

Solutions by Sensor type:

Pressure

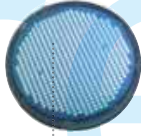
# Pressure

Measurement Specialties leads the industry with a wide array of standard and custom products ranging from board level components to fully amplified and packaged transducers, based on piezoresistive microelectromechanical (MEMS) and silicon strain gauge (Microfused™) technology. Our products measure pressure ranging from inches of water (<5 mbar) to 30,000 psi (>2 kbar), making us ideally suited for medical, HVAC, off-road/heavy equipment and general industrial applications. Our sensors are signal conditioned and calibrated over temperature, and include digital or analog outputs. Our customized packaging and electronics make MEAS the supplier of choice for OEMs.



## MEMS Silicon Pressure Chips (die)

For OEM Applications



1100

<b>Unique Features</b>	Piezoresistive pressure chip for mid pressure ranges, open bridge (two independent half bridges) 3.0 x 4.0mm.
<b>Linearity</b>	±0.1% FSO
<b>Output / Span</b>	80mV @ full scale pressure
<b>Type</b>	Gage, Absolute
<b>Pressure</b>	0-2, 5, 10, 15, 30, 50, 100, 250, 500psi (0.1, 0.3, 0.7, 1, 2, 3, 7, 17, 35bar)
<b>Overpressure</b>	5X
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Applications</b>	Can be packaged in an isolated oil filled transmitter for harsh media or packaged as a board level device for non-corrosive gases.
<b>Legacy Brand</b>	MEAS



7399

<b>Unique Features</b>	Piezoresistive pressure chip for high pressure ranges, open bridge (two independent half bridges), 3.2 x 3.2mm
<b>Linearity</b>	±0.25% FSO
<b>Output / Span</b>	125 mV @1.5mA and full scale pressure
<b>Type</b>	Absolute
<b>Pressure</b>	0-500, 1000psi (35, 70bar)
<b>Overpressure</b>	5X
<b>Operating Temp</b>	-40° to 85°C
<b>Typical Applications</b>	Can be packaged in an isolated oil filled transmitter for harsh media.
<b>Legacy Brand</b>	MEAS



MS7720-01-A, MS7801A, MS761A, MS767A, MS7901A, MS7912A, MS7212A

<b>Unique Features</b>	Piezoresistive pressure die, several versions including: very small sizes (down to 0.8 x 0.8mm), low cost, high linearity 0.05% FSO, high sensitivity up to 392mV FSO, high over pressure up to 30 bar (450psi) and harsh environment
<b>Linearity</b>	±0.05% FSO (MS7720-01A, MS7801A, MS7901, MS7912A, MS7212A) ±0.15% FSO (MS761A, MS767A)
<b>Output / Span</b>	150 mV FSO (MS7720-01-A, MS7801A, MS7901A, MS7912A, MS7212A) 240 mV FSO (MS761A) 392 mV FSO (MS767A)
<b>Type</b>	Absolute
<b>Pressure</b>	0 to 1 bar (MS7720-01-A, MS7801A, MS7901A, MS761A) 0 to 7 bar (MS767A) 0 to 12 bar (MS7912A, MS7212A)
<b>Overpressure</b>	5 bar (MS7720-01-A, MS7801A, MS7901A, MS761A) 21 bar (MS767A) 30 bar (MS7912A, MS7212A)
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Applications</b>	Harsh environments, absolute pressure sensor systems, braking systems, tire pressure, engine control, diving computers, electronic scales
<b>Legacy Brand</b>	Intersema



MS7305D, MS7310D, MS7801D, MS7901D, MS761D, MS7912D

<b>Unique Features</b>	Piezoresistive pressure die, sizes (down to 2x1.86mm), several versions including: low pressure, high linearity 0.05% FSO, high sensitivity up to 240mV FSO, high over pressure up to 30 bar (450psi).
<b>Linearity</b>	±0.05% FSO (MS7901, MS7801D, MS7912D) ±0.15% FSO (MS761D) ±0.3% FSO (MS7305D) ±0.35% FSO (MS7310D)
<b>Output / Span</b>	110 mV FSO (MS7305D, MS7310D) 150 mV FSO (MS7801D, MS7901D, MS7912D) 240 mV FSO (MS761D)
<b>Type</b>	Differential
<b>Pressure</b>	0 to 0.05 bar (MS7305D) 0 to 0.1 bar (MS7310D) 0 to 1 bar (MS7801D, MS7901D, MS761D) 0 to 12 bar (MS7912D)
<b>Overpressure</b>	5 bar (MS7801D, MS7901D, MS761D) 6 bar (MS7305D, MS7310D) 30 bar (MS7912D)
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Applications</b>	Washing machines, leak detection, level indicators, industrial control
<b>Legacy Brand</b>	Intersema

## Surface Mount Pressure Sensors

Miniature Board Level with mV Output

All use piezoresistive silicon die technology and are suitable for use with non-corrosive gases.



