



# **BOARD LEVEL PRESSURE SENSORS**

Digital Output and Altimeter





Surface mountable

24-bit ADC I<sup>2</sup>C and

mbar (MS5803-30BA)

12 µbar (MS5803-01BA) 0.5

• 24-bit digital sensor, software

calibration and temperature

compensation (I<sup>2</sup>C and SPI),

no external components

• Supply voltage 1.8 to 3.6 V

SPI (Mode 0, 3)

Absolute

0 - 1 to 30 bar



# MS4515DO, MS4525DO

Package 8 pin DIL

Туре

Gage, compound (MS4515DO) Gage, absolute, differential, compound (MS4525DO)

0 - 2 to 30" H<sub>2</sub>O (MS4515DO) 0 - 1 to 150 psi (MS4525DO) Pressure Range

Output/Span

Resolution

• Optional gel coat, low power **Unique Features** 

 Pressure and temperature measurement

manifold o-ring port

• J lead or thru hole pins

flow measurements, process

control, leak detection

Linearity/Absolute Accuracy

0.25%/1% TEB

Overpressure 300 psi

-10°C to 85°C (MS4515DO) -25°C to 105°C (MS4525DO) Operating Temp.

Dimensions (mm)

**Typical Applications** Medical instruments, air

MS5803

14-bit ADC SPI or I<sup>2</sup>C

• Single supply of 3.3 or 5.0 VDC

• Top, side barbed or

±1.5 mbar at 25°C (MS5803-01BA) ±250 mbar at 0°C to 40°C (MS5803-30BA)

10 bar (1, 2 bar) 30 bar (5, 7, 14 bar) 50 bar (30 bar)

-40°C to 85°C

6.4 x 6.2 x 2.9

Precision altimeter, diving and multi-mode watches, in-building navigation, variometers/flight instruments



Surface mountable

Absolute

0 - 2 bar 0 - 30 bar

24-bit ADC I<sup>2</sup>C

0.016 mbar (2 bar) 0.2 mbar (30 bar)

 $\bullet$  Supply voltage: 1.5 to 3.6 V

• Pressure and temperature measurement

• Excellent long term stability

Hermetically sealable for outdoor devices

 Sealing designed for 1.8 x 0.88 mm o-ring

±.5 mbar (2 bar) ±400 mbar (30 bar)

10 bar (2 bar) 50 bar (30 bar)

-20°C to 85 °C 3.3 × 3.3 × 2.75

Mobile water depth measurement systems, diving computers, adventure or multimode watches, data loggers



# MS5840

Surface mountable

Absolute

0 - 2 bar Operating range: 300 to 1200 mbar

24-bit ADC I<sup>2</sup>C

13 cm of air

 $\bullet$  Supply voltage: 1.5 to 3.6 V

 Pressure and temperature measurement

• Low power, 0.6 µA (standby ≤ 0.1 µA at 25°C)

• Protected against direct sunlight

±0.5mbar at 20°C ±4mbar from -20°C to 85°C

-20°C to 85 °C

3.3 x 3.3 x 1.7mm

Altimeter and barometer applications, adventure or multi-mode watches drones, bike computers



# **BOARD LEVEL PRESSURE SENSORS**

Digital Output and Altimeter



#### MS5525DSO

SOIC-14 Package

Type Gage, absolute, differential, compound

Pressure Range 0 - 1 to 30 psi

Output/Span 24-bit ADC SPI or I2C protocol

Resolution

**Unique Features** • 24-bit digital small outline sensor

• Pressure and temperature measurement • Single supply of 1.8 or 3.6 VDC

• Barb, tube and hole package style options

Linearity/Absolute Accuracy

0.25%/2.5% TEB

Overpressure 3X range Operating Temp. -40°C to 125°C Dimensions (mm) 12.5 x 7.9

Typical

Medical respirators, ventilators, factory automation, altitude and Applications airspeed measurements, leak detection, home appliances





