measurement
SPECIALTIES

sensing your world...

Embedded Sensing Technologies

measurement SPECIALTIES

Measurement Specialties knows how to support OEMs

Measurement Specialties (MEAS) designs and manufactures sensors that measure pressure/force, position, vibration, temperature, humidity, torque and fluid properties. Used as embedded devices by original equipment manufacturers (OEMs) or as stand alone sensors for test and measurement, our products are critical for feedback and control to enhance product functionality, efficiency and safety. We are the heart of many everyday products and provide a vital link to the physical world.

MEAS is an applications company and understands that embedded often means custom. Our portfolio includes technologies capable of measuring most physical characteristics and allows us to design the right sensor for the right application, including multi-parameter sensors. Physical property, electrical input/output and packaged configuration are all considerations when developing products that meet our customers' needs.

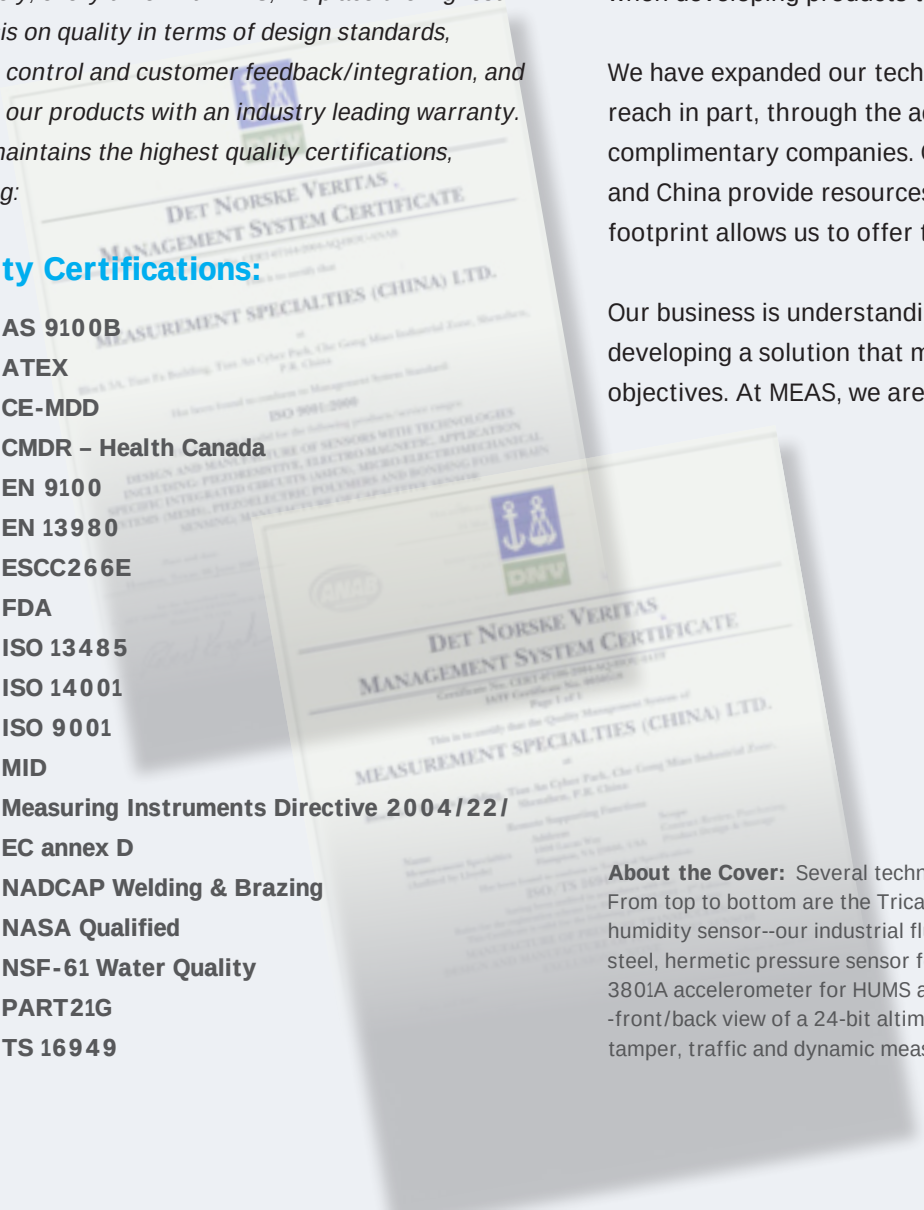
We have expanded our technology portfolio and geographic reach in part, through the acquisition of strategically complimentary companies. Our operations in the US, Europe and China provide resources close to our customers. This global footprint allows us to offer the lowest cost of ownership to OEMs.