1451 and 1471

<b>Package</b>	Surface Mount
<b>Type</b>	Gage, Absolute
<b>Pressure Range</b>	0-5, 15, 30, 50, 100, 250*, 500* psi (consult factory for units in bar)
<b>Output / Span</b>	60mV typical
<b>Unique Feature</b>	- Low cost - Coarse calibrated at room temp (1471) - Can gel fill for humid conditions - Tube or hole
<b>Accuracy</b>	±0.25% Non-linearity
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Apps</b>	Altitude measurement, barometric pressure, medical instrumentation, consumer appliances, tire pressure
<b>Legacy Brand</b>	MEAS



MS5201, MS5201D, MS5212

<b>Package</b>	Surface Mount
<b>Type</b>	Gage, Absolute
<b>Pressure Range</b>	0-1, 12 bar (consult factory for units in psi)
<b>Output / Span</b>	150mV, 240mV
<b>Unique Feature</b>	- Low cost - Low drift - High linearity or high sensitivity options - Plastic tube or metal ring options - Can gel fill for humid conditions
<b>Accuracy</b>	±0.05% or ±0.2% Non-linearity
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Apps</b>	Absolute pressure sensor systems, engine controls, high resolution altimeters, variometers, water proof watches, divers' computers, barometers, tire pressure monitoring systems (TPMS), medical instrumentation, pneumatic controls
<b>Legacy Brand</b>	Intersema



MS5401, MS5407, MS5412

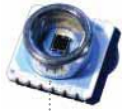
<b>Package</b>	Surface Mount
<b>Type</b>	Absolute
<b>Pressure Range</b>	0-1, 7, 12 bar (consult factory for units in psi)
<b>Output / Span</b>	150mV, 240mV
<b>Unique Feature</b>	- Small Size 6.2 x 6.4mm - Low cost - Low drift - High linearity or high sensitivity options - Metal ring - Can gel fill for humid conditions
<b>Accuracy</b>	±0.05% or ±0.2% Non-linearity
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Apps</b>	Absolute pressure sensor systems, engine controls, high resolution altimeters, variometers, water proof watches, divers' computers, barometers, tire pressure monitoring systems (TPMS)
<b>Legacy Brand</b>	Intersema

\*High pressure ranges for absolute sensing only. Entire sensor must be in pressure chamber.



## Surface Mount Pressure Sensors

Miniature Board Level with Digital Output



**MS5534, MS5535**

<b>Unique Features</b>	15 bit-digital sensor, very low noise ( $\pm 0.1$ mbar), software calibration and temperature compensation, Pressure and temperature measurement (35 ms / meas.) Low power, low voltage (2.2 to 3.6V / $< 4/0.1\mu A$ ) No external components required, Extended temperature range SMD ceramic carrier 9 x 9 mm
<b>Absolute Pressure Accuracy</b>	$\pm 1.5$ mbar @ 25°C (consult factory for units in psi) 750 to 1100 mbar (MS5534)  -25 to +20mbar @ 0° to +40°C 0 to 5 bar (MS5535)
<b>Resolution</b>	0.1 mbar (MS5534) 1.2 mbar (MS5535)
<b>Output / Span</b>	Digital 16 bit data word, 3-wire SPI like serial interface
<b>Pressure</b>	10 to 1100 mbar (MS 5534, barometric range) 0 to 14 bar (MS 5535, diving range)
<b>Overpressure</b>	10 bar (MS5534) 30 bar (MS5535)
<b>Operating Temp Range</b>	-40° to 125°C
<b>Typical Applications</b>	Mobile altimeter, barometer systems, weather monitoring systems, adventure or multi-mode watches, GPS receivers, diving computers and divers' watches, mobile water depth measurement systems
<b>Legacy Brand</b>	Intersema



