

## TECHNICAL DATASHEET #TDAX140600 LIN-CAN Protocol Converter

P/N: AX140600

### Features:

- Data exchange between a LIN network and a CAN network (SAE J1939)
- 1 CAN port (SAE J1939)
- 1 LIN single pin port (LIN 2.2)
- Operational from 9 to 32 Vdc (12 Vdc or 24 Vdc nominal)
- Integrated Deutsch IPD 6-pin connector
- Fully sealed enclosure with a rugged IP67 protection rating
- Meets the surge requirements of SAE J1445
- Designed for EMC compliance
- Compact size
- User configurable using Axiomatic Electronic Assistant®

### Applications:

- Mobile (Off-Highway) Equipment
- Agricultural Equipment



# **Ordering Part Numbers:**

Protocol Converter, 1 LIN, 1 SAE J1939, 250 kbps baud rate - P/N: **AX140600** Protocol Converter, 1 LIN, 1 SAE J1939, 500 kbps baud rate - P/N: **AX140600-01** 

Protocol Converter, 1 LIN, 1 SAE J1939, Extended - P/N: AX140600-03

Configuration Tool: Electronic Assistant® P/N: AX070502

Accessories:

Mating Plug KIT: AX070119

### **BLOCK DIAGRAM**

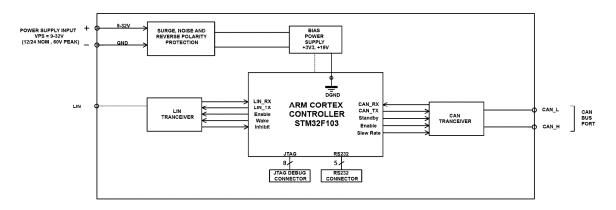
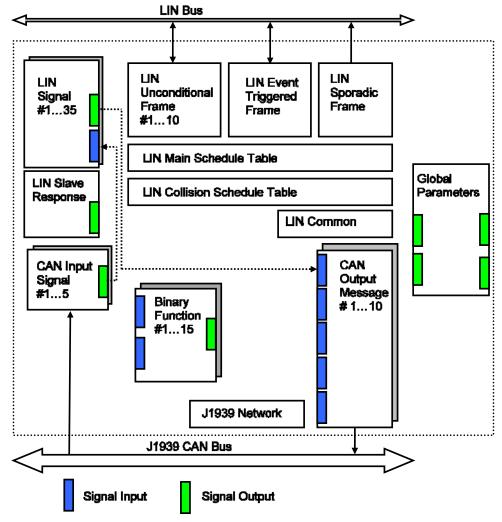


Figure 1.0 - Block Diagram

## **CONTROL LOGIC**



The actual connections between signal inputs and outputs are defined by the configuration parameters.

Figure 2.0 – Control Logic

Each function block is absolutely independent and has its own set of configuration parameters, aka setpoints. The configuration parameters can be viewed and changed through CAN bus using Axiomatic Electronic Assistant® (EA) software.

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**Technical Specifications:**Typical at nominal input voltage and 25 degrees C unless otherwise specified

## **Power**

Power Supply Input - Nominal	12 V or 24 Vdc nominal; 932 Vdc
Surge Protection	Meets the surge requirements of SAE J1445
Reverse Polarity Protection	Provided

# **Control Software**

	Configurable with Electronic Assistant® <b>AX070502</b> Refer to the User Manual and Figure 2.0.
Control Logic	The model AX140600-03 provides extended LIN unconditional frames. It can handle the following:

# **General Specifications**

General Specifications	<del></del>
Memory	STM32F205 32-bit, 512 Kbytes Flash Program Memory
LIN Port	1 LIN (LIN 2.2)
CAN Port	1 CAN (SAE J1939, 250 kBit/s) Models: AX140600 – 250 kbit/s baud rate AX140600-01 – 500 kbit/s baud rate
Power Supply Current	40 mA@ 12Vdc
Operating Conditions	-40 to 85°C (-40 to 185°F)
Weight	0.15 lb. (0.068 kg)
Protection Rating	IP67
Vibration	Random Vibration: 7.68 Grms peak Sinusoidal Component: 10 g peak Based on MIL-STD-202G, Methods 204G and 214A
Shock	50 g half sine pulse, 9ms per axis Based on MIL-STD-202G, Method 213B, Test Condition A
Packaging and Dimensions	Plastic Enclosure, Nylon 6-6 with 30% glass fill Integral Deutsch IPD connector Refer to dimensional drawing (Figure 3.0).
Electrical Connections	6 pin Deutsch IPD connector P/N: DT04-6P A mating plug kit is available as Axiomatic P/N: AX070119.  CAN and I/O Connector Pin # Description 1 CAN_SH 2 CAN_L 3 CAN_H 4 LIN 5 BATT+ 6 BATT-
Software Reflashing	Electronic Assistant® AX070502
User Interface	For SAE J1939 models, parameters are configurable using the Electronic Assistant®.  Axiomatic Electronic Assistant® P/N: AX070502  The Electronic Assistant® for Windows operating systems comes with a royalty-free license for use on multiple computers. It requires an Axiomatic USB-CAN converter to link the device's CAN port to a Windows-based PC.

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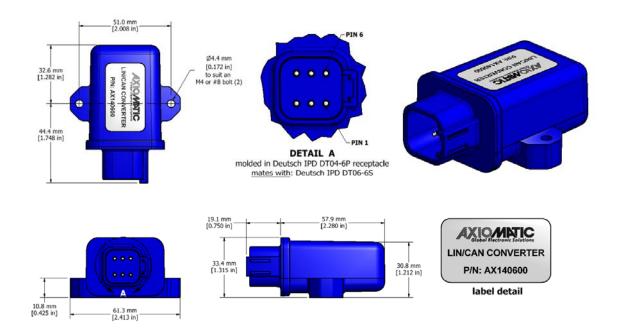


Figure 3.0 – Dimensional Drawing for all models

### Notes:

Electronic Assistant® is a registered US trademark of Axiomatic Technologies Corporation.

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 www.axiomatic.com/service.html.

Form: TDAX140600-04/28/17

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