ 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ±1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Appliance, Automotive, Industrial control, IoT, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6897 Pressure Sensor (Calibrated) ➤



I OVERVIEW I

- Piezoresistive MEMS Technology
- Range: -100kPa...0 ~ 0.5kPa...200kPa
- Type: Differential pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 ~ 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ±1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Appliance, Automotive, Industrial control, IoT, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6899 Pressure Sensor (Calibrated) ➤



I OVERVIEW I

- Piezoresistive MEMS Technology
- Range: -100kPa...0 ~ 0.5kPa...700kPa
- Type: Differential pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 ~ 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ±1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Appliance, Automotive, Industrial control, IoT, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6885 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: 0 – 10/50/100/250/500/700kPa
- Type: Gauge pressure (Absolute type refer to: XGZP6886)
- Media: Air and non-corrosive gas
- Power Supply: 4.75 – 5.25V
- Output: Analog Amplified output
- Accuracy: ± 1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Consumer electronics, Appliance, Industrial control, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6895 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: 0 – 10/50/100/250/500/700kPa
- Type: Differential pressure or gauge pressure
- Media: Air and non-corrosive gas
- Power Supply: 4.75 – 5.25V
- Output: Analog Amplified output
- Accuracy: ± 1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Consumer electronics, Appliance, Industrial control, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6877 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: -100kPa...0 – 1kPa...1000kPa
- Type: Gauge pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 – 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Consumer electronics, Appliance, Automotive, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6887 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: -100kPa...0 – 5kPa...200kPa
- Type: Gauge pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 – 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Consumer electronics, Appliance, Automotive, Industrial control, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6869 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: -100kPa...0 - 5kPa...200kPa
- Type: Gauge pressure (Absolute type refer to: XGZP6858)
- Media: Non-corrosive and non-conductive gas or liquid
- Power Supply: 2.5 - 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Consumer electronics, Appliance, Automotive, Industrial control, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6873 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: 15kPa - 115kPa...1000kPa
- Type: Gauge pressure (Absolute type refer to: XGZP6872)
- Media: Air and non-corrosive gas
- Power Supply: 4.75 - 5.25V
- Output: Analog Amplified output
- Accuracy: ± 1 (% Span)
- Working Temp.: -10°C ~ +125°C
- Compensation Temp.: 0°C ~ +85°C (Customizable)
- Application: Medical, Consumer electronics, Appliance, Industrial control, IoT, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6857 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: -100kPa...0 - 1kPa...1000kPa
- Type: Gauge pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 - 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Consumer electronics, Appliance, Automotive, Industrial control, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

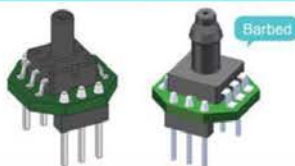
XGZP6859 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: -100kPa...0 - 5kPa...200kPa
- Type: Gauge pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 - 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: -30°C ~ +120°C
- Compensation Temp.: 0°C ~ +60°C (Customizable)
- Application: Medical, Consumer electronics, Appliance, Automotive, Industrial control, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6847 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: $-100\text{kPa} \dots 0 \dots 1\text{kPa} \dots 1000\text{kPa}$
- Type: Gauge pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 ~ 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: $-30^\circ\text{C} \sim +120^\circ\text{C}$
- Compensation Temp.: $0^\circ\text{C} \sim +60^\circ\text{C}$ (Customizable)
- Application: Medical, Consumer electronics, Appliance, Automotive, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

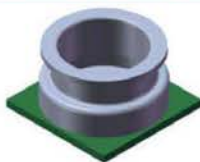
XGZP6849 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: $-100\text{kPa} \dots 0 \dots 1\text{kPa} \dots 1000\text{kPa}$
- Type: Gauge pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 ~ 5.5V
- Output: Analog Amplified output or IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: $-30^\circ\text{C} \sim +120^\circ\text{C}$
- Compensation Temp.: $0^\circ\text{C} \sim +60^\circ\text{C}$ (Customizable)
- Application: Medical, Consumer electronics, Appliance, Automotive, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6827 Pressure Sensor (Calibrated) ➤