Our business is understanding your sensing needs and developing a solution that meets your performance and cost objectives. At MEAS, we are Sensing Your World.

Our sensors often play mission critical roles within the end device in which they are embedded. Accordingly, our customers rely on MEAS sensors to operate accurately, every time. At MEAS, we place the highest emphasis on quality in terms of design standards, process control and customer feedback/integration, and back up our products with an industry leading warranty. MEAS maintains the highest quality certifications, including:

Quality Certifications:

- AS 9100B
- ATEX
- CE-MDD
- CMDR – Health Canada
- EN 9100
- EN 13980
- ESCC266E
- FDA
- ISO 13485
- ISO 14001
- ISO 9001
- MID
- Measuring Instruments Directive 2004/22/ EC annex D
- NADCAP Welding & Brazing
- NASA Qualified
- NSF-61 Water Quality
- PART21G
- TS 16949



About the Cover: Several technologically exciting products are featured. From top to bottom are the Trican pressure, temperature and relative humidity sensor--our industrial fluid/fuel properties sensor--a new stainless steel, hermetic pressure sensor for HVAC and rugged environments--the 3801A accelerometer for HUMS applications--a robust temperature sensor--front/back view of a 24-bit altimeter and our patented Piezo Film used in tamper, traffic and dynamic measurement applications.

Transport and Case Refrigeration Systems
Temperature sensors are used to measure air supply to control compartments while immersion probes measure refrigerant temperature. Rugged sensors designed specifically for measuring refrigerant pressure are used in conjunction with variable speed compressors to improve system efficiency.

Industrial Paint Sprayer
Custom designed pressure sensor is used to monitor and precisely control the pressure in the paint canister to prevent splatter due to pressure spikes.

Wind Farm
Inclinometer is used to level wind turbines during construction and operation. Vibration sensors monitor the gearbox and provide early warning for maintenance.

General OEM/Industry

Measurement Specialties supports OEM customers in many industries; including Industrial, Consumer and Commercial. Our engineered sensing solutions meet the unique requirements of a wide variety of applications within the building products, HVAC, refrigeration, energy, process control, automation, altitude & depth measurements and beverage flow control markets. Our broad technology portfolio and willingness to customize make us the sensor supplier of choice for industrial OEMs. From VAV/HVAC to process control, pool and spa to gas pumps, we understand the need for sensors designed to meet challenging OEM specifications.

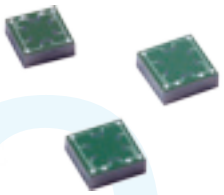
Traffic/Smart Highway
Piezoelectric axle detectors are used to collect data on highways, as well as providing the timing mechanism for speed and red light cameras.

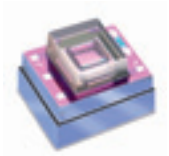
Gas Pump
Rugged, hermetically sealed electromagnetic rotary encoder coupled to the fuel flow meter in gas pumps is used to convert rotational pulses into gallons or liters dispensed.

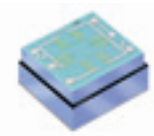
Measurement Specialties leads the industry with a wide array of standard and custom pressure products ranging from board level components to fully amplified and packaged transducers, based on piezoresistive microelectromechanical (MEMS) and silicon strain gauge (Microfused™) technology. Our products 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. We manufacture the world's lowest power and smallest package pressure sensors for altimeter/ NAV applications. Our sensors are signal conditioned, calibrated over temperature, and include digital or analog outputs. Customized packaging and electronics make MEAS the supplier of choice for OEMs.