#### MS5607, MS5611, MS5637

Surface mountable

Absolute

10 - 2K mbar

24-bit ADC I<sup>2</sup>C

0.016 mbar

- 24-bit digital sensor
- 13 cm resolution (MS5607, MS5637)
- 10 cm resolution (MS5611)
- $\bullet$  Supply voltage: 1.5 to 3.6 V (MS5637) Supply voltage: 1.8 to 3.6 V (MS5607, MS5611)
- Low power, 0.6  $\mu$ A (Standby  $\leq$  0.1  $\mu$ A at 25°C)

±2.0 mbar at 25°C

6 bar

-40°C to 85°C

3 x 3 x 0.9 (MS5637) 5 x 3 x 1 (MS5607, MS5611)

Smart phones, tablets, personal navigation devices,

tire pressure monitoring, compressors



#### MS5805

Package Surface mountable

Absolute Type Pressure Range 10 - 2K mbar Output/Span 24-bit ADC I2C

Resolution 0.02 mbar

• 24-bit digital sensor **Unique Features** 

• 20 cm resolution

 $\bullet$  Supply voltage: 1.8 to 3.6 V

• Sealing designed for 2.5 x 1 mm o-ring

· Silicone gel protection

Waterproof

Linearity/Absolute Accuracy

±2.0 mbar at 25°C

Overpressure 5 bar

Operating Temp. -40°C to 85°C 4.5 x 4.5 x 3.5 Dimensions (mm)

Typical Applications Mobile altimeter and barometer systems, bike computers, adventure or multi-mode watches, variometers, data loggers



# MS8607

Surface mountable

Absolute

10 - 2K mbar

24-bit ADC I2C

0.016 mbar

- Integrated pressure, humidity and temperature
- Supply voltage: 1.5 to 3.6 V
- Fully factory calibrated sensor

±4 mbar

6 bar

-40°C to 85°C

5 x 3 x 1

Mobile water depth measurement systems, diving computers, adventure or multi-mode watches, data loggers



# **BOARD LEVEL PRESSURE SENSORS**

mV Output





#### MS1451, MS1471

Package Surface mountable Type Gage, absolute 0 - 5 to 500 psi Pressure Range Output/Span 60 mV typical

**Unique Features** Low cost

• Coarse calibrated at room temp. (MS1471)

· With gel to protect against moisture • Tube or hole

Accuracy ±0.25% non-linearity

Operating Temp. -40°C to 125°C

Dimensions (mm) 7.6 x 7.6, application dependent

Typical Applications Altitude measurement, barometric pressure, medical instrumentation, consumer appliances, tire pressure







# MS52xx, MS54xx

Surface mountable

Gage, absolute

0 - 1 to 12 bar

150 mV, 240 mV

• Small size (MS54xx)

• High linearity or high sensitivity options

• Plastic tube or metal ring options

• With gel to protect against moisture

• High endurance (Option HM)

 $\pm 0.05\%$ ,  $\pm 0.15\%$  FS non-linearity (MS52xx)  $\pm 0.05\%$ ,  $\pm 0.2\%$  FS non-linearity (MS54xx)

-40°C to 125°C

7.6 x 7.6, application dependent (MS52xx) 6.4 x 6.2 (MS54xx)

Absolute pressure sensor systems, engine controls, high resolution altimeters, variometers, waterproof watches, diver computers, barometers, tire pressure monitoring systems (TPMS), medical instrumentation, pneumatic controls

# **DISPOSABLE MEDICAL PRESSURE SENSORS**

mV Output





# 1620, 1630

Package Hybrid assembly

Type Gage

-30 to 300 mmHg Pressure Range Output/Span 5 µV/V/mmHg

**Unique Features** • Low cost, disposable design

• Supplied in tape and reel

• Compliant to AAMI spec

• ISO13485 certified

Operating Temp. 10°C to 40°C

1620: 11.43 x 8.13 x 4.20 1630: 12.7 x 5.08 x 3.94 Dimensions (mm)

**Typical Applications** Disposable blood pressure, surgical procedures, ICU, kidney dialysis machines, medical instrumentation



#### **Fully Assembled 1620**

(Customized per customer specifications)

Plastic housing

Gage

-30 to 300 mmHg

5 µV/V/mmHg

• Low cost, disposable design • Compliant to AAMI spec

· Custom designs available

10°C to 40°C

42.8 x 30.3 x 19.0

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.



