The ComNet CNGE24FX12TX12MS[POE] has twelve 100/1000Base-FX SFP ports and twelve 10/100/1000Base-TX ports. All SFP ports utilize ComNet SFP modules for fiber and connector type and distance. The IEEE802.3-compliant unit offers multiple Ethernet redundancy protocols (MSTP/RSTP/STP/ERPS (G.8032)) which protect your applications from network interruptions or temporary malfunctions by redirecting transmission within the network. The switch provides advanced IP-based management that can limit the maximum bandwidth for each connected IP device, allowing the user to adjust usage. The CNGE24FX12TX12MSPOE models provide twelve electrical ports supporting up to thirty watts of power. All PoE ports are IEEE 802.3at compliant.

Each model is provided with redundant power inputs which can be either one mains voltage and one or two low voltage DC inputs or two low voltage DC inputs.
CNGE24FX12TX12MS[POE]

**Specifications**

**Connectors**

- 10/100/1000Base-TX Ports: 12 × RJ-45
- 100/1000Base-X Port: 12 × SFP¹
- Serial Console Port: USB Type B Connector (115200bps, 8, N, 1)
- Power: IEC Input and/or 2 × 2-Pin Terminal Strip
- Fault Relay: 2-Pin Terminal Strip

**Switch Properties**

- Switching latency: 7 µs
- Switching bandwidth: 54 Gbps
- DRAM: 1GB
- Flash: 128Mb
- VLANs: Voice, Private, Multicast
- Max. Available VLANs: 256
- IGMP multicast groups: 128 for each VLAN
- Port rate limiting: User Defined
- Processing: Store-and-Forward
- Priority Queues: 8
- Network Redundancy: STP, RSTP, MSTP, ERPS
- MAC Table: 8K MAC Addresses
- Jumbo Frame: Up to 9.6K Bytes
- Static Routing: 32 Routes

**Security Features**

- Device Binding security feature
- Enable/disable ports, MAC based port security
- Port based network access control (802.1x)
- VLAN (802.1Q) to segregate and secure network traffic
- Radius centralized password management
- SNMPv3 encrypted authentication and access security
- https / SSH enhance network security
- Switch/port based, NAS, ACL, ARP inspection and IP sourceguard
- AAA radius server authentication
- TACACS+
- SNIP

**Power**

- Input Power (non-PoE): (1) 90 - 240 VAC & (1) 6 - 14 VDC or (2) 6 - 14 VDC
- Input Power (PoE models): (1) 90 - 240 VAC & (2) 48 - 57 VDC or (2) 48 - 57 VDC
- Power Consumption: 30 W Max (non-PoE models) 390 W Max w/PoE+ (PoE models)
- Overload Current Protection: Present

**Mechanical**

- Indicating LEDs: Status Indicators, RJ45 Port Indicator, SFP Port Indicator
- Size: (H × W × D): 17 × 10 × 1.5 in (43.2 × 25.4 × 3.8 cm)
- Installation: Desktop or 19-inch Rack Mount
- Weight: 11 lb / 5 kg (Mains Powered Models) 7.9 lb / 3.6 kg (DC Only Powered Models)

**Environmental**

- Storage Temperature: -40 to 85 °C
- Operating Temperature: -40 to +60 °C (Functional to +75° C)
- Operating Humidity: 5% to 95% Non-condensing
- MTBF: >100,000 hours

**Ethernet Standards**

- IEEE 802.3 for 10Base-T
- IEEE 802.3u for 100Base-TX and 100Base-FX
- IEEE 802.3ab for 1000Base-T
- IEEE 802.z for 1000Base-X
- IEEE 802.3x for Flow control
- IEEE 802.3ad for LACP (Link Aggregation Control Protocol)
- IEEE 802.3at for Power Sourcing Equipment (PSE) and PoE up to 30 watts per port (CNGE24FX12TX12MSPOE Only)
- IEEE 802.1p for COS (Class of Service)
- IEEE 802.1Q for VLAN Tagging
- IEEE 802.1Q for STP (Spanning Tree Protocol)
- 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 Energy Efficient Ethernet
- ITU-T G.8032v1/v2 Ethernet Ring Protection Switching (ERPS)

**Regulatory Compliance**

- EMI: FCC Part 15, CISPR (EN55022) class A
- EMS: EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
- Shock: IEC60068-2-27
- Free Fall: IEC60068-2-32
- Vibration: IEC60068-2-6
- Safety: EN60950-1
- Rail: EN50121-4

**Ordering Information**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>SFP Ports¹</th>
<th>RJ-45 Ports</th>
<th>30W PoE+ Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNGE24FX12TX12MS</td>
<td>Industrial Grade 24 Port Gigabit Managed Ethernet Switch, 1 × Mains Input, 1 × Low Voltage DC Input</td>
<td>12</td>
<td>12</td>
<td>0</td>
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<tr>
<td>CNGE24FX12TX12MS/12</td>
<td>Industrial Grade 24 Port Gigabit Managed Ethernet Switch, 2 × Low Voltage DC Inputs</td>
<td>12</td>
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<td>0</td>
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<tr>
<td>CNGE24FX12TX12MSPOE</td>
<td>Industrial Grade 24 Port Gigabit Managed Ethernet PoE Switch, 1 × Mains Input, 2 × Low Voltage DC Inputs</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>CNGE24FX12TX12MSPOE/48</td>
<td>Industrial Grade 24 Port Gigabit Managed Ethernet PoE Switch, 2 × Low Voltage DC Inputs</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Options

- ComNet Recommended Power Supply (Not Included, consult factory)
- User selection of ComNet SFP (see SFP Modules data sheet for product numbers and compatibility before ordering)

[¹] Multimode fiber needs to meet or exceed fiber standard ITU-T G.651. Single mode fiber needs to meet or exceed fiber standard ITU-T G.652

Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J

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