Converts a Magnetic speed sensor signal into SAE J1939 CAN Messages for communication with control systems

Features:

- 1 Magnetic Pick-up type input for interface with a sensor
- 1 CAN port (SAE J1939) with auto-baud-rate-detect
- Operational 8…60 Vdc (12 Vdc, 24 Vdc or 48 Vdc)
- Integrated 6-pin connector (TE Deutsch equivalent)
- Compact, fully sealed enclosure, IP67
- Meets the surge requirements of DIN EN 13309
- CE/UKCA marking
- Configurable with the Axiomatic Electronic Assistant

Applications:

- Power Generator Set control systems
- Machine engine control systems

Ordering Part Numbers:

Magnetic Pick-up / CAN Converter, SAE J1939, 250 kbps baud rate - P/N: **AX031500**
For other baud rates such as 500 kbps or 1 Mbps, contact Axiomatic for availability.

Accessories:
Configuration Tool: Axiomatic Electronic Assistant KIT, P/Ns: **AX070502,** or **AX070506K**
Mating Plug KIT: **AX070119**

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 Approvals/Limitations and Return Materials Process as described on https://www.axiomatic.com/service/.

Power

Power Supply Input - Nominal	12 V, 24 V or 48 Vdc nominal; 8…60 Vdc The minimum allowable supply voltage for the power pin is 7 Vdc.
Surge Protection	Meets the surge requirements of DIN EN13309
Reverse Polarity Protection	Provided

Input

Input	1 Magnetic Pick-up type input Frequency Range: 0.5 Hz to 20 kHz Amplitude: 100 mVAC to 100VAC (RMS)

General Specifications

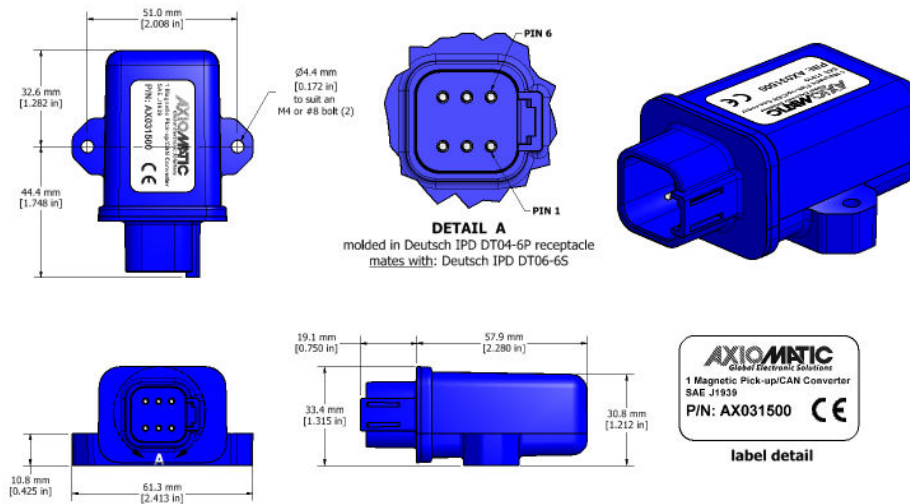|	
Microcontroller	STM32F103CBT7, 32-bit, 128 Kbytes Flash Program Memory
CAN Port	Model AX031500 - 1 CAN (SAE J1939), 250 kbit/s baud rate For 500kbit/s, 667kbit/s, 1Mbit/s (Automatic Baud Rate Detection) model, contact Axiomatic for availability. Model AX031501 (CANopen®)
Control Logic	The Converter comes pre-programmed with standard logic. Configurable CAN messages via the Axiomatic Electronic Assistant
Sampling Time	The input is tied to a 16-bit timer.
Quiescent Current Draw	9.1 mA @ 24Vdc; 16 mA @ 12Vdc Typical
Operating Temperature	-40 to 85°C (-40 to 185°F)
Storage Temperature	-50 to 125°C (-58 to 257°F)
Weight	0.10 lb. (0.045 kg)
Protection Rating	IP67
EMC Compliance	CE/UKCA marking
Vibration	MIL-STD-202G, Test 204D and 214A (Sine and Random) 10 g peak (Sine); 7.86 Grms peak (Random)
Shock	MIL-STD-202G, Test 213B, 50 g
Enclosure and Dimensions	Plastic Enclosure, Nylon 6-6 with 30% glass fill, Integral, TE-Deutsch-equivalent connector Flammability Rating: UL 94V-0 Refer to Figure 1.0 - dimensional drawing.
Electrical Connections	6-pin connector (equivalent TE Deutsch P/N: DT04-6P) A mating plug kit is available as Axiomatic P/N: **AX070119**. <table><tr><td colspan="2">CAN and I/O Connector</td></tr><tr><td>Pin #</td><td>Description</td></tr><tr><td>1</td><td>BATT+</td></tr><tr><td>2</td><td>AC Input</td></tr><tr><td>3</td><td>CAN_H</td></tr><tr><td>4</td><td>CAN_L</td></tr><tr><td>5</td><td>AC Input (or Ground)</td></tr><tr><td>6</td><td>BATT-</td></tr></table>
User Interface and S/W Reflashing	Axiomatic Electronic Assistant KIT, P/N: **AX070502,** or **AX070506K**

Figure 1.0 – Dimensional Drawing

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Form: TDAX031500-01/22/24