

LP254 Series

Low Cost, Loop Power Vibration Sensor/Transmitter, Velocity, 4-20 mA Output, Side Exit Connector/Cable

Product Features

Continuously Monitor & Protect Important Machinery

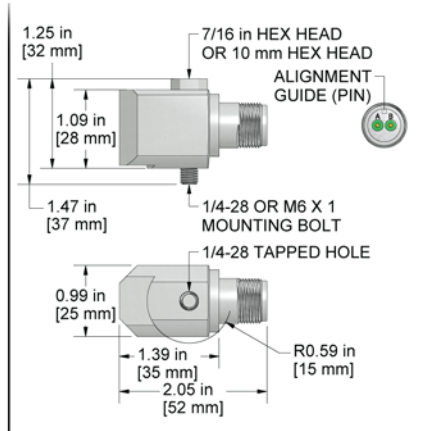
- **4-20 mA current proportional to Vibration**
- **Transmit Signals Over Long Distances with no Quality Loss**
- **Customize Your Settings to Focus on the Most Important Frequencies**



Actual Product Size Shown

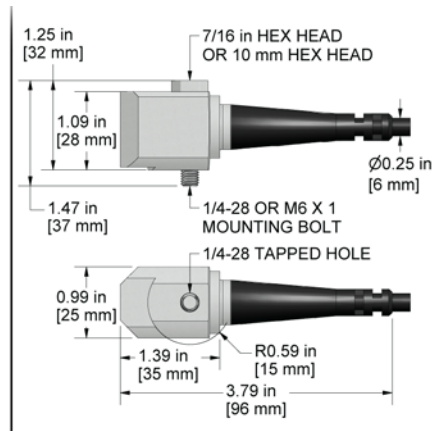
LP254-1D 2 Pin Connector

Connector Pin	Polarity
A	(+) Loop Power mA Output
B	(-) Common



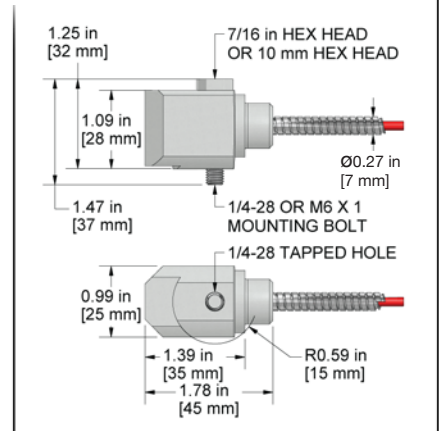
LP254-2D Integral Cable

Conductor	Polarity
Red	(+) Loop Power mA Output
Black	(-) Common
Shield	Cable Drain Wire



LP254-3D Armored Integral Cable

Conductor	Polarity
Red	(+) Loop Power mA Output
Black	(-) Common
Shield	Cable Drain Wire



Specifications	Standard	Metric
Output, 4-20 mA	See Selection Guide	
Measurement Range	See Selection Guide	
<u>Tolerances</u>		
4 mA	± 5%	
20 mA	± 15%	
<u>Electrical</u>		
Power Requirement (Loop Powered)	15-30 VDC	
Voltage Source		
Electrical Case Isolation	>10 ⁸ ohm	
<u>Environmental</u>		
Temperature Range	-40 to 185°F	-40 to 85°C
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Submersible Depth (LP254-2D/3D)	500 ft.	152 m

Specifications	Standard	Metric
<u>Physical</u>		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight (without cable)	4.9 oz	140 grams
Case Material	316L Stainless Steel	
Mounting Bolt	1/4-28	
Connector (LP254-1D)	2 Pin MIL-C-5015	
Integral Cable (LP254-2D)	Polyurethane Jacketed Cable	
Armored Cable (LP254-3D)	Armor Jacketed Cable	
<u>Mechanical</u>		
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
<u>Supplied Accessories</u>		
Mounting Hardware	1/4-28 Captive Bolt	M6x1 Captive Bolt
Calibration Certificate	Current Output @ 100 Hz	

Ordering Information

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Cable Termination Options:

