

## OVERVIEW

ST6900 Series case mounted transmitters interface directly with PLC, DCS, and 4-20 mA input monitors. The compact size allows for installation in tight places. Model ST6911 is 4-20 mA proportional to acceleration while Model ST6917 is proportional to velocity.

These units feature Metrix proprietary Independent Polarity Terminal (IPT®)<sup>1</sup>, which allows for error-free wiring. Each ST6900 Series transmitter has the most stable detection circuit available due to built-in protection against temperature shock, and high accuracy at low frequencies by preventing the “ski slope” problem.

## FEATURES AND BENEFITS

- Loop-powered
- 4-20 mA output proportional to acceleration (ST6911) or velocity (ST6917)
- Loop terminals with Independent Polarity (IPT®) to prevent incorrect wiring
- Interfaces directly with PLC, DCS, 4-20 mA monitors, etc
- M6 x 1 or 1/4- 28” mounting studs
- MIL style connector standard
- Widest operating temperature in its class
- Most stable detection circuit available
- Temperature shock protected
- “Ski slope” problem protected for high accuracy at low frequencies
- Hermetically sealed

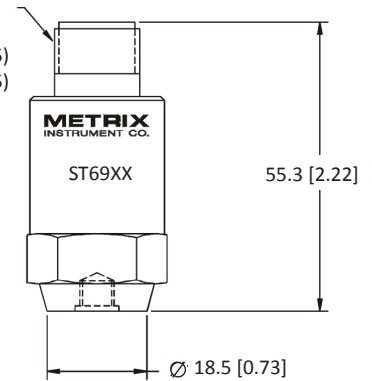
## APPLICATIONS

- Blowers
- Centrifuges
- Compressors
- Engines
- Fans
- Generators
- Motors
- Pumps
- Steam Turbines
- Turbochargers

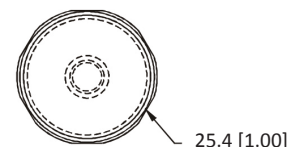


## WEIGHT & DIMENSIONS

ELECTRICAL CONNECTOR  
5/8-24 UNEF-2A  
2 PIN (MIL-C-5015)  
2 PIN (MIL-C-5015)



Units: mm [in]  
Weight: 91 gm (3.1 oz.)



## SPECIFICATIONS

### Vibration Range:

- 4 to 20 mA output proportional to acceleration (ST6911) and velocity (ST6917), see "Ordering Option A"
- Non standard ranges available

### Frequency Response:

- Velocity: 3- 1000 Hz
- Acceleration: 3- 10000 Hz

**Accuracy:** 2% (Repeatability)

**Axis Orientation:** Any

**Supply Voltage (Vs):** 11 to 30 VDC, Non-polarity sensitive, IPT®

**Isolation:** 500 Vrms, circuit to case

**Electrical Connection:** MIL style 2-pin connector

**Maximum Load Resistance (R<sub>L</sub>):** R<sub>L</sub> = 50 x (Vsupply-11) W

**Service Temperature Rating:** -40°F to 100°C (-40°F to 212°F)

**Enclosure Materials:** 316 SS

**Enclosure Environmental Rating:** NEMA 4X, IP 67

**Approvals:** CE marked

## HOW TO ORDER

ST6911 - **A A A** - **B** - **C**

Example: ST6911-050-1-0 = 50 g (490 m/s<sup>2</sup>) pk, M6 x 1.0, No Hazardous Area Approval

A	A	A	Full Scale
0	1	0	10 g (98.1 m/s <sup>2</sup> ) pk
0	2	0	20 g (196 m/s <sup>2</sup> ) pk
0	5	0	50 g (490 m/s <sup>2</sup> ) pk
5	1	0	10 g (98.1 m/s <sup>2</sup> ) RMS
5	2	0	20 g (196 m/s <sup>2</sup> ) RMS
5	5	0	50 g (490 m/s <sup>2</sup> ) RMS

B	Mounting
0	1/4-28 UNF
1	M6 x 1.0

C	Agency Certification
0	No Hazardous Area Approval, CE
1	No Hazardous Area Approval

ST6917 - **A A A** - **B** - **C**

Example: ST6917-151-1-0 = 1.0 in/s (25.4mm/s) RMS, M6 x 1.0, No Hazardous Area Approval

A	A	A	Full Scale
1	2	1	1.0 ips (25.4 mm/s) pk
1	2	2	0.5 ips (12.7 mm/s) p
1	2	3	2.0 ips (50.8 mm/s)pk
1	2	4	1.6 ips (40.6 mm/s) pk
1	2	6	0.8 ips (20.3 mm/s) pk
1	5	1	1.0 ips (25.4 mm/s) RMS
1	5	2	0.5 ips (12.7 mm/s) RMS
1	5	3	2.0 ips (50.8 mm/s) RMS
1	5	4	1.6 ips (40.6 mm/s) RMS
1	5	6	0.8 ips (20.3 mm/s) RMS

B	Mounting
0	1/4-28 UNF
1	M6 x 1.0

C	Agency Certification
0	No Hazardous Area Approval, CE
1	No Hazardous Area Approval

Optional mounting stud:  
Metrix P/N 3719-007  
(1/4 - 28 UNF to M6 x 1.0)

### Notes:

1. IPT® (Independent Polarity Terminal) is a registered trademark of Metrix Instrument Co.