

0-5VDC to 4-20mA Signal Converter

+5V Reference

P/N: AX030220

Features

- 0 to 5 V_{DC} input
- 4 to 20 mA output
- +5 V reference
- 2x M12 connectors
- IP67 -rated enclosure



Applications

- Marine engines
- Agricultural equipment
- Off-highway machines

Ordering Part Numbers

0-5V to 4-20mA Signal Converter, +5V Reference – P/N: **AX030220**

Block Diagram

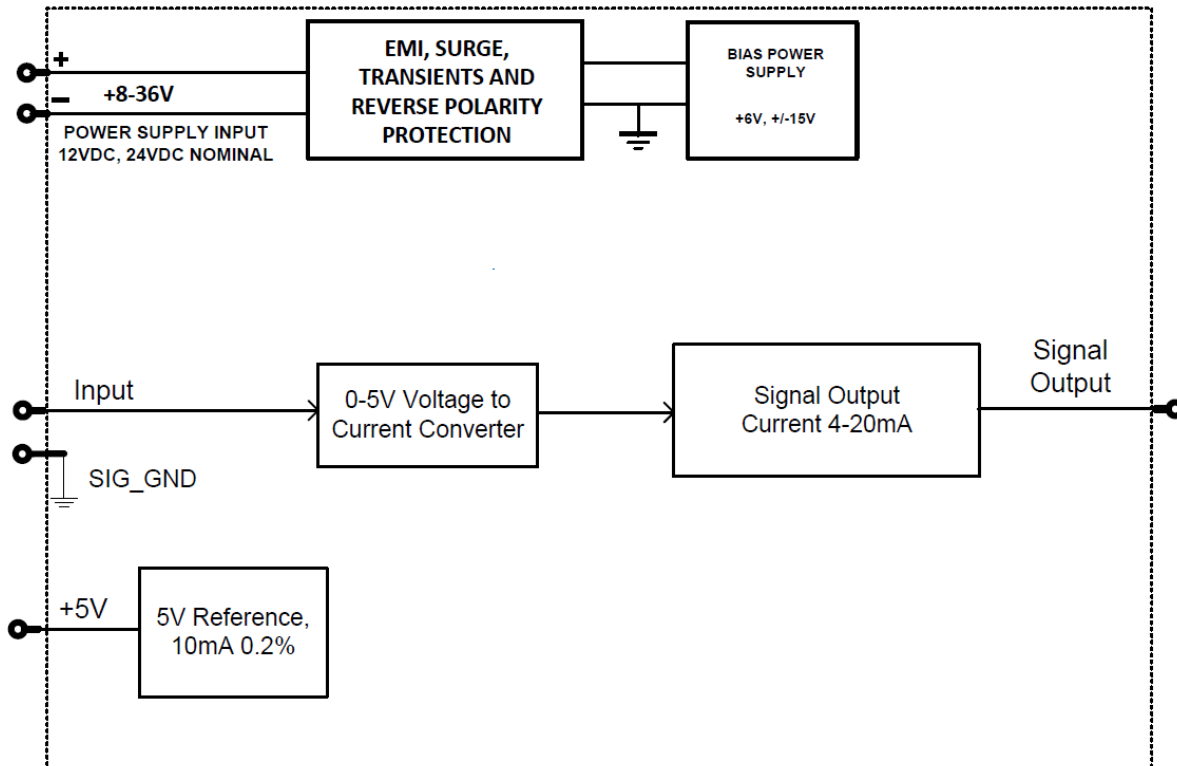


Figure 1.0 – Block Diagram

Technical Specifications

Specifications are indicative and subject to change. Actual performance will vary depending on the application and operating conditions. Users should satisfy themselves that the product is suitable for use in the intended application. All our products carry a limited warranty against defects in material and workmanship. Please refer to our Warranty, Application Limitations & Return Materials Process as described on <https://www.axiomatic.com/service/>.

All specifications are typical at nominal input voltage and 25°C.

