



SIGMA- NETICS

Innovation in Sensing

Your Global Source
for pressure switches,
transducers, metal bellows
and custom solutions



2020
PRODUCT
LINES



PRESSURE SWITCHES

Our pressure and vacuum switches offer extensive cycle life under the harshest operating conditions



CATEGORY	Ruggedized Industrial & Off-Road						Explosion Proof		Low Pressure			Variable Delta High Accuracy	Altitude/Barometric Pressure Switch		Low Pressure Aerospace
RANGES	8–6,000 PSI	25–6,000 PSI	8–6,000 PSI	7–160 PSI	8–6,000 PSI	7–160 PSI	6–5,000 PSI	25–6,000 PSI	3"Hg–125 PSI	3–125 PSI	3–125 PSI	10–200 PSIA	0.5–25 PSIA	–2000–65,000 ft.	2–60 PSIG
TEMPERATURES	–40°F to 250°F	–40°F to 250°F	–40°F to 250°F	–40°F to 250°F	–40°F to 250°F	–40°F to 250°F	–40°F to 180°F	–40°F to 250°F	–40°F to 160°F	–40°F to 160°F	–40°F to 160°F	–40°F to 250°F	–40°F to 250°F	–65°F to 185°F	–65°F to 250°F
ELECTRICAL LOAD	7A @ 28VDC	7A @ 28VDC	10A @ 28VDC	7A @ 28VDC	7A @ 28VDC	7A @ 28VDC	7A @ 28VDC	7A @ 28VDC	7A @ 28VDC	7A @ 28VDC	10A @ 28VDC	0.1mA to 7A @ 28VDC	0.1mA to 7A @ 28VDC	0.1mA to 7A @ 28VDC	0.1mA to 7A @ 28VDC
TYPE	SPDT or SPST	SPDT or SPST	SPDT or SPST	SPDT or SPST	SPDT or SPST	SPDT or SPST	SPDT/DPDT	SPDT/DPDT	SPDT or SPST	SPDT or SPST	SPDT or SPST	SPDT or SPST	SPDT or SPST	SPDT or SPST	SPDT or SPST
SETTING	Factory Set	Field Adjustable	Factory Set	Factory Set	Factory Set IP67	Factory Set IP67	Factory Set UL Ex Rated	Field Adjustable UL Ex Rated	Factory Set	Field Adjustable	Factory Set	Factory Set	Factory Set	Factory Set	Factory Set

TRANSDUCERS

Our pressure transducers offer a variety of solutions, technologies and features to meet any sensing needs



CATEGORY	Industrial			Aerospace & Space				Submersible Vehicles	Pressure & Temperature
TECHNOLOGY	Ceramic	MEMS	Bonded Gauge						Foil/Piezo
RANGES	0–2,500 PSI	0–15,000 PSI	1–25,000 PSI	30,000–100,000 PSI	50–40,000 PSI	0–10,000 PSI	0–10,000 PSI	0–10,000 PSI	Up to 10,000 PSI
TEMPERATURES	–30°F to 185°F	–30°F to 170°F	–30°F to 170°F	–30°F to 170°F	–65°F to 250°F	–65°F to 250°F	–65°F to 250°F	–65°F to 250°F	–320°F to 500°F
ACCURACY	0.5% FSO	0.25% FSO	0.25% FSO	0.25% FSO	0.2%/0.2%/0.1% FSO	0.2% FSO TEB	0.2%/0.2%/0.1% FSO	0.2% FSO TEB	+/-0.25% FSO (pressure) +/-1°F (temperature)
WETTED MATERIAL	Ceramic/316L SS	316L SS	15-5 PH SS/316L SS	15-5 PH SS/316L SS	15-5 PH SS/316L SS	Variety of Options	15-5 PH SS/316L SS	15-5 PH SS/Inconel 718	15-5 PH SS/316L SS
OUTPUT	Analog mV/V, Analog Amplified and Digital Options including mV/V, 0.5–4.5, 0–5, 0–10 VDC, 4–20mA, RS232, RS485, I ₂ C (Not all options available on all models)								



BELLOWS & ASSEMBLIES

Exceptional quality and performance at a competitive price



HYDROFORMED

- 1/4" to 4" OD
- 0.003" wall or thicker
- 100% leak check
- Wide range of metals
- Seamless and seam-welded designs
- Medium-high volume applications
- Many sizes in stock

