



MODELS 682A09, 682A16 & 682C03

## ICP® TO CURRENT OUTPUTS TRANSMITTERS



- Converts ICP® signal to 4-20 mA current output for direct input into PLC/SCADA/DCS
- Continuous current output ideal for long-term recording & trending
- Provides 24/7 monitoring of critical machinery

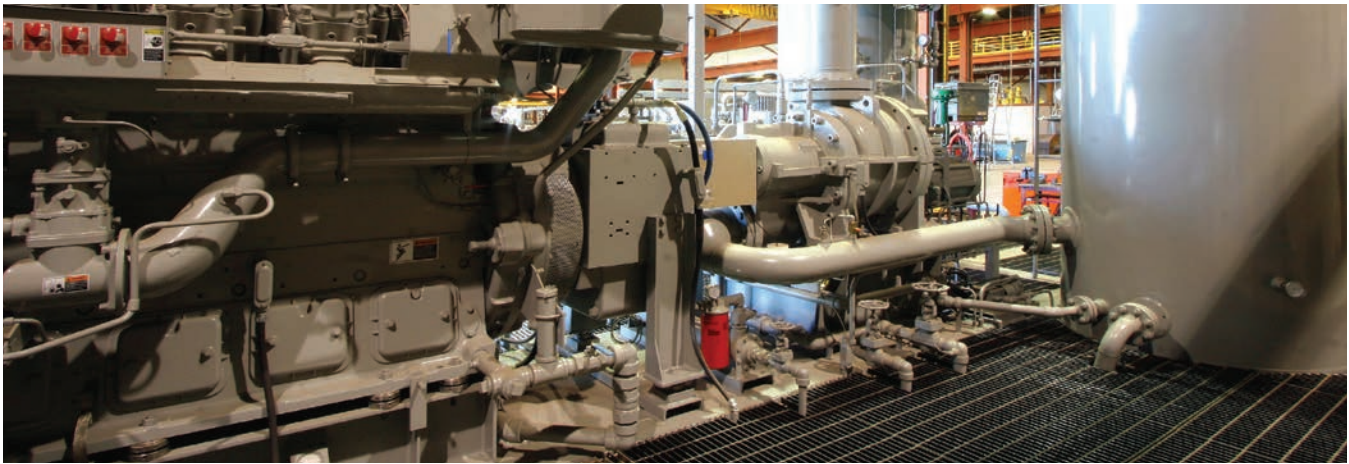
### TYPICAL APPLICATIONS

- Process Monitoring Applications:
  - Critical Pumps & Motors
  - Cooling Towers & Fans
  - Slow Speed Rollers
  - Rotary & Screw Compressors

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### INTERFACE ICP® ACCELEROMETERS TO PLC, DCS, & SCADA SYSTEMS

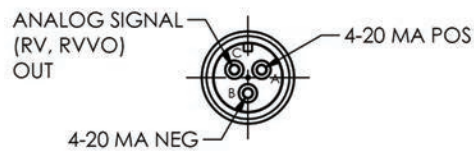
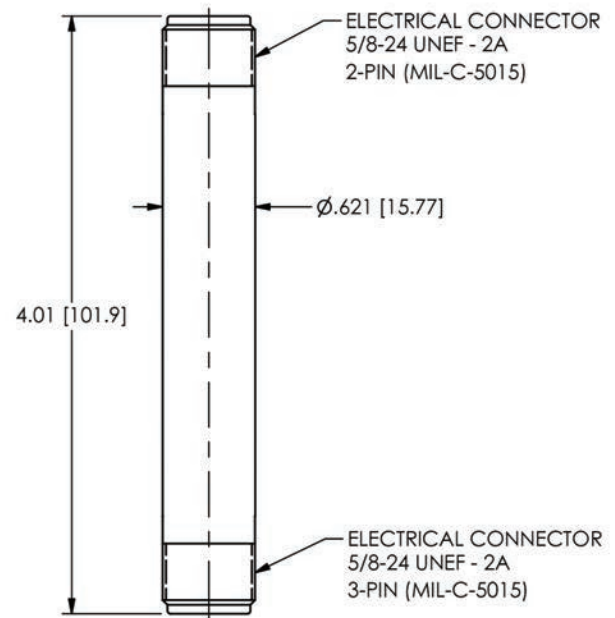
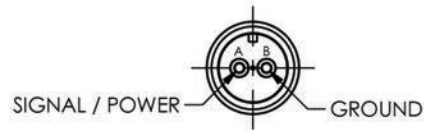
In process monitoring applications, a continuous signal is needed for recording and trending by a PLC, DCS or SCADA system. A constant 4-20 mA output signal is ideal, providing continuous, 24/7 monitoring of critical machinery. For applications with existing accelerometers, an ICP® Sensor to Current Output Transmitter (Models 682A09, 682A16, and 682C03) allows for existing an ICP® accelerometer's AC voltage signal to be converted into a current signal.

