



## MEAS U5600

### Wireless Pressure Transducer

- ◆ Enhanced Pressure Accuracy
- ◆ 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, Absolute, Compound
- ◆ iOS, Android™ and Windows® XP/7+ Compatible

#### Features

- ◆ Heavy Industrial CE Approval
- ◆ 10 V/m EMI Protection
- ◆ Down to ±0.1% Pressure Accuracy
- ◆ Down to ±0.75% 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 U5600 wireless pressure transducer from our UltraStable 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 O-rings or organics exposed to the pressure media. The U5600 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 U5600 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 | Absolute | Compound |
|-------------|-------------|------|--------|----------|----------|
| 0 to 005    | 0 to .35    | *    | *      | *        | *        |
| 0 to 015    | 0 to 001    | *    | *      | *        | *        |
| 0 to 030    | 0 to 002    | *    | *      | *        | *        |
| 0 to 050    | 0 to 3.5    | *    | *      | *        | *        |
| 0 to 100    | 0 to 007    | *    | *      | *        | *        |
|             | 0 to 010    | *    | *      | *        | *        |
| 0 to 200    | 0 to 014    | *    | *      | *        | *        |
| 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    | *    | *      | *        | *        |

Intermediate ranges available upon request.

**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         | Vdc        | Replaceable CR2050 battery |
| Accuracy<br>(RSS of linearity, hysteresis, and repeatability) | -0.25   |     | 0.25        | %F.S.      | 5psi                       |
|   | -0.1  |     | 0.1         | %F.S.      | >5 and ≤500psi             |
|   | -0.25   |     | 0.25        | %F.S.      | >500 and ≤5000psi          |
|   | -0.75   |     | 0.75        | %F.S.      | >5000psi                   |
| Temperature Output Accuracy                                   | -3  |     | 3           | °C         |                            |
| 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<br>(@25°C over compensated range)            | -1  |     | 1           | %F.S.      |                            |
|   | -0.75   |     | 0.75        | %F.S.      |                            |
|   | -1.25   |     | 1.25        | %F.S.      |                            |
| Proof Pressure  | 3X  |     | 20k psi     | Rated      |                            |
| Burst Pressure  | 4X  |     | 20k psi     | Rated      |                            |
| Long Term Stability (1 year)                                  | -0.1  |     | 0.1         | %F.S.      |                            |
| Compensated Temperature                                       | -10   |     | +60         | °C         |                            |
| Operating Temperature   | -20   |     | +85         | °C         |                            |
| Storage Temperature   | -40   |     | +120        | °C         |                            |
| 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   | 2.5Vdc, red battery symbol in app   |     |             |            |                            |
| Weatherproof  | IP66 & IP67   |     |             |            |                            |
| Pressure Port Material  | 316L 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   |     |             |            |                            |

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#### 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)

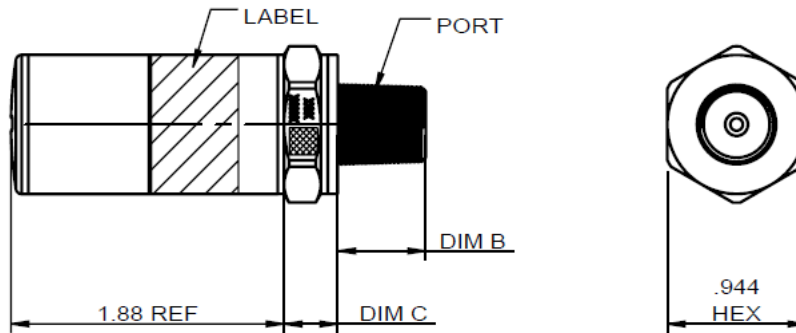
IEC 61000-4-3 Radiated, Radio-Frequency Electromagnetic Field Immunity (10V/m, 80M-1GHz); deviation <1.5%