Silicon Die and Microstructures

For OEM Applications





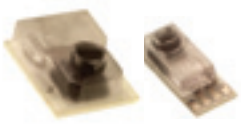


	MS71xx	MS72xx	MS73xx	6393	7398, 7399
Unique Features	- Piezoresistive pressure die - Silicon-silicon construction	- Piezoresistive pressure die - Top cavity - Hermetic Sensor - For harsh environment	- Piezoresistive pressure die - Low pressure sensor - High sensitivity	- Piezoresistive pressure die - Silicon-pyrex construction - Open bridge	- Piezoresistive pressure chip for high pressure ranges - Open bridge (two independent half bridges)
Linearity	±0.05% FSO	±0.05% FSO (MS7212A)	±0.3% FSO (MS7305)	±0.1% FSO	±0.25% FSO
Output / Span	125 mV @ 5 V	150 mV @ 5 V	110 mV @ 5 V	110 mV @ 1.5 mA	125 mV @1.5 mA
Type	Absolute	Absolute	Differential	Differential, Absolute	Absolute
Pressure Range	0-1, 2, 7, 12 bar	0-1, 2, 4, 7, 12, 18, 28, 36 bar	0-50 mbar (MS7305) 0-100 mbar (MS7310)	0-2, 5, 10, 15, 30, 50, 250, 500 psi	0-500, 1000 psi (35, 70 bar)
Overpressure	5X	FS range dependent 5 bar (MS7201-A2) 170 bar (MS7236-A)	6 bar	5X	5X
Operating Temp	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-40°C to 85°C
Dimensions (mm)	1.25 x 1.25 (MS7101) 1.11 x 1.11 (MS7102)	1.35 x 1.79 (MS7201-A2) 1.95 x 1.63 (MS7236-A)	2.45 x 2.45	3.0 x 4.0	3.3 x 3.3
Typical Apps	Tire pressure, High common-mode pressure industrial sensors, Altimeters & Variometers	Braking systems, transmission systems, engine controls	Heating ventilation & Air conditioning, medical, industrial controls	Process control, automation, refrigeration	Can be packaged in an isolated oil filled transmitter for harsh media.

Disposable Medical Products

mV Outputs

All use piezoresistive silicon technology.



	1620, 1630	Fully Assembled 1620 **(Customized per customer specification)**
Package	Invasive blood pressure monitoring	Invasive blood pressure monitoring
Type	Gage	Gage
Pressure Range	-30 to 300 mmHg	-30 to 300 mmHg
Output / Span	5 uV/V/mmHg	5 uV/V/mmHg
Unique Features	- Low cost, disposable design - Supplied in tape and reel - Compliant to AAMI spec	- Low cost, disposable design - Compliant to AAMI spec - ISO13485 Certified - Custom designs available
Accuracy	1.0% FSO	1.0% FSO
Operating Temp	10°C to 40°C	10°C to 40°C
Dimensions (mm)	1620: 8.13 x 11.43 x 4.20 1630: 5.08 x 12.7 x 3.94	42.8 x 30.3 x 19.0
Typical Apps	Disposable blood pressure, surgical procedures, ICU, kidney dialysis machines, medical instrumentation	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.

Board Mounted Pressure Sensors

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	MS4415, MS4416, MS4425, MS4426
Package	8 pin DIL	6 pin DIL
Type	Gage, Absolute, Differential	Gage, Absolute, Differential
Pressure Range	0-5 & 10" H_2O 0-1, 2, 5, 15, 30, 50, 100 psi	0-2, 4, 5, 10, 20, 30" in H_2O (MS4415, MS4416) 0-1, 5, 15, 30, 50, 100, 150, 300 psi (MS4425, MS4426)
Output / Span	50mV & 100mV typical	60mV, 90mV, & 100mV typical
Unique Features	- Temperature compensated - High performance UltraStable die (1230, 1240) - Current excitation(1210, 1230) - Voltage excitation(1220, 1240)	- Temperature compensated - High performance UltraStable die (MS4425, MS4426) - Low pressure (MS4415, MS4416) - Voltage excitation
Accuracy	±0.1% Non-linearity	±0.1% Non-linearity
Operating Temp	-40°C to 125°C	-25°C to 85°C
Dimensions (mm)	15.2 x 20.3	20.3 x 13.7
Typical Apps	Medical instruments, air flow measurement, HVAC, process control, factory automation, leak detection	Drop-in for 6 pin industrial sensor for PCB mounted medical, HVAC

