

## Highlights

### Robust Design

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

### Flexible Deployment

Small form factor design that supports DIN-Rail mounting, PoE, PoE+ and Long Reach PoE support to extend the deployment range of PoE-powered devices.

### Powerful Management

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



## DIS-F200G Series

# Layer 2 Gigabit Industrial Smart Managed PoE+ Switches

## Features

### Robust and High-Redundancy Design

- Operating temperature from -40 to 75°C
- Fanless, passive cooling design
- High EMC endurance
- 250m Long Reach PoE technology<sup>1</sup>
- Built-in 6 kV surge protection on copper ports
- RUN-Ring Technology with <10ms self-healing
- Dual power input for redundant power supplies

### Layer 2 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
- IGMP/MLD Snooping

The DIS-F200G Series Gigabit Industrial Smart Managed PoE+ Switches are equipped with 4 (DIS-F200G-6PS-E) and 8 (DIS-F200G-10PS-E) PoE+ capable 10/100/1000BASE-T ports and 2 SFP ports. These Switches feature a robust design making them ideal for deployment in industrial and outdoor cabinet surveillance settings, capable of withstanding the harshest environments. The DIS-F200G Series furthermore integrate advanced management and security functions to provide a complete industrial networking solution.

## Durable and Reliable Design

The DIS-F200G Series Switches are housed in a highly resistant IP40-rated metal casing to protect them from harsh environmental conditions. The high electromagnetic compatibility (EMC) protects the DIS-F200G Series from unwanted effects when operating in environments with strong electromagnetic interference. Meanwhile, the fanless design extends the life of the DIS-F200G Series while also being able to operate in a wider temperature range of up to 75°C.

Additionally, the DIS-F200G Series features high-capacity 6 kV surge protection on all copper ports to help prevent damage to the Switch and connected devices caused by sudden power surges and lightning strikes. The built-in surge protection of up to 6 kV can mitigate the damage to the switch from both indoor and outdoor devices and network connections by absorbing the excess energy while still letting through the amount of power required for the Switch to operate normally.

Furthermore the DIS-F200G Series offers PSE short circuit protection, PoE overload, power supply over temperature protection, over voltage protection, surge current protection and other protection features. This increases network reliability, reduces repair costs, and removes the need for replacement hardware in the event of an electrical surge or lightning strike.

### High Redundancy and Reliability

The DIS-F200G Series offers RUN-Ring technology for <10ms quick failover recovery for ring topologies that ensures minimal downtime and avoids any loss of data in mission-critical deployments. Meanwhile, the dual power input allows for a redundant power supply to make sure the device continues to operate in the event of a primary power supply failure.

### Advanced Features

The DIS-F200G Series come equipped with a complete line-up of Layer 2 features, including IGMP snooping, port mirroring, Spanning Tree Protocol (STP, RSTP, MSTP), and Link Aggregation Control Protocol (LACP). The IEEE 802.3x Flow Control function allows servers to directly connect to the Switch for fast, reliable data transfers.

The DIS-F200G Series also support advanced features such as port segmentation, which allow network administrators to divide the network into VLANs, increasing network efficiency. Network maintenance features include loop detection and cable diagnostics. Loop detection significantly speeds up troubleshooting by automatically detecting and shutting down switching loops. The cable diagnostics feature, designed primarily for administrators and customer service representatives, determines the cable quality and quickly discovers errors, allowing for hassle-free diagnostics and maintenance.

### Easy Troubleshooting

The DIS-F200G Series 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, recognise the cable type, and detect cable errors.