**MS5540, MS5541**

<b>Unique Features</b>	16 bit-digital sensor, very low noise ( $\pm 0.1$ mbar), software calibration and temperature compensation, Pressure and temperature measurement (35 ms / meas.) Low power, low voltage (2.2 to 3.6V / $< 4/0.1\mu A$ ) No external components required, Small SMD ceramic carrier 6.2x6.4 mm Gel provides water protection.
<b>Absolute Pressure Accuracy</b>	$\pm 1.5$ mbar @ 25°C (consult factory for units in psi) 750 to 1100 mbar (MS5534)  -25 to +20mbar @ 0° to +40°C 0 to 5 bar (MS5535)
<b>Resolution</b>	0.1 mbar (MS5534) 1.2 mbar (MS5535)
<b>Output / Span</b>	Digital 16 bit data word, 3-wire SPI like serial interface
<b>Pressure</b>	10 to 1100 mbar (MS 5540, barometric range) 0 to 14 bar (MS 5541, diving range)
<b>Overpressure</b>	10 bar (MS5540) 30 bar (MS5541)
<b>Operating Temp Range</b>	-40° to 85°C
<b>Typical Applications</b>	Mobile altimeter, barometer systems, weather monitoring systems, adventure or multi-mode watches, GPS receivers, diving computers and divers' watches, mobile water depth measurement systems
<b>Legacy Brand</b>	Intersema



**MS5536-PJU, MS5536-NJU**

<b>Unique Features</b>	15 bit-differential digital sensor, software calibration and temperature compensation, Pressure and temperature measurement (35 ms / meas.) Low power, low voltage (2.2 to 3.6V / 5 $\mu A$ ) No external components required, Small SMD ceramic carrier 13.3x10.1 mm
<b>Absolute Pressure Accuracy</b>	$\pm 2.5$ mbar @ 10° to 40°C (consult factory for units in psi) -100 to +700 mbar (5536PJU)  $\pm 2.5$ mbar @ 10° to 40°C (0.04psi) -700 to +100 mbar (5536NJU)
<b>Resolution</b>	0.1 mbar
<b>Output / Span</b>	Digital 16 bit data word, 3-wire SPI like serial interface
<b>Pressure</b>	-400 to 1000 mbar (-5.8 to 14.5psi) (MS5536-PJU) -1000 to 400 mbar (-14.5 to 5.8psi) (MS5536-NJU)
<b>Overpressure</b>	$\pm 5$ bar
<b>Operating Temp Range</b>	-40° to +60°C
<b>Typical Applications</b>	Medical application, blood pressure meter, HVAC application
<b>Legacy Brand</b>	Intersema

## TO Package

Board Level with mV Output

All use piezoresistive silicon die technology and are suitable for non-corrosive gases.



**13,23,33,43,17,27,37,47**

<b>Package</b>	TO-8
<b>Type</b>	Gage, Absolute, Differential
<b>Pressure Range</b>	0-1, 2, 5, 10, 15, 30, 50, 100, 250psi (consult factory for units in bar)
<b>Output / Span</b>	100mV typical
<b>Unique Feature</b>	- Temperature compensated - High performance UltraStable die (17, 27, 37, 47) - Can gel fill for humid conditions
<b>Accuracy</b>	$\pm 0.1\%$ Non-linearity
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Apps</b>	Medical instruments, air flow measurement, HVAC, process control, factory automation, leak detection
<b>Legacy Brand</b>	MEAS



**50**

<b>Package</b>	TO-5
<b>Type</b>	Absolute
<b>Pressure Range</b>	0-5, 15, 30, 50, 100, 250°, 500°psi (consult factory for units in bar)
<b>Output / Span</b>	60mV typical
<b>Unique Feature</b>	- Low cost - Solid state reliability - Good for through hole - Can gel fill for humid conditions
<b>Accuracy</b>	$\pm 0.25\%$ Non-linearity
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Apps</b>	Tire pressure sensor, consumer appliances, medical instruments, barometric pressure, altitude measurement
<b>Legacy Brand</b>	MEAS

\*Entire sensor must be in the pressure chamber.

## Dual In-Line Package

### Board Level with mV Output

All use piezoresistive silicon die technology, are temperature compensated, and are suitable for use with non-corrosive gases.



#### 1210, 1220, 1230, 1240

<b>Package</b>	8 pin 0.600 DIP
<b>Type</b>	Gage, Absolute, Differential
<b>Pressure Range</b>	0-5 & 10" H <sub>2</sub> O 0-1, 2, 5, 15, 30, 50, 100 psi (consult factory for units in mbar & bar)
<b>Output / Span</b>	50mV & 100mV typical
<b>Unique Feature</b>	- Temperature compensated - High performance UltraStable die (1230, 1240) - Current excitation(1210, 1230) - Voltage excitation(1220, 1240)
<b>Accuracy</b>	±0.1% Non-linearity
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Apps</b>	Medical instruments, air flow measurement, HVAC, process control, factory automation, leak detection
<b>Legacy Brand</b>	MEAS