OVERVIEW I

- Piezoresistive MEMS Technology
- Range: $-100\text{kPa} \dots 0 \dots 10\text{kPa} \dots 200\text{kPa}$
- Type: Gauge pressure
- Media: Clean, dry air and non-corrosive gases
- Power Supply: 1.8 ~ 3.6V
- Output: IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: $-30^\circ\text{C} \sim +120^\circ\text{C}$
- Compensation Temp.: $0^\circ\text{C} \sim +60^\circ\text{C}$ (Customizable)
- Application: Medical, Consumer electronics, Appliance, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

XGZP6829 Pressure Sensor (Calibrated) ➤



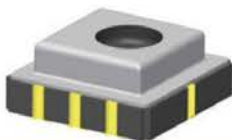
OVERVIEW I

- Piezoresistive MEMS Technology
- Range: $-100\text{kPa} \dots 0 \dots 10\text{kPa} \dots 200\text{kPa}$
- Type: Gauge pressure
- Media: Clean, dry air and non-corrosive gases
- Power Supply: 3.3 ~ 5.5V
- Output: IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: $-30^\circ\text{C} \sim +120^\circ\text{C}$
- Compensation Temp.: $0^\circ\text{C} \sim +60^\circ\text{C}$ (Customizable)
- Application: Medical, Consumer electronics, Appliance, etc.,
- Economical, high accuracy, low drift, easy installation
- Support customization (range/output etc.,)

PRODUCT INTRODUCTION



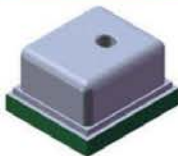
XGZP6826 Pressure Sensor (Calibrated) ➤



OVERVIEW

- Piezoresistive MEMS Technology
- Range: 0 ~ 100kPa...2500kPa
- Type: Absolute pressure
- Media: Non-corrosive and non-conductive gas or liquid
- Power Supply: 3.3 ~ 5.5V
(low-consumption version: XGZP6830D)
- Output: Analog output or IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Compensation Temp.: $0^{\circ}\text{C} \sim +60^{\circ}\text{C}$ (Customizable)
- Application: Automotive, Industrial, Pneumatic control, Barometers, etc.,
- Economical, high accuracy, low drift, small volume
- Support customization (range/output etc.,)

XGZP6828 Pressure Sensor (Calibrated) ➤



OVERVIEW

- Piezoresistive MEMS Technology
- Range: 0 ~ 100kPa...2500kPa
- Type: Absolute pressure
- Media: Air and non-corrosive gas
- Power Supply: 2.5 ~ 5.5V
- Output: Analog output or IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Compensation Temp.: $0^{\circ}\text{C} \sim +60^{\circ}\text{C}$ (Customizable)
- Application: Vacuum, Industrial, Pneumatic control, Barometers, etc.,
- Economical, high accuracy, low drift, small volume
- Support customization (range/output etc.,)

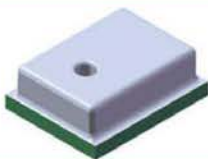
XGZP6816 Pressure Sensor (Calibrated) ➤



OVERVIEW

- Piezoresistive MEMS Technology
- Range: 30 ~ 110kPa
- Type: Absolute pressure
- Media: Air and non-corrosive gas
- Power Supply: 1.8 ~ 3.6V
- Output: IIC digital output
- Accuracy: ± 1 hPa
- Working Temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Compensation Temp.: $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$
- Application: Medical, Wearable, Appliance, Barometric applications
- Economical, high accuracy, low drift, small volume

XGZP6818 Pressure Sensor (Calibrated) ➤



OVERVIEW

- Piezoresistive MEMS Technology
- Range: 0 ~ 100kPa...2500kPa
- Type: Absolute pressure
- Media: Air and non-corrosive gas
- Power Supply: 3.3 ~ 5.5V
(low-consumption version: XGZP6812D)
- Output: Analog output or IIC digital output
- Accuracy: ± 1 (% Span)
- Working Temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Compensation Temp.: $0^{\circ}\text{C} \sim +60^{\circ}\text{C}$ (Customizable)
- Application: Automotive, Industrial, Pneumatic control, Barometers, etc.,
- Economical, high accuracy, low drift, small volume
- Support customization (range/output etc.,)

