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XAM

- **In-line Current Amplifier**
- **Small dimensions**
- **Cable Gland or Connector Output**

DESCRIPTION

Measurement Specialties, Inc. offers comprehensive measurement solutions including electronic signal conditioning and display units.

In conjunction with its sensors, Measurement Specialties, Inc. offers a wide range of conditioning electronics. The XAM-IC In-line amplifier provides the user with a compact module translating the output from any Wheatstone bridge transducer into a 4 to 20 mA output on 2 wires.

The zero for a 4 mA output can be adjusted by a potentiometer, externally accessible. The gain is usually factory set, but a gain set potentiometer allows individual fine tuning.

The XAM-IC requires 10 Vdc to 36 Vdc power supply and is protected against reverse polarity.

For easy installation, the standard version is supplied with a miniature connector on the sensor's side, but it can also be delivered with cable glands and 1 m cable on each side, or with a second connector.

With its rugged and compact metallic housing, the XAM-IC is suited for on-board applications.

Features

- Current Output 4...20 mA (current loop)
- Power Supply 10 to 36 V
- Suited for Wheatstone Bridge Sensors
- Zero and Gain adjustments by trimmers
- Connector and / or Sealed Cable Output

Applications

- Suited for Wheatstone Bridge Sensors
- For on board sensor installation
- Laboratory and Research

PERFORMANCE SPECIFICATIONS

All values are typical at temperature 20 ±1°C

General Characteristics

Dimensions	Diameter 15mm [.59 in]
Material	Aluminum Alloy
Connections	Miniature connector and cable gland
Weight w/o cable	< 30 g [.066 lb]
Operating Temperature	-10° C to 70° C [14 to 158° F]
Storage Temperature	-20° C to 80° C [-4 to 176° F]
Wiring	Shielded cable to power supply (version CP) or sensor (version PC)
	Standard length 2 m (6.5 ft)

Electrical characteristics

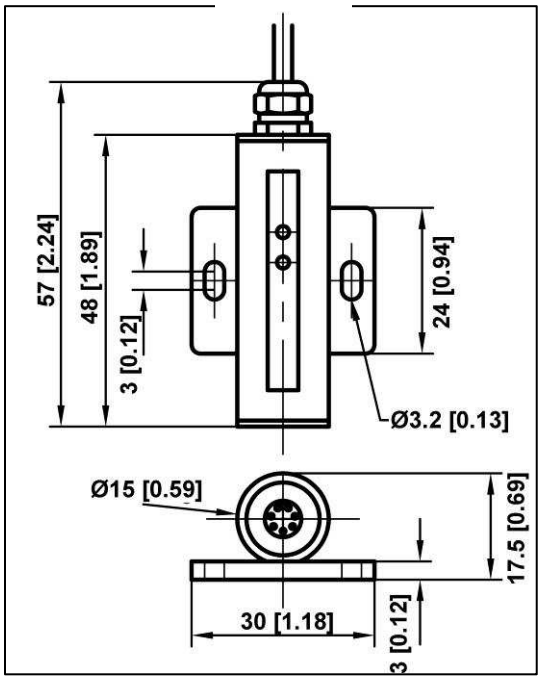
Power Required (Vin)	10 to 36 Vdc
Output Signal	4 to 20 mA (2 wires)
Sensor Supply Voltage	2.5 Vdc ± 5 %
Sensor output	4 to 400 mV F.S.
Output Drift	0.035 % F.S./° C typical
Input Impedance	1 GΩ
Output Current	25 mA max
Current Consumption	25 mA max
Common Mode Ratio Rejection	>95 dB min
Input Protection	Reverse Polarity Protected and Surge Suppressor

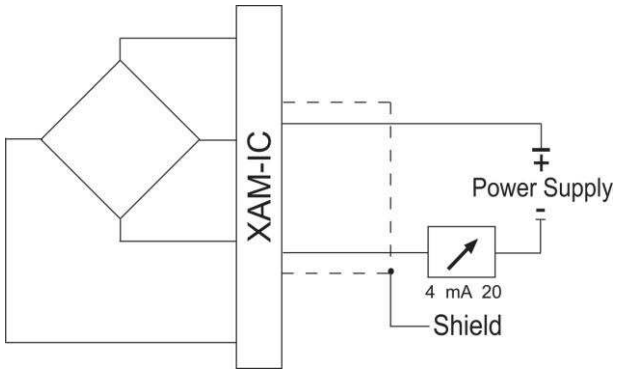
Amplifier Performance

Gain G	0.4 mA/mV to 4 mA/mV
Gain Adjust Potentiometer	± 10 %
Frequency Response (-3dB)	400 to 4000 Hz

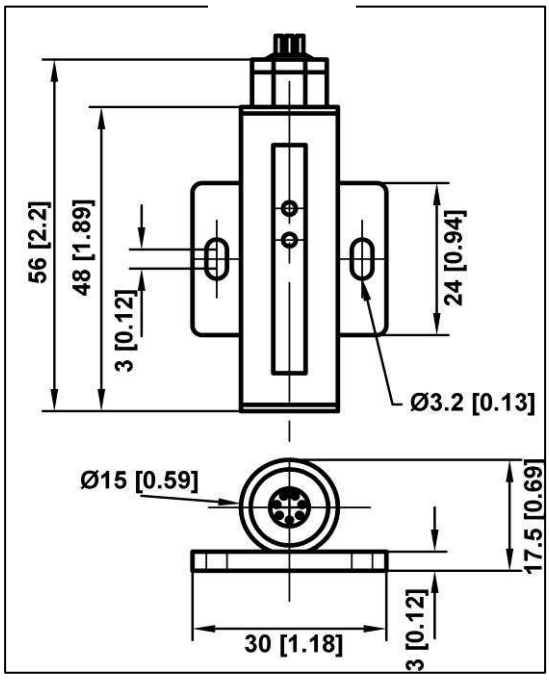
DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)

XAM-CP

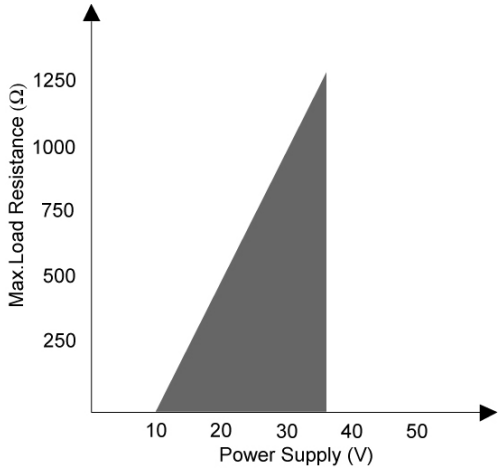




XAM-CC



Operating Zone



Note:

Cable and interconnection resistances must be added to the load resistance

Ordering Information

Part Number

XAM - IC- / CP / LxxM

Model

XAM	In-line Current Amplifier

Signal (in mA)

IC	Current Amplifier

Other Options

LxxM	Special cable length, replace “xx” with total length in meters

Wiring (To sensor / To excitation)

CP	Connector (to sensor) /Cable gland (to power supply)
CC	Connector / Connector
PP	Cable gland / Cable gland
PC	Cable gland (to sensor) / Connector (to power supply)

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