RoHS

FCC

Bluetooth®

#### Dimensions [mm]



| Code | Port  | Dim B         | Dim C Ref.   |
|------|---|---------------|--------------|
| 2    | 1/4-19 BSPP   | 0.472 [11.94] | 0.366 [9.3]  |
| 3    | G3/8 JIS B2351  | 0.540 [13.72] | 0.366 [9.3]  |
| 4    | 7/16-20UNF MALE SAE J1926-2 STRAIGHT THREAD<br>O-RING BUNA-N 90SH-904       | 0.433 [11.0]  | 0.366 [9.3]  |
| 5    | 1/4-18 NPT  | 0.600 [15.24] | 0.366 [9.3]  |
| 6    | 1/8-27 NPT  | 0.390 [9.91]  | 0.366 [9.3]  |
| B    | G1/4 JIS B2351  | 0.472 [11.94] | 0.366 [9.3]  |
| E    | 1/4-19 BSPT   | 0.500 [12.7]  | 0.366 [9.3]  |
| F    | 1/4-19 BSPP FEMALE<br>(without snubber)                                     | 0.771 [19.58] | 0.366 [9.3]  |
| P    | 7/16-20UNF FEMALE SAE J513 STRAIGHT THREAD<br>WITH INTEGRAL VALVE DEPRESSOR | 0.687 [17.5]  | 0.366 [9.3]  |
| Q    | M10 x 1.0 mm ISO 6149-2   | 0.374 [9.5]   | 0.366 [9.3]  |
| N    | 7/16-20UNF FEMALE SAE J513 STRAIGHT<br>THREAD                               | 0.687 [17.5]  | 0.366 [9.3]  |
| S    | M12 x 1.5 mm ISO 6149-2   | 0.433 [11.0]  | 0.366 [9.3]  |
| U    | G/14 DIN 3852 FORM E GASKET DIN3869-14 NBR                                  | 0.472 [11.94] | 0.445 [11.3] |
| W    | M20 x 1.5 mm ISO 6149-2   | 0.551 [14.0]  | 0.366 [9.3]  |
| G    | M14 x 1.5 mm ISO 6149-2   | 0.433 [11.0]  | 0.366 [9.3]  |

#### How to Operate

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

**Note:** Communication is max 65 feet

# U5600

Wireless Pressure Transducer

## Ordering Information

U5600 - 0 1 0 0 0 0 - 100P G

| Cleaning |              |
|----------|--------------|
| 0        | No Selection |
| 1        | With Snubber |

| Battery |                 |
|---------|-----------------|
| 0       | Without Battery |
| 1       | CR2032          |
| 2       | CR2050          |

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

| Pressure Reference |          |
|--------------------|----------|
| G                  | Gauge    |
| S                  | Sealed   |
| A                  | Absolute |
| C                  | Compound |

| Pressure Range |            |            |
|----------------|------------|------------|
|                | psi<br>std | bar<br>std |
| 005P           |            | .35B       |
| 015P           |            | 001B       |
| 030P           |            | 002B       |
| 050P           |            | 3.5B       |
| 100P           |            | 007B       |
| 200P           |            | 014B       |
| 300P           |            | 020B       |
| 500P           |            | 035B       |
| 01KP           |            | 070B       |
| 03KP           |            | 200B       |
| 05KP           |            | 350B       |
| 10KP           |            | 700B       |

| Port Type Selection |   |              |            |
|---------------------|---|--------------|------------|
| Code                | Port Type   | Dim B        | Dim C Ref. |
| 2                   | 1/4"-19 BSPP  | 0.472[11.94] | 0.366[9.3] |
| 3                   | G3/8 JIS B2351                                      | 0.540[13.72] | 0.366[9.3] |
| 4                   | 7/16-20UNF Male SAE                                 | 0.433[11.0]  | 0.366[9.3] |
|                     | J1926-2 Straight Thread<br>O-Ring BUNA-N 90SH-904   |              |            |
| 5                   | 1/4-18 NPT  | 0.600[15.24] | 0.366[9.3] |
| 6                   | 1/8-27 NPT  | 0.390[9.91]  | 0.366[9.3] |
| B                   | G1/4 JIS B2351                                      | 0.472[11.94] | 0.366[9.3] |
| E                   | 1/4-19 BSPT   | 0.500[12.7]  | 0.366[9.3] |
| F                   | 1/4-19 BSPP Female*                                 | 0.771[19.58] | 0.366[9.3] |
| P                   | 7/16-20UNF Female SAE                               | 0.687[17.5]  | 0.366[9.3] |
|                     | J513 Straight Thread w/<br>Integral Valve Depressor |              |            |
| N                   | 7/16-20UNF Female SAE<br>J513 Straight Thread       | 0.687[17.5]  | 0.366[9.3] |
| Q                   | M10x1.0mm ISO 6149-2                                | 0.374[9.5]   | 0.366[9.3] |
| S                   | M12x1.5mm ISO 6149-2                                | 0.433[11.0]  | 0.366[9.3] |
| U                   | G1/4 DIN 3852 Form E<br>Gasket DIN3869-14 NBR       | 0.472[11.94] | 0.366[9.3] |
| W                   | M20x1.5mm<br>ISO 6149-2                             | 0.551[14.0]  | 0.366[9.3] |
| G                   | M14x1.5mm<br>ISO 6149-2                             | 0.433[11.0]  | 0.366[9.3] |

Compound Pressure Range is -14.7 to xxxpsig or -1 to xxxbarg (e.g. 200PC: -14.7 to 200psig, 020BC: -1 to 20barg)

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- Оценку стоимости проекта по компонентам.
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