

# TR104-M12A Series

RTD Sensor, Side Exit 4 Pin M12 Connector, 100 mV/g, ±10%



VIBRATION ANALYSIS HARDWARE



## Product Features

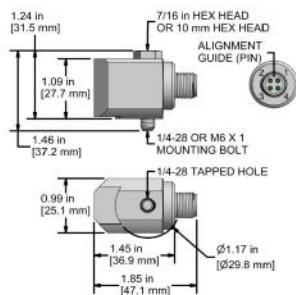
For use with CTC M4TR Connector & CB123 Cabling

- ▶ Base Mounted PT100 RTD Temperature Sensor
- ▶ Temperature and Acceleration in One Sensor
- ▶ 4 Pin M12 Connection

### TR104-M12A

4 Pin Connector

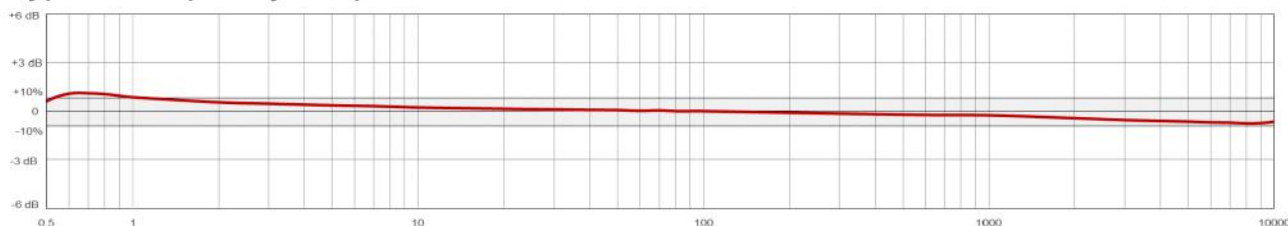
Connector Pin	Polarity
1	(+) Signal/Power
2	(-) Common
3	RTD (+)
4	RTD (-)



Stock Product

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TR104-M12A	M/TR104-M12A	<b>Environmental</b>		
Sensitivity (±10%)	100 mV/g		Operating Temperature Range	-40 to 250°F	-40 to 121°C
Frequency Response (±3dB)	30-300,000 CPM	0.5 Hz-15 kHz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	120-600,000 CPM	2 Hz-10 kHz	Electromagnetic Sensitivity	CE Pending	
Dynamic Range	± 50g, peak		Sealing	Welded, Hermetic	
Temperature Measurement Range	-40 to 250°F	-40 to 121°C	<b>Physical</b>		
Temperature Sensor	PT100 RTD		Sensing Element	PZT Ceramic	
<b>Electrical</b>			Sensing Structure	Shear Mode	
Settling Time	< 2.5 Seconds		Weight	5.6 oz	160 grams
Voltage Source (IEPE)	18-30 VDC		Case Material	316L Stainless Steel	
Constant Current Excitation	2-10 mA		Mounting Thread	1/4-28 UNF	
Spectral Noise @ 10 Hz	8 µg/√Hz		Connector (Non-Integral)	4 Pin M12	
Spectral Noise @ 100 Hz	0.82 µg/√Hz		Resonant Frequency	1,260,000 CPM	21 kHz
Spectral Noise @ 1000 Hz	0.3 µg/√Hz		Mounting Torque	2 to 5 ft.-lbs.	2,7 to 6,8 Nm
Output Impedance	< 100 ohm		Mounting Hardware Supplied	1/4-28 Captive Bolt	M6x1 Captive Bolt
Bias Output Voltage	10-14 VDC				
Case Isolation	> 10 <sup>8</sup> ohm		Calibration Certificate	CA10	

## Typical Frequency Response



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# TR133-M12A Series

RTD Sensor, Top Exit 4 Pin M12 Connector, 500 mV/g, ±10%



VIBRATION ANALYSIS HARDWARE



## Product Features

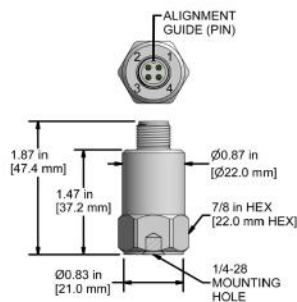
For use with CTC M4TR Connector & CB123 cabling

- ▶ Base Mounted PT100 RTD Temperature Sensor
- ▶ Temperature and Acceleration in One Sensor
- ▶ 4 Pin M12 Connection