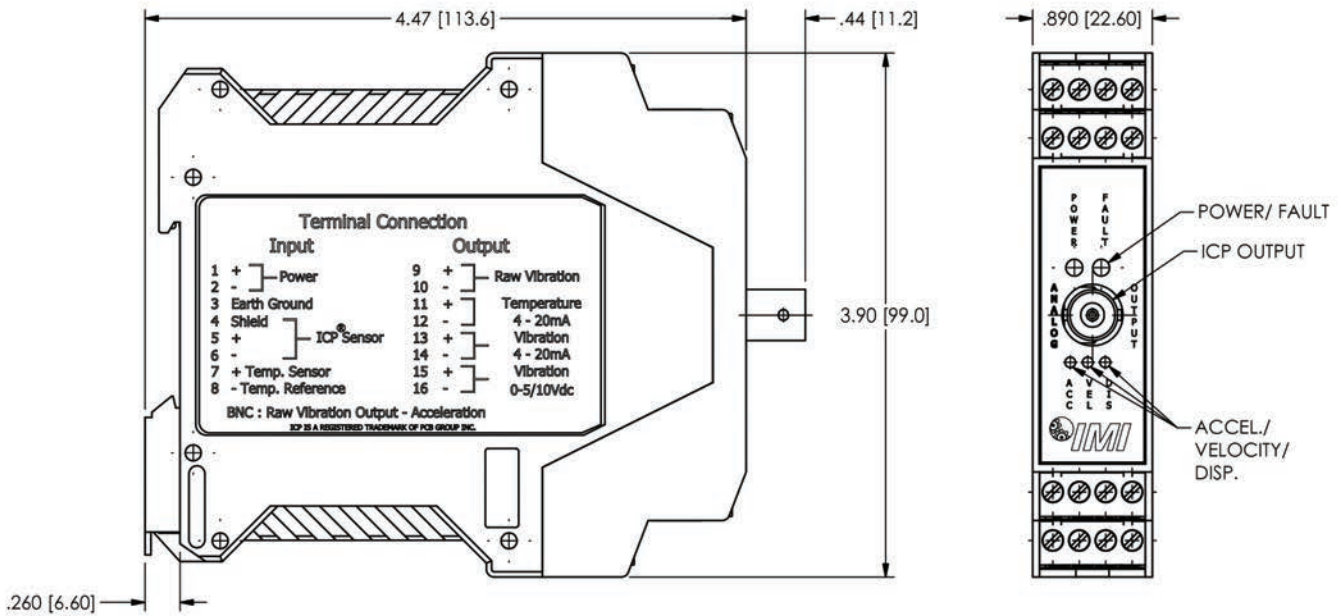


SPECIFICATIONS	
<b>Model Number</b>	<b>682A09</b>
<b>Performance</b>	
Input Signal (ICP® Accelerometer)	100 mV/g 10.2 mV/(m/s <sup>2</sup> )
Frequency Response (-3dB ±2dB )	600 to 60,000 cpm 10 to 1,000 Hz
Measurement Range	0.0 to 1.0 in/sec pk 0.0 to 25.4 mm/s pk
Output Range	4 to 20 mA
Broadband Resolution	0.01 in/sec pk 0.26 mm/s pk
<b>Environmental</b>	
Temperature Range	-40 to 185 °F -40 to 85 °C
Temperature Response (Sensitivity Deviation)	≤15 %
<b>Electrical</b>	
Excitation Voltage	20 to 30 VDC
Electrical Isolation (Case)	>100000000 Ohm
Settling Time (within 2% of value)	<60 sec
Load Resistance	50 (Vs-20) Ohm
<b>Physical</b>	
Housing Material	Stainless Steel
Electrical Connector #1	2-Pin MIL-C-5015
Electrical Connections #1 (Pin A)	VAC IN Pos
Electrical Connections #1 (Pin B)	VAC IN Neg
Electrical Connector #2	3-Pin MIL-C-5015
Electrical Connections #2 (Pin A)	4-20 mA OUT Pos
Electrical Connections #2 (Pin B)	4-20 mA OUT Neg
Electrical Connections #2 (Pin C)	VAC OUT Neg
Electrical Connections #2 (Pin C)	VAC OUT Pos
Sealing	Welded Hermetic
Size (Diameter x Height)	4.00 x 0.62 in 101.6 x 15.8 mm
Weight	2.5 oz 71 g

