

# Model 8011-04/-05 Velocity Transmitter



4-20mA Loop Power  
True RMS or Peak Output  
-40°C to +85°C Operating Range  
Top Exit Connector



The **Model 8011** is an internally shielded rugged 4-20mA velocity transmitter. The transmitter is available in ranges from 0.5 to 5.0 in/sec, in either RMS or Peak velocity output options. The model 8011 features a top exit MIL-C-5015 connector and is designed to operating in temperature ranges from -40°C to +85°C. The unit is hermetically sealed and features the popular stud mount installation.

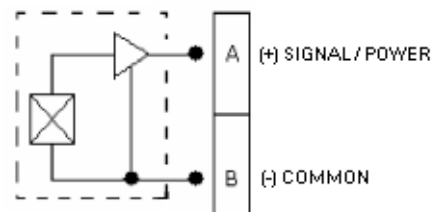
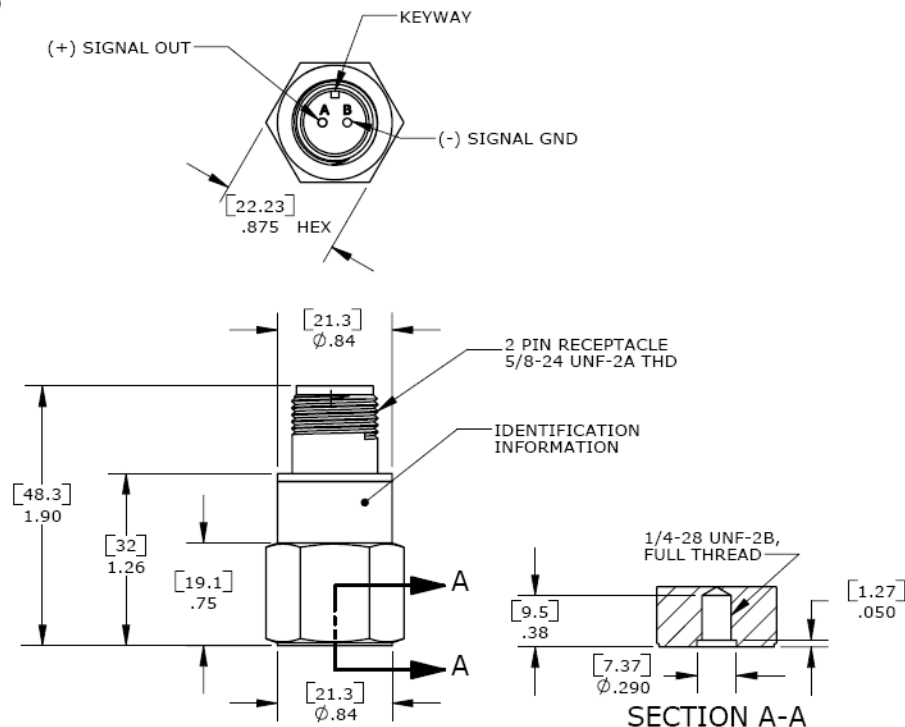
## FEATURES

- 0.5 to 5.0 in/sec Dynamic Range
- 3-1000Hz Bandwidth
- Case Isolated, Internally Shielded
- Hermetically Sealed, Welded
- Annular Shear Mode
- Reverse Wiring Protection
- Stable Temperature Response
- 2-Pin MIL-C-5015 Connector

## APPLICATIONS

- General Purpose
- Machine Monitoring
- Industrial Applications
- Harsh Environments
- Gearbox Monitoring

## dimensions



# Model 8011-04/-05 Velocity Transmitter

All values are typical at +24°C, 100Hz and 15Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice. Standard product parameters are described in PSC-1003 for Plug & Play AC Accelerometers.

**Parameters**

	0-0.5	0-1.00	0-2.00	0-3.00	0-5.00	Notes
<b>DYNAMIC</b>						
Measurement Range (in/sec)	0-0.5	0-1.00	0-2.00	0-3.00	0-5.00	
Measurement Range (mm/sec)	0-12.7	0-25.4	0-50.8	0-76.2	0-127	
Output (mA)	4-20	4-20	4-20	4-20	4-20	
Frequency Response (cpm)	180-60000	180-60000	180-60000	180-60000	180-60000	±10%
Frequency Response (Hz)	3-1000	3-1000	3-1000	3-1000	3-1000	±10%
Non-Linearity (%FSO)	±1					
Transverse Sensitivity (%)	<5					
Shock Limit (g)	5000					

**ELECTRICAL**

Excitation Voltage (Vdc)	12 to 30	
Loop Resistance (Ohms)	900 max	See Note 1
Turn on Time (sec)	<15	
Grounding	Case Isolated, Internally Shielded	

**ENVIRONMENTAL**

Operating Temperature (°C)	-40 to +85
Storage Temperature (°C)	-40 to +85

**PHYSICAL**

Sensing Element	Ceramic (shear mode)
Case Material	Stainless Steel
Weight (grams)	93
Mounting Torque	24 lb-in (2.7 N-m)

**Calibration supplied:** CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±10% Frequency Response Limit

**Supplied accessories:** AC-A03663 ¼-28 to ¼-28 mounting stud

**Optional accessories:**  
 316-XXX Cable Assembly, Straight (XXX designates length in inches, 10ft standard)  
 318-XXX Cable Assembly, 90 Degrees (XXX designates length in inches, 10ft standard)  
 AC-D03664 ¼-28 to M5 mounting stud  
 AC-D03665 ¼-28 to M6 mounting stud

**Note 1**

Maximum Loop Resistance = (Excitation Voltage – 12Vdc) / 20mA

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## ordering info

**PART NUMBERING**

8011-XX-ZZ

I I \_\_\_\_\_ Dynamic Range (05 is 0-0.5 in/sec)  
 I \_\_\_\_\_ Range Type (04 is RMS)

-XX

04 = RMS  
 05 = Peak

-ZZ

05 = 0-0.5 in/sec (0-12.7 mm/sec)  
 10 = 0-1.0 in/sec (0-25.4 mm/sec)  
 20 = 0-2.0 in/sec (0-50.8 mm/sec)  
 30 = 0-3.0 in/sec (0-76.2 mm/sec)  
 50 = 0-5.0 in/sec (0-127 mm/sec)

Example: 8011-04-10

Model 8011, RMS velocity output, 0-1.0 in/sec