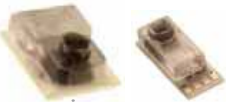
#### 4415, 4416, 4425, 4426

<b>Package</b>	6 pin 0.600 DIP
<b>Type</b>	Gage, Absolute, Differential
<b>Pressure Range</b>	0-5, 10" H <sub>2</sub> O 0-5, 15, 30, 50, 100 psi (consult factory for units in mbar & bar)
<b>Output / Span</b>	60mV, 90mV, & 100mV typical
<b>Unique Feature</b>	- Temperature compensated - High performance UltraStable die (4425, 4426) - Low pressure (4415, 4416) - Voltage excitation
<b>Accuracy</b>	±0.1% Non-linearity
<b>Operating Temp</b>	-25° to 85°C
<b>Typical Apps</b>	Drop-in for 6 pin industrial sensor for PCB mounted medical, HVAC
<b>Legacy Brand</b>	MEAS

## Specialty Pressure Products

### mV and Amplified Outputs

All use piezoresistive silicon technology.



#### 1620 and 1630

<b>Package</b>	Invasive blood pressure monitoring
<b>Type</b>	Gage
<b>Pressure Range</b>	-30 to 300 mmHg
<b>Output / Span</b>	5 uV/mmHg
<b>Unique Feature</b>	- Low cost, disposable design - Supplied in tape and reel - Compliant to AAMI spec
<b>Accuracy</b>	1.0% FSO
<b>Operating Temp</b>	10° to 40°C
<b>Typical Apps</b>	Disposable blood pressure, surgical procedures, ICU, kidney dialysis machines, medical instrumentation
<b>Legacy Brand</b>	MEAS



#### Fully assembled 1620

<b>Package</b>	Invasive blood pressure monitoring
<b>Type</b>	Gage
<b>Pressure Range</b>	-30 to 300 mmHg
<b>Output / Span</b>	5 uV/mmHg
<b>Unique Feature</b>	- Low cost, disposable design - Compliant to AAMI spec - ISO13485 Certified - Custom designs available
<b>Accuracy</b>	1.0% FSO
<b>Operating Temp</b>	10° to 40°C
<b>Typical Apps</b>	Disposable blood pressure, kidney dialysis machines, surgical procedures and intensive care units. Ready to use, fully assembled disposable sensor units with cable, connector, stop cock, flush device in a plastic housing.
<b>Legacy Brand</b>	MEAS



#### Ares

<b>Package</b>	Board mountable
<b>Type</b>	Differential
<b>Pressure Range</b>	0-5, 10, 15" H <sub>2</sub> O & 1psi (consult factory for units in mbar)
<b>Output / Span</b>	0.5-4.5Vdc
<b>Unique Feature</b>	Low cost pressure transducer with ASIC for amplified output
<b>Accuracy</b>	0.25% to 0.75% FSO
<b>Operating Temp</b>	-25° to 80°C
<b>Typical Apps</b>	HVAC air-duct flow, medical equipment, environmental controls, portable monitors, volume OEM applications
<b>Legacy Brand</b>	MEAS



#### M100 and M120

<b>Package</b>	Small housing with O-ring and proprietary "Snap in" feature that lowers the total installed cost and customized housings for OEM applications
<b>Type</b>	Gage
<b>Pressure Range</b>	50psi to 500psi (consult factory for units in bar)
<b>Output / Span</b>	100mV typical
<b>Unique Feature</b>	- Microfuse™ Technology - Low cost stainless steel isolated transducer - No threads needed for pressure connect - Highly customized for OEM application - Small size - Solid state reliability
<b>Accuracy</b>	0.5% FSO
<b>Operating Temp</b>	0° to 55°C
<b>Typical Apps</b>	Beverage dispensing systems, automation, HVAC controls, energy and water management, pumps, compressors, pneumatic equipment
<b>Legacy Brand</b>	MEAS

## Stainless Steel Media-Isolated Pressure Sensors

### O-Ring Mount

All use MEAS's UltraStable piezoresistive silicon die technology in a stainless steel package with oil-filled diaphragm and are suitable for use with liquids and gases. For other material like Hastelloy, Titanium etc. Please contact factory.

