



## MEAS M5600

### Wireless Pressure Transducer

- Digital 24-bit ADC output, I<sup>2</sup>C protocol
- Bluetooth® 4.0 wireless connection
- Ce compliant with a variety of pressure ports
- Compact and battery powered [CR2050 OR CR2032]
- Optional stainless-steel snubber
- Weatherproof (IP66/IP67)
- FCC certified
- Stainless steel and polycarbonate enclosure
- Gage, sealed, compound
- IOS, Android™ and Windows® XP/7+ compatible

#### FEATURES

- Heavy Industrial CE Approval
- 10 V/m EMI Protection
- ±0.25% Pressure Accuracy
- ±1.0% Total Error Band
- ±3°C Temperature Output Accuracy
- -10°C to +60°C Compensating Temperature
- -20°C to +85°C Operating Temperature

#### APPLICATIONS

- Industrial Process Control and Monitoring
- Advanced HVAC Systems
- Refrigeration Systems
- Automotive Test Stands
- Off-Road Vehicles
- Pumps and Compressors
- Hydraulic/Pneumatic Systems
- Agriculture Equipment
- Energy Generation and Management
- Pool/Spa Pump Monitoring

The modular M5600 wireless pressure transducer from our Microfused line is enclosed in a stainless steel and polycarbonate housing. This high accuracy, 24-bit ADC digital output wireless transducer eliminates hard wiring and provides remote process control and monitoring via Bluetooth® 4.0 Wireless Communication. This series is suitable for measurement of liquid or gas pressure, even for difficult media such as contaminated water, steam, and mildly corrosive fluids.

The wetted material of the pressure port is made of 316L stainless steel and the transducer's durability is excellent with no organics exposed to the pressure media. The M5600 is weatherproof and exceeds the latest heavy industrial CE requirements.

This product is geared to the OEM customer for mid to high volumes. TE stands ready to provide a custom design of the M5600 where the volume and application warrants. Additional configurations not listed are available. Please inquire for further information.

## STANDARD RANGES

| Range (psi) | Range (Bar) | Gage | Sealed | Compound |
|-------------|-------------|------|--------|----------|
| 0 to 050    | 0 to 3.5    | •    |        | •        |
| 0 to 100    | 0 to 007    | •    |        | •        |
| 0 to 200    | 0 to 010    | •    |        | •        |
| 0 to 300    | 0 to 020    | •    |        | •        |
| 0 to 500    | 0 to 035    | •    |        | •        |
| 0 to 01k    | 0 to 070    | •    | •      | •        |
| 0 to 03k    | 0 to 200    | •    | •      | •        |
| 0 to 05k    | 0 to 350    | •    | •      | •        |
| 0 to 10k    | 0 to 700    | •    | •      | •        |
| 0 to 15k    | 0 to 01k    | •    | •      | •        |

Intermediate ranges available upon request.

Sealed and absolute type are recommended for high humidity environments.

