

Signal Conditioners

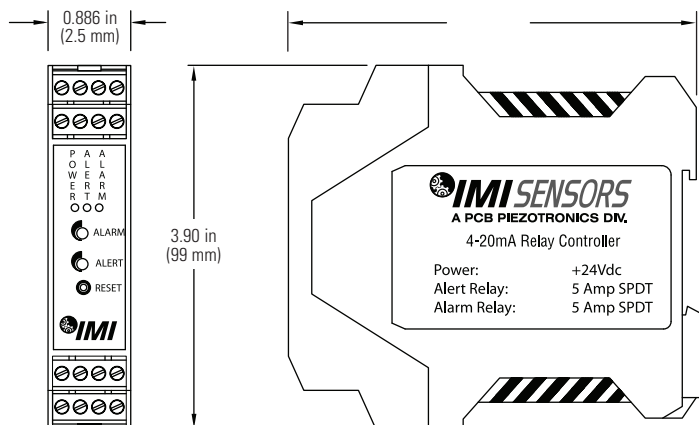
- Conveniently mounts to any standard DIN rail
- Capable of powering transmitters & ICP® sensors
- Easy to use terminal strip connection



DIN Rail Mounting Power Supply Model 682A01

- Provides 24 VDC, 1.0 amps power
- Operates from 120 to 230 VAC line power
- Powers transmitters, signal conditioners, and alarm modules

Product shown at actual size



Technical Specifications

Model Number	682A01
Performance	
MTBF	>500,000h
Efficiency	>80%
Control Interface	
Display	LED
Environment	
Temperature Range (Operating)	-13 to 158 °F -25 to 70 °C
Temperature Range (Storage)	-40 to 185 °F -40 to 85 °C
Humidity Range (Non-Condensing)	<95 %
Electrical	
Power Required	85-264 VAC / 95-350 VDC
Output Voltage	24 VDC
Output Current	1.0 amps
Input Frequency	45 to 63 Hz
Inrush Current (@ 25 deg C)	<15A
Current Consumption (230/120 VAC)	0.3/0.5A
Fuse	1.25A / 250V
Mains Buffering	>20/110ms (120/230 VAC)
Surge Voltage Protection	Varistor
10-90% Load Tolerance	+/- 3%
Turn On Delay	<0.5/1s (230/120 VAC)
Turn Off Delay	<150ms
Internal Surge Voltage Protection	35 VDC +/- 5%
Parallel Switching	Redundant Systems Only
Ripple Voltage	<100 mV pp
Maximum Power Loss	0.9/4.5W (No Load/Load)
DC OK (Active)	24V / 20mA
Fuse	1.25A/250V
Insulation Voltage	3kV
Physical	
Size - Height	3.90 in 99 mm
Size - Width	0.89 in 22.5 mm
Size - Depth	4.51 in 114.5 mm
Weight	7.4 oz 0.21 kg
Conductor Cross Section	AWG 14-24 0.2-2.5mm ²
Vibration (10Hz-150Hz)	2g 0.15mm
Shock (3 directions for 18 ms)	30g
Notes	
All specifications are at room temperature unless otherwise specified.	
[1] In the case of DC applications it is necessary to connect an adequate fuse in series	
[2] For CE reference PCB® Declaration of Conformance for details	
[3] This device is in compliance with the EMC guideline 89/336/EEC and the low voltage guideline 73/23/EEC	
[4] This device must be installed in accordance with the specifications of EN60950. It must be possible to switch off the device using a suitable disconnecting device outside the power supply. For example, primary side line protection could be used.	



Technical Specifications

Model Number	682A02
Performance	
Channels	1
Voltage Gain	1/10/100 [5]
Frequency Range (± 1 dB)	60 to 1660 cpm 1 Hz to 100 kHz
Non-linearity	$\leq 2\%$
Environmental	
Temperature Range	32 °F 0 °C
Electrical	
Power Required (Standard)	DC power
Excitation Voltage (± 1 VDC) (To Sensor)	18 VDC [4]
DC Power	24 VDC 60 mA
Constant Current Excitation (To Sensor)	4/10 mA [5]
Spectral Noise (10 Hz)	0.8 μ V/√Hz [1]
Spectral Noise (100 Hz)	0.5 μ V/√Hz [1]
Spectral Noise (1 kHz)	0.5 μ V/√Hz [1]
Spectral Noise (10 kHz)	0.6 μ V/√Hz [1]
Broadband Electrical Noise (1 to 10 kHz) (Gain x1)	50 μ V
Spectral Noise (10 Hz)	7.5 μ V/√Hz [2]
Spectral Noise (100 Hz)	3.6 μ V/√Hz [2]
Spectral Noise (1 kHz)	3.2 μ V/√Hz [2]
Spectral Noise (10 kHz)	6.0 μ V/√Hz [2]
Broadband Electrical Noise (1 to 10 kHz) (Gain x10)	400 μ V
Spectral Noise (10 Hz)	80 μ V/√Hz [3]
Spectral Noise (100 Hz)	40 μ V/√Hz [3]
Spectral Noise (1 kHz)	32 μ V/√Hz [3]
Spectral Noise (10 kHz)	50 μ V/√Hz [3]
Broadband Electrical Noise (1 to 10 kHz) (Gain x100)	3.5 mV
Fuse	1 A
Physical	
Size - Height	3.1 in 78.7 mm
Size - Width	0.97 in 24.6 mm
Size - Depth	3.3 in 83.8 mm
Weight	0.194 lb 0.088 kg
Electrical Connector (ICP® Sensor Input)	Screw Terminals
Electrical Connector (Output)	Screw Terminals
Electrical Connector (DC Power Input)	Screw Terminals
Mounting	DIN Rail
Notes	
All specifications are at room temperature unless otherwise specified	
[1] Gain x1 [2] Gain x10 [3] Gain x100	[4] If unit is used in conjunction with a sensor having a bias over 13 VDC, full scale output may be affected or sensor may not power up. [5] Jumper selectable on internal circuit board
Accessories & Cables: Pages 146 - 159	