					
	<b>82 or 154N UltraStable</b>	<b>86 UltraStable</b>	<b>86A Amplified</b>	<b>DP86</b>	<b>85 Flush Mount</b>
<b>Package</b>	3/4" (19 mm) diameter o-ring mount	5/8" (16 mm) diameter o-ring mount	5/8" (16 mm) diameter o-ring mount	5/8" (16 mm) diameter o-ring mount wet/wet	1/2" (13 mm) diameter o-ring flush mount
<b>Type</b>	Gage, Absolute	Gage, Absolute	Gage	Differential	Gage, Absolute
<b>Pressure Range</b>	0-1, 5, 15, 30, 50, 100, 300, 500psi (consult factory for units in mbar & bar)	0-5, 15, 30, 50, 100, 300, 500psi (consult factory for units in mbar & bar)	0-1, 2, 5, 15, 30, 50, 100, 150psi (consult factory for units in mbar & bar)	0-1, 5, 15, 30, 50, 100, 300, 500psi (consult factory for units in mbar & bar)	0-15, 30, 50, 100, 300, 500psi (consult factory for units in mbar & bar)
<b>Output / Span</b>	100mV typical	100mV typical	0.5-4.5Vdc	100mV typical	100mV typical
<b>Unique Feature</b>	- High performance, high stability for OEM applications - Pressure as low as 1psi	- High performance, high stability for OEM applications - Small diameter	- Small diameter, amplified output - Bar ranges available	<b>Wet/Wet differential pressure</b>	Minimizes trapped volume
<b>Accuracy</b>	±0.1% Non-linearity	±0.1% Non-linearity	±0.25% FSO	±0.1% Non-linearity	±0.1% Non-linearity
<b>Operating Temp</b>	-40° to 125°C	-40° to 125°C	-20° to 85°C	-20° to 125°C	-20° to 125°C
<b>Typical Apps</b>	Process control, oceanography, refrigeration/ compressors, pressure transmitters, level systems	Hydraulic controls, process control, oceanography, refrigeration/ compressors, pressure transmitters, level systems	Level measurement, OEM transmitter and transducers, process control	Filter blockage, pressurized tank level, flow transmitters	Dialysis machines, infusion pumps, medical systems, pressure transmitters, level systems
<b>Legacy Brand</b>	MEAS	MEAS	MEAS	MEAS	MEAS

### Threaded/Weldable

All use MEAS's UltraStable piezoresistive silicon die technology in a stainless steel package with oil-filled diaphragm and are suitable for use with liquids and gases. For other material like Hastelloy, Titanium etc. Please contact factory.

			
	<b>85 UltraStable</b>	<b>87N</b>	<b>89</b>
<b>Package</b>	Weldable or process fitting	Weldable or process fitting	Weldable or process fitting
<b>Type</b>	Gage, Absolute	Sealed Gage, Absolute	Sealed Gage, Absolute
<b>Pressure Range</b>	0-5, 15, 30, 50, 100, 300, 500psi (consult factory for units in mbar & bar)	0-1000, 3000, 5000psi (consult factory for units in mbar & bar)	0-1000, 3000, 5000, 10000psi (consult factory for units in mbar & bar)
<b>Output / Span</b>	100mV typical	100mV typical	100mV typical
<b>Unique Feature</b>	Modular design	High pressure, modular design	High pressure, small size, SS or Ti construction
<b>Accuracy</b>	±0.1% Non-linearity	±0.25% Non-linearity	±0.25% Non-linearity
<b>Operating Temp</b>	-40° to 125°C	-40° to 125°C	-20° to 125°C
<b>Typical Apps</b>	Medical, process control, refrigeration compressor, oceanography, level systems	Air tank pressure, hydraulics, process control, robotics, refrigeration compressors, oceanography	Auto racing, hydraulics, miniature pneumatics, medical, oceanography
<b>Legacy Brand</b>	MEAS	MEAS	MEAS

## Transducers & Transmitters

### Precision and General Industrial Transducers & Transmitters

Microfused™ and UltraStable™ Technologies



#### MSP300, M340

<b>Package</b>	Small housing with a large selection of threaded fittings, electrical connectors, cable options and customized housings for OEM applications
<b>Type</b>	Gage
<b>Pressure Range</b>	0-100psi thru 0 -30Kpsi (consult factory for units in bar)
<b>Output / Span</b>	0-100mV, 0.5-4.5Vdc, 1-5Vdc, 4-20mA
<b>Unique Feature</b>	<ul style="list-style-type: none"> <li>- Microfuse™ technology</li> <li>- High reliability at a low cost</li> <li>- Highly customized for OEM applications</li> <li>- Small size</li> <li>- Solid state reliability</li> <li>- Various total error band choices 1% thru 4.5% typical (all possible errors combined)</li> </ul>
<b>Accuracy</b>	<1% FSO
<b>Operating Temp</b>	-20° to 85°C
<b>Typical Apps</b>	Paint sprayers, braking systems, HVAC controls, energy and water management, pumps, compressors, pneumatic equipment, off road heavy equipment, agriculture equipment
<b>Agency Approvals</b>	UL 508
<b>Legacy Brand</b>	MEAS