## PERFORMANCE SPECIFICATIONS

**Ambient Temperature: 25°C (unless otherwise specified)** For custom configurations, consult factory.

| Parameters                   | Min   | Typ         | Max     | Units           | Notes   |
|------------------------------|---|-------------|---------|-----------------|---|
| Supply Voltage               | 2.3   | 3           | 3.6     | V <sub>DC</sub> | Replaceable CR2032/CR2050 battery               |
| Accuracy                     | -0.25   |             | 0.25    | %F.S.           | RSS of linearity, hysteresis, and repeatability |
| Temperature Output Accuracy  | -3  |             | 3       | °C              | Only for reference                              |
| Output Protocol              | Digital I <sup>2</sup> C  |             |         |                 |   |
| Resolution                   | 24  |             | Bit     |                 |   |
| Endurance                    | 1.00E+6   | 0~FS Cycles |         |                 |   |
| Stability                    | -0.25   |             | 0.25    | %F.S./year      |   |
| Total Error Band             | -1  |             | 1       | %F.S.           | @25°C over compensated range                    |
| Proof Pressure               | 2X  |             | 20k psi | Rated           |   |
| Burst Pressure               | 5X  |             | 20k psi | Rated           |   |
| Compensated Temperature      | -10   |             | +60     | °C              |   |
| Operating Temperature        | -20   |             | +85     | °C              | with CR2050 battery                             |
|                              | -20   |             | 60      | °C              | With CR2032 battery                             |
| Storage Temperature          | -40   |             | +120    | °C              | without battery                                 |
| Wireless Protocol            | Bluetooth® 4.0 Wireless Connection or above   |             |         |                 |   |
| Receiver Operating System    | Android™ 4.3 or above, iOS 7 or above, Windows® XP/7 or above   |             |         |                 |   |
| Signal Pairing Distance      | 65 feet   |             |         |                 |   |
| Signal Transmission Distance | 65 feet affected by receiver antenna and blocking objects   |             |         |                 |   |
| Battery Life                 | 2-years typical CR2050 350mAH battery, 1-year typical CR2032 210mAH battery; 5 second transmission interval |             |         |                 |   |
| Low Battery Warning          | 2.5V <sub>DC</sub> , red battery symbol in app  |             |         |                 |   |
| Weatherproof                 | IP66 & IP67   |             |         |                 |   |
| Pressure Port Material       | 17-4P Stainless Steel Port, 316L Stainless Steel Snubber  |             |         |                 |   |
| Enclosure                    | Stainless Steel and Polycarbonate   |             |         |                 |   |
| Shock                        | 50g, 11msec Half Sine Shock per MIL-STD-202G, Method 213B, Condition A                                      |             |         |                 |   |
| Vibration                    | ±20g, MIL-STD-810C, Procedure 514.2, Fig 514.2-2, Curve L   |             |         |                 |   |

**Note:**

Battery life depends on its capacity, operating temperature and signal transmission interval.

Sony Battery CR2050W or CR2032W offers high operating temperature up to 125°C.

Temperature can impact battery capacity retention even in idle. Check battery specifications for more details.

Factory default data transmission rate is 5sec, which can be adjusted from 100msec to 5sec in smartphone app or PC software.

**Compliances**

EN 55022 Emissions Class A & B

IEC 61000-4-2 Electrostatic Discharge Immunity (4kV contact/8kV air)

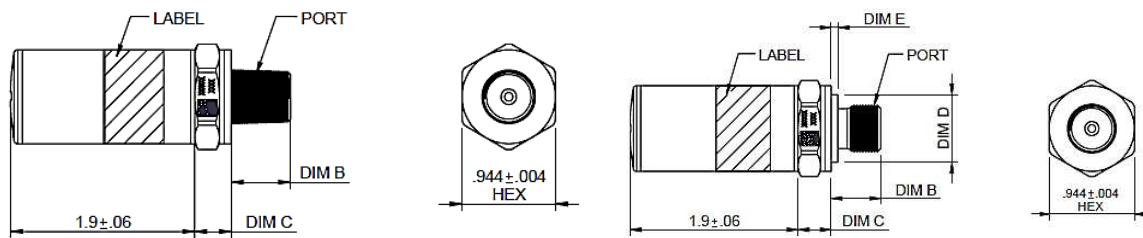
IEC 61000-4-3 Radiated, Radio-Frequency Electromagnetic Field Immunity (10V/m, 80M-1GHz); deviation <1.5%

