



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
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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

Relay Contact Rating	24 VDC @ 1 A
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Power

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)			
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



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.