

# Concept TECHNICAL DATASHEET #TDAX143030 FIBER OPTIC TO CAN MODULE CAN (SAE J1939) P/N: AX143030

# Features:

- Can be used as a converter or a bridge
- SAE J1939 CAN port with 250kbit/s baud rate
- 24 Vdc nominal
- Operates from -40 to 85°C (-40 to 185°F)
- Two LED indicators
- IP20
- DIN rail mount
- Configurable via RS-232

# **Applications:**

Power gensets and engine control systems

# **Ordering Part Numbers:**

Fiber Optic to CAN Module: AX143030

# **Block Diagram:**





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**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 <a href="https://www.axiomatic.com/service/">https://www.axiomatic.com/service/</a>.

### **Power Supply**

Power Supply Input	12 Vdc or 24 Vdc nominal 8 to 36 Vdc power supply range Shutdown voltage is 8.0 Vdc
Protection	Reverse polarity protection Overvoltage protection up to 38 V

# Inputs

inputo	
Fiber Optics	820nm wavelength, 62.5/125 μm Fiber Size, ST connector

#### **General Specifications**

Microprocessor	STM22E412CCLIG 1MPuto Electr 220K DAM			
Nicroprocessor	STM32F4T3CG06, TMByte Flash, 320K RAM			
Isolation	300 Vrms			
<b>T i i o i o i o i</b>	2-way isolation for fiber optic and CAN			
Typical Quiescent Current	18.83 mA @ 24Vdc typical			
	35.0 mA @ 12Vdc typical			
LED Indicators	2 LEDs for Fiber Optic status			
	Green = Connected, Red = Disconnected/not working			
CAN Communications	1 Isolated CAN port (SAE J1939)			
Baud Rate	250kbit/s			
Control Logic	The FO to CAN module can be used as a converter or a bridge.			
User Interface	RS-232			
Vibration and Shock	The enclosure has the following vibration rating.			
	IEC 60068-2-6: 2007-12 (Sine), 2 g peak (Sine)			
	IEC 60068-2-27: 2008-02, 15 g			
	The FO connectors have the following vibration rating from the manufacturer.			
	A/a Mechanical Shock MIL-STD-883 Method 2002B 1500g, 0.5ms, 5 shocks/axis, 6			
	AXIS			
	A D VIDIALION IVIL-51 D-005 WELHOU 2007 A 200, 20-2000 12, 4 Mill/Cycle, 4 Cycles/AAIS,			
	-40 to 85 °C (-40 to 185 °F)			
Operating Conditions	-40 to 85 °C (-40 to 185 °F)			
Operating Conditions Storage Temperature	-40 to 85 °C (-40 to 185 °F) -55 to 125 °C (-67 to 257°F)			
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# **Dimensional Drawing**



# Pin out:

Connector (J1)		Connector (J2)	
Pin #	Function	Pin #	Function
1	BATT +	1	CAN_SHIELD
2	BATT –	2	CAN_GND
3	RS232_RX	3	CAN_H
4	RS232_TX	4	CAN_L

Form: TDAX143030-03/26/2025