# MEDIA ISOLATED PRESSURE SENSOR MODULES

Digital Output



#### 85BSD

Package

• 13 mm diaphragm diameter

• Weldable or threaded

process fittings

Type Gage, absolute

Pressure Range 0 - 0.35 to 20 bar / 0 - 5 to 300 psi

Output/Span 14-bit ADC I<sup>2</sup>C or SPI

Unique Features • Pressure and temperature read-out

• Cable and connector options

· Low power option

 Accuracy
 ±0.25% span

 Total Error Band
 ±1.0% FSO

Overpressure 2X

Operating Temp. -40°C to 125°C
Dimensions (mm) Ø15.85 x 7.9

**Typical Applications** 

Level controls, tank level measurement, corrosive fluids and gas measurement systems, sealed systems, manifold pressure measurement, submersible depth monitoring



#### 86BSD

• 16 mm diaphragm diameter

· O-ring mount

Gage, absolute

0 - 0.07 to 20 bar / 0 - 1 to 300 psi

14-bit ADC I2C or SPI

Pressure and temperature read-out

• Cable and connector options

Low power option

±0.25% span

±1.0% FSO

2X

-40°C to 125°C

Ø15.82 x 9.3

Level controls, tank level measurement, corrosive fluids and gas measurement systems, sealed systems, manifold pressure measurement, submersible depth monitoring



#### 89BSD

• 9 mm diaphragm diameter

· Threaded or weldable

Absolute, sealed gage

0 - 6 to 30 bar

24-bit ADC I<sup>2</sup>C

• Pressure and temperature read-out

• Low power: 1 μA (Standby < 0.15 μA)

±0.3% span

±3.0% FSO max.

2X

-40°C to 85°C

Ø9.04 x 7.5

Level controls, tank level measurement, corrosive fluids and gas measurement systems, sealed systems, manifold pressure measurement, dive computers



#### 154BSC

• 19 mm diaphragm diameter

· O-ring mount

Gage, absolute

0 - 1 to 300 psi

14-bit ADC I<sup>2</sup>C or SPI

14-bit ADC I C 01 3F1

Pressure and temperature read-out

• Cable and connector options

• Low power option

±0.25% span

±1.0% FSO

2X

-40°C to 125°C

Ø19 x 13 8

Level controls, tank level measurement, corrosive fluids and gas measurement systems, sealed systems, manifold pressure measurement, submersible depth monitoring

### TRANSDUCERS AND TRANSMITTERS

Industrial Wireless



#### M5600, U5600

Type Gage, sealed, absolute, compound

**Pressure Range** 0 - 50 to 15K psi (M5600),

0 - 5 to 10K psi (U5600)

Output/Span 24-bit ADC I<sup>2</sup>C

Unique Features • Pressure and temperature

• 2.3 - 3.6 V supply voltage

• Compact and battery-powered

• Weather resistant (IP66 and IP67)

Stainless steel and polycarbonate enclosure

40.25% FS (M5600) Down to ±0.1% FS (U5600)

Operating Temp. -20°C to 85°C
Dimensions (mm) 24 x 24 x 69

**Typical Applications** 

Industrial process control and monitoring, advanced HVACR systems, refrigeration systems, automotive test stands, off-road vehicles, pumps and compressors, hydraulic and pneumatic systems, agriculture equipment, energy generation and management

Agency Approvals CE, FCC



#### **MSP100**

Gage

0 - 100 to 500 psi

100 mV typical

Microfused

• Low cost stainless steel isolated transducer

No threads needed for pressure connectHighly customized for OEM application

• Small size

Solid state reliability

±0.5% FSO

0°C to 55°C

12.7 x 24.38 x 20.32

Beverage dispensing systems, automation, HVACR controls, energy and water management, pumps, compressors, pneumatic equipment