#### US300

<b>Package</b>	Small housing with a large selection of threaded fittings, electrical connectors, cable options and customized housings for OEM applications
<b>Type</b>	Gage, Absolute
<b>Pressure Range</b>	0-5psi thru 0-5Kpsi (consult factory for units in mbar & bar)
<b>Output / Span</b>	0-100mV, 0.5-4.5Vdc, 1-5Vdc, 4-20mA
<b>Unique Feature</b>	<ul style="list-style-type: none"> <li>- UltraStable™ technology</li> <li>- High reliability at a low cost</li> <li>- Highly customized for OEM applications</li> <li>- Small size</li> <li>- Solid state reliability</li> <li>- Various total error band choices 0.75% thru 3% typical (all possible errors combined)</li> </ul>
<b>Accuracy</b>	0.15% FSO
<b>Operating Temp</b>	-40° to 105°C
<b>Typical Apps</b>	HVAC controls, refrigeration, energy and water management, pumps, compressors, pneumatic equipment, agriculture equipment
<b>Agency Approvals</b>	
<b>Legacy Brand</b>	MEAS



#### M5100

<b>Package</b>	Industrial stainless steel housing with a large selection of threaded fittings, electrical connectors, cable options and customized housings for OEM applications
<b>Type</b>	Gage
<b>Pressure Range</b>	0-50 psi thru 0-30Kpsi (consult factory for units in bar)
<b>Output / Span</b>	0.5-4.5Vdc, 1-5Vdc, 0-5Vdc, 0-10Vdc, 4-20mA
<b>Unique Feature</b>	<ul style="list-style-type: none"> <li>- Microfuse™ technology</li> <li>- High performance at a low cost</li> <li>- Solid state reliability</li> <li>- 1% Total error band (-20 to 85C all possible errors combined)</li> </ul>
<b>Accuracy</b>	0.25% FSO
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Apps</b>	HVAC controls, energy and water management, pumps, compressors, pneumatic equipment, off road heavy equipment, trucks, agriculture equipment, braking systems
<b>Agency Approvals</b>	CE, UL 508
<b>Legacy Brand</b>	MEAS



#### U5100

<b>Package</b>	Industrial stainless steel housing with a large selection of threaded fittings, electrical connectors, cable options and customized housings for OEM applications
<b>Type</b>	Gage, Sealed Gage, Absolute
<b>Pressure Range</b>	0-5psi thru 0-10Kpsi (consult factory for units in mbar & bar)
<b>Output / Span</b>	0.5-4.5Vdc, 1-5Vdc, 0-5Vdc, 0-10Vdc, 4-20mA
<b>Unique Feature</b>	<ul style="list-style-type: none"> <li>- UltraStable™ technology</li> <li>- High Performance at a low cost</li> <li>- Solid state reliability</li> <li>- Less error than competing technologies</li> <li>- 0.75% Total error band (-20° to 85°C all possible errors combined)</li> <li>- 0.5% max 0.25% typical total error band available for instrument grade</li> </ul>
<b>Accuracy</b>	0.1% FSO
<b>Operating Temp</b>	-40° to 125°C
<b>Typical Apps</b>	Refrigeration, automotive test stands, HVAC controls, energy and water management, pumps, compressors, pneumatic equipment, trucks, agriculture equipment
<b>Agency Approvals</b>	CE, UL 508
<b>Legacy Brand</b>	MEAS



#### MSP800

<b>Package</b>	Threaded 1/4 NPT port with integral small protruding stainless steel temperature probe
<b>Type</b>	Gage
<b>Pressure Range</b>	50 and 500psi (contact factory for higher pressure, consult factory for units in bar)
<b>Output / Span</b>	0.5-4.5Vdc
<b>Unique Feature</b>	<ul style="list-style-type: none"> <li>- Microfuse™ technology</li> <li>- In-line temperature probe</li> <li>- digitally compensated for high accuracy over broad temperature range</li> </ul>
<b>Accuracy</b>	0.25% FSO
<b>Operating Temp</b>	-40° to 85°C
<b>Typical Apps</b>	Medical instruments, HVAC, process control, factory automation, offroad vehicles
<b>Agency Approvals</b>	
<b>Legacy Brand</b>	MEAS