Power Input

Power Input	12 or 24 V _{DC} nominal 8 to 36 V _{DC} range
Quiescent Current	15 mA @ 12 V _{DC} ; 9 mA @ 24 V _{DC} (typical)
Reverse Polarity Protection	Provided from 6 to 60 V
Surge and Transient Protection	Provided
Undervoltage Protection	Hardware shuts down at 6.19 V, recovers at 6.28 V
Overvoltage Protection	Hardware shuts down at 42.89 V, recovers at 42.75 V

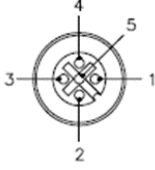
Input

Signal Input	One voltage input Range: 0 to 5 VDC Bandwidth: 0 to 5 kHz
Protection	Protected against short to Ground or +Vps

Output

Signal Output	1x current output Range: 4 to 20 mA Accuracy: ±0.5 % error
Output Protection	Protected against short to Ground or +Vps
Voltage Reference	1x +5 V reference Accuracy: ±0.2 % error 10 mA
Voltage Reference Protection	Protected against short to Ground or +Vsupply

General Specifications

LED	1x green LED																														
Compliance	RoHS																														
Protection	IP67																														
Operating Temperature	-40 to 85 °C (-40 to 185 °F)																														
Storage Temperature	-50 to 85 °C (-58 to 185 °F)																														
Humidity	0 to 99 % relative humidity (non-condensing)																														
Weight	0.170 lb. (0.077 kg)																														
Enclosure and Dimensions	Nylon 6/6, 30 % glass fill Ultrasonically welded UL 94 V-0 See Figure 2.0.																														
Electrical Connections	2x 5-pin M12 sockets (A-coded), Phoenix Contact P/N: 1441891																														
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Dimensional Drawing

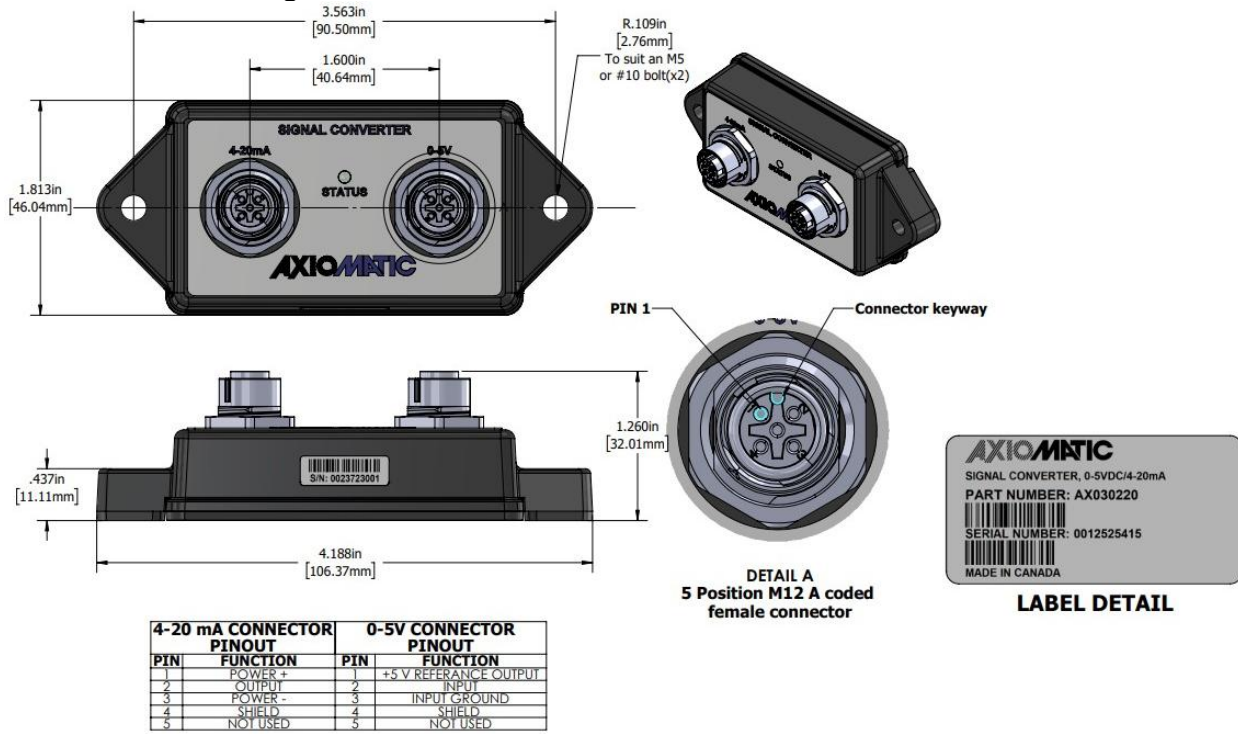


Figure 2.0 - Dimensional Drawing

Form: TDAX030220-05/26/2026