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#### MSP300, MSP340

Gage

0 - 100 to 10K psi (MSP300)

0 - 50 to 10K psi (MSP340)

0 - 100 mV, 0.5 - 4.5 VDC, 1 - 5 VDC, 4 - 20 mA

Microfused

• Highly customized for OEM applications

• Small size

· Solid state reliability

±1% FSO

-20°C to 85°C

MSP300: 22.23 x 22.23 x 55.88 MSP340: 15.88 x 15.88 x 75.44

Paint sprayers, braking systems, HVACR controls, energy and water management, pumps, compressors, pneumatic equipment, off road heavy equipment, agriculture equipment

UL 508 (MSP300)



# MEDIA ISOLATED PRESSURE SENSOR MODULES

**Analog Output** 



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Package Weldable (85) or process fitting Type Gage, absolute, vacuum gage

0 - 5 to 500 psi (85), 0 - 1 to 500 psi (82) Pressure Range

Output/Span 100 mV typical

**Unique Features** Modular design

±0.3% FSO (1 psi) ±0.2% FSO (5 psi) Non-linearity

±0.1% FSO (≥15 psi) -40°C to 125°C Operating Temp.

Dimensions (mm) Fittings: application dependent

**Typical Applications** Medical, process control, refrigeration compressor, oceanography, level systems



# 89 Button, 89 with Fittings

Weldable or process fitting Sealed gage, absolute

0 - 1K to 10K psi

100 mV typical

- High pressure
- Modular design
- +0.25% FSO

-40°C to 125°C

89 Button: Ø9.04 x 13.2 89 with Fittings: application dependent

Air tank pressure, hydraulics, process control, robotics, refrigeration compressors, oceanography



#### 86A Amplified

5/8" (16 mm) diameter o-ring mount

Gage, absolute

0 - 1 to 150 psi

0.5 - 4.5 VDC

- Small diameter, amplified output
- Bar ranges available

+10% FSO

-20°C to 85°C

Ø15.82 x 9.3

Level measurement, OEM transmitters and transducers, process control

# MEDIA ISOLATED PRESSURE SENSOR MODULES

Analog Output

Type

Pressure Range

Operating Temp.

Dimensions (mm)









#### 82, 85, 85F, 86, 154N

• 3/4" (19 mm) diameter o-ring mount (82, 154N) Package

• 5/8" (16 mm) diameter o-ring mount (86)

• 1/2" (13 mm) diameter o-ring

flush mount (85F)

• 1/2" (13 mm) diameter o-ring mount (85)

Gage, absolute, vacuum gage (82, 85, 86, 154N) Gage, absolute (85F)

0 - 1 to 500 psi (Absolute, gage: 82, 154N) 0 - 5 to 500 psi (Absolute, gage: 85, 86) 0 - 15 to 500 psi (85F, vacuum gage:

82, 85, 86, 154N)

Output/Span 100 mV typical

Unique Features High performance

• High stability for OEM applications

Minimizes trapped volume (85F)

±0.3% FSO (1 psi), ±0.2% FSO (5 psi) ±0.1% FSO (≥15 psi), ±0.1% FSO (85F) Non-linearity

154N), -20°C to 125°C (85F)

82. Ø19 x 6 48 86: Ø15 82 x 11 4 154N: Ø18.97 x 13.8 85F: Ø17.2 x 11.33

-40°C to 125°C (82 / 85 / 86 /

85: Ø15.85 x 9.3

Hydraulic controls, process control, oceanography, refrigeration/compressors, pressure transmitters, level systems, dialysis machines, infusion pumps, medical systems

#### DP86 O-Ring Mount, with Fittings/Cable

• 5/8" (16 mm) diameter o-ring mount or threaded process fittings

Differential

0 - 1 to 500 psi

100 mV typical/sensitivity dependent

Wet/wet differential pressure

· Line pressure max. 1,000 psi

±0.3% FSO (1 psi) ±0.2% FSO (5 psi) ±0.1% FSO (≥15 psi)

