



The ComNet CNGE8MS/DIN is an 8-port Managed Ethernet Switch designed to reliably operate in harsh, environmentally challenging applications. It features eight (8) 10/100/1000BASE-T(X) ports. Exclusive to ComNet is X-Ring Pro, a feature that protects the network from interruptions or temporary malfunctions with fast recovery technology. Redundant DC inputs are included for uninterrupted operation in the event of a power supply failure. The electrical ports support the 10/100/1000Mbps Ethernet IEEE802.3 protocol, and auto-negotiating and auto-MDi/MDiX features are provided. These network-managed layer 2 switches are electrically compatible with any IEEE802.3 compliant Ethernet device. The CNGE8MS/DIN is DIN-rail or wall-mountable.

FEATURES

- › 8 10/100/1000T(X) Ports
- › IGMP v1/v2 (IGMP snooping support) for filtering multicast traffic & Port Trunking for ease of bandwidth management
- › STP/RSTP/MSTP supported
- › Designed to meet full compliance with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions and transient voltage protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- › Operating Temperature: -40° C to +75° C.
- › Fastest Redundant Ethernet Ring: ComNet X-Ring Pro. Recovery time <30ms, with > 250 switches within the ring
- › Web-based and Telnet configuration with support for network monitoring through ComNet eVision utility
- › Supports LLDP (Link Layer Discovery Protocol)
- › Event notification through Syslog, RMON, SNMP trap, and Relay Output
- › Port lock to prevent access from unauthorized MAC address
- › SNMP v1/v2c/v3 for secure network management
- › IPv6 internet protocol (latest version)
- › Provides SSH/SSL protocol for enhanced network security
- › Rigid aluminum housing design provides for DIN-Rail or wall mounting
- › Lifetime Warranty

APPLICATIONS

- › ITS Traffic Signalization & Surveillance/
- › Incident Detection Networks
- › Industrial and Factory Automation
- › Integrated IP-Video and Data Transmission Networks
- › Industrial Security Access Control Systems

SOFTWARE FEATURES

- › STP/RSTP/MSTP (IEEE 802.1D/w/s)
- › X-Ring Pro Redundant Ring: Recovery time <30ms, with over 250 switches within the ring
- › 9k Jumbo frames supported
- › Quality of Service (802.1p) for Real-Time Traffic
- › VLAN (802.1Q) with VLAN Tagging and GVRP Supported
- › IGMP/MLP Snooping, Multicast Filtering
- › Port Configuration, Status, Statistics, Monitoring & Security
- › DHCP / Client support
- › Port Trunk Support
- › TCP Modbus
- › SMTP Client
- › Q-in-Q

SPECIFICATIONS

Connectors

| | |
|---|--|
| 10/100/1000BASE-T(X) Power Connector | 8 × RJ-45 Ports with Auto MDI/MDIX Terminal Block |
|---|--|

Switch Properties

| | |
|-----------------------|------------------------------|
| Switching Latency | 7 μs |
| Switching Bandwidth | 16 Gbps |
| Max. VLANs Available | 256 |
| IGMP Multicast Groups | 256 |
| Port Rate Limiting | User Defined |
| MAC Table | 8000 MAC addresses available |
| Packet Buffer Size | 4.1 Mbit |
| Priority Queues | 4 |
| Processing | Store-and-Forward |
| Jumbo Frame | Up to 9,216 Bytes |

Security Features

Enable/Disable Ports, MAC based port security
 Port-Based Network Access Control: 802.1x
 VLAN (802.1Q): To segregate and secure network traffic
 SSH/SSL
 SNMPv3 Encrypted Authentication and Access Security
 DHCP Option82

Alarms & Monitoring Systems

| | |
|-------------------------|---------------------------|
| Relay Output | For fault event alarming |
| Syslog Server / Client | To record and view events |
| RMON | For traffic monitoring |
| Event Selection Support | |

Network Redundancy

| | |
|------------|--------------|
| X-Ring Pro | X-Ring Elite |
| STP | RSTP |
| MSTP | |

Fault Alarm Relay

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|----------------------|--------------|
| Relay Contact Rating | 24 VDC @ 1 A |
|----------------------|--------------|

Power

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|----------------------------|-----------------------------|
| Operating Voltage Range | Dual DC Inputs: 12 - 48 VDC |
| Power Consumption, Typical | 6 W |
| Current Protection | Overload Current Protected |
| Polarity Protection | Reverse Polarity Protected |

Electrical & Mechanical

| | | | | |
|------------------|--|-------|----------------|------------|
| Indicating LEDs | Power | Fault | Loop Detection | RJ-45 Port |
| Size (L×W×H) | 1.69 × 4.72 × 3.3 in (4.3 × 12 × 8.4 cm) | | | |
| Enclosure | IP-30 Compliant Metal Enclosure | | | |
| Shipping Weight: | <3 lb / 1.1 kg | | | |

Environmental

| | |
|-----------------------|------------------------------|
| MTBF | >100,000 hours |
| Operating Temperature | -40° C to +75° C |
| Storage Temp | -40° C to +85° C |
| Relative Humidity | 10% to 95% (non-condensing)? |

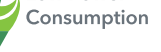
Ethernet Standards Supported

IEEE 802.3 for 10BASE-T
 IEEE 802.3u for 100BASE-TX
 IEEE 802.3ab for 1000BASE-T
 IEEE 802.3x for Flow control
 IEEE 802.3ad for LACP (Link Aggregation Control Protocol)
 IEEE 802.1D for STP (Spanning Tree Protocol)
 IEEE 802.1p for COS (Class of Service)
 IEEE 802.1Q for VLAN Tagging
 IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol)
 IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol)
 IEEE 802.1x for Authentication
 IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
 IEEE 802.3az for Energy Efficient Ethernet (EEE)

Regulatory Approvals

| | |
|------------------|--|
| EMI | FCC Part 15 Subpart B Class A, EN 55011/55022 Class A |
| EMS | EN61000-4-2 (Level 3) EN61000-4-3 (Level 3) EN61000-4-4 (Level 3) EN61000-4-5 (Level 3) EN61000-4-6 (Level 3) EN61000-4-8 (Level 3) |
| Mechanical Shock | IEC 60068-2-27 |
| Free Fall | IEC 60068-2-32 |
| Vibration | IEC 60068-2-6 |
| Safety | IEC/EN60950 |

AGENCY COMPLIANCE



ORDERING INFORMATION

| Part Number | Description |
|---|--|
| CNGE8MS/DIN | (8) 10/100/1000BASE-T(X) port managed switch |
| Included Accessories (North America Only) | DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included, for benign 0 to 50°C applications only. Hardened power supply available, consult factory) |
| Options | [2] Add suffix 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory) |

In a continuing effort to improve and advance technology, product specifications are subject to change without notice.