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	50
Package	TO-8	TO-5
Type	Gage, Absolute, Differential	Absolute
Pressure Range	0-1, 2, 5, 10, 15, 30, 50, 100, 250 psi	0-15, 30, 50, 100, 250, 500 psi
Output / Span	100 mV typical	60 mV typical
Unique Features	- Temperature compensated - High performance UltraStable die (17, 27, 37, 47) - Can gel fill for humid conditions	- Low cost - Solid state reliability - Good for through hole - Can gel fill for humid conditions - Uncompensated
Accuracy	±0.1% Non-linearity	±0.25% Non-linearity
Operating Temp	-40°C to 125°C	-40°C to 125°C
Dimensions (mm)	Ø 11.4, height model dependent	Ø 8.2 x 4.14
Typical Apps	Medical instruments, air flow measurement, HVAC, process control, factory automation, leak detection	Tire pressure sensor, consumer appliances, medical instruments, barometric pressure, altitude measurement

Board Mounted Pressure Sensors

Miniature Board Level with mV Output

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

	MS1451, MS1471	MS52xx, MS54xx
Package	Surface Mount	Surface Mount
Type	Gage, Absolute	Gage, Absolute
Pressure Range	0-5, 15, 30, 50, 100, 250, 500 psi	0-1, 12 bar (MS52xx) 0-1, 7, 12 bar (MS54xx)
Output / Span	60 mV typical	150 mV, 240 mV
Unique Features	- Low cost - Coarse calibrated at room temp (MS1471) - With gel to protect against moisture - Tube or hole	- Small size (MS54xx) - High linearity or high sensitivity options - Plastic tube or metal ring options - With gel to protect against moisture
Accuracy	±0.25% Non-linearity	±0.05% or ±0.2% Non-linearity
Operating Temp	-40°C to 125°C	-40°C to 125°C
Dimensions (mm)	7.6 x 7.6, height model dependent	7.6 x 7.6, height model dependent (MS52xx) 6.4 x 6.2 (MS54xx)
Typical Apps	Altitude measurement, barometric pressure, medical instrumentation, consumer appliances, tire pressure	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

Board Level Amplified/Digital High Level Output Modules

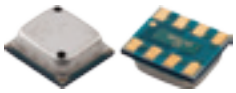
	MS58xx	MS55xx	MS5536-PJU, MS5536-NJU	MS4525, MS4525DO
Unique Features	24-bit digital sensor, software calibration and temperature compensation (I²C & SPI), no external components 1.8 to 3.6 V	16-bit digital sensor, very low noise (±0.1 mbar), software calibration and temperature compensation, pressure and temperature measurement (35 ms / meas.). Low power, low voltage (2.2 to 3.6 V/ <4/0.1 µA). No external components required, small SMD ceramic carrier. Gel provides water protection.	16-bit differential digital sensor, software calibration and temperature compensation, pressure and temperature measurement (35 ms / meas.). Low power, low voltage (2.2 to 3.6 V / 5µA). No external components required, Small SMD ceramic carrier .	Ratiometric analog output (MS4525).I²C, SPI (MS4525DO). Single supply of either 3.3 or 5.0 Vdc. Small profile with Barbed Ports. J lead or Thru hole pins
Linearity / Absolute accuracy	±1 mbar @ 25°C (MS5803-01BA)	±1.5 mbar @ 25°C 750 to 1100 mbar (MS5534, MS5540) -25 to +20 mbar @ 0°C to 40°C 0 to 5 bar (MS5535, MS5541)	±2.5 mbar @ 10°C to 40°C -100 to +700 mbar (MS5536PJU) ±2.5 mbar @ 10°C to 40°C (0.04psi) -700 to +100 mbar (MS5536NJU)	0.25% / 1% TEB
Output / Span	Digital 24-bit SPI and I²C	Digital 16-bit data word, 3-wire SPI-like serial interface	Digital 16-bit data word, 3-wire SPI-like serial interface	0.5 to 4.5 V or 0.25 to 4.75 V (MS4525) 14-bit digital word SPI or I²C protocol (MS4525DO)
Resolution	12 µbar (MS5803-01BA) 0.2 mbar (MS5803-14BA)	0.1 mbar (MS5534, MS5540) 1.2 mbar (MS5535, MS5541)	0.1 mbar	0.1 mbar (MS4525DO-1 psi)
Type	Absolute	Absolute	Gage	Gage, Absolute, Differential, Compound
Pressure Range	1, 2, 5, 14, 30 bar	10 to 1100 mbar (MS5534, MS5540) 0 to 14 bar (MS5535, MS5541)	-400 to 1000 mbar (-5.8 to 14.5 psi) (MS5536-PJU) -1000 to 400 mbar (-14.5 to 5.8 psi) (MS5536-NJU)	0-1, 5, 15, 30, 50, 150 psi
Overpressure	10 bar (for 1 & 2 bar modules) 30 bar (for 5 & 14 bar modules) 50 bar (for 30 bar modules)	10 bar (for 1 bar modules) 30 bar (for 14 bar modules)	10 bar	3X range
Operating Temp	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-25°C to 105°C
Dimensions (mm)	6.4 x 6.2 x 2.9	6.4 x 6.2 x 2.88	13.4 x 10.16 x 10.6	9.9 x 12.5
Typical Apps	Precision altimeter, altimeter, diving and multi-mode watches, in-building navigation, variometers / flight instruments	Mobile altimeter, barometer systems, weather monitoring systems, adventure or multi-mode watches, GPS receivers, diving computers and divers' watches	Medical application, blood pressure meter, HVAC application	Medical instruments, air flow measurements, process control, leak detection