#### EPHT / EPPT

<b>Package</b>	Small housing with threaded port and integral small protruding stainless steel temperature probe
<b>Type</b>	Absolute
<b>Pressure Range</b>	500psi thru 5000psi (consult factory for units in bar)
<b>Output / Span</b>	0.5-4.5Vdc
<b>Unique Feature</b>	<ul style="list-style-type: none"> <li>- Integrated temperature Sensor</li> <li>- High temperature</li> <li>- Miniature design</li> <li>- UltraStable™ Technology</li> <li>- IP66 splash proof rated</li> <li>- Titanium options</li> </ul>
<b>Accuracy</b>	0.25% FSO
<b>Operating Temp</b>	-20° to 150°C (175° intermittent)
<b>Typical Apps</b>	Severe environment where small size is required & high intermittent temperatures occur: aerospace, racing, engine performance, gear box pressure, oil pressure, cooling system pressure, brake pressure
<b>Agency Approvals</b>	
<b>Legacy Brand</b>	MEAS



#### EPRB

<b>Package</b>	Small housing with threaded port
<b>Type</b>	Absolute
<b>Pressure Range</b>	100psi thru 3600psi (consult factory for units in bar)
<b>Output / Span</b>	0.5-4.5Vdc
<b>Unique Feature</b>	<ul style="list-style-type: none"> <li>- High temperature</li> <li>- Miniature design</li> <li>- UltraStable™ Technology</li> <li>- IP66 splash proof rated</li> </ul>
<b>Accuracy</b>	0.25% FSO
<b>Operating Temp</b>	-20° to 150°C (175° intermittent)
<b>Typical Apps</b>	Severe environment where small size is required: aerospace, racing, engine performance, gear box pressure, oil pressure, cooling system pressure, brake pressure
<b>Agency Approvals</b>	
<b>Legacy Brand</b>	Entran

## Heavy Industrial Transducers & Transmitters



### P900, P981, P1200, P700, P9000

<b>Package</b>	Threaded ports with stainless steel housing & various heavy duty electrical connections, various electrical outputs
<b>Type</b>	Gage & Absolute
<b>Pressure Range</b>	75 psi through 10K psi (consult factory for units in bar)
<b>Output / Span</b>	0-5Vdc, 0-10Vdc, 4-20mA
<b>Unique Feature</b>	- High overpressure & shock rated (10X over pressure) - Shock & vibration resistant - Heavy Industrial grade transducer (P9000) - Advanced digital compensation/calibration - Mechanical over pressure stops - High temperature operation
<b>Accuracy</b>	0.1% through 0.2% FSO
<b>Operating Temp</b>	-54° to 120°C
<b>Typical Apps</b>	Steel mills, Hydraulic controls, power generation equipment, Torpedo depth, Mil-Aero, vehicle braking systems
<b>Agency Approvals</b>	CE, CENELEC (Intrinsically Safe)
<b>Legacy Brand</b>	Schaevitz

## Transducers & Transmitters

### Miniature Pressure Transducers



#### EPX

<b>Unique Features</b>	Dynamic & passive output, miniature threaded; stainless steel flush diaphragm, bonded silicon gage, high Frequency response (to 450KHz)
<b>Combined Non-linearity &amp; Hysteresis (±)</b>	0.5-1% FSO
<b>Output / Span</b>	15mV to 125mV
<b>Pressure - PSI</b>	0-5, 10, 15, 25, 50, 100, 250, 500, 1000, 2500, 5000
<b>Pressure - Bar</b>	0-0.35, 0.7, 1, 1.5, 3.5, 7, 15, 35, 70, 150, 350
<b>Overpressure</b>	1.2X to 10X
<b>Compensated Temp Range</b>	20° to 80°C
<b>Operating Temp</b>	-40° to 120°C
<b>Typical Applications</b>	Mil-Aero, Hydraulic pressure systems, air bag testing, air pressure systems, depth measurements, engine inlet and turbine, biomedical fluid sample analysis equipment
<b>Legacy Brand</b>	Entran



#### EPXO

<b>Unique Features</b>	Highest frequency response, dynamic & passive output, high performance miniature threaded, stainless steel flush diaphragm, bonded foil gage, high frequency response (to 230KHz)
<b>Combined Non-linearity &amp; Hysteresis (±)</b>	0.75% FSO
<b>Output / Span</b>	9mV or 5Vdc
<b>Pressure - PSI</b>	0-150, 200, 300, 500, 1000, 1500, 2000, 3000, 5000, 7500
<b>Pressure - Bar</b>	0-10, 15, 20, 35, 70, 100, 150, 200, 350, 500
<b>Overpressure</b>	1.5X
<b>Compensated Temp Range</b>	0° to 60°C (available option up to 220°C)
<b>Operating Temp</b>	-40° to 125°
<b>Typical Applications</b>	Hydraulic pressure systems, air or gas pressure systems, general purpose use in dry and wet media, off-road equipment
<b>Legacy Brand</b>	Entran