Stud Type	Measurement Range	Range Type	Frequency Range +/- 3dB	Style	Cable Length (Integral)
M = M6x1 (blank for 1/4-28)	0 = 0-0.5 IPS (0-12.7 mm/sec) 1 = 0-1 IPS (0-25.4 mm/sec) 2 = 0-2 IPS (0-50.8 mm/sec) 3 = 0-10 mm/sec (0-0.4 IPS) 4 = 0-20 mm/sec (0-0.8 IPS)	R = RMS P = Peak	1 = 600-60,000 CPM (10-1000 Hz) 2 = 180-150,000 CPM (3-2500 Hz)	1D = 2 Pin MIL C-5015 2D = Integral Cable 3D = Armor Jacket	010 = 10 ft. (3 m) 020 = 20 ft. (6 m) 030 = 30 ft. (9 m) 050 = 50 ft. (15 m) 100 = 100 ft. (30 m) (Custom lengths available upon request)

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Lifetime Warranty on Materials & Workmanship

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PROTECTION & RELIABILITY
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LP258 Series

Low Cost, Loop Power Vibration Sensor/Transmitter, Velocity, 4-20 mA Output, Side Exit Connector/Cable, M8 Captive Bolt

Product Features

Continuously Monitor & Protect Important Machinery

- 4-20 mA current proportional to Vibration
- M8 Captive Bolt
- Customize Your Settings to Focus on the Most Important Frequencies



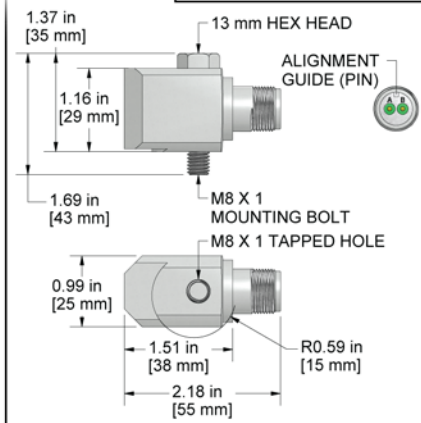
M8 Captive Bolt

Actual Product Size Shown

LP258-1D

2 Pin Connector

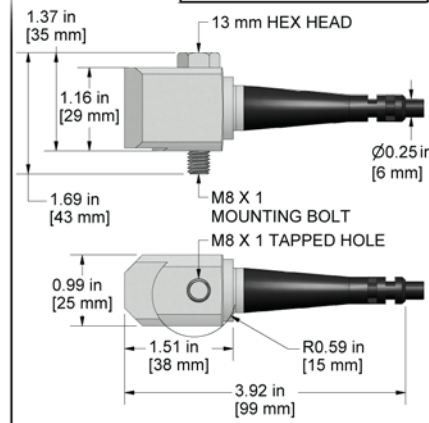
Connector Pin	Polarity
A	(+) Loop Power mA Output
B	(-) Common



LP258-2D

Integral Cable

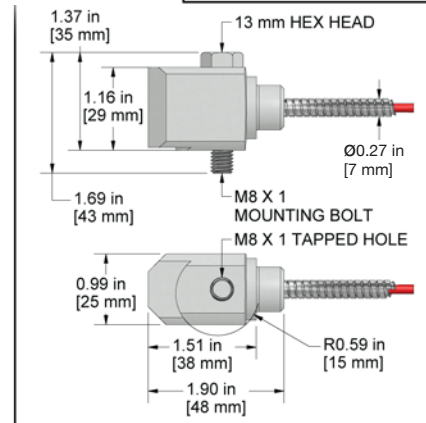
Conductor	Polarity
Red	(+) Signal/Power
Black	(-) Common
Shield	Cable Drain Wire



LP258-3D

Armored Integral Cable

Conductor	Polarity
Red	(+) Loop Power mA Output
Black	(-) Common
Shield	Cable Drain Wire



Specifications	Standard	Metric
Output, 4-20 mA	See Selection Guide	
Measurement Range	See Selection Guide	
Tolerances		
4 mA	± 5%	
20 mA	± 15%	
Electrical		
Power Requirement (Loop Powered)	15-30 VDC	
Voltage Source		
Electrical Case Isolation	>10 ⁹ ohm	
Environmental		
Temperature Range	-40 to 185°F	-40 to 85°C
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Submersible Depth (LP254-2D/3D)	500 ft.	152 m

