

IS-DG612-4F Series

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



Key features

- ▶ 8x Gigabit Ethernet ports
- ▶ 4x 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



Specification

Technology

Standards	IEEE 802.3 10BaseT IEEE 802.3u 100BaseTX IEEE 802.3ab 1000BaseT IEEE 802.3z 1000BaseX IEEE 802.3x Flow Control IEEE 802.3az Energy-Efficient Ethernet 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
Processing Type	Store and Forward

Switch Properties

Switch Fabric	24Gbps
Priority Queues	8 Queues
Jumbo Frame	9216bytes
MAC Table Size	16K
Packet Buffer	12Mbits
VLAN Table Size	4094
IGMP Group	512
ACL Group	512

Software Feature

Network Redundancy	RSTP, MSTP, G.8032 ERPSv2, Port Trunking with LACP, IEC 62439-2 MRP
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

Interface

RJ45 Port	8x 10/100/1000T(x), auto negotiation speed duplex mode, auto MDI/MDI-X
Fiber Port	4x 1000F(x) SFP Slot
LED Indicators	Per unit: PWR1, PWR2, Fault, Ring Master, Ring State 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. +13 to +30V for state "1" -30 to +3V for state "0" 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	870g
Mounting	DIN-Rail Mounting, Optional Wall Mounting Kits

Environmental Limits

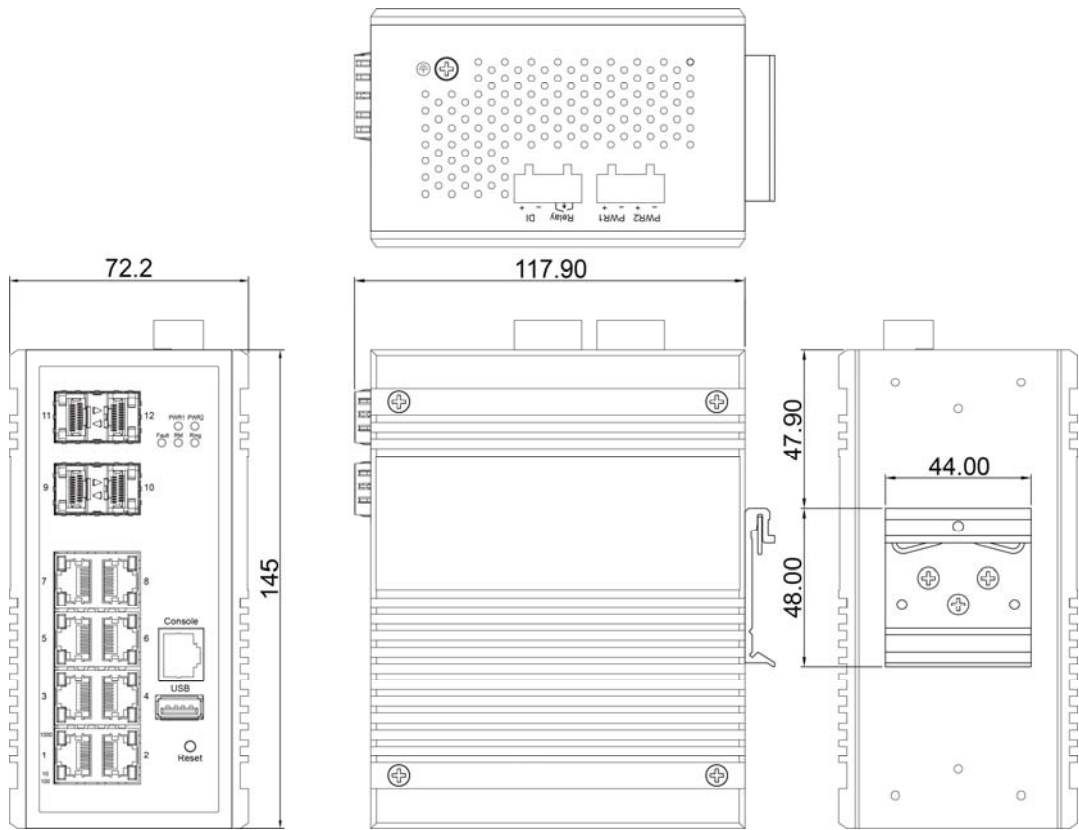
Operating Temperature	-40°C ~ 75°C (-40°F ~ 167°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Relative Humidity	5 to 95%, (Non-Condensing)

Regulatory Approvals

EMI	FCC Part 15 Subpart B Class A, CE EN 55032 Class A
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) IEC61000-4-6 (CS) 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 IEC 61000-6-4 EN 50121-4
MTBF	>100,000 hours
Warranty	5 Years

Dimension Diagram



Ordering Information

Available Models	Description
IS-DG612-4F	8+4 Port Industrial Managed Gigabit Ethernet Switch - 8x 10/100/1000T(x) + 4x 1000F(x) SFP Slot - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F)

Accessories

1. Gigabit SFP Modules

Package Checklist

- IS-DG612 Switch
- Quick Installation Guide (Printed)
- RS232 Console
- RJ45 / SFP Cap / Wall Mount kit DIN-Rail kit