

# Коммуникационные модули и каплеры серии АРАХ-507 X, АРАХ-509 X

## ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

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Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

# APAX-5070 APAX-5072 APAX-5071

## Modbus/TCP Communication Coupler

## EtherNet/IP Communication Coupler

## PROFINET Communication Coupler



### Specifications

#### General

- **Certification** CE, FCC class A
- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Enclosure** ABS+PC
- **Weight** 190 g
- **Connector** 2 x RJ-45 (2-channel switch, share same IP address)
- **Power Consumption** 2 W @ 5 V<sub>DC</sub> (typical)

#### Communication

- **Protocol** Modbus/TCP
- **Connected I/O Modules** 32 (max.)\*
- **Digital Signals** 768 (max.)
- **Analog Signals** 192 (max.)
- **Data Transfer Rates** 10/100 Mbps
- **Topology** Line or star
- **Isolation Protection** 1,500 V<sub>AC</sub>

#### Environment

- **Operating Temperature** -10 ~ 60°C (mounted vertically)
- **Storage Temperature** -40 ~ 85°C
- **Relative Humidity** 5 ~ 95% (non-condensing)
- **Shock Protection** 10 G @ wall mount, half sine, 11 ms (Confirms to IEC 60068-2-27)
- **Vibration Protection** 1 Grms @ 5 ~ 500 Hz (Random, operating, 1 hr/axis)  
2 G @ 5 ~ 500 Hz (Sine, non-operating, 1 hr/axis) (Confirms to IEC 60068-2-64 and IEC 60068-2-6)

### Ordering Information

- **APAX-5070** Modbus/TCP Communication Coupler

### Specifications

#### General

- **Certification** CE, FCC class A
- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Enclosure** ABS+PC
- **Weight** 180 g
- **Connectors** 2 x RJ-45 (2-channel switch, share same IP address)
- **Power Consumption** 2 W @ 5 V<sub>DC</sub> (typical)

#### Communications

- **Protocol** EtherNet/IP
- **Connected I/O Modules** 32 (max.)\*
- **Digital Signals** 768 (max.)
- **Analog Signals** 192 (max.)
- **Data Transfer Rates** 10/100 Mbps
- **Topology** line or star
- **Isolation Protection** 1,500 V<sub>AC</sub>

#### Environment

- **Operating Temperature** -10 ~ 60°C (mounted vertically)
- **Storage Temperature** -40 ~ 85°C
- **Relative Humidity** 5 ~ 95% (non-condensing)
- **Shock Protection** 10 G @ wall mount, half sine, 11 ms (Confirms to IEC 60068-2-27)
- **Vibration Protection** 1 Grms @ 5 ~ 500 Hz (Random, operating, 1 hr/axis)  
2 G @ 5 ~ 500 Hz (Sine, non-operating, 1 hr/axis) (Confirms to IEC 60068-2-64 and IEC 60068-2-6)

### Ordering Information

- **APAX-5072** EtherNet/IP Communication Coupler

### Specifications

#### General

- **Certification** CE, FCC class A
- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Enclosure** ABS+PC
- **Weight** 180 g
- **Connector** 2 x RJ-45 (2-channel switch, share same IP address)
- **Power Consumption** 2 W @ 5 V<sub>DC</sub> (typical)

#### Communication

- **Protocol** PROFINET RT V2.2
- **Connected I/O Modules** 32 (max.)\*
- **Digital Signals** 768 (max.)
- **Analog Signals** 192 (max.)
- **Data Transfer Rates** 10/100 Mbps
- **APAX IO Topology** Line or Star

#### Environment

- **Operating Temperature** -10 ~ 60°C (mounted vertically)
- **Storage Temperature** -40 ~ 85°C
- **Relative Humidity** 5 ~ 95% (non-condensing)
- **Shock Protection** 10 G @ wall mount, half sine, 11 ms (Confirms to IEC 60068-2-27)
- **Vibration Protection** 1 Grms @ 5 ~ 500 Hz (Random, operating, 1 hr/axis)  
2 G @ 5 ~ 500 Hz (Sine, non-operating, 1 hr/axis) (Confirms to IEC 60068-2-64 and IEC 60068-2-6)

### Ordering Information

- **APAX-5071** PROFINET Communication Coupler

#### Accessories

- **APAX-5002** 2-slot Backplane Module
- **APAX-5343E** Power Supply for APAX Expansion Module

\*APAX DI/O modules can use ID number 0 ~ 31, while AI/O modules and counter modules can only use ID numbers 0 ~ 15

# APAX-5202P

## 2-port AMONet Master Module

NEW



CE FCC 

### Features

- Max. 20 Mbps transfer rate
- 2 x independent AMONet RS-485 master rings
- Max. 128 AMONet RS-485 slave modules supported
- Easy installation with RJ45 phone jack and LED diagnostic
- KW Multiprog software programming support

### Introduction

APAX-5202P is a PCI interface card which supports two AMONet RS-485 master rings, and transfers data between host and slaves directly without any operations in between. Each ring can control up to 2,048 I/O points, 256 axes, or a combination of I/O points and axes for motion control. The ring can support up to 20 Mbps transfer rate and a maximum communication distance of up to 100 meters. The communication between master and slave is based on a customized RS-485 solution that saves wires, covers a long distance, supports high-speed communication and has time-deterministic features. The communication interface between master and PAC is accomplished by memory mapping. Various functions can be chosen on the slave modules, and standard industrial DIN-rail mounting design makes it easy to distribute them in the field. The master collects information from slave modules and publishes the information to its PAC controller.