XGZP191 Pressure Sensor ➤



! mV Calibrated Output

I OVERVIEW I

- MEMS technology, Solid-state reliability
- Range: 10/50/100/200kPa
- Type: Gauge pressure type
- Medium: Air and non-corrosive gas
- Power Supply: 10VDC(Typical)
- Offset: -1 ~ 1mV
- FS Output: $20 \pm 1\text{mV}$ (10kPa)/ $40 \pm 1.5\text{mV}$ (50/100/200kPa)
- Offset temp. drift: $\pm 1\text{mV}$
- FS temp. drift: $\pm 2(\%FS)$
- Working temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- Affordable price, high accuracy, small drift and easy installation

XGZP192 Pressure Sensor ➤



! mV Calibrated Output

I OVERVIEW I

- MEMS technology, Solid-state reliability
- Range: 10/50/100/200kPa
- Type: Gauge pressure type
- Medium: Air and non-corrosive gas
- Power Supply: 10VDC(Typical)
- Offset: -1 ~ 1mV
- FS Output: $20 \pm 1\text{mV}$ (10kPa)/ $40 \pm 1.5\text{mV}$ (50/100/200kPa)
- Offset temp. drift: $\pm 1\text{mV}$
- FS temp. drift: $\pm 2(\%FS)$
- Working temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- Affordable price, high accuracy, small drift and easy installation

XGZP193 Pressure Sensor ➤



! mV Calibrated Output

I OVERVIEW I

- MEMS technology, Solid-state reliability
- Range: 10/50/100/200kPa
- Type: Gauge pressure type
- Medium: Air and non-corrosive gas
- Power Supply: 10VDC(Typical)
- Offset: -1 ~ 1mV
- FS Output: $20 \pm 1\text{mV}$ (10kPa)/ $40 \pm 1.5\text{mV}$ (50/100/200kPa)
- Offset temp. drift: $\pm 1\text{mV}$
- FS temp. drift: $\pm 2(\%FS)$
- Working temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- Affordable price, high accuracy, small drift and easy installation

XGZP194 Pressure Sensor ➤



! mV Calibrated Output

I OVERVIEW I

- MEMS technology, Solid-state reliability
- Range: 10/50/100/200kPa
- Type: Gauge pressure type
- Medium: Air and non-corrosive gas
- Power Supply: 10VDC(Typical)
- Offset: -1 ~ 1mV
- FS Output: $20 \pm 1\text{mV}$ (10kPa)/ $40 \pm 1.5\text{mV}$ (50/100/200kPa)
- Offset temp. drift: $\pm 1\text{mV}$
- FS temp. drift: $\pm 2(\%FS)$
- Working temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- Affordable price, high accuracy, small drift and easy installation

XGZP195 Pressure Sensor ➤



mV Calibrated Output

OVERVIEW

- MEMS technology, Solid-state reliability
- Range: 10/50/100/200kPa
- Type: Gauge pressure type
- Medium: Air and non-corrosive gas
- Power Supply: 10VDC(Typical)
- Offset: $-1 \sim 1\text{mV}$
- FS Output: $20 \pm 1\text{mV}$ (10kPa)/ $40 \pm 1.5\text{mV}$ (50/100/200kPa)
- Offset temp. drift: $\pm 1\text{mV}$
- FS temp. drift: $\pm 2(\%FS)$
- Working temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- Affordable price, high accuracy, small drift and easy installation

XGZP190 Pressure Sensor ➤



OVERVIEW

- MEMS technology, Solid-state reliability
- Pressure range: 1/3/7/10/20/40/100/200kPa
- Pressure type: Differential Pressure
- Measurement medium: Air and non-corrosive gas
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance: $4\text{k}\Omega \sim 6\text{k}\Omega$
- Working temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$ ($-22^{\circ}\text{F} \sim +257^{\circ}\text{F}$)
- Overload pressure: 2X FS
- Packaging: Plastic tube or tape&reel
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- Barbed design