Board Mounted Pressure Sensors

Ultra Low Pressure Amplified/Digital High Level Output Modules

	MS5701	MS5740, MS5750	MS4515, MS4515DO
Unique Features	- 24-bit digital sensor - Software calibration and temperature compensation (I^2C & SPI) - No external components - Pressure and temperature measurement	- Ratiometric analog interface (MS5740) - I^2C, SPI (MS5750) - Supply voltages ranges 1.8 to 5V	- Ratiometric analog output (MS4515) - I^2C, SPI (MS4515DO) - Single supply of either 3.3 or 5.0 Vdc - Small profile with barbed ports - J lead or thru hole pins
Linearity / Absolute accuracy	±0.25 mbar @ 25°C	0.3% of span / ±0.25 mbar @ 25°C	0.25% / 1% TEB
Output / Span	Digital 24-bit SPI and I^2C	Ratiometric 0.25 to 4 V (MS5740) Digital 24-bit SPI and I^2C (MS5750)	0.5 to 4.5 V or 0.25 to 4.75 V (MS4515) 14-bit digital word SPI or I^2C protocol (MS4515DO)
Resolution	1 µbar	1 µbar (MS5750-05MG)	
Type	Gage, Differential	Gage, Differential	Gage, Differential
Pressure Range	+5 to +50 mbar / +2" to +20" H_2O gage ±2.5 to ±25 mbar / ±1" to ±10" H_2O differential	+5 to +50 mbar / +2" to +20" H_2O gage ±2.5 to ±25 mbar / ±1" to ±10" H_2O differential (product dependent)	0-2, 4, 5, 10, 20, 30" H_2O
Overpressure	2 bar	2 bar	10 psi
Operating Temp	-40°C to 85°C	-40°C to 85°C	-25°C to 105°C
Dimensions (mm)	13 x 10 x 7	33 x 25 x 20	9.9 x 12.5
Typical Apps	HVAC (heating ventilation and air conditioning), respirators / ventilators, CPAP / sleep apnea instruments, variometers / flight instruments	HVAC (heating ventilation and air conditioning), respirators / ventilators, CPAP / sleep apnea instruments, variometers / flight instruments	Medical instruments, air flow measurements, process control, leak detection

Ultra Small Digital Output Modules



	MS56xx	MS5561
Unique Features	- 24-bit digital sensor - Software calibration and temperature compensation (I^2C & SPI) - No external components - Pressure and temperature measurement	- 16-bit digital sensor - Software calibration and temperature compensation (SPI like) - Pressure and temperature measurement (35 ms / meas.)
Linearity / Absolute accuracy	±1 mbar @ 25°C (MS5607- 01BA)	±1.5 mbar @ 25°C
Output / Span	Digital 24-bit SPI and I^2C	Digital 16-bit 3-wire SPI-like serial interface
Resolution	24 µbar (MS5607-02BA) 12 µbar (MS5611-01BA)	0.1 mbar
Type	Absolute	Absolute
Pressure Range	10 to 1200 mbar	10 to 1100 mbar
Overpressure	10 bar	5 bar
Operating Temp	-40°C to 85°C	-40°C to 85°C
Dimensions (mm)	3 x 5 x 1.6 3 x 5 x 1	4.25 x 4.75 x 1.6
Typical Apps	Smart phones, barometric compensation, air density compensation	Personal navigation devices, barometric compensation, cycle computers

Stainless Steel Media-Isolated Pressure Sensors

O-Ring Mount

All use 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.