Specifications	Standard	Metric
Physical		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight (without cable)	4.9 oz	140 grams
Case Material	316L Stainless Steel	
Mounting Bolt	M8	
Connector (LP258-1D)	2 Pin MIL-C-5015	
Integral Cable (LP258-2D)	Polyurethane Jacketed Cable	
Armored Cable (LP258-3D)	Armor Jacketed Cable	
Mechanical		
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Supplied Accessories		
Mounting Hardware	1/4-28 Captive Bolt	M6x1 Captive Bolt
Calibration Certificate	Current Output @ 100 Hz	

Ordering Information

M/LP258 -

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Cable Termination Options:

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Measurement Range	Range Type	Frequency Range +/- 3dB	Style	Cable Length (Integral)
0 = 0-0.5 IPS (0-12.7 mm/sec)	R = RMS	1 = 600-60,000 CPM (10-1000 Hz)	1D = 2 Pin MIL C-5015	010 = 10 ft. (3 m)
1 = 0-1 IPS (0-25.4 mm/sec)	P = Peak	2 = 180-150,000 CPM (3-2500 Hz)	2D = Integral Cable	020 = 20 ft. (6 m)
2 = 0-2 IPS (0-50.8 mm/sec)			3D = Armor Jacket	030 = 30 ft. (9 m)
3 = 0-10 mm/sec (0-0.4 IPS)				050 = 50 ft. (15 m)
4 = 0-20 mm/sec (0-0.8 IPS)				100 = 100 ft. (30 m)

(Custom lengths available upon request)



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LP284 Series

Loop Power Sensor, Velocity, 4-20 mA Output, Side Exit Connector/Cable, M8 Captive Bolt



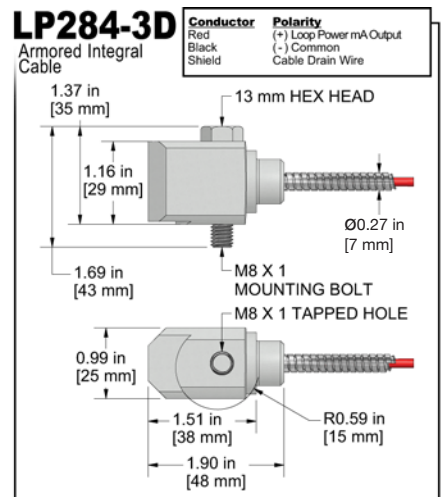
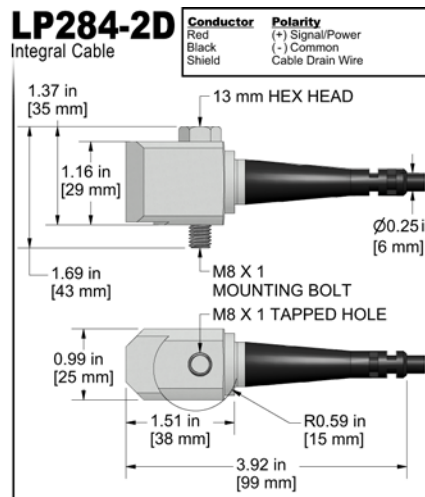
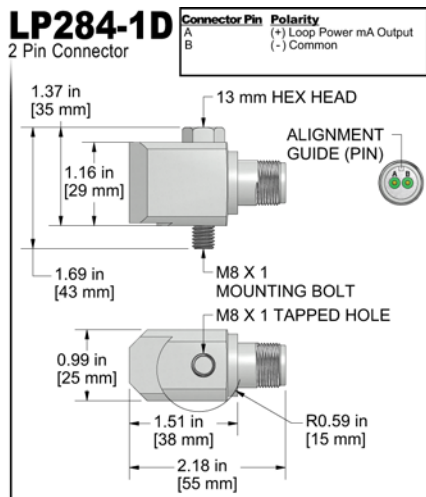
M8 Captive Bolt

Actual Product Size Shown

Product Features

Continuously Monitor & Protect Important Machinery

- 4-20 mA current proportional to Vibration
- M8 Captive Bolt
- Customize Your Settings to Focus on the Most Important Frequencies



Specifications	Standard	Metric
Output, 4-20 mA	See Selection Guide	
Measurement Range		
Tolerances		
4 mA	(± 5%)	
20 mA	(± 10%)	
Electrical		
Settling Time (Turn on Time) @ Room Temp (68° F/20° C)	<30 Seconds	
Power Requirement (Loop Powered) Voltage Source	15-30 VDC	
Electrical Case Isolation	>10 ⁸ ohm	
Environmental		
Temperature Range	-40 to 185°F	-40 to 85°C
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Submersible Depth (LP284-2D/3D)	500 ft.	152 m