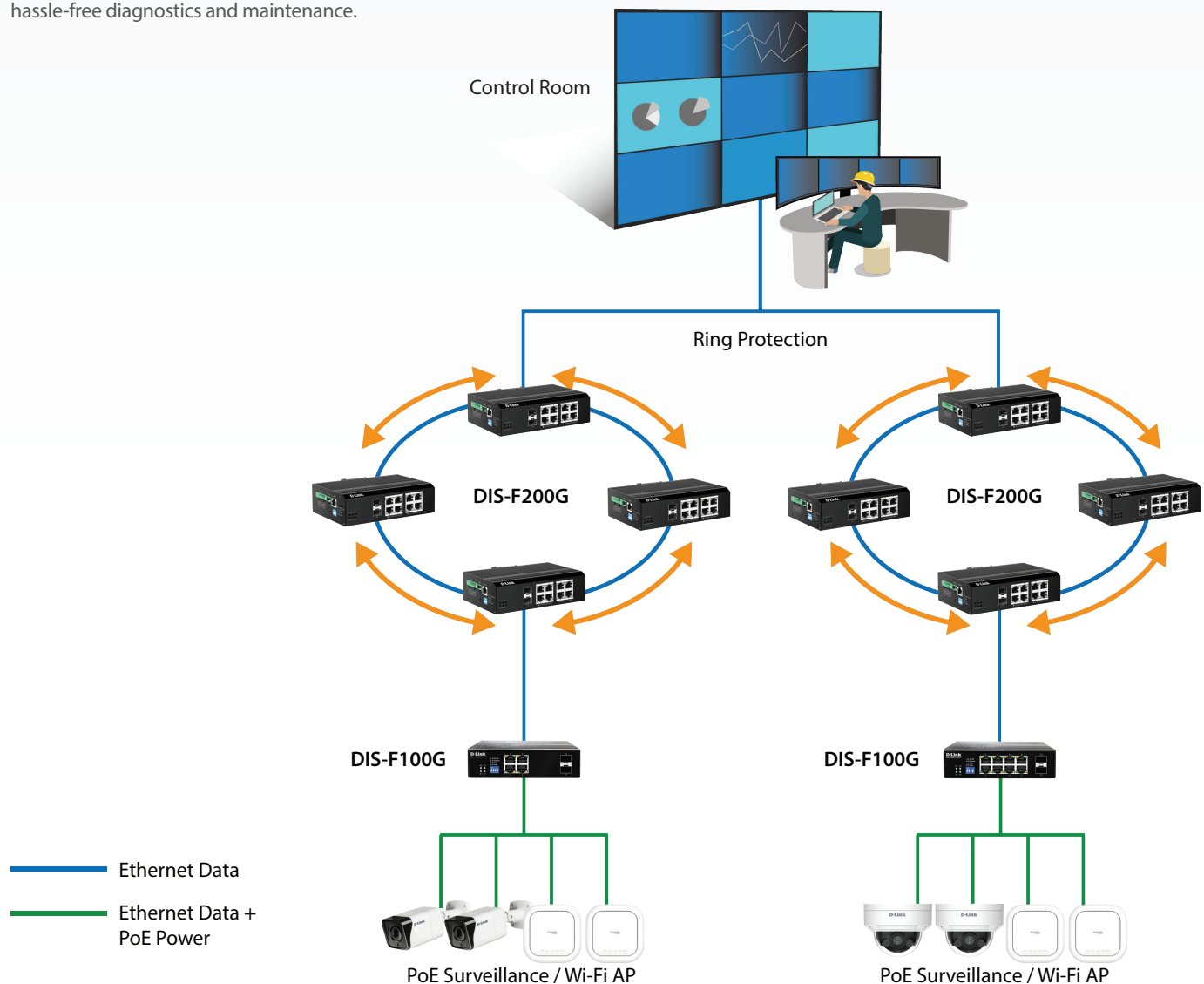
### Power over Ethernet Support

The DIS-F200G-10PS-E and DIS-F200G-6PS-E are PoE-ready Switches with total PoE budgets of 240 W<sup>2</sup> and 120 W<sup>2</sup>.

The DIS-F200G Series Switches comply with IEEE 802.3af (PoE) and 802.3at (PoE+) standards and provide up to 30 watts per port.

Additionally the PoE ports in each Switch offer Long Reach PoE technology, allowing the use of longer network cable runs which are normally limited to 100m. The Long Reach PoE technology supports cables up to 250m long<sup>1</sup>. 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.

