

# Network Transmission Products

## GE-DSG/DGH Series Gigabit Ethernet Switch

### Overview

The GE-DSG/DSGH Series is a family of Gigabit Ethernet Switches designed to deliver nonblocking, triple-speed performance (10/100/1000Mbps) in demanding, heavy-industrial environments. A slim metal cabinet makes the most of limited space.

A 10Gbps or 16Gbps internal switching fabric, combined with 9K jumbo packet support, provides a secure platform that can handle a large volume of traffic, whether it's at the backbone or server level. Auto-negotiation between ports allows optimal speed detection through RJ-45 Category 6, 5 or 5e cables. An auto-MDI/MDI-X function allows connection to other hubs or switches, without the need for special straight or crossover cables.

Flow-control capabilities add flexibility in network configuration, allowing integration of the devices with various switch-supported routers and servers.

### Standard Features

- 5 or 8 Gigabit Ethernet 10/100/1000Base-T ports with auto-MDI/MDI-X function for each port
- IP-30 metal case for protection that allows either DIN-rail or wall mounting
- 12 to 48V DC, redundant power with polarity-reverse protection and connective removable terminal block for master and slave power
- Support for voltage/surge-suppression devices  
-VDC EFT 6000 protection for power line  
-VDC ESD 6000 protection for Ethernet
- Operates under a wide range of temperatures
- Complies with IEEE 802.3 10Base-T, IEEE 802.3u 100 Base-TX, IEEE 802.3ab 1000Base-T Ethernet standards
- Auto-negotiation and 10/100Mbps (half/full-duplex) and 1000Mbps full-duplex mode
- Store-and-forward switching architecture, broadcast storm control and runt/CRC filtering optimize network bandwidth by eliminating erroneous packets
- Back pressure (half-duplex) and IEEE 802.3x PAUSE frame-flow control (full-duplex) to prevent packet loss
- Integrated address-lookup engine with support for 8K absolute MAC address table
- 176 kilobytes on-chip frame buffer
- 9K jumbo packet-size support
- Automatic address learning and address aging
- CSMA/CD Protocol

# GE-DSG/DSGH series 5/8-Port 10/100/1000Mbps



# Industrial Gigabit Ethernet Switch Comparisons

North America  
 T 888-GE-SECURITY  
 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

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

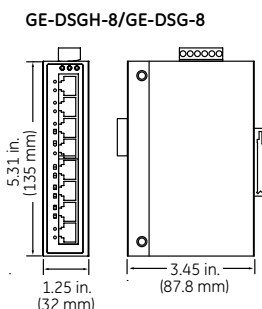
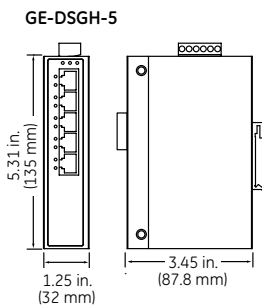
Latin America  
 T 305-593-4301  
 F 305-593-4300




gesecurity.com/ifs

Specifications subject to  
 change without notice.

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## Dimensional Diagrams



| GE SKU                           | GE-DSGH-5  | GE-DSGH-8   | GE-DSG-8  |                  |
|----------------------------------|--|---|---|------------------|
| <b>GE Description</b>            |  |                                |  |                  |
| <b>Hardware Specifications</b>   | <b>10/100/1000Base-T Ports</b>   | 5   | 8   | 8                |
|                                  | <b>Installation</b>  | DIN-rail kit and wall-mount ear   |   |                  |
|                                  | <b>Dimensions (W) x (D) x (H)</b>  | 5.31" x 3.42" x 1.26"<br>135 x 87 x 32mm  |   |                  |
|                                  | <b>Weight (lbs.)</b>   | 1.0 lbs   | 1.045 lbs   | 1.045 lbs        |
|                                  | <b>EFT</b>   | 6KV   |   |                  |
|                                  | <b>ESD</b>   | 6KV   |   |                  |
| <b>Electronic Specification</b>  | <b>Power Input</b>   | 12-48 VDC, Redundant power with polarity-reverse protection function  |   |                  |
|                                  | <b>Power Consumption</b>   | 11.9 Watts/40BTU  | 13.2 Watts/45BTU  | 13.2 Watts/45BTU |
|                                  | <b>Power Connector</b>   | 6-pin removable screw terminal  |   |                  |
| <b>Switch Specification</b>      | <b>Switch Processing Scheme</b>  | Store-and-forward   |   |                  |
|                                  | <b>Address Table</b>   | 8K entries  |   |                  |
|                                  | <b>Buffer</b>  | 176 kilobytes   |   |                  |
|                                  | <b>Flow Chart</b>  | Back pressure for half-duplex, IEEE 802.3x Pause frame for full-duplex  |   |                  |
|                                  | <b>Switch Fabric</b>   | 10Gbps  | 16Gbps  | 16Gbps           |
|                                  | <b>Throughput (Packet per second)</b>  | 7.44Mpps@64Bytes  | 11.9Mpps@64Bytes  | 11.9Mpps@64Bytes |
|                                  | <b>Jumbo Frame</b>   | 9Kbytes   |   |                  |
|                                  | <b>Network Cables: 10/100/1000Base-T</b>   | Cat. 3, 4, 5, 5e, 6 UTP cable (100 meters, max.)<br>EIA/TIA-568 100-ohm STP (100 meters, max.)                    |   |                  |
| <b>Environment Specification</b> | <b>Operating Temperature</b>   | -40°C~75°C  | -40°C~75°C  | -10°C~60°C       |
|                                  | <b>Operating Humidity</b>  | 5% ~ 95% (non-condensing)   |   |                  |
|                                  | <b>Storage Temperature</b>   | -40°C~75°C  | -40°C~75°C  | -40°C~75°C       |
|                                  | <b>Storage Humidity</b>  | 5% ~ 95% (non-condensing)   |   |                  |
| <b>Standards Conformance</b>     | <b>Standards Compliance</b>  | IEEE 802.3 Ethernet<br>IEEE 802.3u Fast Ethernet<br>IEEE 802.3ab Gigabit Ethernet<br>IEEE 802.3x Full-duplex flow |   |                  |
|                                  | <b>Stability testing</b>   | IEC60068-2-32 (Free fall)<br>IEC60068-2-27 (Shock)<br>IEC60068-2-6 (Vibration)                                    |   |                  |
|                                  | <b>Network cables: 10/100/1000Base-TX</b>  | Cat. 3, 4, 5, 5e, 6 UTP cable (100meters, max.)<br>EIA/TIA-568 100-ohm STP (100meters, max.)                      |   |                  |

## Ordering Information

|           |  |
|-----------|--|
| GE-DSGH-5 | 5-Port 10/100/1000-T Industrial Ethernet Switch (-40~75°C) |
| GE-DSGH-8 | 8-Port 10/100/1000-T Industrial Ethernet Switch (-40~75°C) |
| GE-DSG-8  | 8-Port 10/100/1000-T Industrial Ethernet Switch (-10~60°C) |

