

Product Highlights

Robust Design

Designed to operate in wide temperature ranges, handle vibration and shock, allowing the switches to be deployed in enclosures or cabinets in outdoor locations (compliant with IEC 62443-4-1 secure product development lifecycle requirements)

High Availability

Comprehensive network redundancy features with fast fault recovery, together with advanced security features provides industrial-grade reliability and protection

Flexible Options

Wide selection of port density, media and PoE provides customer with the flexibility to choose the right switch that best fits their requirement



DIS-300G Series

Industrial Gigabit Managed Switches

Features

IP-30 Ingress Protection

Operating Temperature

- -40°to 75°C

Power source

- Redundant Dual Power Inputs
- Reverse Polarity Protection
- Overload Current Protection

Ring Protection with < 20ms

Environmental Test

- Shock - IEC 60068-2-27
- Freefall - IEC 60068-2-32
- Vibration - IEC 60068-2-6

Safety Certifications

- UL 60950-1
- IEC/EN/AS/NZS 62368-1
- NEMA TS2
- RCM
- CE/FCC

Fan-less design

The DIS-300G Series Industrial Gigabit Managed Switches are designed specifically to withstand a wide range in temperature change, vibrations and shock. These rugged yet easy to deploy switches have superior environmental specifications compared to those of commercial network switches. With its hardened design combined with high availability network features, these switches form vital parts of any network infrastructure facilitating the increasing demand for smart cities, city-wide surveillance and wireless connectivity.

With its comprehensive feature set, DIS-300G managed switches are easy to configure, partition and organise user's network and provide reliable and quality of service. The DIS-300G-8PSW and DIS-300G-14SPW switches are PoE switches which are compliant with both IEEE 802.3af and IEEE 802.3at PoE standards and delivering up to 30 watts power per port along with data on standard Ethernet cabling. These switches can be used to power any IEEE 802.3af/at compliant PoE PD devices, which eliminates the need for additional wiring. They also provide additional PoE power management features which can greatly reduce the deployment effort of planning PoE power budget.

Customers

The DIS-300G Series family of switches is ideal for customers looking for cost-effective and customisable networking solutions with redundancy and security, designed for industrial environments.

