

Product Highlights

Robust Design

High EMC endurance, fanless design, and wider operating temperature range combined with a IP40 housing to withstand harsh operating environments.

Compact Housing

Small form factor design that supports multiple mounting types and PoE support allow the switch to be deployed virtually anywhere.

Easy management

Features a variety of flexible management options including a web-based UI, industry-standard CLI, SNMP, and a dedicated RJ-45 console port.



DGS-F3016P-4S

16 Ports Gigabit Outdoor Managed Long Range 250m PoE Switches

Features

Robust Design

- IP40-rated metal housing
- Fanless, passive cooling design
- High EMC endurance

Network Redundancy

- Ethernet Ring Protection Switching (ERPS)
- Dual power input for redundant power supplies

Switching Features

- IEEE 802.1Q and port-based VLAN
- IEEE 802.1p Quality of Service (QoS)
- STP/RSTP/MSTP
- Port mirroring
- Link aggregation
- Bandwidth control
- Broadcast storm control

Advanced Features

- IGMP/MLD Snooping
- L2 / L3 ACL

The DGS-F3016P-4S Layer 2 Gigabit Outdoor Smart Managed Switches are equipped with 16 100/1000BASE-T PoE ports & 4 SFP ports. These switches feature a robust design making them ideal for deployment in Outdoor surveillance, capable of withstanding the harshest environment. The DGS-F3016P-4S furthermore integrates advanced management and security functions to provide a complete solution.

Durable Design

The DGS-F3016P-4S switches are housed in a highly resistant IP40-rated metal casing to protect the switches from harsh environmental conditions. The high electromagnetic compatibility (EMC) protects the DGS-F3016P-4S from unwanted effects when operating in environments with strong electromagnetic interference. Meanwhile, the fanless design extends the life of DGS-F3016P-4S while also being able to operate in a wider temperature range of up to 70 °C. For increased flexibility, the DGS-F3016P-4S can also be mounted on a DIN rail or wall mounted.

High Redundancy and Reliability

The DGS-F3016P-4S support ERPS <50 ms quick failover recovery for ring topologies that ensures minimal downtime and avoids any loss of data in mission-critical deployment environments. Meanwhile, the dual power input allows for a redundant power supply to make sure the network continues to operate in the event of a primary power supply failure.

Advanced Features

The DGS-F3016P-4S is equipped with advanced security features such as Static MAC, Storm Control, and IGMP Snooping. Static MAC allows users to create a MAC whitelist for specific ports, helping administrators limit network access to authorized devices only. Storm Control monitors broadcast, multicast, or unknown unicast traffic and will start blocking or discarding packets which could flood the network when the defined threshold is exceeded. IGMP Snooping can reduce the load of L3 multicast routers and save bandwidth in network throughput.

Easy Troubleshooting

The DGS-F3016P-4S features loopback detection and cable diagnostics to help network administrators find and solve network problems quickly and easily. Loopback detection is used to detect loops created by a specific port and automatically shuts down the affected port. Cable diagnostics helps network administrators quickly examine the quality of the copper cables, recognize the cable type, and detect cable errors.

Power over Ethernet Support

The DGS-F3016P-4S switches are PoE-ready switches capable of supplying up to 30 W of power per port to connected PoE-enabled devices. This effectively reduces deployment times, reduces cable clutter, and eliminates the need for dedicated power supplies to allow PoE-devices to be installed in remote locations.

| Technical Specifications | |
|----------------------------------|--|
| Model Number | DGS-F3016P-4S |
| General | |
| Interfaces | 16 x 10/100/1000Base-T PoE / PoE+ Ports & 4 x 1000Base-X SFP Ports |
| Other Interfaces | 1 x RS-232 Console Port (RJ-45) |
| Media Interface Exchange | • Auto MDI/MDIX adjustment for all twisted-pair ports |
| Other Port Standards & Functions | <ul style="list-style-type: none"> • IEEE 802.3 10BASE-T Ethernet (twisted-pair copper) • IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) • IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper) <ul style="list-style-type: none"> • IEEE 802.3az compliance <ul style="list-style-type: none"> • Auto-negotiation • IEEE 802.3x Flow Control • IEEE 802.3z |
| Duplex Mode | <ul style="list-style-type: none"> • Full/Half-duplex for 10/100 Mbps • Full-duplex for 1000 Mbps |
| Performance | |
| Switching Capacity | 40Gbps |
| Packet Forwarding Rate | 29.8 Mpps |
| MAC Address table | 16K |
| Transmission Method | • Store-and-forward |
| Packet Buffer Size | 4.1MB |
| Physical / Environmental | |
| Diagnostic LED | PWR1, PWR2, Alarm, SYS, LINK/ACT, PoE Status |
| Weight | 1.8kg |
| Dimension (L x W x H) | 164mm×130mm×78.8mm |
| Operating Temperature | -40°C~75°C (-40°F~167°F) |
| Storage Temperature | -40°C~85°C (-40°F~185°F) |
| Ambient Relative Humidity | 5%~95%, 55°C (Non-condensing) |
| Housing | IP40-rated metal casing |
| Installation | DIN rail / wall mountable |
| Power Requirements | |
| Power Input | 48-56V DC Redundant Inputs |
| Reverse Polarity Protection | Yes |

| Software Features | |
|-------------------|---|
| Protocol Support | IPv4 / IPv6, IGMP v1/v2/v3 snooping, MLD v1/v2 snooping, DHCP Relay, GARP, GVRP, NTP, SNTP, 802.1x, EAP, SNMP v1/v2/v3, RMON, TFTP, ICMP, Telnet, Syslog, LLDP, LACP, Pingv6. |
| VLAN | 802.1Q VLAN (512 Active VLAN) Port Based VLAN MAC Based VLAN |
| QoS | 802.1p 4 Priority Queues Queue Handling: Strict, Weighted Round Robin. |
| Security | 802.1x, Layer 2 & Layer 3 ACL |

| Standards / Certifications / Compliance | |
|---|---|
| Safety | FCC, CE, ROHS |
| EMC | FCC Part 15, Subpart B, Class A EN 55032, EN 55035, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-4, |
| EMS | IEC 61000-4-2 ESD IEC 61000-4-3 RS IEC 61000-4-4 EFT IEC 61000-4-5 Surge IEC 61000-4-6 CS IEC 61000-4-8 PFMF IEC 61000-4-11 DIP |
| Shock | MIL-STD-810G Method 516.5 |
| Vibration | MIL-STD-810F Method 514.5 C-1 & C-2 |
| Freefall | MIL-STD-810F Method 516.5 |
| Environmental | ROHS |
| MTBF | 300000 Hrs. |

| Ordering Information | |
|----------------------|--|
| Model Number | Description |
| DGS-F3016P-4S | 20 Port Full Gigabit Managed Ethernet Switch, 16 x 10/100/1000 Base-T PoE / PoE+ Ports & 4 x 100/1000 Base-X SFP Ports. -40° to 75° C operating Temperature. |