

METRIX ST6900 SERIES

COMPACT VIBRATION TRANSMITTER

Datasheet



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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®)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.

FEATURES

- 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

Notes:

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



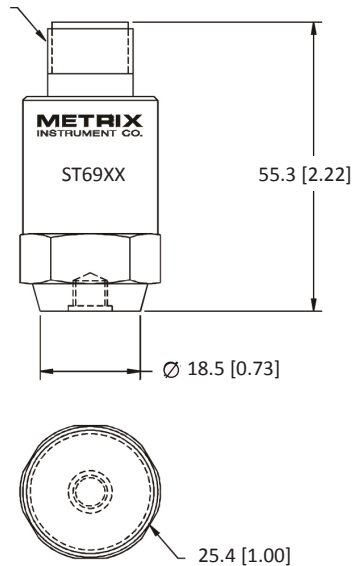
SPECIFICATIONS

Vibration Range	<ul style="list-style-type: none">• 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_L)	$R_L = 50 \times (V_{supply} - 11) \Omega$
Service Temperature Rating	-40°F to 100°C (-40°F to 212°F)
Enclosure Materials	303 SS
Enclosure Environmental Rating	NEMA 4X, IP 67
Approvals	CE marked



WEIGHTS AND 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.)

ORDERING INFORMATION

ST6911 ACCELERATION TRANSMITTER				
ST6911- A A A - B - C				
□□□-□-□				
A				Full Scale
0	1	0		10 g (98.1 m/s ²) pk
0	2	0		20 g (196 m/s ²) pk
0	5	0		50 g (490 m/s ²) pk
5	1	0		10 g (98.1 m/s ²) RMS
5	2	0		20 g (196 m/s ²) RMS
5	5	0		50 g (490 m/s ²) RMS
B		Mounting		
	0	1/4 - 28 UNF		
	1	M6 x 1.0		
C		Hazardous Area Certification		
	0	NONE		

Example: ST6911-050-1-0 = 50 g (50 g (490 m/s²) pk, M6 x 1.0, non-hazardous

ST6917 VELOCITY TRANSMITTER				
ST6917- A A A - B - C				
□□□-□-□				
A				Full Scale
1	2	1		1.0 ips (25.4 mm/s) pk
1	2	2		0.5 ips (12.7 mm/s) pk
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		Hazardous Area Certification		
	0	NONE		

Example: ST6917-151-1-0 = 1.0 in/s (20.3 mm/s) RMS, M6 x 1.0, non-hazardous

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