Specifications	Standard	Metric
Physical		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight (without cable)	4.9 oz	140 grams
Case Material	316L Stainless Steel	
Mounting Hole	1/4-28	
Connector (LP284-1D)	2 Pin MIL-C-5015	
Integral Cable (LP284-2D)	Polyurethane Jacketed Cable	
Armored Cable (LP284-3D)	Armor Jacketed Cable	
Mechanical		
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Supplied Accessories		
Mounting Hardware	1/4-28 Captive Bolt	M6x1 Captive Bolt
Calibration Certificate	Current Output @ 100 Hz	

Ordering Information

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Measurement Range	Range Type	Frequency Range +/- 3dB	Style	Armor Length (Integral)	Cable Length (Integral)
0 = 0-0.5 IPS (0-12,7 mm/sec)	R = RMS	1 = 600-60,000 CPM (10-1000 Hz)	1D = 2 Pin MIL C-5015	010 = 10 ft. (3 m)	010 = 10 ft. (3 m)
1 = 0-1 IPS (0-25,4 mm/sec)	P = Peak	2 = 180-150,000 CPM (3-2500 Hz)	2D = Integral Cable	020 = 20 ft. (6 m)	020 = 20 ft. (6 m)
2 = 0-2 IPS (0-50,8 mm/sec)		3 = 180-60,000 CPM (3-1000 Hz)	3D = Armor Jacket	030 = 30 ft. (9 m)	030 = 30 ft. (9 m)
3 = 0-10 mm/sec (0-0,4 IPS)		4 = 180-300,000 CPM (3-5000 Hz)		050 = 50 ft. (15 m)	050 = 50 ft. (15 m)
4 = 0-20 mm/sec (0-0,8 IPS)				100 = 100 ft. (30 m)	100 = 100 ft. (30 m)
6 = 0-5 IPS (0-127 mm/sec)				<i>(Custom lengths available upon request)</i>	

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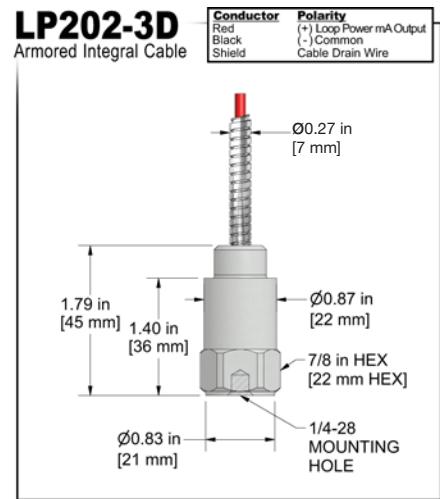
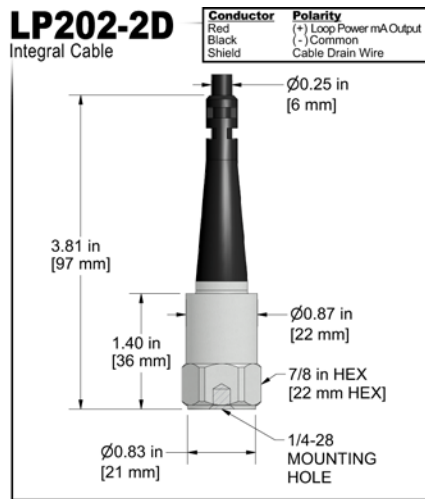
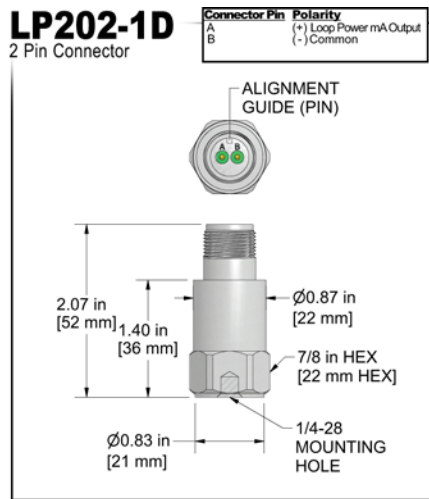