-40°C to 125°C

O-ring: Ø15.82 x 17.5 Fittings: Application dependent

Level controls, tank level measurement, corrosive fluids and gas measurement systems, flow measurement

#### USER

· Mountable with o-ring seal

Sealed gage, absolute

0 - 5 to 13 bar/0 - 50 to 200 psi

0.5 - 4.5 VDC (Ratiometric output)

Amplified

+0.5% FSO

-7°C to 105°C

Ø15 82 x 13 6 Socket spacing: 31.75

Urea level, urea pressure, air brakes, corrosive fluid measurement for engine & vehicle applications

Typical

Applications



# TRANSDUCERS AND TRANSMITTERS

Industrial

Pressure Range



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Type Gage, absolute 0 - 15 to 5K psi

0 - 10 mV/V, 0.5 - 4.5 V, 1 - 5 V, 4 - 20 mA Output/Span

• UltraStable technology **Unique Features** 

• Highly customized for OEM applications

Small size

• Solid state reliability

±0.15% FSO (15 - 1K psi), ±0.25% FSO (>1K psi) Accuracy

Operating Temp.

-40°C to 105°C Dimensions (mm) 15.88 x 15.88 x 98.00

**Typical Applications** 

Pressure Range

Accuracy

Paint sprayers, braking systems, HVACR controls, energy and water management, pumps, compressors, pneumatic equipment, off road heavy equipment, agriculture equipment

Agency Approvals



#### AST20HA, AST20PT, AST20SW

Gage, sealed gage, absolute

0 - 1 to 60K psi

0.5 - 4.5 V (Ratiometric) 1 - 5 V 4 - 20 mA, 0 - 5 V, 0 - 10 V, switch (AST20SW)

• Excellent performance over temperature

• Semi-custom designs available

• Fault mode condition settings

• Four standard sensor material options

Additional temperature output (AST20PT)

-40°C to 85°C

Application dependent

Test and measurement, industrial controls

ABS, CE



#### AST4000, AST4100, AST4200

Gage, sealed gage, compound

0 - 25 to 10K psi

0.5 - 4.5 V (Ratiometric), 1 - 5 V, 1 - 10 V, 4 - 20 mA, 0.5 - 2.5 V

• Four standard sensor material options

• Rugged construction

• 100 V/m EMI/RFI protection

· Semi-custom designs available

±0.5% FSO

-40°C to 85°C

Application dependent

Water, hydraulic equipment, HVACR, industrial controls

UL/cUL508, ABS, CE



#### M3200

Gage, Compound Type

> 0-7bar to 500 bar / 0-100 to 7,500 Psi

100mV, 0.5 - 4.5 V, 1 - 5 V, Output/Span

0 - 5 V, 0 - 10 V, 4 - 20 mA and I<sup>2</sup>C Digital Output

· Microfused technology Unique Features · High performance at a low cost

· Solid state reliability

• Weatherproof - IP67 with cable

• 14bit digital output for Pressure

• ±1.5% FSO TEB (-20°C to 85°C)

+0.25% FSO

Operating Temp. -40°C to 125°C

Dimensions (mm) 22.2 on Hex x 58 max

**Typical Applications** Suitable for measurement of

CE (EMC)

liquid or gas pressure, even for difficult media such as contaminated water, steam, and mildly corrosive fluids.

# M5200

Gage, sealed, compound

0 - 3.5 to 1K bar/0 - 50 to 15K psi

0.5 - 4.5 V, 1 - 5 V, 0 - 5 V, 0 - 10 V, 4 - 20 mA. 1 - 6 V

Microfused technology

· High performance at a low cost

· Solid state reliability

• +1% ESO TEB (-20°C to 85°C)

Weatherproof

• 17 - 4 PH or 316L SS

+0.25% FSO

-40°C to 125°C

24 X 24 X 82 max.

Industrial process control and monitoring, advanced HVACR systems, refrigeration systems, automotive test stands, off road vehicles, pumps and compressors, hydraulic and pneumatic systems, agriculture equipment, energy generation and management

