MTL

9218-ETM-2G-2F

Managed Ethernet Switch

- 18 ports including 2 flexible Gigabit combo ports that can be RJ45 copper or fiber optic

- 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 surveilance

The **9218-ETM-2G-2F** is an 18 port industrial Ethernet managed switch with 16 fast and 2 Gigabit combination ports that support both copper and fibre optic connections. This switch is 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.

Two flexible combination Gigabit ports. Your choice – just connect to the RJ45 for a 10/100/1000Mbps auto-detecting copper link or plug in a fibre transceiver for a 100 or 1000Mbps noise-immune fibre link. These advanced ports give you the flexibility you need and make your job easier!

PRODUCT HIGHLIGHTS

- 18 ports including 2 flexible Gigabit combo ports that can be RJ45 copper or fibre optic
- 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 (PENDING)
- 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

EPS9218-ETM-2G-2F DRAFT

COOPER Crouse-Hinds

SPECIFICATION

ETHERNET PERFORMANCE

- 18 fast Ethernet ports
- Managed, store & forward, wire-speed
- All IEEE 802.3 Ethernet protocols supported
- RJ45 ports 1 - 16 (shielded) 10/100BaseTX
- RJ45 ports 17 - 18 (shielded) 10/100/1000BaseTX
- RJ45 port speed auto-negotiation
- RJ45 MDI/MDIX auto-crossover
- RJ45 TD and RD auto-polarity
- Ports 17 and 18 are combination gigabit ports that have both a RJ45 connector and SFP fibre connector. For each of these ports, only one of the connectors can be used at a time.
- SFP (pluggable) ports 17 - 18 accept mini-GBIC transceivers
- Fibre optic port speed: 100Mbps or 1000Mbps
- Fibre typical specs (see separate datasheet for details)
  - Multimode: 0.55km, 850nm, 50 to 62.5/125μm
  - Singlemode: 10km, 1310nm, 9 to 10/125μm
  - Long haul: up to 120km, 1550nm, 9 to 10/125μm
- Typical latency (varies on load & settings):
  - 10Mbps: 16μs + frame time
  - 100Mbps: 5μs + 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:)
  - 8W (w/ no fibre plugged in)
  - 10W (w/ 2 fibres plugged in)
- Power input voltage: 10-30VDC
- Transient protection: 15,000 watts peak
- Spike protection: 5,000 watts (10x for 10μS)

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)
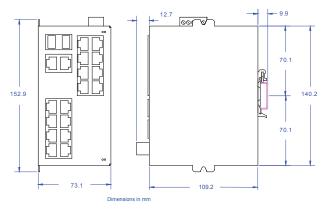- Vibration and shock: IEC60068-2-6, -27, -32

STANDARDS COMPLIANCE

- Electrical safety: UL508 / CSA C22.2/14 (PENDING); 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) (PENDING); EN60079-15 (Zone 2, Category 3), CE (ATEX)
- Maritime: designed for marine and offshore per ABS
- 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

Dimensions in mm

ORDERING INFORMATION

9218-ETM-2G-2F	18 port industrial Ethernet switch with 2 Gigabit combo SFP ports