U5600

Wireless Pressure Transducer

SPECIFICATIONS

- **Enhanced Pressure Accuracy**
- **Digital 24-bit ADC Output, I^2C Protocol**
- **Wireless Bluetooth® 4.0 Connection**
- **CE Compliant with Variety of Pressure Ports**
- **Compact and Battery Powered [CR2050]**
- **Optional Stainless Steel Snubber**
- **Weatherproof**
- **Gage, Sealed, Absolute, Compound**

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® technology. 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. MEAS stands ready to provide a custom design of the M5600 where the volume and application warrants. Additional configurations not listed are either available or possible. Please inquire for further information.

FEATURES

- Heavy Industrial CE Approval
- 10 V/m EMI Protection
- Down to ±0.1% Pressure Accuracy
- Pressure Down to ±1.0% Total Error Band
- ±3°C Temperature Output Accuracy
- Compact Outline
- -10°C to +60°C Compensating Temperature
- -20°C to +85°C Operating Temperature
- Weatherproof

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

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 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)

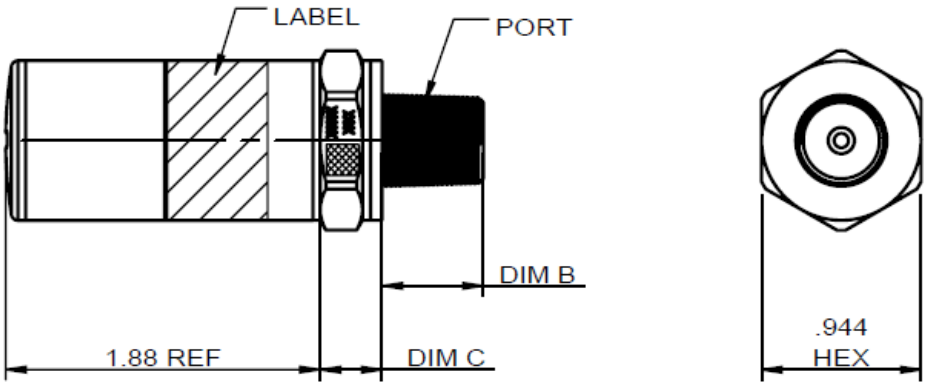
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Supply Voltage	2.3	3	3.6	Vdc	Replaceable CR2050 battery
Accuracy (RSS of linearity, hysteresis, and repeatability)	-0.25		0.25	%F.S.	5psi
	-0.1		0.1	%F.S.	>5 and ≤500psi
	-0.25		0.25	%F.S.	>500 and ≤5000psi
	-0.75		0.75	%F.S.	>5000psi
Temperature Output Accuracy	-3		3	°C	
Output Protocol		Digital I^2C			
Resolution		24		Bit	
Endurance	1.00E+6			0~FS Cycles	
Stability	-0.25		0.25	%F.S./year	
Total Error Band (@25°C over compensated range)	-1		1	%F.S.	5psi
	-0.75		0.75	%F.S.	>5 and ≤5000psi
	-1.25		1.25	%F.S.	>5000psi
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	with battery
Storage Temperature	-40		+120	°C	without battery
Wireless Protocol	Bluetooth® 4.0 or above				
Receiver Operating System	Android 4.3 or above, IOS 7 or above				
App	TE Sensor Tag, downloadable from Google Play Store and Apple App Store				
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, 5 second transmission interval, room temperature				
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				

For custom configurations, consult factory.

Note:
Battery life depends on its capacity of operating temperature and signal transmission interval.
Some battery models offer high operating temperatures up to 125°C with nominal capacity 350mAH.
Temperature can impact battery capacity retention even if idle. Check battery specifications for more details.

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%
FCC
RoHS

DIMENSIONS [MM]



PRESSURE PORT TYPE			
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 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 (without snubber)	0.771 [19.58]	0.366 [9.3]
P	7/16-20UNF FEMALE SAE J513 STRAIGHT THREAD 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 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

1. Download/Install “TE Sensor Tag” app on smartphone for Android or IOS from Google Play Store or Apple App Store.
2. Install battery into the transducer.
3. Turn “Bluetooth®” on for smartphone.
4. Run “TE Sensor Tag” app on smartphone and it will start searching for the transducer.
5. Tap the transducer found by the app for pairing.
6. Once paired, the pressure and temperature charting will begin automatically. Data is collected every 5 seconds (programmed for best battery life).

NOTE: Communication is max 65 feet

ORDERING INFORMATION

U56	00	-	0	0	00	0	5	-	100P		G
Model	**00**	**-**	**0**	**Snubber**	**00**	**Label**	**Pressure Port**	**-**	**Pressure Range**		**Pressure Type**
U56	**00**	-	**0**	**0** = No Selection 1 = With Snubber	**00**	**0** = Adhesive Label **1** = Laser Marking	**2** = 1/4-19 BSPP **3** = G3/8 JIS B2351 **4** = 7/16-20UNF Male SAE J1926-2 Straight Thread O-Ring BUNA-N 90SH-904 **5** = 1/4-18 NPT **6** = 1/8-27NPT **B** = G1/4 JIS B2351 **E** = 1/4-19 BSPT **F** = 1/4-19 BSPP Female **P** = 7/16-20UNF Female SAE J513 Straight Thread with Integral Valve Depressor **Q** = M10 x 1.0 mm ISO 6149-2 **N** = 7/16-20UNF FEMALE SAE J513 Straight Thread **S** = M12 x 1.5 mm ISO 6149-2 **U** = G1/4 DIN 3852 Form E Gasket DIN3869-14 NBR **W** = M20 x 1.5 mm ISO 6149-2 **G** = M14 x 1.5 mm ISO 6149-2	-	**005P** **015P** **030P** **050P** **100P** **200P** **300P** **500P** **01KP** **03KP** **05KP** **07KP** **10KP**	**.35B** **001B** **002B** **3.5B** **007B** **010B** **020B** **035B** **070B** **200B** **350B** **500B** **700B**	**G** = Gage **S** = Sealed **A** = Absolute **C** = Compound

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