

# MS-0802G

## 8+2 Port Industrial Managed Gigabit Ethernet Switch



- 8x Gigabit Ethernet ports
- 2x 1000F(x) SFP Slot
- Built for harsh environments and wide temperature range application
- RSTP, MSTP, ERPS, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- Supports IGMP Snooping v1/v2/v3, up to 1023 groups
- DHCP Relay Option 82 for policies IP address assignment
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection
- USB storage for configuration-free replacement
- Support industrial automation protocols Ethernet/IP and Modbus TCP

### Specifications

#### Technology

|           |                                    |
|-----------|------------------------------------|
| Standards | IEEE 802.3 10BaseT                 |
|           | IEEE 802.3u 100BaseTX              |
|           | IEEE 802.3ab 1000BaseT             |
|           | IEEE 802.3z 1000BaseX              |
|           | IEEE 802.3x Flow Control           |
|           | IEEE 802.3ad/802.1AX LACP          |
|           | IEEE 802.1D Spanning Tree Protocol |
|           | IEEE 802.1w Rapid STP              |
|           | IEEE 802.1s Multiple STP           |
|           | ITU-T G.8032 / Y.1344 ERPS         |
|           | IEEE 802.1Q VLAN Tagging           |
|           | IEEE 802.1ad Stacked VLANs         |
|           | IEEE 802.1p Class of Service       |
|           | IEEE 802.1X Network Authentication |
|           | IEEE 802.1AB LLDP                  |
|           | IEEE 1588 PTP                      |

**Processing Type** Store and Forward

#### Switch Properties

**Priority Queues** 8 Queues

**Jumbo Frame** 9216bytes

**MAC Table Size** 16K

**VLAN Table Size** 4094

**IGMP Group** 1023

**Packet Buffer** 12Mbits

#### Software Feature

|                            |                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------|
| <b>Network Redundancy</b>  | RSTP, MSTP, G.8032 ERPSv2, Port Trunking with LACP                                   |
| <b>Security</b>            | 802.1X, RADIUS, TACACS+, SSL, SSH                                                    |
| <b>Management</b>          | IPv4, IPv6, Web, Telnet, Serial Console, CLI, SNMP v1/v2c/v3, uPnP                   |
| <b>Diagnostics</b>         | RMON, SNMP Inform/Trap, Syslog, SMTP, Port Mirroring, LLDP                           |
| <b>Configuration</b>       | DHCP Server/Client, Relay Option 82, TFTP, USB                                       |
| <b>Filter</b>              | 802.1Q VLAN, Q-in-Q, IGMP Snooping v1/v2/v3, IGMP Querier, Independent Vlan Learning |
| <b>Time Sync.</b>          | NTP, IEEE1588v2                                                                      |
| <b>QoS</b>                 | CoS, DSCP, WRR/SPQ Queuing, Storm Protection                                         |
| <b>Industrial Profiles</b> | Ethernet/IP, Modbus TCP                                                              |

#### Interface

|                       |                                                                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>RJ45 Port</b>      | 8x 10/100/1000T(x), auto negotiation speed duplex mode, auto MDI/MDI-X                                                               |
| <b>Fiber Port</b>     | 2x 1000F(x) SFP Slot                                                                                                                 |
| <b>LED Indicators</b> | <b>Per unit:</b> PWR1, PWR2, Fault, Ring Master, Ring State<br><b>Ports:</b> Link/Active with highest speed(Green), low speed(Amber) |
| <b>Alarm Contact</b>  | 1x relay output with current carrying                                                                                                |

|                       |                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------|
|                       | capacity of 1A @ 24 VDC                                                                                                     |
| <b>Digital Inputs</b> | 1x isolated input from the electronics.<br>+13 to +30V for state "1"<br>-30 to +3V for state "0"<br>Max. input current: 8mA |
| <b>Button</b>         | Multiple functions reset button                                                                                             |
| <b>Serial Console</b> | 1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1                                                               |
| <b>Storage</b>        | 1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog                                   |

### Power Requirements

|                          |                                                        |
|--------------------------|--------------------------------------------------------|
| <b>Operation Voltage</b> | 12-48VDC, redundant dual inputs                        |
| <b>Connection</b>        | 1x removable 4-contact terminal block                  |
| <b>Power Consumption</b> | 0.51A@24VDC                                            |
| <b>Protection</b>        | Overload Current Protected, Reverse Polarity Protected |

### Mechanical Construction

|                         |                                                |
|-------------------------|------------------------------------------------|
| <b>Enclosure</b>        | Aluminum                                       |
| <b>Protection Class</b> | IP30                                           |
| <b>Dimensions</b>       | 72x145x118 mm (WxHxD)                          |
| <b>Weight</b>           | 0.85 kg                                        |
| <b>Mounting</b>         | DIN-Rail Mounting, Optional Wall Mounting Kits |