### Specifications

#### AMONet RS-485 Motion Control

- **Connectors** RJ-45
- **LED Indicators** Active, Error (Each Port)
- **Number of Rings** 2
- **Transmission Speed** 2.5, 5, 10 or 20 Mbps with automatic data flow control
- **Serial Interface** Half duplex RS-485 with transformer isolation
- **Cable Type** CAT5 UTP/STP Ethernet cable
- **Surge Protection** 10 kV
- **Communication Distance (Max.)** 100 m @ 20 Mbps w/32 slave modules  
100 m @ 10 Mbps w/64 slave modules
- **Slave Module Support** Digital I/O, Motion Control

#### General

- **Certifications** CE, FCC Class A
- **Connectors** 2 x RJ45
- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Power Consumption** 2.5 W @ 5 V<sub>DC</sub> (typical)
- **Relative Humidity** 5 ~ 95% (non-condensing)
- **Operating Temperature** 0 ~ 60° C (mounted vertically)

### Ordering Information

- **APAX-5202P-AE** 2-port AMONet Master Module
- Note: APAX-5202P can only be used by controllers with a PCI interface

#### Accessories

- **AMAX-2241/PMA-AE** 4-axis AMONet Motion Module for Panasonic Minus A
- **AMAX-2242/J2S-AE** 4-axis AMONet Motion Module for Mitsubishi MR-J2S
- **AMAX-2243/YS2-AE** 4-axis AMONet Motion Module for Yaskawa Sigma-II
- **AMAX-2752SY-AE** 32-ch Isolated Digital Input AMONet Module
- **AMAX-2754SY-AE** 32-ch Isolated Digital Output AMONet Module
- **AMAX-2756SY-AE** 16/16-ch Isolated Digital I/O AMONet Module
- **PCL-10220M-2** 20-pin SCSI Cable, 2 m
- **PCL-10150M-2** 50-pin SCSI Cable, 2 m

# APAX-5090P

# APAX-5095P

4-port RS-232/422/485  
Communication Module

2-port CANopen  
Communication Module

NEW



APAX-5090P

RoHS  
CE FCC

## Specifications

### General

- **Certification** CE, FCC class A
- **Interface** COM 1, COM 2: RS-422/485  
COM 3, COM 4: RS-232/422/485
- **Connectors** 1 x 26-pin clamp-type terminal
- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Enclosure** ABS+PC
- **Weight** 180 g
- **Power Consumption** 2 W @ 5 V<sub>DC</sub> (typical)

### Communications

- **Data Bits** 5, 6, 7, 8
- **Stop Bits** 1, 1.5, 2
- **Parity** None, even, odd
- **Baud Rate** 50 bps ~ 230.4 kbps
- **Data Signals** RS-232: TxD, RxD, RTS, CTS, GND  
RS-422: Tx+, Tx-, Rx+, RX-  
RS-485: Data+, Data-
- **FIFO** 128 bytes
- **Flow Control** RTS/CTS, Xon/Xoff

### Protection

- **ESD Protection** 15 kV
- **EFT Protection** 2,500 V<sub>DC</sub>
- **Isolation Protection** 2,500 V<sub>DC</sub> (between COM port and backplane)

### Environment

- **Operating Temperature** 0 ~ 60°C (mounted vertically)
- **Storage Temperature** -40 ~ 70°C
- **Relative Humidity** 5 ~ 95% (non-condensing)

## Ordering Information

- **APAX-5090P** 4-port RS-232/422/485 Comm. Module

Note: APAX-5090P can only be used by controllers with a PCI interface (ex. APAX-6572)

NEW



APAX-5095P

CANopen  
RoHS  
CE FCC

## Specifications

### General

- **Certification** CE, FCC class A
- **Interface** 2 x CAN Bus
- **Connectors** DB9
- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Enclosure** ABS+PC
- **Weight** 180 g
- **Power Consumption** 2 W @ 5 V<sub>DC</sub> (typical)

### Communications

- **Protocol** CANopen
- **Speed** Max. 1 Mbits/s
- **Supports PDO transmission mode**
- **Supports NMT and SDO communication object**
- **Supports Heartbeat producer and consumer**
- **Supports Emergency objects**

### Protection

- **Isolation Protection** 2,500 V<sub>DC</sub>

### Environment

- **Operating Temperature** 0 ~ 60°C (mounted vertically)
- **Storage Temperature** -40 ~ 70°C
- **Relative Humidity** 5 ~ 95% (non-condensing)

## Ordering Information

- **APAX-5095P** 2-port CANopen Module

Note: APAX-5095P can only be used by controllers with a PCI interface (ex. APAX-6572)

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