	82, 154N	86	86A Amplified	DP86 O-ring Mount	85 Flush Mount
Package	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
Type	Gage, Absolute	Gage, Absolute	Gage	Differential	Gage, Absolute
Pressure Range	0-1, 5, 15, 30, 50, 100, 300, 500 psi	0-5, 15, 30, 50, 100, 300, 500 psi	0-1, 2, 5, 15, 30, 50, 100, 150 psi	0-1, 5, 15, 30, 50, 100, 300, 500 psi	0-15, 30, 50, 100, 300, 500 psi
Output / Span	100 mV typical	100 mV typical	0.5-4.5 Vdc	100 mV typical	100 mV typical
Unique Features	- 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	- Wet/Wet differential pressure	- Minimizes trapped volume
Accuracy	±0.3% Non-linearity (1 psi) ±0.2% Non-linearity (5 psi) ±0.1% Non-linearity (≥15 psi)	±0.2% Non-linearity (5 psi) ±0.1% Non-linearity(≥15 psi)	±0.25% FSO	±0.3% Non-linearity (1 psi) ±0.25% Non-linearity (5 psi) ±0.1% Non-linearity (≥15 psi)	±0.1% Non-linearity
Operating Temp	-40°C to 125°C	-40°C to 125°C	-20°C to 85°C	-20°C to 125°C	-20°C to 125°C
Dimensions (mm)	82: Ø 19 x 6.35 154N: Ø 19 x 13.72	Ø 15.9 x 9.14	Ø 15.9 x 9.3, height model dependent	Ø 15.9 x 17.8	Ø 17.2 x 11.43
Typical Apps	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

Threaded/Weldable

All use 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.




	82, 85 with Fittings	87N, 89 Button	89 with Fittings	DP86 with Fittings
Package	Weldable or process fitting	Weldable or process fitting	Weldable or process fitting	5/8" (16 mm) diameter fitting mount wet/wet
Type	Gage, Absolute	Sealed Gage, Absolute	Sealed Gage, Absolute	Differential
Pressure Range	0-5, 15, 30, 50, 100, 300, 500 psi	0-1000, 3000, 5000 psi	0-1000, 3000, 5000 psi	0-1, 5, 15, 30, 50, 100, 300, 500 psi
Output / Span	100 mV typical	100 mV typical	100 mV typical	100 mV typical
Unique Features	- Modular design	- High pressure, modular design	- High pressure, modular design	- Wet/Wet differential pressure - Line pressure max 1000 lbs
Accuracy	±0.2% Non-linearity (5 psi) ±0.1% Non-linearity (≥15 psi)	±0.25% Non-linearity	±0.25% Non-linearity	±0.3% Non-linearity (1 psi) ±0.25% Non-linearity (5 psi) ±0.1% Non-linearity (≥15 psi)
Operating Temp	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C	-20°C to 125°C
Dimensions (mm)	82: Ø 22.23 x 24.89 85: Ø 22.23 x 25.15	87N: Ø 9.53 x 7.11 89: Ø 9.04 x 7.42	Ø 22.23 x 23.62	55.88 x 26.67 x 25.4
Typical Apps	Medical, process control, refrigeration compressor, oceanography, level systems	Air tank pressure, hydraulics, process control, robotics, refrigeration compressors, oceanography	Air tank pressure, hydraulics, process control, robotics, refrigeration compressors, oceanography	Filter blockage, pressurized tank level, flow transmitters

