

# IS-DG610-2F Series

10-port Gigabit Din-Rail Managed Layer 2 Industrial Ethernet Switch



## Key features

- ▶ 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 512 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
- ▶ Supports industrial automation protocols Ethernet/IP and Modbus TCP, Profinet



## Specification

### Technology

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards       | IEEE 802.3 10BaseT<br>IEEE 802.3u 100BaseTX<br>IEEE 802.3ab 1000BaseT<br>IEEE 802.3z 1000BaseX<br>IEEE 802.3x Flow Control<br>IEEE 802.3az Energy-Efficient Ethernet<br>IEEE 802.3ad/802.1AX LACP<br>IEEE 802.1D Spanning Tree Protocol<br>IEEE 802.1w Rapid STP<br>IEEE 802.1s Multiple STP<br>ITU-T G.8032 / Y.1344 ERPS<br>IEEE 802.1Q VLAN Tagging<br>IEEE 802.1ad Stacked VLANs<br>IEEE 802.1p Class of Service<br>IEEE 802.1X Network Authentication<br>IEEE 802.1AB LLDP |
| Processing Type | Store and Forward                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

### Switch Properties

|                 |            |
|-----------------|------------|
| Switch Fabric   | 20Gbps     |
| Priority Queues | 8 Queues   |
| Jumbo Frame     | 12000bytes |
| MAC Table Size  | 16K        |
| Packet Buffer   | 12Mbits    |
| VLAN Table Size | 4094       |
| IGMP Group      | 1023       |

## Software Feature

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

## Interface

|                |                                                                                                                             |
|----------------|-----------------------------------------------------------------------------------------------------------------------------|
| RJ45 Port      | 8x 10/100/1000T(x), auto negotiation speed duplex mode, auto MDI/MDI-X                                                      |
| Fiber Port     | 2x 1000F(x) SFP Slot                                                                                                        |
| LED Indicators | Per unit: PWR1, PWR2, Fault, Ring Master, Ring State<br>Ports: Link/Active with highest speed(Green), low speed(Amber)      |
| Alarm Contact  | 1x relay output with current carrying capacity of 1A @ 24 VDC                                                               |
| Digital Inputs | 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 |
| Button         | Multiple functions reset button                                                                                             |
| Serial Console | 1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1                                                               |
| Storage        | 1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog                                   |

## Power Requirements

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

## Mechanical Construction

|                  |                                                |
|------------------|------------------------------------------------|
| Enclosure        | Aluminum                                       |
| Protection Class | IP30                                           |
| Dimensions       | 72.2x145x117.9 mm (WxHxD)                      |
| Weight           | 850g                                           |
| Mounting         | DIN-Rail Mounting, Optional Wall Mounting Kits |

## Environmental Limits

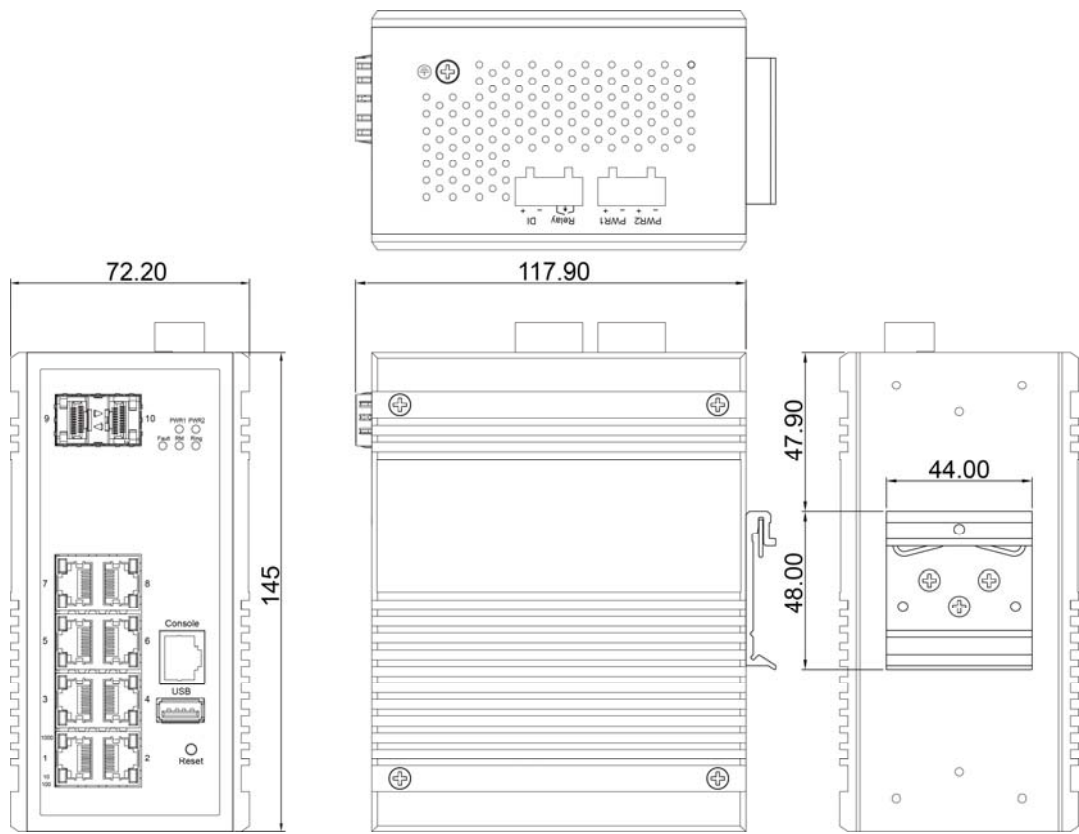
|                           |                              |
|---------------------------|------------------------------|
| Operating Temperature     | -40°C ~ 75°C (-40°F ~ 167°F) |
| Storage Temperature       | -40°C ~ 85°C (-40°F ~ 185°F) |
| Ambient Relative Humidity | 5 to 95%, (Non-Condensing)   |

## Regulatory Approvals

|           |                                                                                                                                             |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------|
| EMI       | FCC Part 15 Subpart B Class A, CE EN 55032 Class A                                                                                          |
| EMS       | 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) |
| Free Fall | IEC60068-2-32                                                                                                                               |
| Shock     | IEC60068-2-27                                                                                                                               |
| Vibration | IEC60068-2-6                                                                                                                                |

|                |                                              |
|----------------|----------------------------------------------|
| Green          | RoHS Compliant                               |
| Certifications | IEC 61000-6-2<br>IEC 61000-6-4<br>EN 50121-4 |
| MTBF           | >100,000 hours                               |
| Warranty       | 5 Years                                      |

Dimension Diagram



Ordering Information

| Available Models | Description                                                                                                                                                 |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IS-DG610-2F      | 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) |

Accessories

1. Gigabit SFP Modules

Package Checklist

- IS-DG610 Switch
- Quick Installation Guide (Printed)
- RS232 Console
- RJ45 / SFP Cap / Wall Mount kit DIN-Rail kit