

# MX210 Series

## Ethernet I/O-Modules

The Ethernet I/O-Modules of MX210 series are compact intelligent and easy-to-use devices that are available in different variants, depending on inputs and outputs. Unlike the other extension modules from akYtec, these modules support Ethernet.

Moreover, the MX210 modules support Ethernet bypass. This technology prevents a module from being a single point of network failure when a system detects a software or hardware problem.

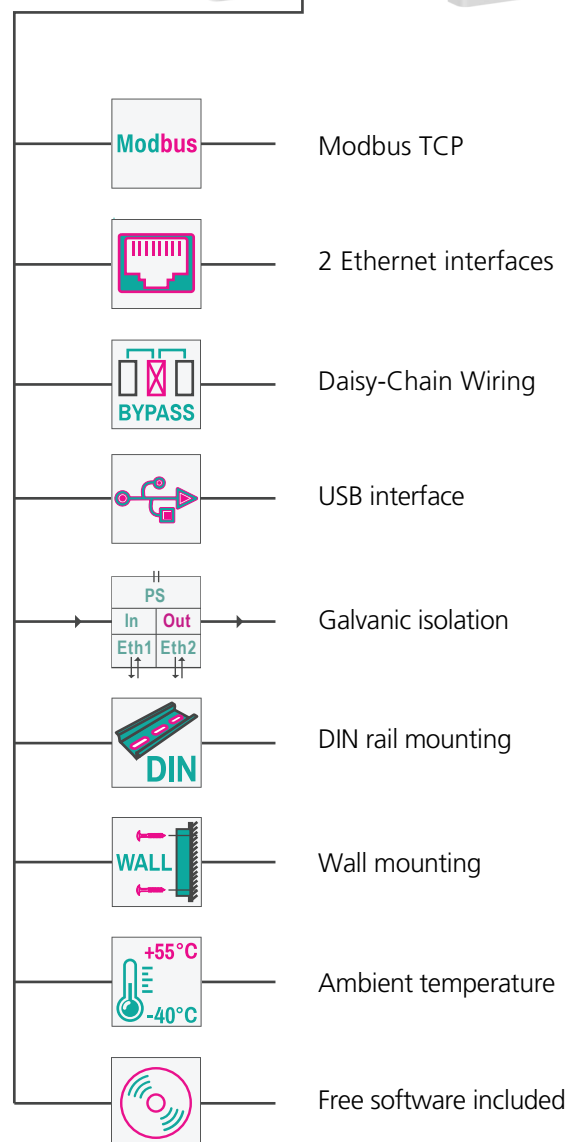
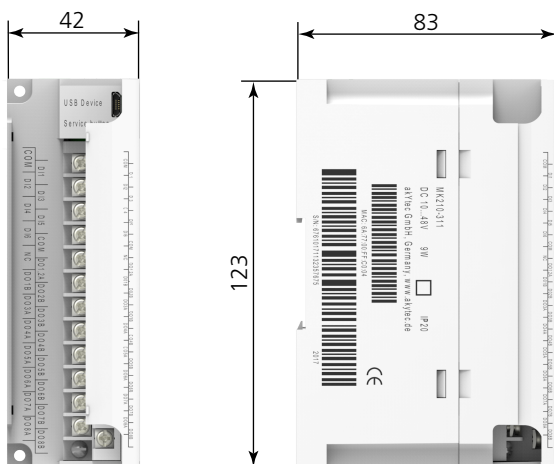
### Functions and features:

- Modules are available with high-speed counters, digital I/O, isolated relay outputs
- Network status diagnostics
- 2-port Ethernet Switch (LAN bypass)
- Daisy-Chain Wiring
- Alarm signals
- Real-time clock
- Data logging
- Group configuration of multiple modules
- Easy mounting and connection

### Configuration:

The module is configured by means of the configuration software "akYtec Tool Pro" using the interface USB or Ethernet.

### Dimensions:



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### Overview table:

Module	Inputs	Outputs	Properties
<b>Input modules</b>			
MV210-101	8		Universal inputs: thermal resistance, thermocouples, 0(4)...20 mA, 0...1 V, 0...(900)2000 ohm
MV210-202	20		Inputs: switch contacts, NPN/PNP sensors, pulse counters (24 V DC external power supply, measuring frequency up to 100 kHz)
MV210-204	20		Inputs: switch contacts (no external power supply required), NPN sensors, pulse counters (24 V DC external power supply, measuring frequency up to 400 Hz)
MV210-212	32		Inputs: switch contacts, NPN/PNP sensors, pulse counters (24 V DC external power supply, measuring frequency up to 100 kHz)
MV210-214	32		Inputs: switch contacts (no external power supply required), NPN sensors, pulse counters (24 V DC external power supply, measuring frequency up to 400 Hz)
MV210-221	15		6 inputs: switch contacts (no external power supply required), NPN sensors, pulse counters (24 V DC external power supply, measuring frequency up to 400 Hz). 9 inputs: AC 230V
<b>Combined I/O-Modules</b>			
MK210-311	6	8	Inputs: switch contacts (no external power supply required), NPN sensors Outputs: relays (NO), 5 A at 250 VAC, $\cos \varphi > 0.4$ 3 A at 30 VDC
MK210-312	12	4	Inputs: switch contacts (24 V DC external power supply), NPN/PNP sensors Outputs: relays (NO), 5 A at 250 VAC, $\cos \varphi > 0.4$ 3 A at 30 VDC
<b>Output modules</b>			
MU210-401		8	Outputs: relays (NO) 5 A at 250 VAC, $\cos \varphi > 0.4$ 3 A at 30 VDC
MU210-402		16	Outputs: relays (NO) 5 A at 250 VAC, $\cos \varphi > 0.4$ 3 A at 30 VDC
MU210-410		16	Outputs: transistors (PWM up to 60 kHz) High-side switch - 0.8A High- or low-side switch - 0.1A
MU210-501		16	Universal outputs: 4...20 mA, 0...10 V

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<b>Supply</b>	
Power supply	24 (10...48) V DC
Power consumption, max.	6 W at 24 V DC
<b>Communication</b>	
Data transfer	Ethernet 10/100 Mbps
Configuration	USB 2.0 (USB micro), Ethernet 10/100 Mbps
Protocol	Modbus TCP

<b>Environment</b>	
Ambient temperature	-40...+55 °C
Humidity	up to 80%, non-condensing
<b>Enclosure</b>	
IP Code	IP20
Appliance class	II
Dimensions	42 x 123 x 83 mm
Weight	approx. 260 g
Material	Plastic