

Features:

- Data exchange between a LIN network and a CAN network (SAE J1939)
- 1 CAN port (SAE J1939) (CANopen® model is available.)
- 1 LIN single pin port (LIN 2.2)
- Operational from 9 to 32 Vdc (12 Vdc or 24 Vdc nominal)
- Integrated 6-pin connector (equivalent to a TE Deutsch P/N)
- 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 the 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, Extended Functionality, Auto-Baud-Rate-Detection- P/N: **AX140600-03**
 Protocol Converter, 1 LIN, 1 CANopen® – P/N: **AX140603**

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

Accessories:

Mating Plug KIT: **AX070119**

BLOCK DIAGRAM

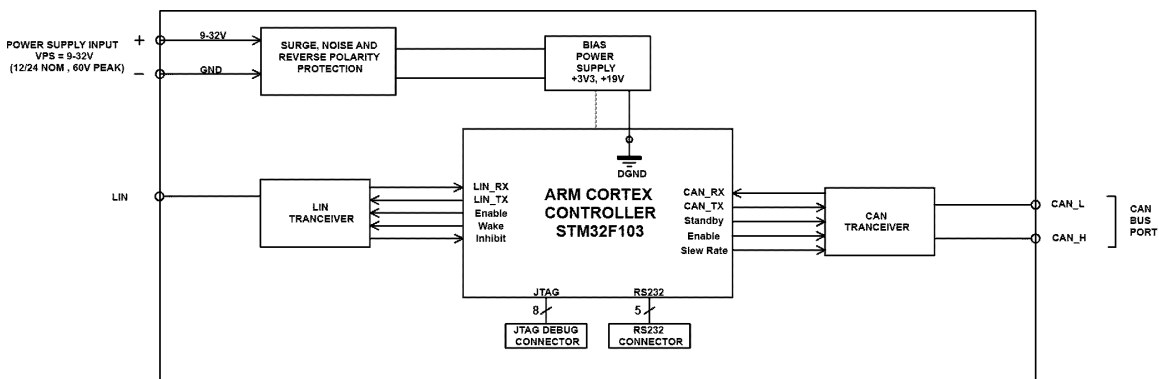
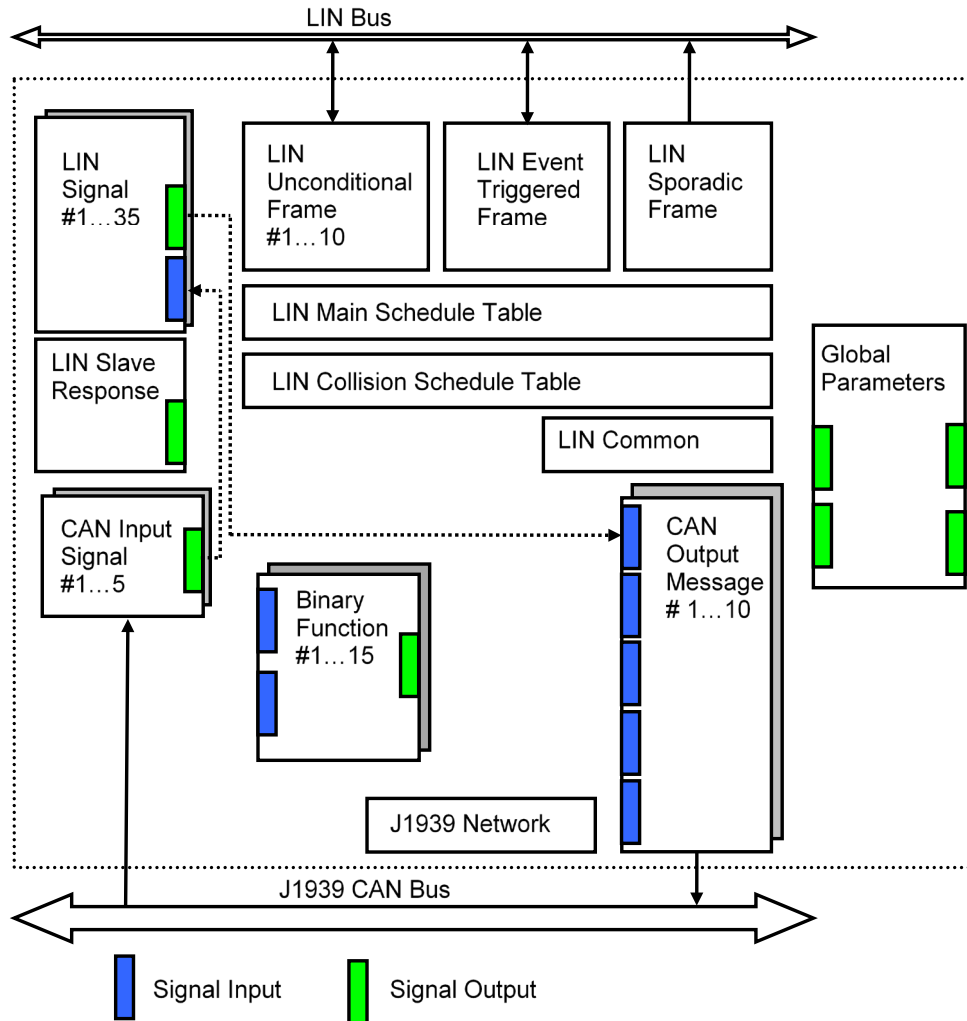


