

# MA-0202G

## 2+2 Port Industrial Managed Gigabit MACsec Encoder



- Provides 2 end-to-end encrypted (E2EE) channels for secure communications
- Secure legacy PLCs and automation equipment
- Prevent man-in-the-middle attacks
- TCP/IP traffic cannot be sniffed and decoded
- 2 channels / 2 ports 10/100/1000BASE-T Ethernet & 100/1000BASE-TX SFP Slot
- IEEE 802.1AE MACsec secure communication
- Line rate bi-directional traffic encryption/decryption
- Supports AES-256 encryption
- Built for harsh environments and wide temperature range applications
- Web GUI configuration interface

## Specifications

### Technology

#### Standard

IEEE 802.3 10BaseT  
IEEE 802.3u 100BaseTX  
IEEE 802.3ab 1000BaseT  
IEEE 802.3z 1000BaseX

IEEE 802.3x Flow Control  
IEEE 802.3ad/802.1AX LACP  
IEEE 802.1D Spanning Tree Protocol  
IEEE 802.1w Rapid STP

IEEE 802.1s Multiple STP  
ITU-T G.8032 / Y.1344 ERPS  
IEEE 802.1Q VLAN Tagging  
IEEE 802.1ad Stacked VLANs

IEEE 802.1p Class of Service  
IEEE 802.1X Network Authentication  
IEEE 802.1AB LLDP  
IEEE 1588 PTP

### Interface

**RJ45 Port** 2x 10/100/1000BASE-T(x), auto negotiation speed duplex mode, auto MDI/MDI-X

**LED Indicators** Per unit: PWR, Fault, Ring Master, Ring State  
Ports: Link/Active with highest speed(Green), low speed(Amber)

**Serial Console** 1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1

**Out band control** 1x 10/100BASE-T(x) Ethernet, auto negotiation

**Fiber Port** 2x 100/1000BASE-FX SFP Slot

### Power Requirements

**Operation Voltage** 12-48VDC, redundant dual inputs

**Power Consumption** 5W

**Protection** Overload Current Protected, Reverse Polarity Protected

**Connection** 1x removable 4-contact terminal block

### Mechanical Construction

**Enclosure** Steel metal

**Dimensions** 30x140x98 mm (WxHxD)

**Protection Class** IP30

**Weight** 0.45 kg

**Mounting** DIN-Rail Mounting

### Environmental Limits

**Operating Temperature** -40°C ~ 75°C (-40°F ~ 167°F)

**Ambient Relative Humidity** 5 to 95%, (Non-Condensing)

**Storage Temperature** -40°C ~ 85°C (-40°F ~ 185°F)

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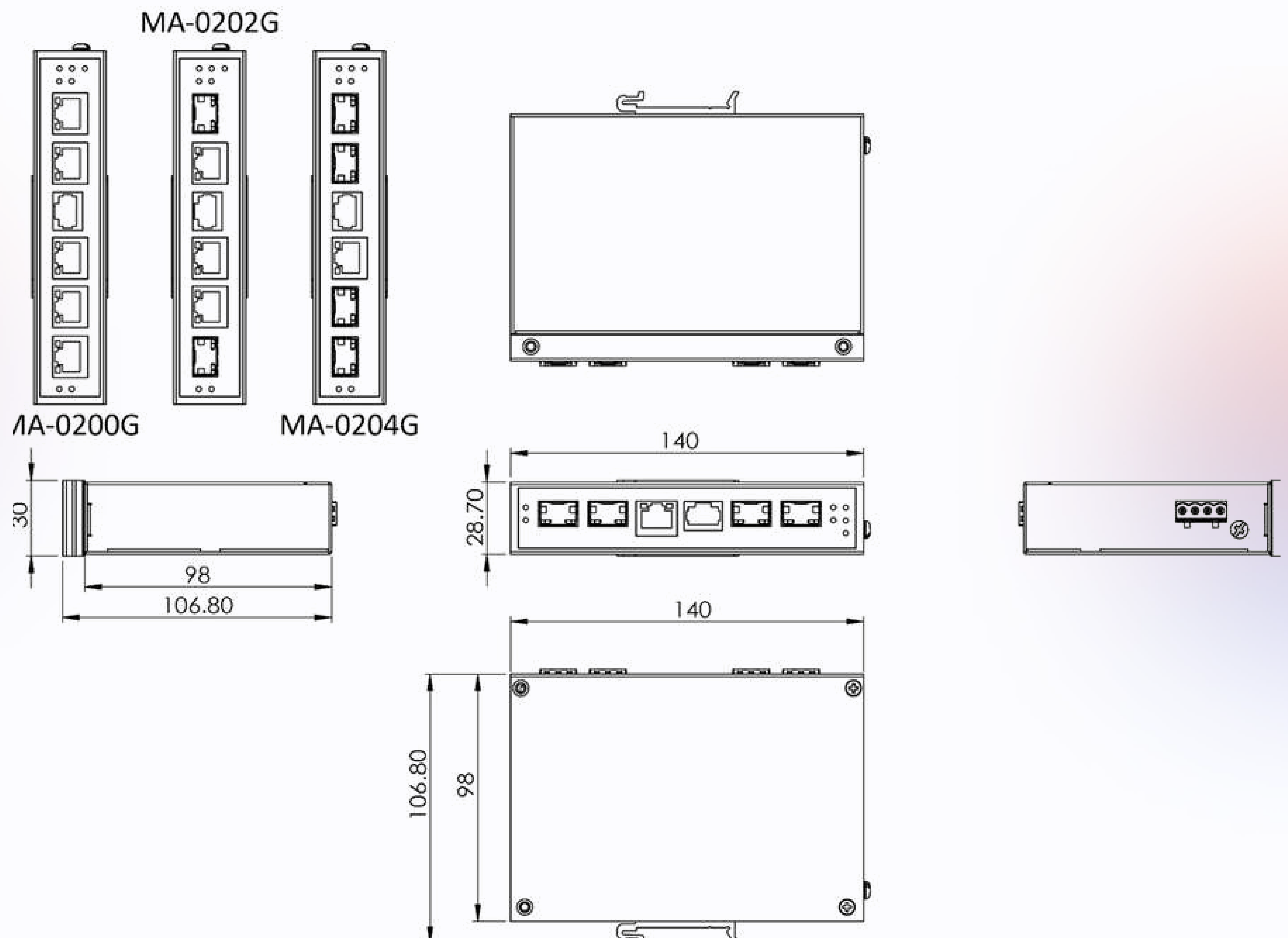
## Regulatory Approvals

<b>EMI</b>	FCC Part 15 Subpart B Class A CE EN 55032 Class A	<b>Shock</b>	IEC60068-2-27
<b>EMS</b>	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) IEC61000-4-6 (CS) IEC61000-4-8 (Magnetic Field)	<b>Vibration</b>	IEC60068-2-6
<b>Free Fall</b>	IEC60068-2-32	<b>Green</b>	RoHS Compliant
		<b>Certifications</b>	UL 60950-1/62368 IEC 61000-6-2 IEC 61000-6-4
		<b>MTBF</b>	>100,000 hours
		<b>Warranty</b>	5 Years

## Feature

<b>Encryption</b>	GCM-AES-256	<b>Queue</b>	Ingress, Egress, Global
<b>Tag detection</b>	802.1q VLAN, Q-in-Q		

## Dimensions (unit = mm)



## Ordering Information

### Optional Accessories

**NDR-75-24** 75W Industrial DIN-Rail Power Supply, 24VDC (metal case)

**NDR-75-48** 75W Industrial DIN-Rail Power Supply, 48VDC (metal case)