### Environmental Limits

|                                  |                                                                                 |
|----------------------------------|---------------------------------------------------------------------------------|
| <b>Operating Temperature</b>     | Standard: -10°C ~ 60°C (14°F ~ 140°F)<br>Extended: -40°C ~ 75°C (-40°F ~ 167°F) |
| <b>Storage Temperature</b>       | -40°C ~ 85°C (-40°F ~ 185°F)                                                    |
| <b>Ambient Relative Humidity</b> | 5 to 95%, (Non-Condensing)                                                      |

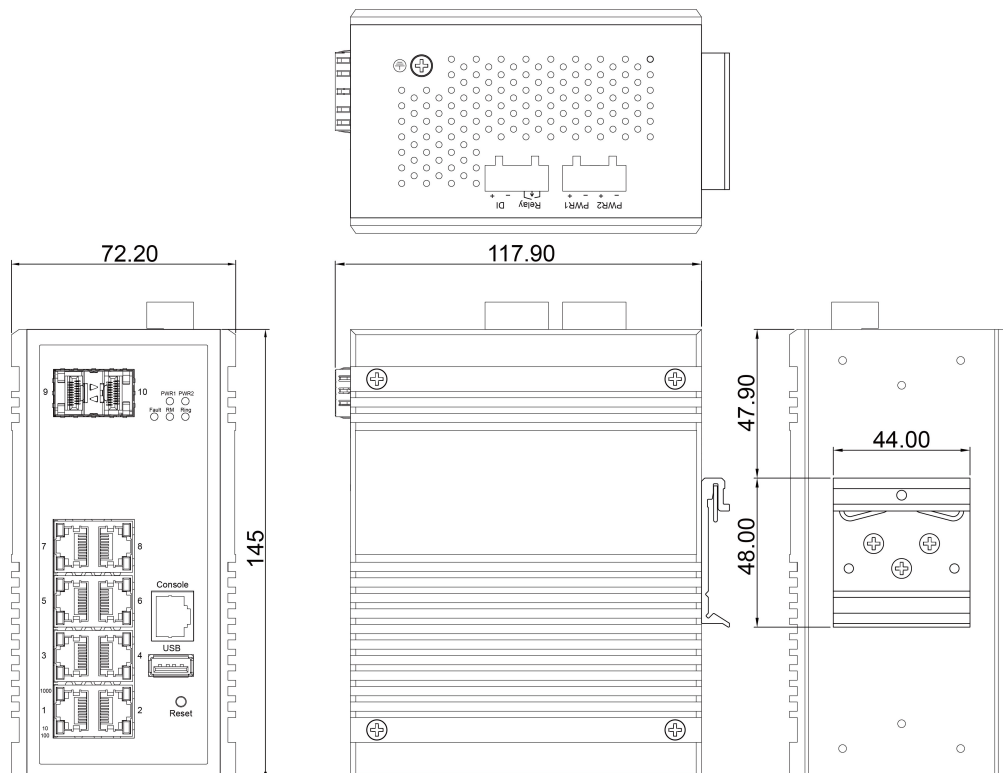
### Regulatory Approvals

|                       |                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EMI</b>            | CE EN 55032 Class A                                                                                                                         |
| <b>EMS</b>            | IEC61000-4-2 (ESD)<br>IEC61000-4-3 (RS)<br>IEC61000-4-4 (EFT)<br>IEC61000-4-5 (Surge)<br>IEC61000-4-6 (CS)<br>IEC61000-4-8 (Magnetic Field) |
| <b>Free Fall</b>      | IEC60068-2-32                                                                                                                               |
| <b>Shock</b>          | IEC60068-2-27                                                                                                                               |
| <b>Vibration</b>      | IEC60068-2-6                                                                                                                                |
| <b>Green</b>          | RoHS Compliant                                                                                                                              |
| <b>Certifications</b> | UL 60950-1/62368 (Pending)<br>IEC 61000-6-2<br>IEC 61000-6-4<br>EN 50121-4                                                                  |
| <b>MTBF</b>           | >100,000 hours                                                                                                                              |
| <b>Warranty</b>       | 5 Years                                                                                                                                     |

Features with star(\*) implies those are under development.

In a continuing effort of improvement and updated technology, product specifications are subject to change without notice.

## Dimensions (unit = mm)



## Ordering Information

|                   |                                                                                                                                                             |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MS-0802G</b>   | 8+2 Port Industrial Managed Gigabit Ethernet Switch<br>- 8x 10/100/1000T(x) + 2x 1000F(x) SFP Slot                                                          |
| <b>MS-0802G-T</b> | 8+2 Port Industrial Managed Gigabit Ethernet Switch<br>- 8x 10/100/1000T(x) + 2x 1000F(x) SFP Slot<br>- Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) |

### Optional Accessories

|                  |                                                                            |
|------------------|----------------------------------------------------------------------------|
| <b>MDR-20-24</b> | Industrial DIN-Rail Power Supply with 24VDC Output, provide max. 20W Power |
| <b>MDR-40-48</b> | Industrial DIN-Rail Power Supply with 48VDC Output, provide max. 40W Power |
| <b>MDR-60-48</b> | Industrial DIN-Rail Power Supply with 48VDC Output, provide max. 60W Power |