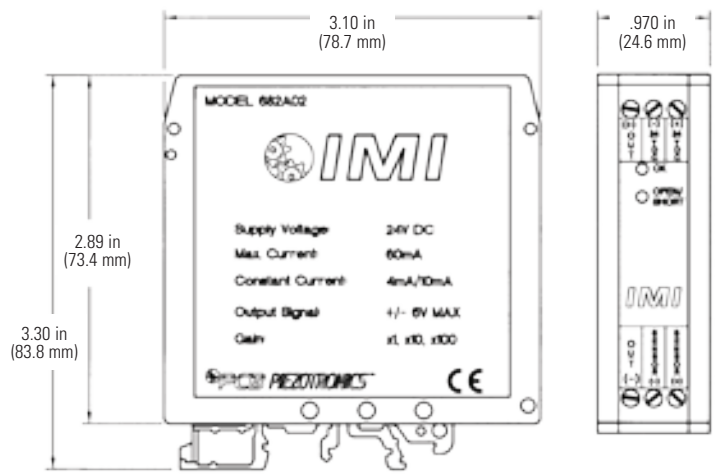


CE

ICP® Signal Conditioner Model 682A02

- Frequency range: 1 Hz to 100 kHz
- Single channel
- 24 VDC input

Product shown at actual size



Signal Conditioners

- Accepts mA, VDC, RTD, TC, Linear Resistance and Potentiometer input signals
- Delivers either current or voltage output signals
- Offers two set points with Form A relay outputs (2 Amp AC, 1 Amp DC)

Model 682A06 is a DIN rail mounted, general purpose, universal transmitter for industrial monitoring, control and alarm requirements. It accepts a variety of sensor input signals and provides excitation voltage for 2-wire loop powered sensors and transmitters. This unit is especially well-suited for industrial machinery protection and vibration monitoring applications with IMI Sensors' Series 640 loop powered 4-20 mA output vibration sensors.

Model 682A06 operated as a blind transmitter and delivers VDC, isolated mA and relay outputs; however, it may be fitted with an optional display module (Model 070A80) to view measurement data. The display module also offers pushbutton programmability of many setup parameters, including: zero, span, set point threshold, set point hysteresis and relay action time delay, as well as TC and RTD linearization. The unit also supports password protection for security purposes and memory retention of all set up parameters, to permit common setup of additional transmitters for quick deployment.

Model 682A16 (see page 143) provides ICP® power for voltage output sensors and provides all the same output technology found in the 682A06

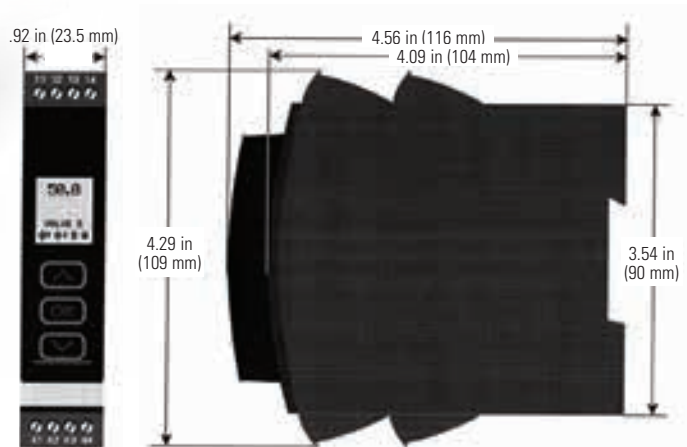


Universal Transmitter Model 682A06

- 24 VDC loop power for 4-20 mA sensors
- Offers two set points with Form A relay outputs (2 amp AC, 1 amp DC)
- Optional, removable programming / display module 070A80

Product shown at actual size

**Programming / Display Module
Model 070A80**



Model 682A06 & Model 682A16 Technical Drawing



NEW! Industry Exclusive!

Universal Transmitter Model 682A16

- Provides ICP® power for sensors
- Offers two set points with Form A relay outputs (2 amp AC, 1 amp DC)
- Optional, removable programming / display module 070A80

Product shown at actual size



Programming / Display Module Model 070A80

Technical Specifications					
Model Number	682A06	682A16	Model Number	682A06	682A16
Environmental			Physical		
Temperature Range (Operating)	-04 to 140 °F -20 to 60 °C		Size - Height	4.29 in 109 mm	
Electrical			Size - Width	0.93 in 23.5 mm	
Supply Voltage	19.2 to 300 VDC		Size - Depth	4.09 in 104 mm	
Current Consumption	≤ 2.5 W		Weight	6.00 oz 170 gm	
Excitation Voltage (delivered to sensor)	24 V Loop Power	23 to 25 VDC			
Constant Current Excitation (delivered to sensor)	N/A	3 to 5 mA			
Notes					
All specifications are at room temperature unless otherwise specified					
[1] For CE reference appropriate Declaration of Conformance for details					