### TR133-M12A

4 Pin Connector

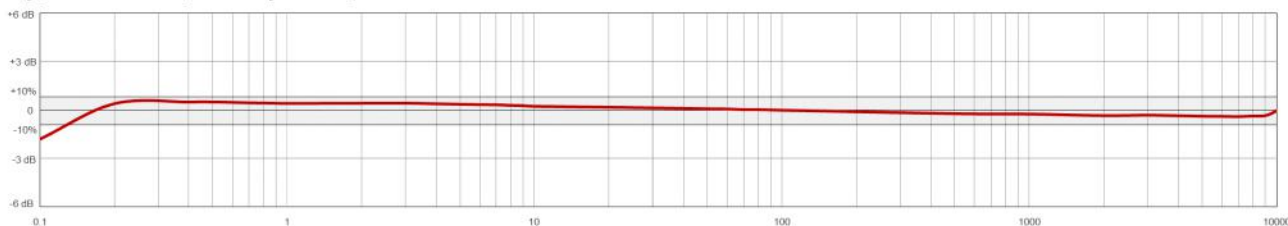
Connector Pin	Polarity
1	(+) Signal/Power
2	(-) Common
3	RTD (+)
4	RTD (-)



Stock Product

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TR133-M12A	M/TR133-M12A	<b>Environmental</b>		
Sensitivity (±10%)	500 mV/g		Operating Temperature Range	-40 to 250°F	-40 to 121°C
Frequency Response (±3dB)	6-600,000 CPM	0.1 Hz-10 kHz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	30-120,000 CPM	0.6 Hz-3 kHz	Electromagnetic Sensitivity	CE Pending	
Dynamic Range	± 10g, peak		Sealing	Welded, Hermetic	
Temperature Measurement Range	-40 to 250°F	-40 to 121°C	<b>Physical</b>		
Temperature Sensor	PT100 RTD		Sensing Element	PZT Ceramic	
<b>Electrical</b>			Sensing Structure	Shear Mode	
Settling Time	< 2 Seconds		Weight	3.2 oz	90 grams
Voltage Source (IEPE)	18-30 VDC		Case Material	316L Stainless Steel	
Constant Current Excitation	2-10 mA		Mounting Thread	1/4-28 UNF	
Spectral Noise @ 10 Hz	1.7 µg/√Hz		Connector (Non-Integral)	4 Pin M12	
Spectral Noise @ 100 Hz	0.2 µg/√Hz		Resonant Frequency	1,380,000 CPM	23 kHz
Spectral Noise @ 1000 Hz	0.12 µg/√Hz		Mounting Torque	2 to 5 ft-lbs.	2.7 to 6.8 Nm
Output Impedance	< 100 ohm		Mounting Hardware Supplied	1/4-28 Stud	M6x1 Adapter Stud
Bias Output Voltage	10-14 VDC		Calibration Certificate	CA10	
Case Isolation	> 10 <sup>8</sup> ohm				

## Typical Frequency Response



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# TR134-M12A Series

RTD Sensor, Side Exit 4 Pin M12 Connector, 500 mV/g, ±10%



VIBRATION ANALYSIS HARDWARE



## Product Features

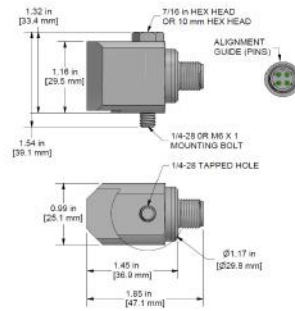
For use with CTC M4TR Connector & CB123 cabling

- ▶ Base Mounted PT100 RTD Temperature Sensor
- ▶ Temperature and Acceleration in One Sensor
- ▶ 4 Pin M12 Connection

### TR134-M12A

4 Pin Connector

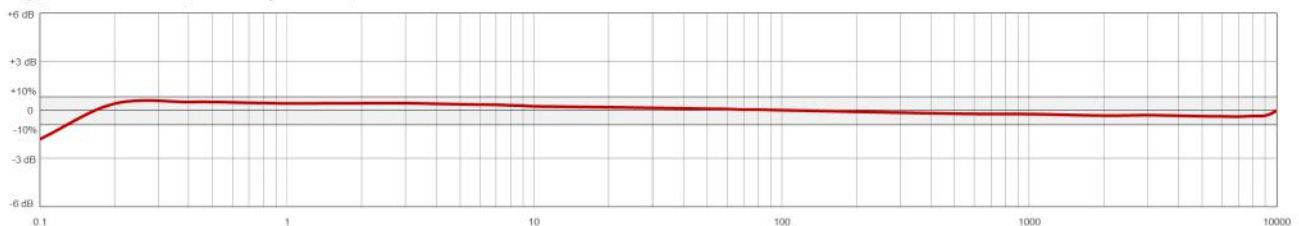
Connector Pin	Polarity
1	(+) Signal/Power
2	(-) Common
3	RTD (+)
4	RTD (-)