XGZP170 Pressure Sensor ➤



OVERVIEW

- MEMS technology, Solid-state reliability
- Pressure range: 100/700/2000kPa
- Pressure type: Absolute pressure type
- Measurement medium: Non-corrosive air and gas
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance: $4\text{k}\Omega \sim 6\text{k}\Omega$
- Working temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Overload pressure: 1.5X FS
- Packaging: Plastic tube or tape&reel
- Application: Altimeter, tire pressure meter, air pump, meter etc.,
- High cost performance, high sensitivity, good linearity, repeatability and stability

XGZP183 Pressure Sensor ➤



OVERVIEW

- MEMS technology, Solid-state reliability
- Pressure range: 10/20/40/100/200/350kPa
- Pressure type: Gauge pressure type (Absolute type refer to XGZP182)
- Measurement medium: Air and non-corrosive gas or liquid
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance: $4\text{k}\Omega \sim 6\text{k}\Omega$
- Working temp.: $-30^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Overload pressure: 1.5X FS
- Packaging: Plastic tube or tape&reel
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- High cost performance, high sensitivity, good linearity, repeatability and stability

XGZP167 Pressure Sensor



OVERVIEW

- MEMS technology, Solid-state reliability
- Pressure range: 10/20/40/100/200kPa
- Pressure type: Gauge pressure type
- Measurement medium: Air and non-corrosive gas
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance: $4\text{k}\Omega - 6\text{k}\Omega$
- Working temp.: $-30^\circ\text{C} - +120^\circ\text{C}$
- Overload pressure: 1.5/2/3X FS
- Packaging: Plastic tube or tape&reel
- Application: Medical&healthy, Appliance&Consumer, Industrial etc
- High cost performance, high sensitivity, good linearity, repeatability and stability

XGZP168 Pressure Sensor



OVERVIEW

- MEMS technology, Solid-state reliability
- Pressure range: 1/3/7/500/700/1000kPa
- Pressure type: Gauge pressure type
- Measurement medium: Non-corrosive air and gas
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance: $4\text{k}\Omega - 6\text{k}\Omega$
- Working temp.: $-30^\circ\text{C} - +120^\circ\text{C}$
- Overload pressure: 1.5X/2X/3X FS
- Packaging: Plastic tube or tape&reel
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- High cost performance, high sensitivity, good linearity, repeatability and stability

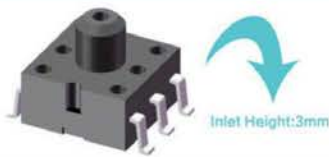
XGZP160 Pressure Sensor



OVERVIEW

- MEMS technology, Solid-state reliability
- Pressure range: 10/40/100/200/350kPa
- Pressure type: Gauge pressure type
- Measurement medium: Air and non-corrosive gas
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance: $4\text{k}\Omega - 6\text{k}\Omega$
- Working temp.: $-30^\circ\text{C} - +120^\circ\text{C}$
- Overload pressure: 1.5/2/3X FS
- Packaging: Plastic tube or tape&reel
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- High cost performance, high sensitivity, good linearity, repeatability and stability

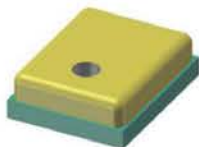
XGZP166 Pressure Sensor



OVERVIEW

- MEMS technology, Solid-state reliability
- Pressure range: 10/20/40/100/200kPa
- Pressure type: Gauge pressure type
- Measurement medium: Air and non-corrosive gas
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance: $4\text{k}\Omega - 6\text{k}\Omega$
- Working temp.: $-30^\circ\text{C} - +120^\circ\text{C}$
- Overload pressure: 1.5/2/3X FS
- Packaging: Plastic tube or tape&reel
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- High cost performance, high sensitivity, good linearity, repeatability and stability

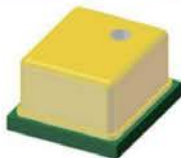
XGZP130 Pressure Sensor ➤



I OVERVIEW I

- MEMS technology, Solid-state reliability
- Pressure range: 10/20/40/100/200kPa
- Pressure type: Gauge pressure type
- Measurement medium: Dry air and non-corrosive gas
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance : $4\text{k}\Omega - 6\text{k}\Omega$
- Working temp.: $-30^\circ\text{C} - +120^\circ\text{C}$
- Overload pressure: $> 2\text{X FS}$
- Packaging: Plastic tube or tape&reel
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- High cost performance, high sensitivity, good linearity, repeatability and stability