Actual Product Size Shown

Product Features

Continuously Monitor & Protect Important Machinery

- 4-20 mA current proportional to Vibration
- Transmit Signals Over Long Distances with No Signal Loss
- Customize Your Settings to Focus on the Most Important Frequencies



Specifications	Standard	Metric
Output, 4-20 mA	See Selection Guide	
Measurement Range		
Tolerances		
4 mA	(± 5%)	
20 mA	(± 10%)	
Electrical		
Settling Time (Turn on Time) @ Room Temp (68° F/20° C)	<30 Seconds	
Power Requirement (Loop Powered) Voltage Source	15-30 VDC	
Electrical Case Isolation	>10 ⁸ ohm	
Environmental		
Temperature Range	-40 to 185°F	-40 to 85°C
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Submersible Depth (LP202-2D/3D)	500 ft.	152 m

Specifications	Standard	Metric
Physical		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight (without cable)	2.9 oz	82 grams
Case Material	316L Stainless Steel	
Mounting Hole	1/4-28	
Connector (LP202-1D)	2 Pin MIL-C-5015	
Integral Cable (LP202-2D)	Polyurethane Jacketed Cable	
Armored Cable (LP202-3D)	Armor Jacketed Cable	
Mechanical		
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Supplied Accessories		
Mounting Hardware	1/4-28 Stud	M6x1 Adapter Stud
Calibration Certificate	Current Output @ 100 Hz	

Ordering Information



Stud Type	Measurement Range	Range Type	Frequency Range +/- 3dB	Style	Armor Length (Integral)	Cable Length (Integral)
M = M6x1 (blank for 1/4-28)	0 = 0-0.5 IPS (0-12.7 mm/sec) 1 = 0-1 IPS (0-25.4 mm/sec) 2 = 0-2 IPS (0-50.8 mm/sec) 3 = 0-10 mm/sec (0-0.4 IPS) 4 = 0-20 mm/sec (0-0.8 IPS) 6 = 0-5 IPS (0-127 mm/sec)	R = RMS P = Peak	1 = 600-60,000 CPM (10-1000 Hz) 2 = 180-150,000 CPM (3-2500 Hz) 3 = 180-60,000 CPM (3-1000 Hz) 4 = 180-300,000 CPM (3-5000 Hz) 5 = 180-600,000 CPM (3-10000 Hz)	1D = 2 Pin MIL C-5015 2D = Integral Cable 3D = Armor Jacket	010 = 10 ft. (3 m) 020 = 20 ft. (6 m) 030 = 30 ft. (9 m) 050 = 50 ft. (15 m) 100 = 100 ft. (30 m) <i>(Custom lengths available upon request)</i>	010 = 10 ft. (3 m) 020 = 20 ft. (6 m) 030 = 30 ft. (9 m) 050 = 50 ft. (15 m) 100 = 100 ft. (30 m) <i>(Custom lengths available upon request)</i>



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LP204 Series

Loop Power Sensor, Velocity, 4-20 mA Output, Side Exit Connector/Cable



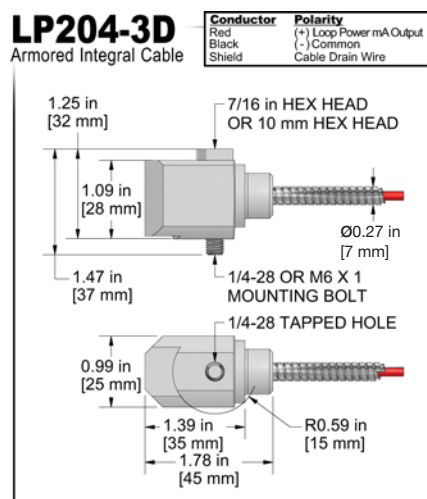
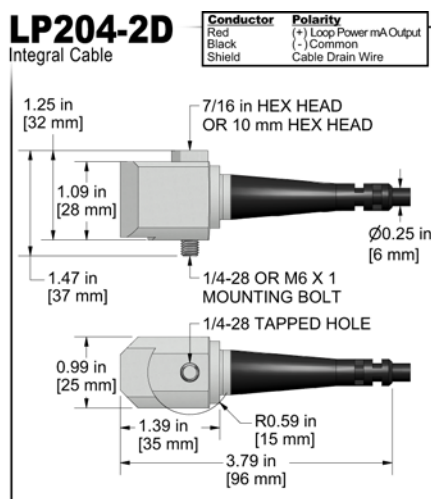
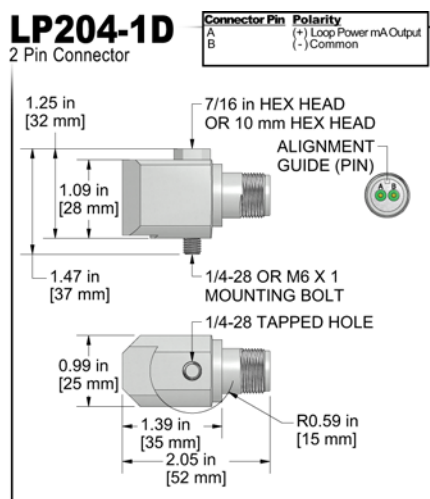
Product Features

