TECHNICAL DATASHEET #TDAX180400

Laser Receiver

P/N: AX18040X

The Laser Receiver has a laser detection diode array consisting of 40 diodes. The diode array is 190 mm in length and it can be configured to detect one or two independent rotating laser beams. It has multiple configuration options to suit a variety of machine applications.

Features:

- Plexiglas lens
- 160 degree beam detection
- 190 mm (7.5 in.) beam detection height range
- Detects rotational lasers with rotation speed between 2-20 RPS.
- Detects rotational lasers within 630 nm – 850 nm and 1m – 150 m
- Reports RPS of received laser beam
- Precision 3 mm (0.1 in.) or configurable
- 8-36Vdc (12V or 24Vdc nominal)
- SAE J1939 (Model AX180400) or CANopen (Model AX180401)
- - 40 to +85°C
- IP69K
- 2 5-pin M12 connectors
- CE marking
- Vibration and shock compliance
- Configurable with Electronic Assistant (model AX180400) or CANopen tools (model AX180401)

Applications: Off-highway Equipment

Ordering Part Numbers:

Laser Receiver, 250 kbps SAE J1939 P/N: **AX180400**
Laser Receiver, 500 kbps SAE J1939 P/N: **AX180400-01**
Laser Receiver, 1 Mbps SAE J1939 P/N: **AX180400-02**
Laser Receiver, CANopen P/N: **AX180401**

Accessories:
Electronic Assistant (for SAE J1939 model): **AX070502**
EDS File (for CANopen model)

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Technical Specifications:

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

Power Input	8….36Vdc (12V or 24V nominal)
CAN Port	Model AX180400 (250 kbps SAE J1939) Model AX180400-01 (500 kbps SAE J1939) Model AX180400-02 (1 Mbps SAE J1939) Model AX180401 (CANopen®)
Interface with laser beam	160 degree beam detection 190 mm (7.5 in.) beam detection height range Detects rotational lasers with rotation speed between 2-20 RPS. Detects rotational lasers within 630 nm – 850 nm and 1m – 150 m Reports RPS of received laser beam Precision 3 mm (0.1 in.) or configurable with Electronic Assistant (model AX180400) or CANopen tools (model AX180401)
User Interface	AX070502 Electronic Assistant for SAE J1939 models and to flash new firmware. EDS file for CANopen model
Approvals	CE marking
EMI Compliance	CE marking
Enclosure	Plexiglass Refer to the dimensional drawing, Figure 1.0.
Protection	IP69K
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
Weight	0.80 lb. (0.362 kg) (preliminary)
Temperature Rating	Operating: -40 to 85°C (-40 to 185°F) Storage: -50 to 90°C (-58 to 194°F)
Electrical Pinout	2 5-pin M12 connectors Refer to dimensional drawing, Figure 1.0.

Figure 1. 0. – Dimensional Drawing

Notes:
CANopen® is a registered community trade mark of CAN in Automation e.V.

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: TDAX180400-08/16/19