

Vibration Transmitter

ST6900 Series Compact Transmitter 4-20 mA



Loop-powered Transmitter

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®)¹, 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.

Notes:

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

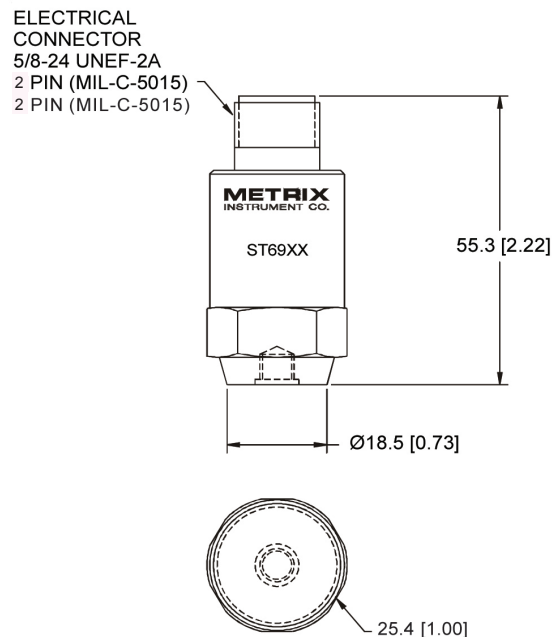
Features

- Loop-powered
- 4-20 mA proportional to acceleration (ST6911)
- 4-20 mA proportional to velocity (ST6917)
- Loop terminals with Independent Polarity (IPT®). Prevents incorrect wiring.
- Interfaces 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
- Hermetically sealed

Applications

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

Weight & Dimensions



Weight: 91 gm (3.1 oz.)

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Specifications

Vibration Range: 4 to 20 mA output proportional to acceleration (ST6911) and velocity (ST6917).

Non standard ranges available.

Accuracy: 2% (Repeatability)

Frequency Response:

Velocity: 3 - 1000 Hz

Acceleration: 3 - 10000 Hz

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_L):

R_L = 50 x (Vsupply-11) ohms

Service Temp. Rating:

-40°F to 120°C (-40°F to 248°F)

Enclosure Materials: 303 SS

Enclosure Environmental Rating: NEMA 4X, IP 67

Approvals: CE marked

How To Select

ACCELERATION

ST6911 - - -

A Full Scale

0	1	0	= 10 g, pk
0	2	0	= 20 g, pk
0	5	0	= 50 g, pk
5	1	0	= 10 g, RMS
5	2	0	= 20 g, RMS
5	5	0	= 50 g, RMS

B Mounting Options

0	= 1/4 -28 UNF
1	= M6 x 1.0

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

C Hazard Rating

0	= None
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VELOCITY

ST6917 - - -

A Full Scale

1	2	1	= 1 ips (25 mm/s), pk
1	2	2	= 0.5 ips (12.7 mm/s), pk
1	2	3	= 2.0 ips (50 mm/s), pk
1	2	4	= 1.6 ips (15.9 mm/s), pk
1	2	6	= 0.8 ips (20.3 mm/s), pk
1	5	1	= 1 ips (25 mm/s), rms
1	5	2	= 0.5 ips (12.7 mm/s), rms
1	5	3	= 2.0 ips (50 mm/s), rms
1	5	6	= 0.8 ips (20.3 mm/s), rms

*Note: For true RMS velocity calibration, add 30 to dash number. Ex: -121 becomes -151.

B Mounting Options

0	= 1/4 -28 UNF
1	= M6 x 1.0

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

C Hazard Rating

0	= None
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Accessories - Page 2.28, 2.29 & 2.33