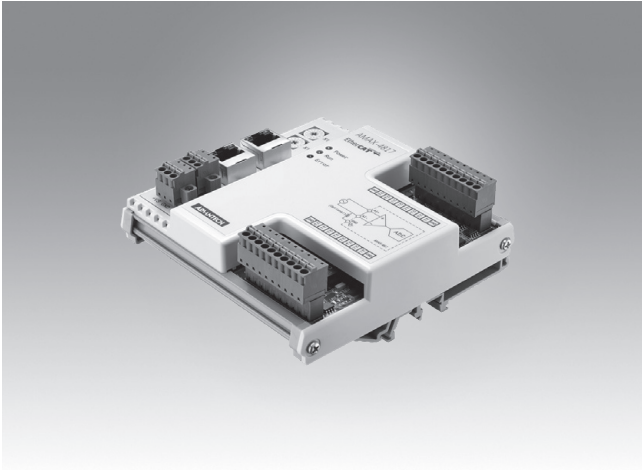


AMAX-4817

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



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 μ s (guarantees all channel data are updated)
▪ Data Transfer Rates	100 Mbps

Analog Input

▪ Channels	8
▪ Resolution	16 bits
▪ Input Voltage Range	0 – 10 V, ± 10 V
▪ Common-Mode Voltage Range	± 275 V
▪ Measurement Error	$\leq \pm 0.1\%$
▪ Isolation Protection	2,500 V _{DC}
▪ Conversion Time	40 μ s for all channels

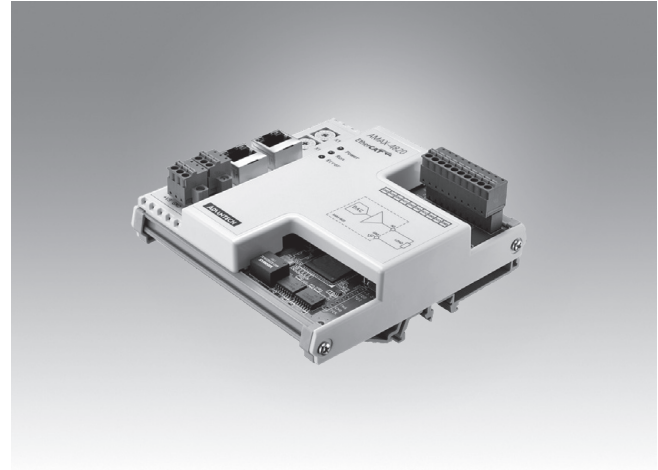
Note: Because the analog sampling rate exceeds the communication cycle time, the maximum polling rate will be limited by the communication cycle time = 10 kS/s for each channel.

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



AMAX-4820



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 μ s (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 k Ω (voltage output) < 625 Ω (current output)
▪ Output Error	$\leq \pm 0.1\%$
▪ Isolation Protection	2,500 V _{DC}
▪ Conversion Time	40 μ s 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