Stock Product

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TR134-M12A	M/TR134-M12A	<b>Environmental</b>		
Sensitivity (±10%)	500 mV/g		Operating Temperature Range	-40 to 250°F	-40 to 121°C
Frequency Response (±3dB)	6-600,000 CPM	0.1 Hz-10 kHz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	30-120,000 CPM	0.6 Hz-3 kHz	Electromagnetic Sensitivity	CE Pending	
Dynamic Range	± 10g, peak		Sealing	Welded, Hermetic	
Temperature Measurement Range	-40 to 250°F	-40 to 121°C	<b>Physical</b>		
Temperature Sensor	PT100 RTD		Sensing Element	PZT Ceramic	
<b>Electrical</b>			Sensing Structure	Shear Mode	
Settling Time	< 2 Seconds		Weight	3.2 oz	90 grams
Voltage Source (IEPE)	18-30 VDC		Case Material	316L Stainless Steel	
Constant Current Excitation	2-10 mA		Mounting Thread	1/4-28 UNF	
Spectral Noise @ 10 Hz	1.7 µg/√Hz		Connector (Non-Integral)	4 Pin M12	
Spectral Noise @ 100 Hz	0.2 µg/√Hz		Resonant Frequency	1,380,000 CPM	23 kHz
Spectral Noise @ 1000 Hz	0.12 µg/√Hz		Mounting Torque	2 to 5 ft-lbs.	2.7 to 6.8 Nm
Output Impedance	< 100 ohm		Mounting Hardware Supplied	1/4-28 Stud	M6x1 Adapter Stud
Bias Output Voltage	10-14 VDC		Calibration Certificate	CA10	
Case Isolation	> 10 <sup>8</sup> ohm				

## Typical Frequency Response



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# TR207-M12A Series



VIBRATION ANALYSIS HARDWARE

High Temperature RTD Accelerometer, 325 °F (162 °C) Max Temp,  
Top Exit 4 Pin M12 Connector, 100 mV/g, ±10%



## Product Features

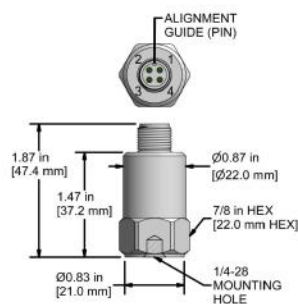
Proven Sensor for Standard High Temperature Applications  
Resistant to Temperatures Up to 325°F (162°C)

- ▶ Base Mounted PT100 RTD Temperature Sensor
- ▶ Temperature and Acceleration in One Sensor

### TR207-M12A

4 Pin Connector

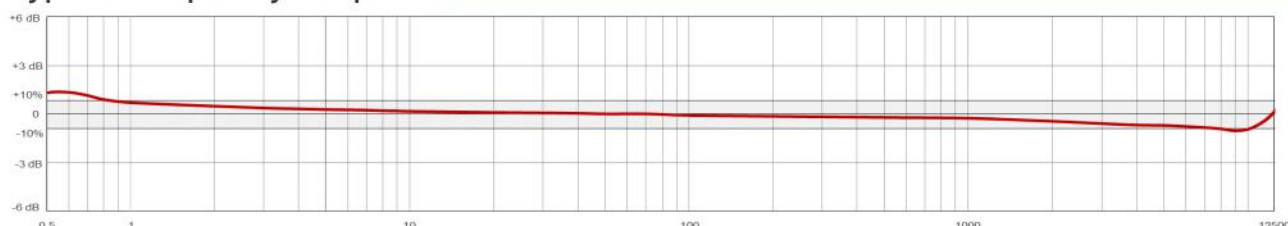
Connector Pin	Polarity
1	(+) Signal/Power
2	(-) Common
3	RTD (+)
4	RTD (-)



