



E3 I/O Module with 16 Analog Inputs/8 Analog Outputs

Item number: E3-16AI8AO-1

The E3 I/O module streamlines networks with high-performing and flexible Ethernet connectivity. Sixteen analog inputs and eight analog outputs with 4-20 mA range. Fast redundancy, password security, diagnostics and rugged design ensure reliable performance and reduced downtime in remote and extreme settings.



Powerful networking with reliable remote monitoring and control capabilities

Features and benefits

✓ Ethernet connectivity that's reliable, simple and secure

A robust and rugged Ethernet solution for collecting and communicating local sensor or field data. Built-in dual 10/100BaseT(X) RJ-45 Ethernet ports for daisy chaining, redundancy or pass-through.

✓ Flexible analog inputs and outputs

Full scale accuracy is +/- 0.02% at 20 °C, 16 bit mode. Protected by self-resetting current shunts to prevent shunt overheat/damage. Fastest update time is 880 ms for all channels at 16-bit. Input resistance is 100 Ohms. Max output settling time is 5 ms (to 0.05%).

✓ Engineered to last in industrial settings

Hardened metal enclosure is designed to withstand extreme industrial conditions. Snaps into standard DIN-rail and includes panel mount option for easy installation locally and in the field.

✓ Powerful networking capability

Modbus protocol support for industrial monitoring and communications. Also supports TCP/IP, ARP, UDP, ICMP, DHCP, HTTP, Sixnet TCP and UDP.

✓ Leading compliance certifications

Suitable for hazardous environments with UL Class I, Division 2 listing and CE and CSA certifications. ATEX/IECEX certified.

✓ Flexible connectivity

Connect serial devices to Ethernet network with an RS-485 serial port. Connect the module to your PC using the USB port.

✓ Simplicity with built-in Crimson® configuration software

Program with drag-and-drop ease and efficiency through a web browser and Crimson's user-friendly graphical user interface.

✓ Real-time Ring option for fast redundancy

The Ring option allows the dual Ethernet ports to act as Real-Time Ring switch ports. Real-Time Ring operates at 30 ms + 5ms per hop.

✓ Engineered for harsh environments

All-metal housing delivers uncompromising performance in demanding environments. Operating temperature of -40 °C to 75 °C. MTBF >1 million hours.

✓ Analog input/output range

4-20 mA

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General

Net Weight (g)	906
Packed Weight (g)	906
Relative Humidity	10% to 95% (Non Condensing)
Power Consumption (W)	0
Input Voltage (V)	10-30 VDC (12-24 Nominal)
Mounting	DIN rail mount (bracket included)
Panel Cut-Out Dimensions	71.4 mm x 53.1 mm
Housing Materials	Metal Housing
Packaging Material	Cardboard
Warranty (years)	2

Identification and Status

Product ID	E3-16AI8AO-1
Country of Origin	United States of America (the)
HS Code	8517620000
Dual Usage	No

Physical Features

Top Wiring Clearance (mm)	25.4
Front Wiring Clearance (mm)	50.8
SD Card Slot	No
Flash Drive	No
Contains Battery	No

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Certifications and Standards	
RoHS Compliant	No
CE	Yes
FCC	Yes
UKCA	No
UL	Yes
ATEX	Yes
DNV	Yes
KC	No
Mean Time Before Failure (MTBF)	1,043,917 Hours GB @ 40°C
Vibration and Shock	Shock: IEC60068-2-6; Vibration: IEC60068-2-27