Figure 1.0 – Block Diagram

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.

Technical Specifications:

Power

| | |
|------------------------------|---|
| Power Supply Input - Nominal | 12 V or 24 Vdc nominal; 9...32 Vdc |
| Surge Protection | Meets the surge requirements of SAE J1445 |
| Reverse Polarity Protection | Provided |

Control Software

| | |
|---------------|--|
| Control Logic | <p>Configurable with the Axiomatic Electronic Assistant KIT, P/Ns: AX070502 or AX070506K Refer to the User Manual and Figure 2.0.</p> <p>The model AX140600-03 provides extended LIN unconditional frames. It can handle the following:</p> <ul style="list-style-type: none"> • 25 CAN input signals • 25 CAN output signals • 75 LIN signals • 25 LIN unconditional Frames |
|---------------|--|

General Specifications

| Memory | STM32F205 32-bit, 512 Kbytes Flash Program Memory | | | | | | | | | | | | | | | | |
|--------------------------|--|-----------------------|--|-------|-------------|---|--------|---|-------|---|-------|---|-----|---|-------|---|-------|
| LIN Port | 1 LIN (LIN 2.2) | | | | | | | | | | | | | | | | |
| CAN Port | <p>1 CAN (SAE J1939) Models: AX140600 – 250 kbit/s baud rate AX140600-01 – 500 kbit/s baud rate (Discontinued – replaced by the -03 model)</p> <p>AX140600-03 SAE J1939 with auto-baud-rate-detection This SAE J1939 model has auto baud rate detection and supports the following baud rates. 250 kbit/s, 500 kbit/s, 667kbit/s, 1 Mbit/s</p> <p>AX140603: CANopen®</p> | | | | | | | | | | | | | | | | |
| Power Supply Current | 32mA @ 24Vdc, 40mA @ 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 | | | | | | | | | | | | | | | | |
| Enclosure and Dimensions | Plastic Enclosure, Nylon 6-6 with 30% glass fill Integral TE Deutsch type connector Refer to dimensional drawing (Figure 3.0). | | | | | | | | | | | | | | | | |
| Electrical Connections | <p>6-pin connector (equivalent TE Deutsch P/N: DT04-6P) A mating plug kit is available as Axiomatic P/N: AX070119.</p> <table border="1" data-bbox="597 1493 1024 1709"> <thead> <tr> <th colspan="2">CAN and I/O Connector</th> </tr> <tr> <th>Pin #</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CAN_SH</td> </tr> <tr> <td>2</td> <td>CAN_L</td> </tr> <tr> <td>3</td> <td>CAN_H</td> </tr> <tr> <td>4</td> <td>LIN</td> </tr> <tr> <td>5</td> <td>BATT+</td> </tr> <tr> <td>6</td> <td>BATT-</td> </tr> </tbody> </table> | CAN and I/O Connector | | Pin # | Description | 1 | CAN_SH | 2 | CAN_L | 3 | CAN_H | 4 | LIN | 5 | BATT+ | 6 | BATT- |
| CAN and I/O Connector | | | | | | | | | | | | | | | | | |
| Pin # | Description | | | | | | | | | | | | | | | | |
| 1 | CAN_SH | | | | | | | | | | | | | | | | |
| 2 | CAN_L | | | | | | | | | | | | | | | | |
| 3 | CAN_H | | | | | | | | | | | | | | | | |
| 4 | LIN | | | | | | | | | | | | | | | | |
| 5 | BATT+ | | | | | | | | | | | | | | | | |
| 6 | BATT- | | | | | | | | | | | | | | | | |
| Software Reflashing | The Axiomatic Electronic Assistant, P/Ns: AX070502 or AX070506K | | | | | | | | | | | | | | | | |
| User Interface | <p>For SAE J1939 models, parameters are configurable using the Axiomatic Electronic Assistant. Axiomatic Electronic Assistant P/Ns: AX070502 or AX070506K. The Axiomatic Electronic Assistant for <i>Windows</i> 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 <i>Windows</i>-based PC.</p> | | | | | | | | | | | | | | | | |

