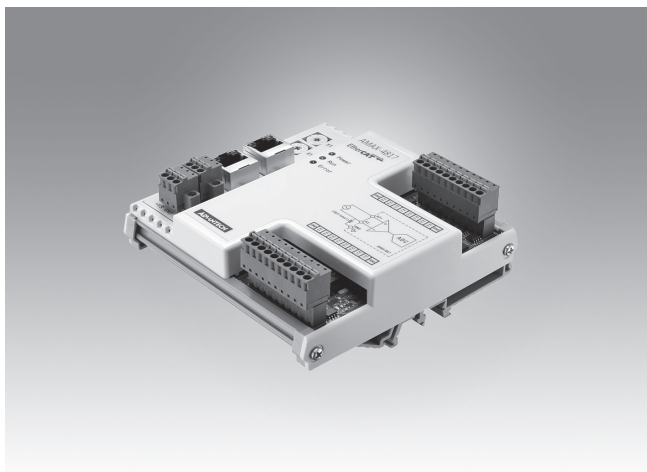


AMAX-4817

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 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_{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 | $< \pm 0.1\%$ |
| ▪ Isolation Protection | 2,500 V _{DC} |
| ▪ Conversion Time | 40 μ s for all channels |

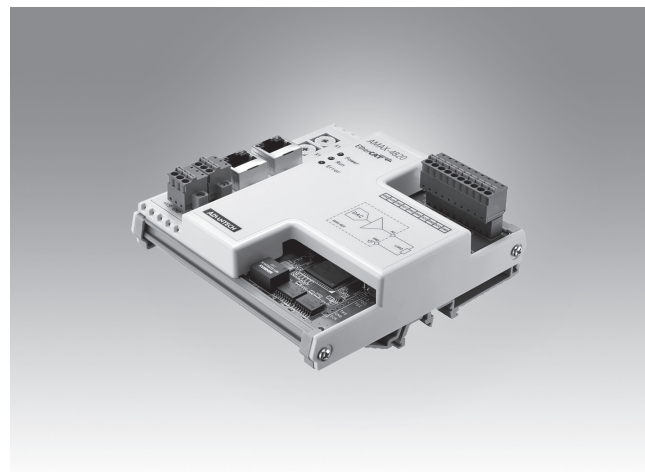
Note: Because the analog sampling rate exceeds the communication cycle time, the maximum polling rate will be limited by the communication cycle time = 10 kS/s for each channel.

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 (32 ~ 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-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 |



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 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_{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)
$< 625 \Omega$ (current output) |
| ▪ Output Error | $< \pm 0.1\%$ |
| ▪ 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 (32 ~ 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-AE | 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 |

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