



technical datasheet

9216-ETM

Managed Ethernet Switch

- 16 ports of fast 10/100 Ethernet
- High port count in a small footprint
- Truly rugged design with -40 to +75°C operation
- Easy to configure management functions
- Monitor port and ring status using Modbus
- Plug and Play Ethernet/IP™ and video surveillance



The 9216-ETM is a 16 port managed industrial Ethernet switch designed to be rugged, reliable, real-time and secure. It combines compact DIN rail packaging, protected circuitry and powerful software to keep your system going even under the toughest conditions.

PRODUCT HIGHLIGHTS

- 16 ports of fast 10/100 Ethernet
- High port count in a small footprint
- Truly rugged design with -40 to +75°C operation
- Easy to configure management functions

TROUBLE FREE OPERATION

- -40 to +75°C operating range
- UL/CSA (CUL), CE and Hazloc (Zone 2) rated
- Dual (redundant) power inputs
- Industrial surge and spike protection
- Self-test/alarm output contact
- DIN rail or direct panel mounting

REAL-TIME SECURE PERFORMANCE

- Redundant Ring or Rapid Spanning Tree (RSTP) for fast redundant ring or mesh networks
- SNMPv1 and v2 network management
- SNMPv3 authentication & encryption for security
- SNMP notifications (traps) for report on event
- Priority Queuing (QoS/CoS) for real-time operation
- IGMP for Multicast filtering (snooping & querying)
- VLAN for convenient traffic segregation
- Broadcast & multicast storm protection
- RMON & port mirroring for advanced diagnostics
- Security with HTTPS, SSL, SSH, SNMPv3 & more
- Easy configuration via Web, Telnet or CLI
- Free field-installable firmware upgrades forever

EPS9216-ETM DRAFT

 **COOPER** Crouse-Hinds

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SPECIFICATION

ETHERNET PERFORMANCE

- 16 fast Ethernet ports
- Managed, store & forward, wire-speed
- All IEEE 802.3 Ethernet protocols supported
- RJ45 ports 1 - 16 (shielded) 10/100BaseTX
- RJ45 port speed auto-negotiation
- RJ45 MDI/MDIX auto-crossover
- RJ45 TD and RD auto-polarity
- Typical latency (varies on load & settings)
 - 10Mbps: 16 μ s + frame time
 - 100Mbps: 5 μ s + frame time
- Full or half duplex operation configurable per port
- MAC addresses supported: 8192
- Memory bandwidth: 32Gbps
- Ethernet isolation: 1500VRMS 1 minute
- Console ports: USB and RS232 (RJ45)

ETHERNET COMPLIANCE

- IEEE 802.3u (Fast Ethernet 100Mbps for newer devices)
- IEEE 802.3 (10Mbps Ethernet supports legacy devices)
- IEEE 802.3x (Full-Duplex with Flow Control)
- IEEE 802.1D/w (Rapid Spanning Tree for redundant rings and Spanning Tree for interoperability)
- IEEE 802.1p (Priority Queuing – QoS, CoS, ToS/DS)
- IEEE 802.1Q (VLAN for traffic segregation)

REDUNDANT RING

- Link loss recovery: 30mS plus 5mS per hop
- Switches in a ring: <50 for best performance
- Multiple rings supported (configurable)

“OK” ALARM OUTPUT

- Indicates power & operational status
- Voltage same as switch input voltage
- Maximum current output 0.5A

POWER INPUT

- Redundant input terminals
- Reverse polarity protection
- Input power (typical with all ports active): 7W
- Power input voltage: 10-30VDC
- Transient protection: 15,000 watts peak
- Spike protection: 5,000 watts (10x for 10 μ S)

ENVIRONMENTAL

- Operating temperature:
 - 40 to +75°C (cold startup at -40°C)
- Storage temperature: -40 to +85°C
- Humidity: (non-condensing) 5 to 95% RH (optional conformal coating is available)
- Vibration and shock: IEC60068-2-6, -27, -32

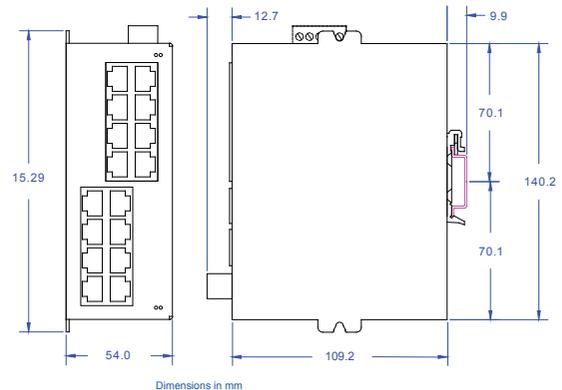
STANDARDS COMPLIANCE

- Electrical safety: UL508 / CSA C22.2/14; EN61010-1, CE
- EMC: FCC part 15, ICES-003; EN61000-6-4, EN61000-6-2, CE
- Hazardous locations: UL1604 / CSA C22.2/213 (Class 1, Div. 2) EN60079-15 (Zone 2, Category 3), CE (ATEX)
- RoHS and WEEE compliant
- ISO9001:2000 certified company

PHYSICAL

- DIN rail or direct panel mounting
- Case: Corrosion-resistant aluminum
- Ingress protection: IP30
- Weight: 0.34kg (12oz.)
- Dimensions: see mechanical diagram

MECHANICAL



ORDERING INFORMATION

9216-ETM

16 port Ethernet managed switch

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.



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