Continuously Monitor & Protect Important Machinery

- 4-20 mA current proportional to Vibration
- Transmit Signals Over Long Distances with no Signal Loss
- Customize Your Settings to Focus on the Most Important Frequencies



Actual Product Size Shown



Specifications	Standard	Metric
Output, 4-20 mA	See Selection Guide	
Measurement Range	See Selection Guide	
Tolerances		
4 mA	± 5%	
20 mA	± 10%	
Electrical		
Settling Time (Turn on Time) @ Room Temp (68° F/20° C)	<30 Seconds	
Power Requirement (Loop Powered) Voltage Source	15-30 VDC	
Electrical Case Isolation	>10 ⁸ ohm	
Environmental		
Temperature Range	-40 to 185°F	-40 to 85°C
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Submersible Depth (LP204-2D/3D)	500 ft.	152 m

Specifications	Standard	Metric
Physical		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight (without cable)	4.9 oz	140 grams
Case Material	316L Stainless Steel	
Mounting Hole	1/4-28	
Connector (LP204-1D)	2 Pin MIL-C-5015	
Integral Cable (LP204-2D)	Polyurethane Jacketed Cable	
Armored Cable (LP204-3D)	Armor Jacketed Cable	
Mechanical		
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Supplied Accessories		
Mounting Hardware	1/4-28 Captive Bolt	M6x1 Captive Bolt
Calibration Certificate	Current Output @ 100 Hz	

Ordering Information



Stud Type	Measurement Range	Range Type	Frequency Range +/- 3dB	Style	Armor Length (Integral)	Cable Length (Integral)
M = M6x1 (blank for 1/4-28)	0 = 0-0.5 IPS (0-12.7 mm/sec) 1 = 0-1 IPS (0-25.4 mm/sec) 2 = 0-2 IPS (0-50.8 mm/sec) 3 = 0-10 mm/sec (0-0.4 IPS) 4 = 0-20 mm/sec (0-0.8 IPS) 6 = 0-5 IPS (0-127 mm/sec)	R = RMS P = Peak	1 = 600-60,000 CPM (10-1000 Hz) 2 = 180-150,000 CPM (3-2500 Hz) 3 = 180-60,000 CPM (3-1000 Hz) 4 = 180-300,000 CPM (3-5000 Hz)	1D = 2 Pin MIL C-5015 2D = Integral Cable 3D = Armor Jacket	010 = 10 ft. (3 m) 020 = 20 ft. (6 m) 030 = 30 ft. (9 m) 050 = 50 ft. (15 m) 100 = 100 ft. (30 m) <i>(Custom lengths available upon request)</i>	010 = 10 ft. (3 m) 020 = 20 ft. (6 m) 030 = 30 ft. (9 m) 050 = 50 ft. (15 m) 100 = 100 ft. (30 m) <i>(Custom lengths available upon request)</i>

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SECTION 6 - PRO LINE
Loop Power Acceleration & Velocity Sensors

LP252 Series

Low Cost, Loop Power Vibration Sensor/Transmitter, Velocity, 4-20 mA Output, Top Exit Connector/Cable