RoHS

FCC

Bluetooth®

**DIMENSIONS**



\* FOR PRESSURE PORT CODE:5,6,E,F,P,N,W

\* FOR PRESSURE PORT CODE:2,3,4,B,Q,S,U,G

| Code | Port  | Dim B         | Dim C Typ.   | Dim D Typ.    | Dim E Typ.   |
|------|---|---------------|--------------|---------------|--------------|
| 2    | 1/4-19 BSPP   | 0.547 [13.9]  | 0.366 [9.3]  | 0.708 [17.98] | 0.075 [1.91] |
| 3    | G3/8 JIS B2351  | 0.615 [15.6]  | 0.366 [9.3]  | 0.858 [21.78] | 0.075 [1.91] |
| 4    | 7/16-20UNF MALE SAE J1926-2 STRAIGHT THREAD<br>O-RING BUNA-N 90SH-904       | 0.508 [12.9]  | 0.366 [9.3]  | 0.800 [20.32] | 0.075 [1.91] |
| 5    | 1/4-18 NPT  | 0.600 [15.24] | 0.366 [9.3]  | N/A           | N/A          |
| 6    | 1/8-27 NPT  | 0.390 [9.91]  | 0.366 [9.3]  | N/A           | N/A          |
| B    | G1/4 JIS B2351  | 0.547 [13.9]  | 0.366 [9.3]  | 0.708 [17.98] | 0.075 [1.91] |
| E    | 1/4-19 BSPT   | 0.500 [12.7]  | 0.366 [9.3]  | N/A           | N/A          |
| F    | 1/4-19 BSPP FEMALE<br>(without snubber)                                     | 0.621 [15.8]  | 0.366 [9.3]  | N/A           | N/A          |
| P    | 7/16-20UNF FEMALE SAE J513 STRAIGHT THREAD<br>WITH INTEGRAL VALVE DEPRESSOR | 0.43 [10.9]   | 0.444 [11.3] | N/A           | N/A          |
| Q    | M10 x 1.0 mm ISO 6149-2   | 0.449 [11.4]  | 0.366 [9.3]  | 0.543 [13.79] | 0.075 [1.91] |
| N    | 7/16-20UNF FEMALE SAE J513 STRAIGHT<br>THREAD                               | 0.43 [10.9]   | 0.444 [11.3] | N/A           | N/A          |
| S    | M12 x 1.5 mm ISO 6149-2   | 0.531 [13.5]  | 0.366 [9.3]  | 0.661 [16.79] | 0.098 [2.49] |
| U    | G/14 DIN 3852 FORM E GASKET DIN3869-14 NBR                                  | 0.519 [13.2]  | 0.366 [9.3]  | 0.744 [18.9]  | 0.079 [2.01] |
| W    | M20 x 1.5 mm ISO 6149-2   | 0.551 [14.0]  | 0.441 [11.2] | N/A           | N/A          |
| G    | M14 x 1.5 mm ISO 6149-2   | 0.531 [13.5]  | 0.366 [9.3]  | 0.740 [18.8]  | 0.98 [2.49]  |

**HOW TO OPERATE**

Please refer to the [M5600 U5600 Installation Manual](#) and [M5600 U5600 Software Manual](#).

**Note:** Communication is max 65 feet

## ORDERING INFORMATION

M5600 - 0 0 0 0 0 2 - 05KP G

| Port Material |                      |
|---------------|----------------------|
| 0             | 17-4PH               |
| 1             | 316L Stainless Steel |

| Cleaning |                             |
|----------|-----------------------------|
| 0        | No Selection                |
| 1        | Oxygen clean B40.1 Level IV |
| 2        | With Snubber                |

| Label Type |                |
|------------|----------------|
| 0          | Adhesive Label |
| 1          | Laser Marking  |

| Pressure Port |  |
|---------------|--|
| 2             | 1/4-19 BSPP  |
| 3             | G3/8 JIS B2351   |
| 4             | 7/16-20UNF Male SAE J1326-2<br>Straight Thread O-Ring BUNA-N<br>90SH-904 |
| 5             | 1/4-18 NPT   |
| 6             | 1/8-27 NPT   |
| B             | G1/4 JIS B2351   |
| E             | 1/4-19 BSPT  |
| F             | 1/4-19 BSPP Female w/o Snubber   |
| P             | 7/16-20 UNF Female SAE J513<br>Straight Thread                           |
| N             | 7/16-20 UNF Female SAE J513<br>Straight Thread                           |
| Q             | M10x1.0mm<br>ISO 6149-2  |
| S             | M12x1.5mm<br>ISO 6149-2  |
| U             | G1/4 DIN 3852 Form E Gasket<br>DIN3869-14 NBR                            |
| W             | M20x1.5mm<br>ISO6149-2   |
| G             | M14x1.5mm<br>ISO6149-2   |

| Pressure Type |                 |
|---------------|-----------------|
| G             | Gauge           |
| S             | Sealed (≥1kpsi) |
| C             | Compound        |

Compound pressure range is -14.7 to xxxpsig or -1 to xxxbarg.  
(e.g. 200PC: -14.7 to 200psig, 020BC: -1 to 20barg)  
Sealed and absolute type are recommended for high humidity environments

| Pressure Range [psi] |      |
|----------------------|------|
| psi                  | bar  |
| STD                  | STD  |
| 050P                 | 3.5B |
| 100P                 | 007B |
| 200P                 | 010B |
| 300P                 | 020B |
| 500P                 | 035B |
| 01KP                 | 070B |
| 03KP                 | 200B |
| 05KP                 | 350B |
| 07KP                 | 500B |
| 10KP                 | 700B |
| 15KP                 | 01KB |

Intermediate Ranges between 3.5bar to 1kbar available upon request



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