#### EPXN

<b>Unique Features</b>	UltraStable™ long term stability, miniature threaded, recessed silicon diaphragm
<b>Combined Non-linearity &amp; Hysteresis (±)</b>	0.3-0.5% FSO
<b>Output / Span</b>	50 to 75mV or 5Vdc
<b>Pressure - PSI</b>	0-5, 15, 30, 75, 150
<b>Pressure - Bar</b>	0-0.3, 1, 2, 5, 10
<b>Overpressure</b>	3X
<b>Compensated Temp Range</b>	20° to 80°C
<b>Operating Temp</b>	-40° to 120°C
<b>Typical Applications</b>	Long term stability applications for static pressure monitoring of dry media, satellites, atmospheric flight tests
<b>Legacy Brand</b>	Entran



#### EPB, EPL

<b>Unique Features</b>	Miniature flush mountable, flush stainless steel diaphragm, flanged or & non-flanged, bonded silicon gage, high frequency response (to 400KHz)
<b>Combined Non-linearity &amp; Hysteresis (±)</b>	±0.5 to ±1% FSO
<b>Output / Span</b>	10mV to 125mV
<b>Pressure - PSI</b>	0-5, 10, 15, 25, 50, 100, 250, 500, 1000, 2500, 5000
<b>Pressure - Bar</b>	0-0.35, 0.7, 1, 1.5, 3.5, 7, 15, 35, 70, 150, 350
<b>Overpressure</b>	2X to 10X
<b>Compensated Temp Range</b>	20° to 80°C
<b>Operating Temp</b>	-40° to 120°C
<b>Typical Applications</b>	Air flow testing, hydraulic pressure systems, air pressure systems, bearing studies, ballistics, water hammer, miniature scale model testing
<b>Legacy Brand</b>	Entran

## Transducers & Transmitters

### Sub-Miniature Pressure Transducers



#### EPI

**Unique Features** Very small 0.08" outside diameter, many housing styles, High Frequency Response (420KHz)

<b>Combined Non-linearity &amp; Hysteresis (±)</b>	0.25-1.0% FSO
<b>Output / Span</b>	15mV to 100mV
<b>Pressure - PSI</b>	0-5, 10, 15, 25, 50, 75, 100, 250, 500
<b>Pressure - Bar</b>	0-0.35, 0.7, 1, 1.5, 3.5, 5, 7, 15, 35
<b>Overpressure</b>	2X to 5X
<b>Operating Temp</b>	Compensated: 20° to 80°C Operating: -40° to 120°C
<b>Typical Applications</b>	Wind tunnels, biomedical testing, aircraft body and wing dynamics, modelling, flight test
<b>Legacy Brand</b>	Entran



#### EPIH

Smallest 0.05" outside diameter, high frequency to 1.7 MHz

<b>Combined Non-linearity &amp; Hysteresis (±)</b>	1.0% FSO
<b>Output / Span</b>	12mV to 75mV
<b>Pressure - PSI</b>	0-5, 10, 15, 25, 50, 75, 100, 200, 300
<b>Pressure - Bar</b>	0-0.35, 0.7, 1, 1.5, 3.5, 5, 7, 14, 20
<b>Overpressure</b>	2X to 5X
<b>Operating Temp</b>	Compensated: 20° to 80°C Operating: -40° to 120°C
<b>Typical Applications</b>	Aerospace testing, wind tunnels, biomedical testing, aircraft body and wing dynamics, high frequency measurements
<b>Legacy Brand</b>	Entran



#### EPE

Low pressure, high sensitivity, many housing styles

<b>Combined Non-linearity &amp; Hysteresis (±)</b>	0.75 -1.5% FSO
<b>Output / Span</b>	300mV to 400mV
<b>Pressure - PSI</b>	0-2, 5
<b>Pressure - Bar</b>	0-0.13, 0.35
<b>Overpressure</b>	20X to 23X
<b>Operating Temp</b>	Compensated: 20° to 80°C Operating: -40° to 120°C
<b>Typical Applications</b>	Wind tunnels, aircraft body and wing dynamics, microphone applications for acoustic testing
<b>Legacy Brand</b>	Entran



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