# 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**







ROHS COMPLIANT CE FCC





#### **Features**

- Suitable for EtherCAT networks
- 8 x 16-bit analog input channels with 2,500 V<sub>DC</sub> 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 slave IDs

### Introduction

AMAX-4817 is an industrial-grade remote I/O slave 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<sub>DC</sub> isolation circuit.

### **Specifications**

#### **Communication**

Interface

Data Transfer Medium Ethernet/EtherCAT cable (min. CAT 5), shielded Distance Between Modules Max. 100 m (100BASE-TX)

100 µs (guarantees all channel data are updated) Communication Cycle Time

Data Transfer Rates 100 Mhns

#### **Analog Input**

Channels Resolution 16 bits **Input Voltage Range**  $0 \sim 10 \text{ V}, \pm 10 \text{ V}$ Common-Mode Voltage Range ±275 V Measurement Error < +0.1% **Isolation Protection** 2,500 V<sub>DC</sub>

40 µs for all channels **Conversion Time** 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 (32 ~ 140 °F) -40 ~ 70 °C (-40 ~ 158 °F) Storage Temperature 5 ~ 95% RH (non-condensing) Storage Humidity

**Power Supply** Power Consumption Typical 160 mA @24 V; Max. 190 mA @24 V

### **Ordering Information**

AMAX-4817-AE 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<sub>DC</sub> 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 slave IDs

### Introduction

AMAX-4820 is an industrial-grade remote I/O slave 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<sub>DC</sub> isolation circuit.

### **Specifications**

#### **Communication**

**Analog Output** 

Interface

**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 Mbns

Channels Resolution

16 bits 0 ~ 5 V, 0 ~ 10 V, ±5 V, ±10 V 0 ~ 20 mA, 4 ~ 20 mA **Output Voltage Range Output Current Range** 

 $> 1 \text{ k}\Omega$  (voltage output) Load  $< 625 \Omega$  (current output)

**Isolation Protection** 2,500 V<sub>DC</sub> **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) -20 ~ 60 °C (32 ~ 140 °F) -40 ~ 70 °C (-40 ~ 158 °F) Operating Temperature Storage Temperature 5 ~ 95% RH (non-condensing)

Storage Humidity **Power Supply** 

Typical 160 mA @24 V; Max. 190 mA @24 V Power Consumption

### Ordering Information

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

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