Transducers & Transmitters

Base Level and Custom Transducers and Transmitters

Microfused™ and UltraStable™ Technologies

	MSP100, MSP120	MSP300, MSP340	M5100, U5100, D5100
Package	Small housing with O-ring and proprietary "Snap in" feature that lowers the total installed cost and customized housings for OEM applications	Small housing with a large selection of threaded fittings, electrical connectors, cable options and customized housings for OEM applications	Industrial stainless steel housing with a large selection of threaded fittings, electrical connectors, cable options and customized housings for T&M applications
Type	Gage	Gage	Gage (M5100) Gage, Sealed Gage, Absolute (U5100) Differential wet-wet (D5100)
Pressure Range	0-50 psi thru 0-500 psi	0-100 psi thru 0 -30K psi	0-50 psi thru 0-30K psi (M5100) 0-5 psi thru 0-10K psi (U5100) 0-1 psi thru 0-500 psi (D5100)
Output / Span	100 mV typical	0-100 mV, 0.5-4.5 Vdc, 1-5 Vdc, 4-20 mA	0.5-4.5 Vdc, 1-5 Vdc, 0-5 Vdc, 0-10 Vdc, 4-20 mA
Unique Features	- Microfused™ Technology - Low cost stainless steel isolated transducer - No threads needed for pressure connect - Highly customized for OEM application - Small size - Solid state reliability	- Microfused™ technology - High reliability at a low cost - Highly customized for OEM applications - Small size - Solid state reliability - Various total error band choices 1% thru 4.5% typical (all possible errors combined)	- Microfused™ technology (M5100) - UltraStable™ technology (U5100, D5100) - High performance at a low cost - Solid state reliability - 1% Total error band (-20°C to 85°C all possible errors combined) (M5100, D5100) - 0.75% Total error band (-20°C to 85°C all possible errors combined) (U5100) - Line pressure max 1000 lbs. (D5100)
Accuracy	0.5% FSO	<1% FSO	0.25% FSO (M5100, D5100), 0.1% FSO (U5100)
Operating Temp	0°C to 55°C	-20°C to 85°C	-40°C to 125°C
Dimensions (mm)	12.7 x 24.38 x 20.32	MSP300: 22.23 x 22.23 x 55.88 MSP340: 15.88 x 15.88 x 75.44	M5100: 22.23 x 22.23 x 80.77 U5100: 22.23 x 22.23 x 98.04 D5100: 25.4 x 58.4 x 72.0
Typical Apps	Beverage dispensing systems, automation, HVAC controls, energy and water management, pumps, compressors, pneumatic equipment	Paint sprayers, braking systems, HVAC controls, energy and water management, pumps, compressors, pneumatic equipment, off road heavy equipment, agriculture equipment	HVAC controls, energy and water management, pumps, compressors, pneumatic equipment, off road heavy equipment, trucks, agriculture equipment, braking systems, filter blockage, pressurized tank level
Agency Approvals			CE, UL 508

	US300	M7100, U7100	US10000
Package	Small housing with a large selection of threaded fittings, electrical connectors, cable options and customized housings for OEM applications	Stainless steel hermetic pressure ports and integral electrical connector	Environmentally protected stainless steel housing with a large selection of threaded fittings, electrical connectors, cable options and customized housings for OEM applications
Type	Gage, Absolute	Gage (M7100), Gage, Absolute (U7100)	Gage, Absolute
Pressure Range	0-5 psi thru 0-5K psi	0-100 psi thru 0-30K psi (M7100) 0-1 psi thru 0-500 psi (U7100)	0-5 psi thru 0-10k psi
Output / Span	0-100 mV, 0.5-4.5 Vdc, 1-5 Vdc, 4-20 mA	0.5-4.5 Vdc	0-5 V, 0-10 V, 4-20 mA
Unique Features	- UltraStable™ technology - High reliability at a low cost - Highly customized for OEM applications - Small size - Solid state reliability - Various total error band choices 0.75% thru 3% typical (all possible errors combined)	- 1% Total error band (-20°C to 85°C) - 2% Total error band (-20°C to 125°C) - Solid state reliability - Survives high vibration and immersion	- UltraStable™ technology - High accuracy - Digitally compensated - Pressure calibration standard - IP65 Rated - 0.05% Accuracy - 0.25% Total Error Band from -25°C to 85°C
Accuracy	0.15% FSO	0.25% FSO (M7100), 0.1% FSO (U7100)	0.1% FSO
Operating Temp	-40°C to 105°C	-40°C to 125°C	-25°C to 85°C
Dimensions (mm)	15.88 x 115.88 x 98.00	26.7 x 26.7 x 50.0	25.4 x 25.4 x 104.65
Typical Apps	HVAC controls, refrigeration, energy and water management, pumps, compressors, pneumatic equipment, agriculture equipment	HVAC refrigeration controls, off road vehicles engine control, compressors, hydraulic, energy & water management	Aerospace testing, calibration, high end machinery, automotive, industry