Stock Product

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TR207-M12A	M/TR207-M12A	<b>Environmental</b>		
Sensitivity (±10%)	100 mV/g		Operating Temperature Range	-58 to 325° F	-50 to 162°C
Frequency Response (±3dB)	30-750,000 CPM	0.5-12500 Hz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	120-360,000 CPM	2.0-6000 Hz	Electromagnetic Sensitivity	CE	
Dynamic Range	±50 g, peak		Sealing	Welded, Hermetic	
Temperature Measurement Range	-58 to 325° F	-50 to 162°C	SIL Rating	SIL 2	
Temperature Sensor	PT100 RTD		<b>Physical</b>		
<b>Electrical</b>			Sensing Element	PZT Ceramic	
Settling Time	<2.5 Seconds		Sensing Structure	Shear Mode	
Voltage Source (IEPE)	18-30 VDC		Case Material	316L Stainless Steel	
Constant Current Excitation	2-10 mA		Mounting Thread	1/4-28 Blind Tapped Hole	
Spectral Noise @ 10 Hz	8 µg/√Hz		Connector (Non-Integral)	4 Pin M12	
Spectral Noise @ 100 Hz	.82 µg/√Hz		Resonant Frequency	1,380,000 CPM	23000 Hz
Spectral Noise @ 1000 Hz	.3 µg/√Hz		Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Output Impedance	<100 ohm		Mounting Hardware Supplied	1/4-28 Stud	M6x1 Adapter Stud
Bias Output Voltage	10-14 VDC		Calibration Certificate	CA10	
Case Isolation	>10 <sup>8</sup> ohm				

## Typical Frequency Response



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# TR208-M12A Series



VIBRATION ANALYSIS HARDWARE

High Temperature RTD Accelerometer, 325 °F (162 °C) Max Temp,  
Side Exit 4 Pin M12 Connector, 100 mV/g, ±10%



## Product Features

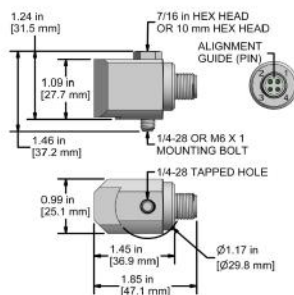
Proven Sensor for Standard High Temperature Applications  
Resistant to Temperatures Up to 325°F (162°C)

- ▶ Base Mounted PT100 RTD Temperature Sensor
- ▶ Temperature and Acceleration in One Sensor

### TR208-M12A

4 Pin Connector

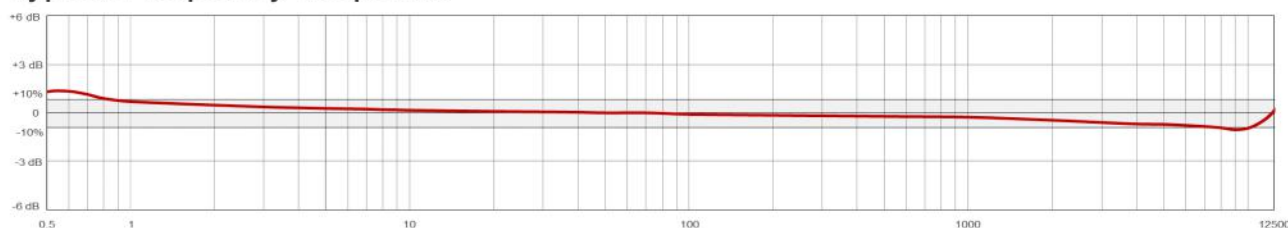
Connector Pin	Polarity
1	(+) Signal/Power
2	(-) Common
3	RTD (+)
4	RTD (-)



Stock Product

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TR208-M12A	M/TR208-M12A	<b>Environmental</b>		
Sensitivity (±10%)	100 mV/g		Operating Temperature Range	-58 to 325° F	-50 to 162°C
Frequency Response (±3dB)	30-750,000 CPM	0.5-12500 Hz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	120-360,000 CPM	2.0-6000 Hz	Electromagnetic Sensitivity	CE	
Dynamic Range	±50 g, peak		Sealing	Welded, Hermetic	
Temperature Measurement Range	-58 to 325° F	-50 to 162°C	SIL Rating	SIL 2	
Temperature Sensor	PT100 RTD		<b>Physical</b>		
<b>Electrical</b>			Sensing Element	PZT Ceramic	
Settling Time	<2.5 Seconds		Sensing Structure	Shear Mode	
Voltage Source (IEPE)	18-30 VDC		Case Material	316L Stainless Steel	
Constant Current Excitation	2-10 mA		Connector (Non-Integral)	4 Pin M12	
Spectral Noise @ 10 Hz	8 µg/√Hz		Resonant Frequency	1,380,000 CPM	23000 Hz
Spectral Noise @ 100 Hz	.82 µg/√Hz		Mounting Torque	2 to 5 ft. lbs.	2.7 to 6.8 Nm
Spectral Noise @ 1000 Hz	.3 µg/√Hz		Mounting Hardware Supplied	1/4-28 Stud	M6x1 Adapter Stud
Output Impedance	<100 ohm		Calibration Certificate	CA10	
Bias Output Voltage	10-14 VDC				
Case Isolation	>10 <sup>8</sup> ohm				

