

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

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

Din-Rail and Wall mounting options

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
- CE/FCC

Fan-less design

The DIS-300G Series Industrial Gigabit Managed Switches are designed specifically to withstand wide temperature range, 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.

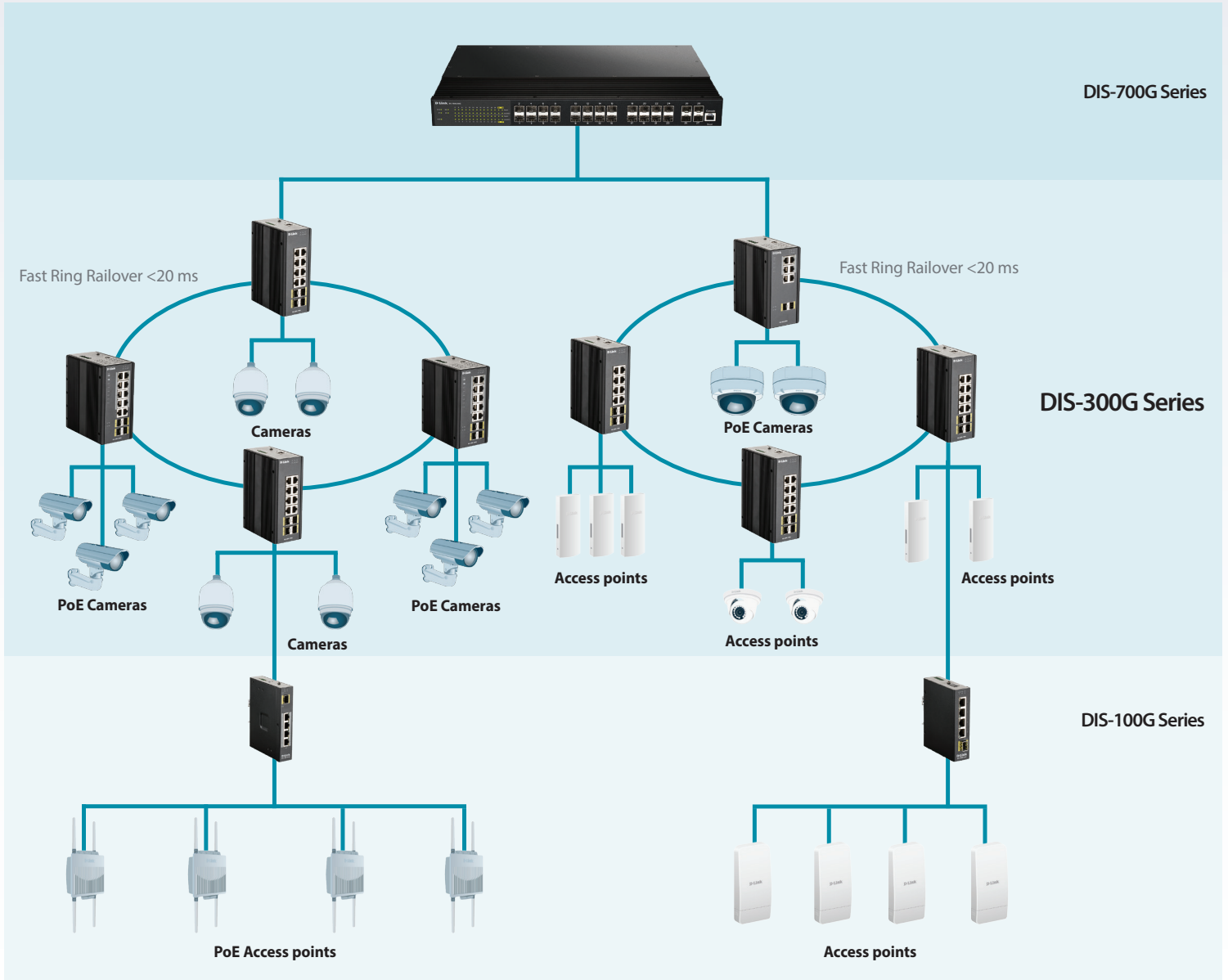
Application

- 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-12SW | DIS-300G-8PSW | DIS-300G-14PSW |
| Hardware Version | • A1 | • A1 | • A1 |
| Number of Ports | <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 | • 24 Gbps | • 16 Gbps | • 28 Gbps |
| Maximum Forwarding Rate | • 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 |
| 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 | <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 | • 1.09 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) | • 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) | • -40 to 75 °C (-40 to 167 °F) | • -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 | <ul style="list-style-type: none"> • IP30-rated metal casing | | |
| Installation | DIN rail/wall mountable | | |
| MTBF | • > 25 years | • > 25 years | • > 25 years |
| Certifications | <ul style="list-style-type: none"> • CE • FCC • NEMA-TS2 | | |
| Safety | <ul style="list-style-type: none"> • UL60950-1 | | |
| 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 • ISM VLAN • IEEE 802.1ad Double Tagging (Q in Q) | <ul style="list-style-type: none"> • 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"> • 4 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 |

DIS-300G Series

Industrial Gigabit Managed Switches

| Order Information | |
|---------------------------|--|
| <i>Part Number</i> | <i>Description</i> |
| 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 |

Updated 2019/07/12