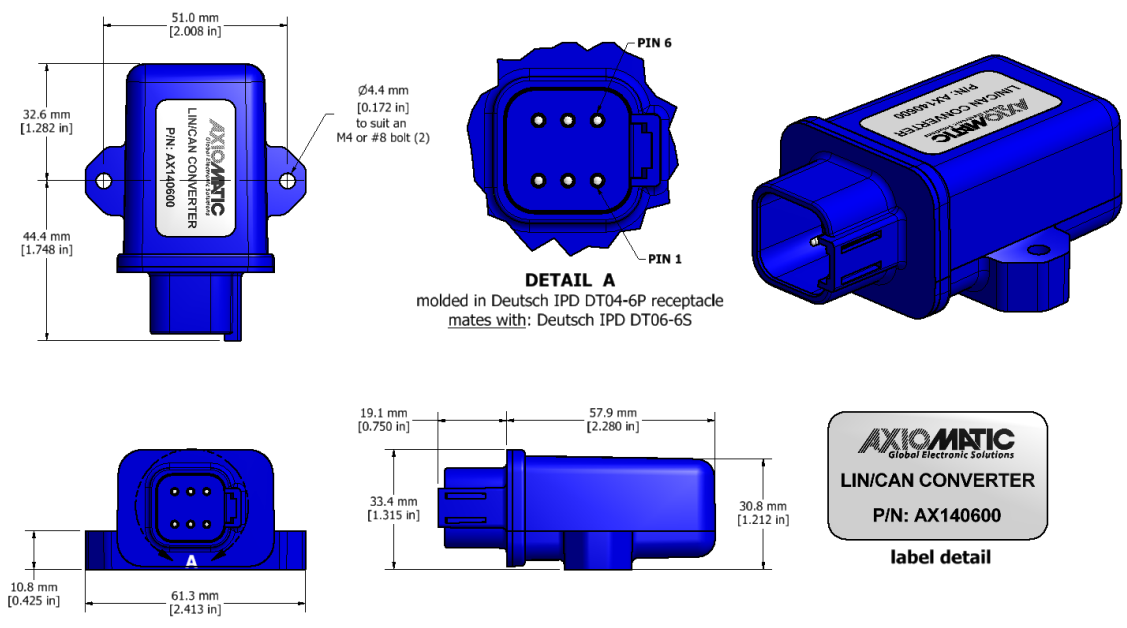


Figure 3.0 – Dimensional Drawing for all models

Note: Technical specifications are typical at nominal input voltage and 25 degrees C unless otherwise specified.

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/>.

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