## Typical Frequency Response



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# TR102-M12A Series

RTD Sensor, Top Exit 4 Pin M12 Connector, 100 mV/g, ±10%



## Product Features

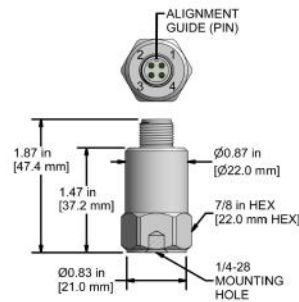
For use with CTC M4TR Connector & CB123 cabling

- ▶ Base Mounted PT100 RTD Temperature Sensor
- ▶ Temperature and Acceleration in One Sensor
- ▶ 4 Pin M12 Connection

### TR102-M12A

4 Pin Connector

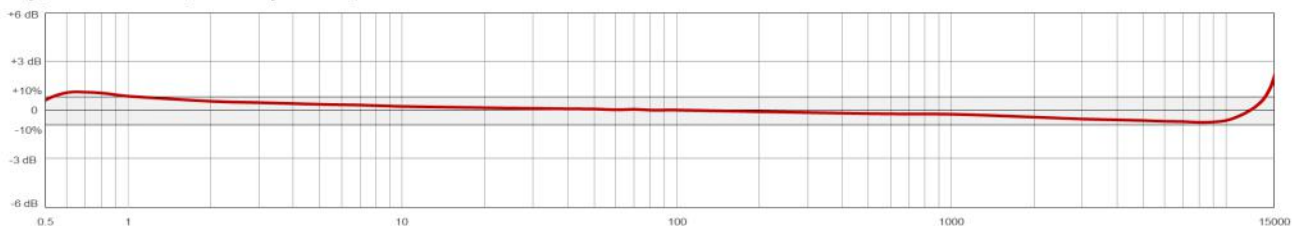
Connector Pin	Polarity
1	(+) Signal/Power
2	(-) Common
3	RTD (+)
4	RTD (-)



Stock Product

Specifications	Standard	Metric	Specifications	Standard	Metric
Part Number	TR102-M12A	M/TR102-M12A	<b>Environmental</b>		
Sensitivity (±10%)	100 mV/g		Operating Temperature Range	-40 to 250°F	-40 to 121°C
Frequency Response (±3dB)	30-900,000 CPM	0.5 Hz-15 kHz	Maximum Shock Protection	5,000 g, peak	
Frequency Response (±10%)	120-600,000 CPM	2 Hz-10 kHz	Electromagnetic Sensitivity	CE Pending	
Dynamic Range	± 50g, peak		Sealing	Welded, Hermetic	
Temperature Measurement Range	-40 to 250°F	-40 to 121°C	<b>Physical</b>		
Temperature Sensor	PT100 RTD		Sensing Element	PZT Ceramic	
<b>Electrical</b>			Sensing Structure	Shear Mode	
Settling Time	< 2.5 Seconds		Weight	3.2 oz	90 grams
Voltage Source (IEPE)	18-30 VDC		Case Material	316L Stainless Steel	
Constant Current Excitation	2-10 mA		Connector (Non-Integral)	4 Pin M12	
Spectral Noise @ 10 Hz	8 µg/√Hz		Resonant Frequency	1,380,000 CPM	23 kHz
Spectral Noise @ 100 Hz	0.82 µg/√Hz		Mounting Torque	2 to 5 ft-lbs.	2,7 to 6,8 Nm
Spectral Noise @ 1000 Hz	0.3 µg/√Hz		Mounting Hardware Supplied	1/4-28 Stud	M6x1 Adapter Stud
Output Impedance	< 100 ohm		Calibration Certificate	CA10	
Bias Output Voltage	10-14 VDC				
Case Isolation	> 10 <sup>8</sup> ohm				

## Typical Frequency Response



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