## VIBRATION TRANSMITTER

MODEL 682A09





## DIN RAIL MOUNT VIBRATION TRANSMITTER

MODEL 682C03

SPECIFICATIONS	
Model Number	682C03
<b>Performance</b>	
Input Signal (Vibration)	$\pm 100$ mV/g $\pm 10.2$ mV/(m/s <sup>2</sup> )
Input Signal (Temperature)	0 to 1.2 VDC
Frequency Range (-3 dB) (Acceleration)	180 to 600,000 cpm 3 to 10,000 Hz
Frequency Range (-3 dB) (Velocity)	210 to 600,000 cpm 3.5 to 10,000 Hz
Frequency Range (-3 dB) (Displacement)	210 to 60,000 cpm 3.5 to 1,000 Hz
Output Signal (DC Vibration)	4 to 20 mA
Output Signal (DC Vibration)	0 to 5 VDC
Output Signal (DC Vibration)	0 to 10 VDC
Output Signal (Temperature)	4 to 20 mA
Output Signal ( $\pm 0.01$ %) (AC Vibration)	100 mV/g 10.2 mV/(m/s <sup>2</sup> )
Output Range (DC Acceleration)	0 to 5.00 g pk or rms 0 to 49.03 m/s <sup>2</sup> pk or rms
Output Range (DC Acceleration)	0 to 10.00 g pk or rms 0 to 98.06 m/s <sup>2</sup> pk or rms
Output Range (DC Acceleration)	0 to 20.00 g pk or rms 0 to 196.12 m/s <sup>2</sup> pk or rms
Output Range (DC Velocity)	0 to 0.5 in/sec pk or rms 0 to 12.7 mm/s pk or rms
Output Range (DC Velocity)	0 to 1.00 in/sec pk or rms 0 to 25.4 mm/s pk or rms
Output Range (DC Velocity)	0 to 2.00 in/sec pk or rms 0 to 50.8 mm/s pk or rms
Output Range (DC Displacement)	0 to 10.0 mil pk - pk 0 to 0.254 mm pk - pk
Output Range (DC Displacement)	0 to 20.0 mil pk - pk 0 to 0.508 mm pk - pk
Output Range (DC Displacement)	0 to 40.0 mil pk - pk 0 to 1.02 mm pk - pk

## SPECIFICATIONS

Environmental	
Temperature Range (Operating)	-13 to 158 °F -25 to 70 °C
Humidity Range (Non-Condensing)	-40 to 257 °F -40 to 125 °C
Acceleration Sensitivity	0 to 95 %
Electrical	
Power Required	DC Power
DC Power	23 to 25 VDC
DC Power (maximum)	100 mA
Settling Time	< 2 min
Excitation Voltage (delivered to sensor)	17 to 19 VDC
Constant Current Excitation (delivered to sensor)	3 to 5 mA
Output Span ( $\pm 5.0$ %) (DC Vibration Current Output)	16 mA
Output Span ( $\pm 5.0$ %) (Temperature Output)	16 mA
Output Span ( $\pm 5.0$ %) (DC Vibration Voltage Output)	5 or 10 VDC
Physical	
Housing Material	Polyamide
Status Indicator (Power "on")	Green LED
Status Indicator (Input Fault)	Red LED
Status Indicator (Measurement Mode - Acceleration)	Green LED
Status Indicator (Measurement Mode - Velocity)	Green LED
Status Indicator (Measurement Mode - Displacement)	Green LED
Electrical Connector (input/output)	Removable Screw Terminals
Screw Terminal Wire Size	24-14 AWG
Electrical Connector (AC vibration)	BNC Jack
Din Rail Mount	1.38 in 35 mm
Size (H x W x D)	3.9 x 0.9 x 4.5 in 99.0 x 22.5 x 114.5 mm
Weight (Maximum)	6.4 oz 127.0 g

SPECIFICATIONS		
Model Number	682A16	
Performance	Imperial	Metric
Channels	1	
Current Input	0 to 20 mA	
Voltage Input	0 to +12 VDC	
Linear Resistance Input	0 to 10,000 ohm	
Potentiometer Input	10 to 100,000 ohm	
RTD Input	-328 to +1562 °F -328 to +1562 °F	-200 to +850 °C -60 to +250 °C
Thermocouple Input	-292 to +2501 °F -180 to 1372 °C	
Current Output	0 to +20 mA	
Voltage Output	0 to +10 VDC	
Relay Type	SPST Form A	
Relay Rating	VAC, 2A VDC, 1A	
Relay Contacts	Normally Open or Normally Closed	
Relay Function (Programmable)	Setpoint, Window, Sensor Error, Power ON, Power OFF	
Relay Time Delay (Programmable)	0 to 3600 sec	
<b>Environmental</b>		
Temperature Range (Operating)	-4 to +140 °F	-20 to +60 °C
Humidity Range (Non-Condensing)	<95%	
Enclosure Rating	IP20	
<b>Electrical</b>		
Power Required	21.6 to 253 VAC 19.2 to 300 VDC	
ICP® Power (for accelerometers)	23-25 VDC	
Constant Current Excitation (for accelerometers)	3-5 MA	
Wire Size	14 AWG	
<b>Physical</b>		
Mounting	DIN rail	
Size (H x W x D) (With Model 070A80)	4.3 x 0.9 x 4.1 in 109 x 23.5 x 104 mm	109 x 23.5 x 104 mm 109 x 23.5 x 116 mm
Weight	6.0 oz   170 g	
Weight (with Model 070A8)	6.5 oz   185 g	



**UNIVERSAL TRANSMITTER**  
MODEL 682A16



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