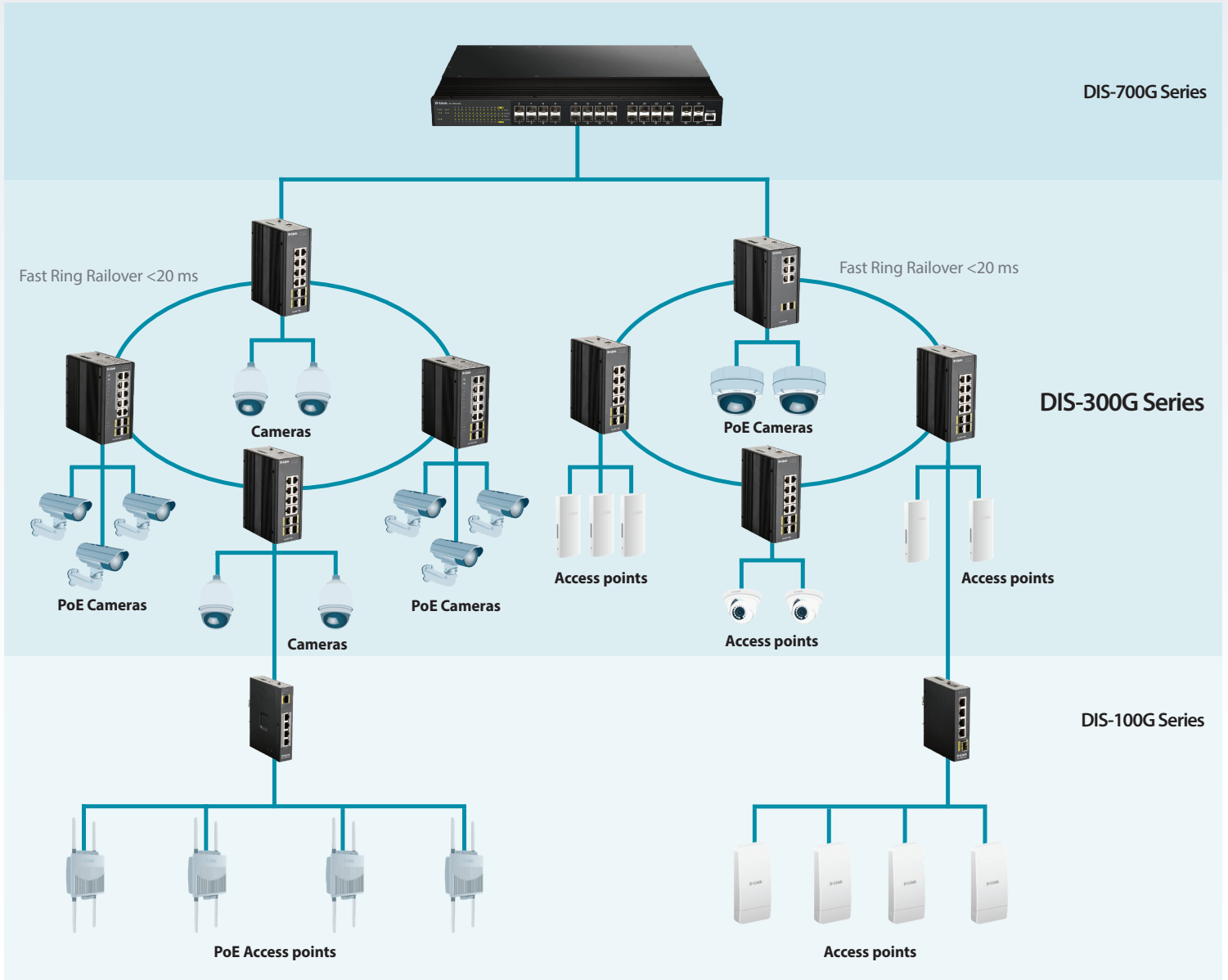
Application

- Challenging environmental conditions
- High-end network redundancy topologies
- High ambient temperatures

Market

- Heavy industrial / factory automation
- Intelligent transport system (ITS) / railway applications
- City surveillance / smart cities

Deployment Scenario



Technical Specifications				
General	DIS-300G-10SW	DIS-300G-12SW	DIS-300G-8PSW	DIS-300G-14PSW
Hardware Version	• A1			
Number of Ports	<ul style="list-style-type: none"> • 8 x 10/100/1000BASE-T ports • 2 x SFP ports • 1 x RJ-45 Console port 	<ul style="list-style-type: none"> • 8 x 10/100/1000BASE-T ports • 4 x SFP ports • 1 x RJ-45 Console port 	<ul style="list-style-type: none"> • 4 x 10/100/1000BASE-T PoE ports • 2 x 10/100/1000BASE-T ports • 2 x SFP ports • 1 x RJ-45 Console port 	<ul style="list-style-type: none"> • 8 x 10/100/1000BASE-T PoE ports • 2 x 10/100/1000BASE-T ports • 4 x SFP ports • 1 x RJ-45 Console port
Port Functions	<ul style="list-style-type: none"> • IEEE 802.3 for Ethernet • IEEE 802.3u for Fast Ethernet • IEEE 802.3ab for Gigabit Ethernet • IEEE 802.3z for Gigabit fiber • IEEE 802.3af/at Power over Ethernet (DIS-300G-8PSW/DIS-300G-14PSW) • IEEE 802.3az-compliant 			
Media Interface Exchange	• Auto-MDI/MDIX adjustment for all twisted pair ports			
Performance				
Switching Capacity	• 20 Gbps	• 24 Gbps	• 16 Gbps	• 28 Gbps
Maximum Forwarding Rate	• 14.88 Mpps	• 17.85 Mpps	• 11.9 Mpps	• 20.83 Mpps
MAC Address Table Size	• Up to 8K entries			
Transmission Method	• Store-and-forward			
PoE				
PoE Standards	• N/A		• IEEE 802.3af/at	• IEEE 802.3af/at
PoE Capable Ports	• N/A		• Ports 1 to 4	• Ports 1 to 8 • Ports 1-2 support up to 60 W per port
PoE Power Budget	• N/A		• Max. 120 W	• Max. 240 W
Physical				
Diagnostic LEDs	<ul style="list-style-type: none"> • ALM • PWR1/2 • Link/Activity/Speed 		<ul style="list-style-type: none"> • ALM • PWR1/2 • Link/Activity/Speed • RR: Ring Role • RS: Ring Status 	
Power Input	• 12 to 58 V DC terminal block dual input		<ul style="list-style-type: none"> • 54-58 V DC (802.3at PoE+) • 48-58 V DC (802.3af PoE) • 12-48 V DC (non-PoE) 	<ul style="list-style-type: none"> • 54-58 V DC (802.3at PoE+) • 48-58 V DC (802.3af PoE) • 12-48 V DC (non-PoE)
Power Consumptions	• Maximum: 17 W		<ul style="list-style-type: none"> • Max. 14 W without PD connected • Max. 145 W with 120 W PSE power delivered 	<ul style="list-style-type: none"> • Max. 14 W without PD connected • Max. 265 W with 240 W PSE power delivered
Alarm Relay	• 0.5A at 24 V			
Heat Dissipation	• 58 BTU/hr		<ul style="list-style-type: none"> • 494.76 BTU/hr (PoE on) • 47.77 BTU/hr (PoE off) 	<ul style="list-style-type: none"> • 904.22 BTU/hr (PoE on) • 47.77 BTU/hr (PoE off)
Weight	• 1.08 kg (2.39 lbs)	• 1.09 kg (2.4 lbs)	• 1.31 kg (2.89 lbs)	• 1.41 kg (3.11 lbs)