CE (EMC)



# U5200. U5300

Gage, sealed, absolute, compound

0 - 0.14 to 700 bar/0 - 2 to 10K psi

0.5 - 4.5 V, 1 - 5 V, 0 - 5 V, 0 - 10 V, 4 - 20 mA, 1 - 6 V

• UltraStable technology

• High performance at a low cost

• ±0.75% FSO TEB (-20°C to 85°C, >5 psi and ≤5000 psi) (U5200)

• ±0.5% FSO TEB (-20°C to 85°C) (U5300)

Weatherproof

• High accuracy (U5300)

±0.1% FSO (>5 and ≤500 psi)

-40°C to 125°C

24 X 24 X 82 max.

Industrial process control and monitoring, advanced HVACR systems, refrigeration systems, automotive test stands, off road vehicles, pumps and compressors, hydraulic and pneumatic systems, agriculture equipment, energy generation and management. military and aerospace test stands, calibration equipment, high accuracy applications, stationary motor fuel control, high end industry machinery

CE (EMC), UL 508



# D5100

Differential wet/wet

0 - 0.07 to 35 bar/0 - 1 to 500 psi

80 mV / 100 mV, 0.5 - 4.5 VDC, 1 - 5 VDC, 4 - 20 mA

UltraStable technology

High performance

at a low cost

Solid state reliability

• ±1% FSO TEB (-20°C to 85°C)

Line pressure max, 1000 psi

±0.3% FSO (<5 psi), ±0.25% FSO (5 psi), ±0.1 % FSO (≥15 psi)

-40°C to 125°C

25.4 x 58.4 x 72.0

Process controls, tank level measurement, filter performance monitoring, corrosive fluids and gas measurement systems. flow measurement

CE (EMC)

Agency Approvals



# TRANSDUCERS AND TRANSMITTERS

Heavy Industrial

Туре





#### M7100, U7100

Gage, no vent gage (M7100) Gage, sealed gage, absolute (U7100)

0 - 10 to 700 bar/0 - 150 to 10K psi (M7100) 0 - 1 to 10 bar/0 - 15 to 150 psi (U7100) Pressure Range

0.5 - 4.5 VDC [Ratiometric output] 1 - 5 VDC [Regulated] (M7100) 0.5 - 4.5 VDC [Ratiometric output] (U7100) Output/Span

**Unique Features** • ±1% FSO TEB (-20°C to 85°C)

Solid state reliability

• Survives high vibration and immersion

• Microfused technology (M7100)

• UltraStable technology (U7100)

• Copper tube for HVACR (M7100)

0.25% FSO Accuracy -40°C to 125°C Operating Temp. 26.7 x 26.7 x 50.0 Dimensions (mm) **Typical Applications** 

HVACR refrigeration controls, off road vehicles engine control, compressors, hydraulic, energy and water management

Agency Approvals CE (EMC), UL 508

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

Gage, absolute

0 - 5 bar to 700 bar/0 - 75 to 10K psi

0 - 5 VDC, 0 - 10 VDC, 4 - 20 mA

• High overpressure (10X over pressure)

· Shock and vibration resistant

• Heavy industrial grade transducer (P9000)

· Advanced digital compensation / calibration

• Mechanical over pressure stops

· High temperature operation

0.1% to 0.2% FSO

-54°C to 120°C

Application dependent

Steel mills, hydraulic controls, power generation equipment, torpedo depth, military and aerospace, vehicle braking systems

CE, CENELEC (Intrinsically Safe)

#### P101, P105, P125

Gage

0 - 10 to 7K bar/0 - 150 to 100K psi

7.5 to 20 mV (4 V; 5 V optional)

Stainless steel diaphragm

• Female pressure connectors: M16 x 1.5, M20 x 1.5, 1/4 NPT

Metal to metal seal

+0.3% FSO

-20°C to 80°C

Ø29 x 85 max.

