

Features:

- 1 Voltage, Current or PWM Signal input (user selectable input range from: 0-5V; 0-10V; 0-20mA; 4-20mA; 0.5Hz – 50 Hz; 10Hz – 1 kHz; or 100Hz – 10 kHz)
- 1 CAN port (SAE J1939)
- Operational 9...36 Vdc (12 Vdc or 24 Vdc)
- Integrated Deutsch IPD 6-pin connector
- Compact, fully sealed enclosure, IP67
- Meets the environmental and electrical requirements of SAE J1445 and SAE J1113-11
- CE/UKCA marking
- Configure with Axiomatic Electronic Assistant



Applications:

- Machine Control Systems

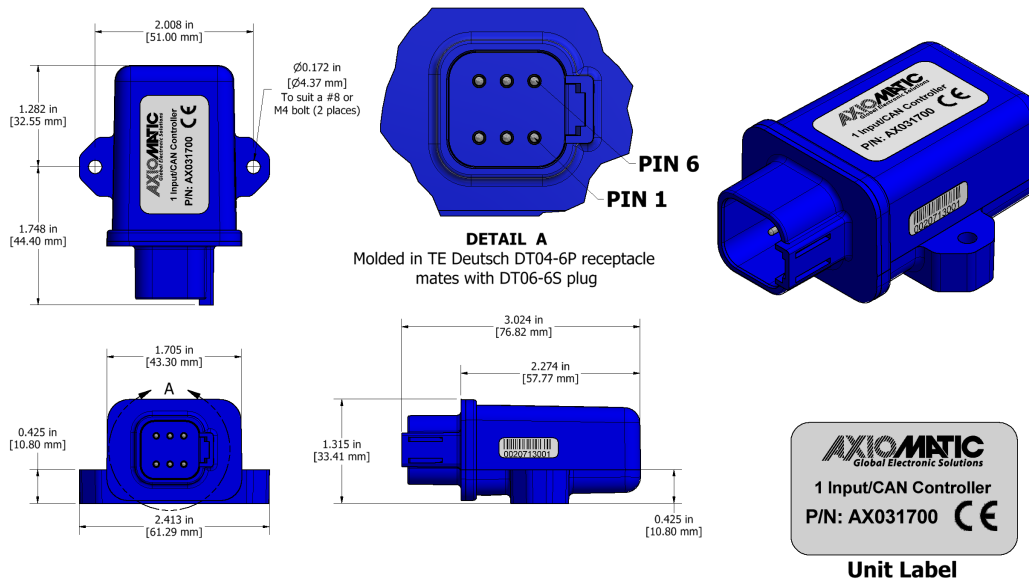
Ordering Part Numbers:

1 Signal Input, CAN Converter, 1 SAE J1939, Auto-baud-rate-detect P/N: **AX031700**
1 Signal Input, CAN Converter, 1 CANopen® P/N: **AX031701**

Configuration Tool: Axiomatic Electronic Assistant KIT, P/N: **AX070502, AX070505K, or AX070506K**

Accessories: Mating Plugs Kit P/N: **AX070119**

Figure 1.0 – Dimensional Drawing



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 or 24 Vdc nominal; 9...36 Vdc The minimum allowable supply voltage for the power pin is 7 Vdc.
Surge Protection and Load Dump	Meets the requirements of SAE J1113-11 for 24Vdc nominal input
Reverse Polarity Protection	Provided

Input

Input Signal	One Voltage, Current or PWM Signal Input Refer to Table 1.0.
Table 1.0 – Input – User Selectable Options	
Analog Input Functions	Voltage Input
Voltage Input	0-5V (Impedance 204 KOhm); 0-10V (Impedance 136 KOhm)
Current Input	0-20 mA; 4-20 mA
Digital Input Functions	PWM Input
Digital Input Level	+Vps
PWM Input	0 to 100% 0.5 Hz – 50 Hz 10 Hz to 1kHz 100 Hz to 10 kHz
Input Impedance	1 MOhm high impedance, 10KOhm pull down, 10KOhm pull up to +5V
Input Accuracy	≤ 1%
Input Resolution	12-bit
Analog Ground	One provided

Control Logic

Software Platform	The Signal Converter comes pre-programmed with standard logic.
User Interface, Reflashing	Axiomatic Electronic Assistant KIT, P/Ns: AX070502 , AX070505K , or AX070506K

General Specifications

Microcontroller	STM32F103CBT7, 32-bit, 128 Kbytes Flash Program Memory
CAN Port	1 SAE J1939 250kbit/s, 500kbit/s, 667kbit/s, 1Mbit/s. Automatic Baud Rate Detection
Quiescent Current Draw	14 mA @ 24Vdc Typical; 30 mA @ 12Vdc Typical
Response Time	10 mSec. 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; Flammability Rating: UL 94V-0 Integral connector (TE Deutsch equivalent). Refer to Figure 1.0 - dimensional drawing for dimensions.
Electrical Connections	6-pin connector (equivalent TE Deutsch P/N: DT04-6P) A mating plug kit is available as Axiomatic P/N: AX070119 .

Pin #	Description
1	BATT+
2	Input +
3	CAN_H
4	CAN_L
5	Input -
6	BATT-

Specifications are typical at nominal input voltage and 25 degrees C unless otherwise specified.

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Form: TDAX031700-05/31/23