Dimensions	• 61 x 154 x 109 mm (2.4 x 6.06 x 4.29 in)	• 61 x 154 x 109 mm (2.4 x 6.06 x 4.29 in)	• 77 x 154 x 128 mm (3.03 x 6.06 x 5.04 in)	• 77 x 154 x 128 mm (3.03 x 6.06 x 5.04 in)
Ventilation	• Fanless			
Operating Temperature	• -40 to 75 °C (-40 to 167 °F)			
Storage Temperature	• -40 to 85 °C (-40 to 185 °F)			
Operating Humidity	• 5% to 95% RH, non-condensing			
Storage Humidity	• 5% to 95% RH, non-condensing			
Material	• IP30-rated metal casing			
Installation	• DIN rail/wall mountable			
MTBF	• > 25 years			
Certifications	<ul style="list-style-type: none"> • CE • FCC • NEMA-TS2 			
Safety	<ul style="list-style-type: none"> • UL60950-1 • IEC/EN/AS/NZS62368-1 			
EMI	<ul style="list-style-type: none"> • CISPR 22 • FCC Part 15B Class A 			
EMS	<ul style="list-style-type: none"> • EN 61000-4-2 ESD • EN 61000-4-3 RS • EN 61000-4-4 EFT • EN 61000-4-5 • EN 61000-4-6 CS • EN 61000-4-8 • EN 61000-6-2 • EN 61000-6-4 			
Environmental Tests	<ul style="list-style-type: none"> • IEC 60068-2-27 Shock • IEC 60068-2-32 Freefall • IEC 60068-2-6 Vibration 			