Harsh environments, aggressive liquids

# TRANSDUCERS AND TRANSMITTERS

Miniature





#### ΧP

Gage, sealed, absolute Type

Pressure Range

0 - 1 to 350 bar/0 - 15 to 5K psi (XP5, XPM10) 0 - 5 to 200 bar/0 - 75 to 3K psi (XPM4) 0 - 100 to 1K bar/0 - 1.5K to 15K psi (XPM6)

20 - 100 mV, 4 V FSO (Amplified) Output/Span

Unique Features Titanium construction (XP5, XPM4) • Stainless steel housing (XPM6, XPM10)

Amplified output options (XP5, XPM6, XPM10)

· Cable and connector options

• For static and dynamic applications

Down to ±0.25% FSO (XP5, XPM6, XPM10), down to ±0.35% FSO (XPM4) Accuracy

Operating Temp. -40°C to 120°C

XPM4: M4 x 0.7 thread; Hex 8 XP5: M5 x 0.8 or 10-32 UNF thread; Hex 10 Dimensions (mm)

XPM6: M6 x 1 thread; Hex 12

XPM10: M10 x 1 thread; Hex 15

Typical Applications Corrosive liquids and gases, braking system pressure, onboard equipment monitoring, military and aerospace, explosive test benches, robotics

and effectors, laboratory and research, extreme miniature devices

## XPC10

Gage, sealed, absolute

0 - 10 to 500 bar/0 - 150 to 7.5K psi

12 mV FSO, 4 V FSO (Amplified)

• Amplified output available

• For static and dynamic applications

• Optional IP67 ingress protection

• High temperature operation

Down to ±0.25% FSO

-40°C to 220°C

M10 x 1 or 3/8-24 UNF thread; Hex 15

Aerospace, test benches, oven monitoring equipment, cooling regulation systems



# TRANSDUCERS AND TRANSMITTERS

Miniature







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	i		

Type Gage, sealed, absolute

0 - 0.35 to 700 bar/0 - 5 to 10K psi Pressure Range 0.5 to 4.5 VDC

Output/Span Unique Features

· High accuracy Miniature design

• UltraStable technology

• EMI protected

• Combined pressure and temperature

+0.25% FSO Accuracy

Operating Temp. -40°C to 125°C (Available option up to 150°C)

Dimensions (mm) 11 body diameter

**Typical Applications** Motor sport, hydraulic/pneumatic

systems, automotive test stands, military and aerospace test stands

Agency Approvals CE (EMC)

#### **EPIH**

Gage, sealed, absolute

0 - 0.35 to 20 bar/0 - 5 to 300 psi

12 mV to 75 mV

Diffused silicon diaphragm with a large variety of sizes and shapes available as small as 0.05" outside diameter

• High frequency response (To 1.7 MHz)

• Ultra-miniature design

+10% FSO

-40°C to 120°C

Application dependent

Aerospace testing, wind tunnels, biomedical testing, aircraft body and wing dynamics, high frequency measurements

**EPB. EPB-PW. EPL** 

Gage, sealed, absolute

0 - 0.35 to 350 bar/0 - 5 to 5K psi

10 mV to 125 mV

• Miniature flush mountable

• Flush stainless steel diaphragm, flanged or non-flanged

 Bonded silicon gage, high frequency response (To 400 KHz)

• IP68 ingress protection in Titanium construction (EPB-PW)

±0.5 to ±1% FSO

-40°C to 120°C

3.2 to 7 outside diameter

Air flow testing, hydraulic pressure systems, air pressure systems, bearing studies, ballistics, water hammer, miniature scale model testing, centrifuge pore water pressure measurements

