

# Network Transmission Gigabit Ethernet Unmanaged Switch

## Overview

GE's Industrial Gigabit Ethernet Unmanaged Switch Series is now IFS. Designed to deliver non-blocking, triple-speed performance (10/100/1000Mbps), these unmanaged switches comprise a family of Industrial Ethernet Switches that can be deployed in harsh, heavy-industrial and curbside traffic control cabinet environments.

A 10Gbps or 16Gbps internal switch fabric, combined with 9K jumbo packet support, delivers high performance for large traffic volume and is ideal for linking to a backbone or high-capacity servers.

The IFS Industrial Gigabit Ethernet Unmanaged Switch Series utilizes a store-and-forwarding architecture to ensure low latency and high data integrity. This feature eliminates unnecessary data traffic and relieves congestion on critical network paths.

With an intelligent address recognition algorithm, the switches provide support for an 8K MAC address table to enable filtering and forwarding at full wire-speed. Flow-control capabilities add flexibility in network configuration, allowing integration of these switches with various switch-supported routers and servers.

# GE-DSG/DSGH Series

5-port and 8-port Industrial Gigabit Ethernet Unmanaged Switches

## Standard Features

## **Physical Ports**

- 10/100/1000Base-T
- 5 or 8 RJ-45 connectors
- Auto MDI/MDI-X
- Auto-negotiation complies with IEEE 802.3 10Base-T, IEEE 802.3u 100/Base-TX, IEEE 802.3ab 1000Base-T Ethernet standards

## **Switch Architecture**

- Store-and-forward switching architecture, broadcast storm control and runt/CRC filtering optimize network bandwidth by eliminating erroneous packets
- High performance switch fabric (10 or 16Gbps)
- Back pressure (half-duplex) and IEEE 802.3x PAUSE frame-flow control (full-duplex) to prevent packet loss
- · Automatic address learning and address aging
- Integrated address-lookup engine with support for 8K absolute MAC address table
- Up to 176 kilobytes on-chip frame buffer
- 9K jumbo packet-size support
- CSMA/CD Protocol

## **Robust Hardened Design**

- Slim IP-30 metal case for protection
- Provides either DIN-rail or wall-mounting
- 12 to 48 VDC, redundant power with reverse-polarity protection
- Removable terminal block for master and slave power
- Alarm relay output for power-failure alert
- Voltage/surge-suppression
  - EFT 6000VDC protection for power lines
  - ESD 6000VDC protection for Ethernet
- Complies with IEC60068-2-xx standards for free-fall, shock and vibration
- Wide operating temperature range of -40 $^{\circ}$  C  $\sim$  +75 $^{\circ}$  C Warrantv

### varianty

3-year limited warranty





GE-DSGH-5 5-Port Industrial Gigabit Ethernet Unmanaged Switch (-40~75°C)



GE-DSGH-8 8-Port Industrial Gigabit Ethernet Unmanaged Switch (-40~75°C)

## Industrial Gigabit Ethernet Switch Specifications

North America T 888-437-3287 F 503-691-7566

E sales@ifs.com

#### Asia

T 852-2907-8108 F 852-2142-5063

Australia and New Zealand

T 613-9239-1200

F 613-9239-1299

#### **EMEA**

T 44-113-238-1668 F 44-113-253-8121

Latin America

T 561-998-6100

F 561-994-6572

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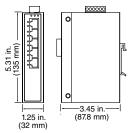
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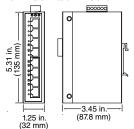
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## **Dimensional Diagrams**

## GE-DSGH-5



## GE-DSGH-8/GE-DSG-8



	Part No.	GE-DSGH-5	GE-DSGH-8	GE-DSG-8
		am		
Physical Ports	10/100/1000Base-T Ports	RJ-45 (5)	RJ-45 (8)	RJ-45 (8)
	Port Configuration	Auto MDI/MDI-X		
	Port Speed	Auto-negotiate 10/100Mbps (half/full-duplex) and 1000Mbps full-duplex mode		
	Electro Static Discharge (ESD) Protection	6KV		
Switch Performance	Switch Processing	Store-and-forward		
	Mac Address Table	8K entries		
	Buffer	136 kilobytes	176 kilobytes	176 kilobytes
	Flow Control	Back pressure for half-duplex, IEEE 802.3x Pause frame for full-duplex		
	Switch Fabric	10Gbps	16Gbps	16Gbps
	Throughput (Packet per second)	7.4Mpps@64Bytes	11.9Mpps@64Bytes	11.9Mpps@64Bytes
	Jumbo Frame	9Kbytes		
Standard Compliance	IEEE Standards	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3x Full-duplex flow		
	IEC Standards	IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)		
	EIA/TIA-568 Standards	Cat. 3, 4, 5, 5e, 6 UTP cable (100meters, max.) EIA/TIA-568 100-ohm STP (100meters, max.)		
	Regulation	FCC Part 15 Class A, CE		
	Safety	UL, cUL		
LED	Power	Power input 1; Power input 2; Power Fault		
Indii L	Ports	10/100Mbps or 1000Mbps Transmission Activity		
	Power Input	12~48 VDC, Redundant power with polarity-reverse protection function		
	Power Consumption	11.9 Watts/40BTU	13.2 Watts/45BTU	13.2 Watts/45BTU
Electrical & Mechanical	Electrical Fast Transient (EFT) Protection	6KV		
	Power and Alarm Fault Connector	6-pin removable screw terminal		
a &	Alarm Fault Relay	30VDC - 3A max.		
	Enclosure	Metal (Meets IP-30 standard)		
	Mounting	DIN-rail kit and wall-mount ears (included)		
	Dimensions (W) x (D) x (H)	5.31" x 3.42" x 1.26" 135 x 87 x 32mm		
	Weight (lbs/kg)	1.0 lbs	1.045 lbs	1.045 lbs
Environmental	Operating Temperature	-40°C~75°C	-40°C~75°C	-10°C~60°C
	Storage Temperature	-40°C~75°C	-40°C~75°C	-40°C~75°C
Envi	Relative Humidity	5% ~ 95% (non-con	densing)	

## **Ordering Information**

GE-DSGH-5	5-Port Industrial Gigabit Ethernet Unmanaged Switch (-40~75°C)
GE-DSGH-8	8-Port Industrial Gigabit Ethernet Unmanaged Switch (-40~75°C)
GE-DSG-8	8-Port Industrial Gigabit Ethernet Unmanaged Switch (-10~60°C)

Note: External power supply must be purchased separately

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