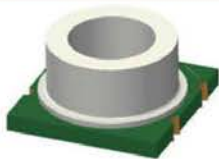
XGZP131 Pressure Sensor ➤



I OVERVIEW I

- MEMS technology, Solid-state reliability
- Pressure range: 100/700/2000kPa
- Pressure type: Absolute pressure type
- Measurement medium: Air and non-corrosive gas
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance: $4\text{k}\Omega - 6\text{k}\Omega$
- Working temp.: $-30^\circ\text{C} - +120^\circ\text{C}$
- Overload pressure: 2X FS
- Packaging: Plastic tube or tape&reel
- Application: Altimeter, tire pressure meter, air pump, meter etc.,
- High cost performance, high sensitivity, good linearity, repeatability and stability

XGZP150 Pressure Sensor ➤



I OVERVIEW I

- MEMS technology, Solid-state reliability
- Pressure range: 10/20/40/100/200kPa
- Pressure type: Gauge pressure type
- Measurement medium: Air and non-corrosive gas
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance : $4\text{k}\Omega - 6\text{k}\Omega$
- Working temp.: $-30^\circ\text{C} - +120^\circ\text{C}$
- Overload pressure: $> 2\text{X FS}$
- Packaging: Plastic tube or tape&reel
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- High cost performance, high sensitivity, good linearity, repeatability and stability

XGZP153 Pressure Sensor ➤



I OVERVIEW I

- MEMS technology, Solid-state reliability
- Pressure range: 10/20/40/100/200kPa
- Pressure type: Gauge pressure type
- Measurement medium: Air and non-corrosive gas
- Power supply: $\leq 15\text{Vdc}$ or $\leq 3.0\text{mAdc}$
- Output: mV signal output
- Output Impedance : $4\text{k}\Omega - 6\text{k}\Omega$
- Working temp.: $-30^\circ\text{C} - +120^\circ\text{C}$
- Overload pressure: $> 2\text{X FS}$
- Packaging: Plastic tube or tape&reel
- Application: Medical&healthy, Appliance&Consumer, Industrial etc.,
- High cost performance, high sensitivity, good linearity, repeatability and stability



Medical & Healthcare

Medical Device&Equipment, Blood pressure test and monitor, Patient Monitoring, Infusion and Syringe Pumps, Anesthesia Machines, Respirators and Ventilators, NPWT, DVT,COPD Treatment, Catheter,Kidney dialysis, Cupping& Cosmetology, Rehabilitation machine, Massager&Sport equipment



Consumer&Appliance

Home appliance, Refrigerator, Printer, Humidifier, Washer/Dryer, Coffee machine, Beer machine, Cleaner, Robotic, Emergency Lamp, Consumer Electronic, E-cigarette, Wearable device, Swin watch, Fitness tracker, Drone, Mobile altimeter barometer, PND, GPS navigation, Fishing&Hiking&Diving Equipment etc



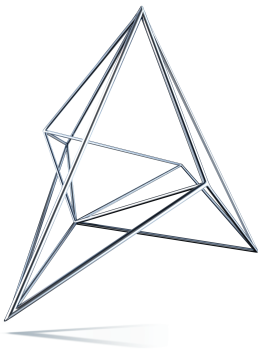
Automotive&IoT

Tire pressure, TMAP sensor, LPG &CNG monitor, Engine&motor control, Evaporative fuel pressure,DPF, GPF, Brake assist, Steering booster,Automotive airconditioner, Air quality detection, Battery pack(Temperature and Pressure), Smart fire extinguisher, Excess pressure controller, Pipeline pressure monitoring.



Industrial & Automation

Water pump, Water supply, Water treatment, Hydraulic pressure,Tank Level indicator, Building automatic control, HVAC, Refrigeration, Airconditioner, Air Compressor, Airflow monitor, SMT machine, Vacuum packing machine, Pneumatic control, Industrial and Process control, Production Automation, Energy process, Enviromental Monitor etc.,



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