Software Features		
VLAN	<ul style="list-style-type: none"> • IEEE 802.1Q tagged VLAN • Port-based VLAN • Voice VLAN • Protocol-based VLAN • MAC-based VLAN • Subnet-based VLAN 	<ul style="list-style-type: none"> • Multicast VLAN • VLAN group <ul style="list-style-type: none"> • Supports 1024 static VLAN groups • Max. 4094 VIDs • GVRP
L2 Features	<ul style="list-style-type: none"> • Flow Control <ul style="list-style-type: none"> • IEEE 802.3x Flow Control • Jumbo frames up to 9216 bytes • IGMP Snooping <ul style="list-style-type: none"> • IGMP v1/v2 • Supports up to 32 IGMP snooping groups (shared with MLD snooping) • IGMP Snooping Querier • Support port-based fast leave • MLD Snooping <ul style="list-style-type: none"> • MLD snooping v1/v2 • Supports up to 32 MLD snooping groups (shared with IGMP snooping) • MLD Snooping Querier • Support port-based fast leave • Static Link Aggregation 	<ul style="list-style-type: none"> • Loopback detection • LLDP • Port mirroring <ul style="list-style-type: none"> • One-to-One • Many-to-One • Spanning Tree Protocol (STP) <ul style="list-style-type: none"> • IEEE 802.1D STP • IEEE 802.1w RSTP • IEEE 802.1s MSTP
Quality of Service (QoS)	<ul style="list-style-type: none"> • IEEE 802.1p Quality of Service (QoS) <ul style="list-style-type: none"> • 8 queues per port • Strict Priority Queue (SPQ) • Weighted Round Robin (WRR) • Port-based bandwidth control (rate limiting) <ul style="list-style-type: none"> • Ingress: 100 kbps 	<ul style="list-style-type: none"> • Traffic Shaper <ul style="list-style-type: none"> • Port-based shaping
Security	<ul style="list-style-type: none"> • IP/MAC/Port-based access control • Multicast/Broadcast/Flooding Storm Control • SSH 	<ul style="list-style-type: none"> • DHCP snooping • SSL • Port security
AAA	<ul style="list-style-type: none"> • Web-based access control • TACACS+ 	<ul style="list-style-type: none"> • RADIUS
Management	<ul style="list-style-type: none"> • Web-based UI (supports IPv4/IPv6) • Industry-standard CLI • NTP • SNMP v1/v2c/v3 • SNMP trap • Telnet server • Password encryption • System Log 	<ul style="list-style-type: none"> • DHCP server/client • TFTP client • LLDP • Dual images • Dual configurations • DHCP relay option 82 • PoE port priority • PoE reset
OAM	<ul style="list-style-type: none"> • Cable diagnostics 	<ul style="list-style-type: none"> • Optical transceiver Digital Diagnostics Monitoring (DDM)
Green Technology	<ul style="list-style-type: none"> • Power saving by: <ul style="list-style-type: none"> • PoE scheduling • IEEE 802.3az Energy-Efficient Ethernet (EEE) 	
MIB/RFC Standards	<ul style="list-style-type: none"> • RFC768 UDP • RFC791 IP • RFC792 ICMP • RFC793 TCP • RFC826 ARP • RFC1213 MIB II • RFC1493 Bridge MIB 	<ul style="list-style-type: none"> • RFC1907 SNMPv2 MIB • RFC2668 802.3 MAU MIB • RFC4133 Entity MIB • RFC4363 IEEE 802.1p MIB • ZoneDefense MIB • Private MIB
L3 Routing	<ul style="list-style-type: none"> • Static Route with 32 entries (shared by IPv4/IPv6) 	

DIS-300G Series Industrial Gigabit Managed Switches

Order Information	
Part Number	Description
DIS-300G-10SW	8 x 10/100/1000 Mbps ports + 2 x SFP ports switch with -40 to 75 °C operating range
DIS-300G-12SW	8 x 10/100/1000 Mbps ports + 4 x SFP ports switch with -40 to 75 °C operating range
DIS-300G-8PSW	4 x 10/100/1000 Mbps PoE ports + 2 x 10/100/1000 Mbps ports + 2 x SFP ports switch with -40 to 75 °C operating range
DIS-300G-14PSW	8 x 10/100/1000 Mbps PoE ports + 2 x 10/100/1000 Mbps ports + 4 x SFP ports switch with -40 to 75 °C operating range
Optional SFP Transceivers	
DIS-S310LX	1000BASE-LX, single-mode, 10 km, -40 to 85 °C operating temperature
DIS-S301SX	1000BASE-SX, multi-mode, 550 m, -40 to 85 °C operating temperature
DIS-S302SX	1000BASE-SX, multi-mode, 2 km, -40 to 85 °C operating temperature
DIS-S330EX	1000BASE-EX, single-mode, 30 km, -40 to 85 °C operating temperature
DIS-S350LHX	1000BASE-LHX, single-mode, 50 km, -40 to 85 °C operating temperature
DIS-S380ZX	1000BASE-ZX, single-mode, 80 km, -40 to 85 °C operating temperature
Optional Accessories	
DPE-SP110	Outdoor PoE Ethernet Surge Protector
DPE-SP110I	Ethernet Surge Protector

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