Actual Product Size Shown

Product Features

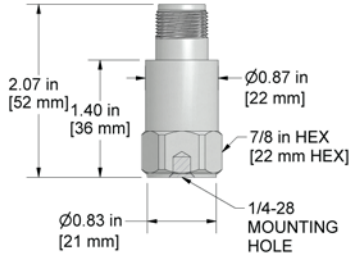
Continuously Monitor & Protect Important Machinery

- 4-20 mA current proportional to Vibration
- Transmit Signals Over Long Distances with No Signal Loss
- Customize Your Settings to Focus on the Most Important Frequencies

LP252-1D 2 Pin Connector

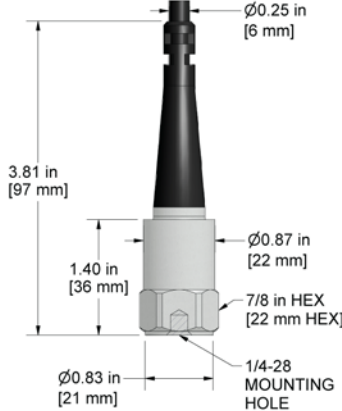
Connector Pin	Polarity
A	(+) Loop Power mA Output
B	(-) Common

ALIGNMENT GUIDE (PIN)



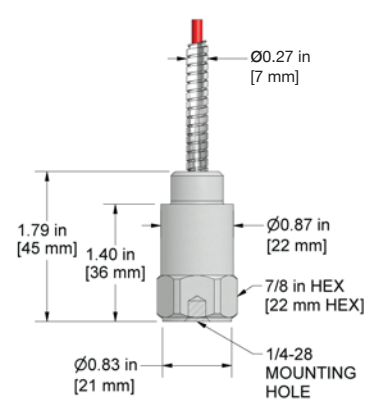
LP252-2D Integral Cable

Conductor	Polarity
Red	(+) Loop Power mA Output
Black	(-) Common
Shield	Cable Drain Wire



LP252-3D Armored Integral Cable

Conductor	Polarity
Red	(+) Loop Power mA Output
Black	(-) Common
Shield	Cable Drain Wire



Specifications	Standard	Metric
Output, 4-20 mA	See Selection Guide	
Measurement Range	See Selection Guide	
Tolerances		
4 mA	± 5%	
20 mA	± 15%	
Electrical		
Power Requirement (Loop Powered)	15-30 VDC	
Voltage Source		
Electrical Case Isolation	>10 ⁹ ohm	
Environmental		
Temperature Range	-40 to 185°F	-40 to 85°C
Electromagnetic Sensitivity	CE	
Sealing	Welded, Hermetic	
Submersible Depth (LP252-2D/3D)	500 ft.	152 m

Specifications	Standard	Metric
Physical		
Sensing Element	PZT Ceramic	
Sensing Structure	Shear Mode	
Weight (without cable)	2.9 oz	82 grams
Case Material	316L Stainless Steel	
Mounting Hole	1/4-28	
Connector (LP252-1D)	2 Pin MIL-C-5015	
Integral Cable (LP252-2D)	Polyurethane Jacketed Cable	
Armored Cable (LP252-3D)	Armor Jacketed Cable	
Mechanical		
Mounting Torque	2 to 5 ft. lbs.	2,7 to 6,8 Nm
Supplied Accessories		
Mounting Hardware	1/4-28 Stud	M6x1 Adapter Stud
Calibration Certificate	Current Output @ 100 Hz	

Ordering Information

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Cable Termination Options:

Stud Type	Measurement Range	Range Type	Frequency Range +/- 3dB	Style	Cable Length (Integral)
M = M6x1 (blank for 1/4-28)	0 = 0-0.5 IPS (0-12.7 mm/sec) 1 = 0-1 IPS (0-25.4 mm/sec) 2 = 0-2 IPS (0-50.8 mm/sec) 3 = 0-10 mm/sec (0-0.4 IPS) 4 = 0-20 mm/sec (0-0.8 IPS)	R = RMS P = Peak	1 = 600-60,000 CPM (10-1000 Hz) 2 = 180-150,000 CPM (3-2500 Hz)	1D = 2 Pin MIL C-5015 2D = Integral Cable 3D = Armor Jacket	010 = 10 ft. (3 m) 020 = 20 ft. (6 m) 030 = 30 ft. (9 m) 050 = 50 ft. (15 m) 100 = 100 ft. (30 m) (Custom lengths available upon request)

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