IDEAL FOR:

- Pressure Switches, Gauges and Valves
- Temperature Sensing
- Vacuum Seals
- Aneroids
- Single-use Actions

METALS:

- Monel
- Bronze
- Brass
- Stainless Steel
- Beryllium Copper



EDGE WELDED

- 1/2" to 5" OD, custom ODs available
- 0.002"-0.008" diaphragm thickness
- 100% helium leak check throughout process
- Rapid prototyping available
- AM350, 316L, Inconel, Hastelloy, etc.
- Ideal for low volume applications



ELECTROFORMED

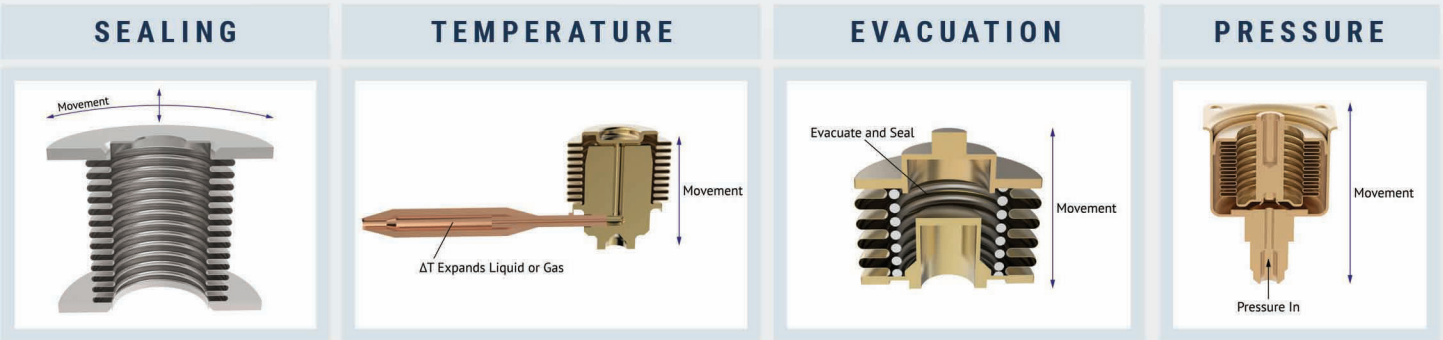
- 0.030" to 6" OD
- Ultra-low spring rates available
- Dual metal construction available
- Low-mid volume applications available
- Ideal for unique geometries
- Lowest tooling costs



BELLOWS ASSEMBLIES

- Vacuum/Aneroid assemblies
- Liquid-filled thermal sensing/actuation assemblies
- Brazed, soldered, welded and epoxied options
- Wide thermal ranges
- High cycle life
- Custom designed to meet all applications
- High purity

BELLOWS USES & APPLICATIONS



Bellows create a sealed, flexible connector capable of multi-axis movement.

- Electrical Interrupters
- Expansion Joints

Liquid-filled bellows assemblies expand and contract in response to temperature changes.

- Control Valves
- Temperature Switches

The aneroid will expand or contract due to changes in altitude.

- Fuel to Air Mixture
- Pilot Oxygen Masks

When pressurized, bellows exhibit a linear response.

- Pressure Switches
- Gauges

CUSTOM
ENGINEERING

Many mission-critical and demanding applications require custom mechanical designs and electrical features that go beyond what commercial, off-the-shelf sensing technologies can offer. That's where we come in.

Pressure Switches. In addition to offering customizable configurations and electrical connections, we can extend the functionality of your pressure switches with new features—like signal delay, thermal lockout and dual-switch capabilities.

Pressure Transducers. Our pressure transducers come with many customizable options, including electrical connections, outputs and thermal compensation ranges.

Metal Bellows. Our metal bellows are fully customizable, making them ideal for any precision or non-precision application—from industrial to aerospace.

With expertise in a wide range of industries, our team will work with you to modify current sensor designs or engineer a new solution entirely. Visit sigmanetics.com/contact to get started.



ISO 9001
CERTIFIED



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From ruggedized pressure switches and sensors to metal bellows assemblies, Sigma-Netics designs and manufactures sensing elements for the world's most demanding industrial, military and aerospace applications. Sigma-Netics is a privately held corporation founded in 1966, headquartered in a 30,000 square foot facility in Riverdale, NJ, USA.



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