### Deployment Scenario



Technical Specifications		
General	DIS-F200G-6PS-E	DIS-F200G-10PS-E
Number of Ports	<ul style="list-style-type: none"> <li>• 4 x 10/100/1000BASE-T PoE+ ports</li> <li>• 2 x SFP ports</li> <li>• 1 x RJ-45 Console port</li> </ul>	<ul style="list-style-type: none"> <li>• 8 x 10/100/1000BASE-T PoE+ ports</li> <li>• 2 x SFP ports</li> <li>• 1 x RJ-45 Console port</li> </ul>
Port Functions	<ul style="list-style-type: none"> <li>• IEEE 802.3 for Ethernet</li> <li>• IEEE 802.3u for Fast Ethernet</li> <li>• IEEE 802.3ab for Gigabit Ethernet</li> <li>• IEEE 802.3z for Gigabit fibre</li> <li>• IEEE 802.3af/at Power over Ethernet</li> <li>• IEEE 802.3az-compliant</li> <li>• IEEE 802.3i, IEEE 802.3ad, IEEE 802.3x,</li> <li>• IEEE 802.1p, IEEE 802.1q, IEEE 802.1w, IEEE 802.1d, IEEE 802.1s</li> </ul>	
Media Interface Exchange	Auto-MDI/MDIX adjustment for all RJ45 ports	
Performance		
Switching Capacity	12 Gbps	20 Gbps
Maximum Forwarding Rate	8.9 Mpps	14.9 Mpps
MAC Address Table Size	Up to 8K entries	
Transmission Method	Store-and-forward	
PoE		
PoE Standards	IEEE 802.3af/at	
PoE Capable Ports	Ports 1 to 4	Ports 1 to 8
PoE Power Budget	Max. 120 W <sup>2</sup>	Max. 240 W <sup>2</sup>
Long Reach PoE <sup>1</sup>	Ports 1 to 4, up to 250 m	Ports 1 to 8, up to 250 m
Physical/Environmental		
Diagnostic LEDs	<ul style="list-style-type: none"> <li>• SYS</li> <li>• ALM</li> <li>• PWR1/2</li> <li>• Link/Activity RJ45</li> <li>• Link/Activity SFP</li> </ul>	
Shortcut Buttons (DIP Switches)	<ul style="list-style-type: none"> <li>• AI Loop Protect</li> <li>• AI PoE</li> <li>• AI VLAN</li> <li>• AI Extend</li> </ul>	
Power Input	48 to 56 V DC terminal block dual input	
Power Consumptions	<ul style="list-style-type: none"> <li>• Maximum: 126 W (PoE On)</li> <li>• Maximum: 6 W (PoE Off)</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum: 246 W (PoE On)</li> <li>• Maximum: 6 W (PoE Off)</li> </ul>
Heat Dissipation	30 BTU/hr	35 BTU/hr
Weight	0.70 kg	0.75 kg
Dimensions	159 x 105 x 39 mm	
Ventilation	Fanless	
Operating Temperature	-40 to 75 °C	
Storage Temperature	-40 to 85 °C	

Physical/Environmental	
Operating Humidity	5% to 95% RH, non-condensing
Storage Humidity	0% to 95% RH, non-condensing
Material	IP40-Rated Metal Casing
Installation	DIN Rail Mountable
Certifications	<ul style="list-style-type: none"> <li>• RCM</li> <li>• CE</li> <li>• FCC</li> <li>• ROHS</li> </ul>
Compliance	<p>EMI: FCC CFR47 Part 15, EN55022/CISPR22, Class A</p> <p>EMS: IEC61000-4-2 (ESD): ±8kV (contact), ±15kV (air)</p> <p>IEC61000-4-3 (RS): 10V/m (80MHz-2GHz)</p> <p>IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV</p> <p>IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±6kV</p> <p>IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)</p>
Environmental Tests	<ul style="list-style-type: none"> <li>• IEC 60068-2-27 Shock</li> <li>• IEC 60068-2-32 Freefall</li> <li>• IEC 60068-2-6 Vibration</li> </ul>

Ordering Information	
DIS-F200G-6PS-E	6-Port Gigabit Industrial Smart Managed PoE+ Switch with 4 1000BASE-T Long Reach PoE ports and 2 SFP ports
DIS-F200G-10PS-E	10-Port Gigabit Industrial Smart Managed PoE+ Switch with 8 1000BASE-T Long Reach PoE ports and 2 SFP ports
DIS-F200G Series Accessories	
DIS-N240-48	DIN-Rail Power Supply for DIS-Series Industrial Switches, output 48-55V DC 240W, operating temp up to 70°C
DIS-N480-48	DIN-Rail Power Supply for DIS-Series Industrial Switches, output 48-55V DC 480W, operating temp up to 70°C
Optional SFP Transceivers	
DIS-S310LX	Industrial SFP 1000BASE-LX, single-mode, 10 km, -40 to 85 °C operating temperature
DIS-S301SX	Industrial SFP 1000BASE-SX, multi-mode, 550 m, -40 to 85 °C operating temperature
DEM-310GT	1000BASE-LX, single-mode, 10 km, 0 to 70 °C operating temperature
DEM-311GT	1000BASE-SX, multi-mode, 550 m, 0 to 70 °C operating temperature
DEM-312GT2	1000BASE-SX, multi-mode, 2 km, 0 to 70 °C operating temperature
DEM-314GT	1000BASE-LHX, single-mode, 50 km, 0 to 70 °C operating temperature

<sup>1</sup> Long Reach PoE mode Switches port speed to 10Mbps. Requires cables Cat5e or better.

<sup>2</sup> The actual available PoE budget depends on the power supply connected to the Switch.