# TRANSDUCERS AND TRANSMITTERS

Liquid Level



#### U5700

Gage, sealed, absolute, compound Type

Pressure Range 0 - 2 to 10K psi

Output/Span 0.5 - 4.5 V. 1 - 5 V. 0 - 5 V. 0 - 10 V. 4 - 20 mA. 1 - 6 V

**Unique Features** • UltraStable technology

· High accuracy

• IP68 rated connection and submersible

• Polyurethane jacketed cable

• Optional Polyoxymethylene cap

0.1 % FSO Accuracy

Operating Temp. -10°C to 60°C

Dimensions (mm) 22.23 x 22.23 x 98.04

**Typical Applications** 

Industrial process control and monitoring, advanced HVACR systems, refrigeration systems, automotive test stands, off road vehicles, pumps and compressors, hydraulic/ pneumatic systems, agriculture equipment, energy generation and management, liquid level applications

Agency Approvals CE (EMC)



# AST45xx

Gage, absolute

0 - 1 to 100 psi (AST4500, AST4510, AST4520)

0.5 - 4.5 V [Ratiometric], 1 - 5 V, 4 - 20 mA, 0.5 - 2.5 V

• Intrinsically safe ratings

• Material options including: 316L, alloy C276, and PVDF

Low power options

High quality cable options

±0.25% FSO

-40°C to 85°C

Application dependent

Diesel tanks, chemical tanks, water tanks

UL/CSA Class I Div I, ATEX/IECEx Exia, ABS, CE



# TRANSDUCERS AND TRANSMITTERS

Hazardous Location



#### AST43xx, AST44xx

Туре Gage, sealed gage, compound, absolute

0 - 1 to 15 psi (AST43LP, AST44LP) 0 - 25 to 20K psi (AST4300, AST4400, AST4401) Pressure Range

Output/Span 0.5 - 4.5 V [Ratiometric], 1 - 5 V, 4 - 20 mA, 0.5 - 2.5 V

**Unique Features** • Available with 316L, Hastalloy C276, or Inconel 718 materials

• Low current consumption options

Low power options

· High proof and burst pressure

±0.25% FSO Accuracy -40°C to 85°C Operating Temp.

Dimensions (mm) Application dependent

**Typical Applications** Compressors, well sites, ships, factory automation,

SCADA equipment, offshore equipment

UL/CSA Class I Div I and II, ATEX/IECEx Exia/Exn, CCOE, CNEx, ABS, CE Agency Approvals



Gage, sealed gage, compound, absolute

0 - 1 to 20K psi

0.5 - 4.5 V [Ratiometric], 1 - 5 V, 4 - 20 mA, 0.5 - 2.5 V, switch (AST46SW)

- Available with 316L, Hastalloy C276, or Inconel 718 materials
- Low current consumption options
- · Low power options
- Local display (AST46DS)
- · Additional temperature output

±0.25% FSO (AST4600, AST46DS), ±0.1% FSO (AST46HA, AST46PT)

-40°C to 85°C

Application dependent

SCADA/RTU, well sites, offshore equipment, hydraulic controls

CSA Class I/II Div I, ATEX/IECEx Exd, ABS, CE



#### AST5100, AST5300, AST5400

Differential Type

0 - 5 H<sub>2</sub>O to 5K psi Pressure Range

Output/Span 0.5 - 4.5 V [Ratiometric], 0 - 5 V, 1 - 5 V, 4 - 20 mA

**Unique Features** Wide range of pressures available

• Full line pressure on either side without zero shifts

• Hazardous location approvals (AST5300, AST5400)

±0.25% FSO (AST5100, AST5300), 1% TEB (AST5400) Accuracy

-40°C to 85°C Operating Temp.

Dimensions (mm) Application dependent

**Typical Applications** Filter monitoring, flow measurement, tank level measurement

Agency Approvals CSA Class I/II Div I and II, ATEX/IECEx Exd/Exn, ABS, CE



#### AST2000H2

Gage, sealed gage

0-10 PSI to 10000 PSI

0.5 - 4.5 V [Ratiometric] 1 - 5 V. 4 - 20 mA

- 20 bar 448 bar 900 bar
- High pressure H2 Storage
- CE EN61326

+0.25% BESI

-40°C to 85°C

Application dependent

PEM fuel cells, hydrogen storage, hydrogen filling stations, backup power

EC-79 e24\*79/2009\*406/2010\*0006\*02 CE EN61326