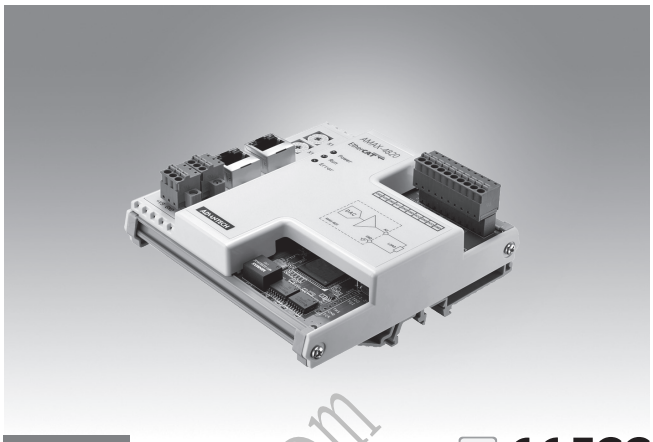
AMAX-4817
AMAX-4820

8-Channel, 16-Bit Isolated Analog Input EtherCAT Remote I/O Module

4-Channel, 16-Bit Isolated Analog Output EtherCAT Remote I/O Module

AMAX-4817



AMAX-4820

Features

- Suitable for EtherCAT networks
- 8 x 16-bit analog input channels with 2,500 V_{DC} isolation
- Wide common-mode voltage range (±275 V)
- Removable European-type connector
- Supports EtherCAT distributed clocks (DC) mode and SyncManager mode
- 2 x Rotating switches that support up to 256 SubDevice IDs

Introduction

AMAX-4817 is an industrial-grade remote I/O SubDevice module equipped with the EtherCAT protocol. European-type pluggable terminal blocks facilitate module setup and maintenance, while the compact size and support for DIN-rail mounting ensure easy installation in cabinet configurations. For safe and reliable operation, all of the 8 analog input channels are protected by a 2,500 V_{DC} isolation circuit.

Specifications

Communication

- **Interface** EtherCAT
- **Data Transfer Medium** Ethernet/EtherCAT cable (min. CAT 5), shielded
- **Distance Between Modules** Max. 100 m (100BASE-TX)
- **Communication Cycle Time** 100 µs (guarantees all channel data are updated)
- **Data Transfer Rates** 100 Mbps

Analog Input

- **Channels** 8
- **Resolution** 16 bits
- **Input Range** 0 ~ 10V, ±10V, 0~20mA, ±20mA
- **Input Impedance** 500Ω
- **Common-Mode Voltage Range** ±275 V
- **Measurement Error** <±0.1%
- **Isolation Protection** 2,500 V_{DC}
- **Bandwidth(-3dB)** 1.375KHz/ch
- **Conversion Time** 40 µs for all channels

Note: Because the analog sampling rate exceeds the communication cycle time, the maximum polling rate will be limited by the communication cycle time = 10 kS/s for each channel.

General

- **Connectors** 2 x 10-pin terminal block (I/O), 3.81 mm
  1 x 3-pin screw terminal block (power), 3.81 mm
  2 x RJ-45 (EtherCAT)
- **Dimensions** 120 x 120 x 40 mm (4.72 x 4.72 x 1.57 in)
- **Operating Temperature** -20 ~ 60 °C (-4 ~ 140 °F)
- **Storage Temperature** -40 ~ 70 °C (-40 ~ 158 °F)
- **Storage Humidity** 5 ~ 95% RH (non-condensing)
- **Power Supply** 10 ~ 30 V_{DC}
- **Power Consumption** Typical 160 mA @24 V; Max. 190 mA @24 V

Ordering Information

- **AMAX-4817-B** 8-ch, 16-bit isolated AI EtherCAT remote I/O module
- **96PSD-A40W24-MM** DIN rail A/D 100 ~ 240 V, 40 W, 24 V

Features

- Suitable for EtherCAT networks
- 4 x 16-bit analog output channels with 2,500 V_{DC} isolation
- Multiple voltage and current output ranges
- Removable European-type connector
- Supports EtherCAT distributed clocks (DC) mode and SyncManager mode
- 2 x Rotating switches that support up to 256 SubDevice IDs

Introduction

AMAX-4820 is an industrial-grade remote I/O SubDevice module equipped with the EtherCAT protocol. European-type pluggable terminal blocks facilitate module setup and maintenance, while the compact size and support for DIN-rail mounting ensure easy installation in cabinet configurations. For safe and reliable operation, all of the 4 analog output channels are protected by a 2,500 V_{DC} isolation circuit.

Specifications

Communication

- **Interface** EtherCAT
- **Data Transfer Medium** Ethernet/EtherCAT cable (min. CAT 5), shielded
- **Distance Between Modules** Max. 100 m (100BASE-TX)
- **Communication Cycle Time** 100 µs (guarantees all channel data are updated)
- **Data Transfer Rates** 100 Mbps

Analog Output

- **Channels** 4
- **Resolution** 16 bits
- **Output Voltage Range** 0 ~ 5 V, 0 ~ 10 V, ±5 V, ±10 V
- **Output Current Range** 0 ~ 20 mA, 4 ~ 20 mA
- **Load** > 1 kΩ (voltage output)
  < 625 Ω (current output)
- **Output Error** < ±0.1%
- **Isolation Protection** 2,500 V_{DC}
- **Conversion Time** 40 µs for all channels

General

- **Connectors** 1 x 10-pin terminal block (I/O), 3.81 mm
  1 x 3-pin screw terminal block (power), 3.81 mm
  2 x RJ-45 (EtherCAT)
- **Dimensions** 120 x 120 x 40 mm (4.72 x 4.72 x 1.57 in)
- **Operating Temperature** -20 ~ 60 °C (-4 ~ 140 °F)
- **Storage Temperature** -40 ~ 70 °C (-40 ~ 158 °F)
- **Storage Humidity** 5 ~ 95% RH (non-condensing)
- **Power Supply** 10 ~ 30 V_{DC}
- **Power Consumption** Typical 160 mA @24 V; Max. 190 mA @24 V

Ordering Information

- **AMAX-4820-B** 4-ch, 16-bit isolated AO EtherCAT remote I/O module
- **96PSD-A40W24-MM** DIN rail A/D 100 ~ 240 V, 40 W, 24 V

Last updated: 18-Dec-2024