



# ***INDUSTRIAL SWITCHING SOLUTIONS***

*Accelerating  
IoT Transformation  
Enabling  
Smart Operations*





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# An Introduction to Industrial Ethernet Switches

## What Are Ethernet Switches?

Ethernet Switches are used all over the world. They are primary linchpins for sending and receiving information on telecom, enterprise, and office networks. They send and receive data from devices such as PCs, Servers, Wi-Fi Access Points, Surveillance Cameras, and other Ethernet Switches. Usually they are deployed in buildings or other climate controlled spaces. They use copper or fiber-optic cabling as their transmission medium.

## What Are D-Link Industrial Ethernet Switches?

D-Link Industrial Ethernet Switches have largely the same basic technological capabilities as standard Ethernet switches, but they're built to higher standards in terms of connection reliability (enabled a backup power supply) and redundancy (through our Rapid-Recovery Ring architecture) than standard Ethernet switches, while also being ruggedized for deployment in harsher environments, such as those often encountered around industrial facilities, or in environments that are not climate controlled, such as outdoor cabinets.



## What Makes Them Special?



**Toughness**



**Convenience**



**Reliability  
Redundancy**

### Toughness

D-Link Industrial Ethernet Switches are built to tolerate harsher conditions than most standard switches in terms of temperature, dust, lightning strike, vibration, corrosion, electromagnetic interference, and even impact (so it can withstand a fall from a typical failed mounting).

### Convenience

The abovementioned tolerances mean that special climate-controlled spaces don't need to be built or in-place to house these switches. They can be installed in areas that industrial facilities are likely to already have, such as electrical closets, and mounted onto common local architectural elements, such as wall railings. And what's more, with Power-over-Ethernet (PoE) capabilities enabled on certain models, these switches can be used to power other devices such as cameras, VoIP phones, and Wi-Fi Access Points, facilitating their deployment in areas where they might lack access to a standard wall socket.

### Reliability/Redundancy

Ethernet networking enables a greater degree of redundancy than older proprietary Industrial standards allow. Standard Ethernet switches employ Ethernet Ring Protection Switching (ERPS) architecture for redundant failover, which can re-route network transmission in the event of a failure in 50 milliseconds. This is adequate in most standard cases because the most demanding applications that most enterprise and telecom networks are likely to carry is live video streaming, where 50ms is the human perception threshold for noticing a "hiccup" on a live transmission.



However, there are a growing number of applications that an Ethernet switch might be asked to carry, either now or in the near-future, that would demand faster failover – precision manufacturing, train routing, drone/robotic control, augmented reality, and any other application where lag-time might be problematic or dangerous. And D-Link's Rapid-Recovery Ring architecture can reduce this latency by 60%, while increasing the redundancy potential by more than tenfold.

### What Else Can They Do?

Standard industrial communication has historically used proprietary analog standards and equipment, which are often quite slow by modern standards, and don't scale very well. Industrial Ethernet gives you more flexibility in terms of adding new

devices and equipment, and in re-arranging connected topology of what you already have. Industrial Ethernet also enables you to unify the network you are using for your factory-floor with the standard Ethernet network that you're already for Wi-Fi coverage and other office functions, making for a single infrastructure that is inherently easier to maintain and repair moving forward, while also better enabling the integration of the data you are collecting from your Internet of Things (IoT) devices on the factory floor with the analytics capabilities you have in your office.



## Questions You Might Have

### Is it Future-Proof?

Ethernet is the world's dominant networking technology, and this is not likely to change for the foreseeable future. And what's more, most current Industrial Ethernet applications are not bandwidth-intensive, and use only a fraction of what Ethernet technology is capable of, and this is also not likely to change. In other words, an Industrial Ethernet switch bought today will still likely be in use tomorrow, and perhaps still in use in 20 years.

desire. There is actually no better or easier option for securing your industrial network available today than Ethernet.

### What about Wi-Fi for IoT?

The proliferation of IoT sensors has actually given the old 802.11n Wi-Fi standard new life, thanks to its very low equipment costs and low power consumption. It's a tried and tested technology well-suited for low-bitrate data transmission that isn't time-sensitive, which is common in IoT scenarios. If a higher bitrate IoT connection is needed, the new Wi-Fi 6 standard (802.11ax) is now here. It was designed with IoT in mind, and can handle a much higher density of connected IoT devices than previous generations, while also providing stronger security, and backwards-compatibility with older Wi-Fi standards.

And if you're seeking wireless robotic control, Private 4G/LTE is the way to go. It features the kind of ultra-low latency, reduced interference, and enhanced security you want in a robotics application, while laying the groundwork for potential Push-to-Talk (PTT) unification (using consumer-grade smartphones) down the road.

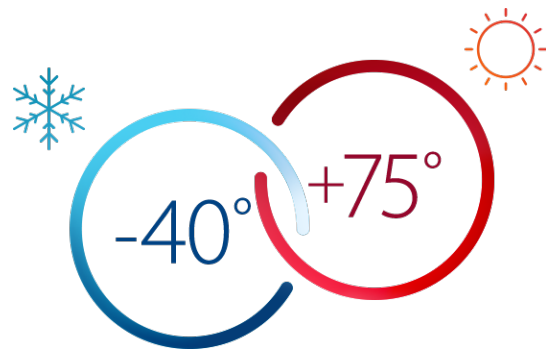
### Is it Secure?

With all the news about prominent data breaches, one might be tempted to think of Ethernet as an insecure technology. But the fact is that many legacy industrial communications systems and standards have already been compromised (many were created before cybercrime was a major concern), and it is inherently easier to secure a system from the ground-up than it is retroactively. Industrial Ethernet systems can also be encrypted, and isolated from the rest of your infrastructure, and can have additional layers of security added if you so



# D-LINK Industrial Switches

D-Link Industrial Switches are more than just electronic hardware, they're vital infrastructure. Rugged, reliable, easy-to-deploy, and fast-to-recover, our DIS-series encompasses Fully Managed, Smart Managed, and Unmanaged solutions, all certified against vibration, shock and free-fall. With their highly-durable IP30-rated metal casing, and high electromagnetic compatibility (EMC) and temperature tolerances, the DIS series is ready to serve, and built to last.



## Extreme Heat and Cold Tolerance

Our DIS switches handle extreme temperature fluctuations, and can cold-start at extreme lows.

\*Check product documentation for details on operating temperature.

## Key Features

- Rapid Failover (20ms).
- IP-30 Ingress Protection.
- Wide Operational Temp: -40°to 75°C
- Redundant dual power inputs.
- Certified for Vibration, Shock, and Freefall.
- Compliant with UL, CE, and FCC.
- Power-over-Ethernet (PoE) support.
- Diverse mounting options (DIN Rail, Wallmount, Rackmount)
- 5-year warranty, 10-year replacement & components



# Key Scenarios

## Industrial Automation

Rapid-Recovery Ring (R3) architecture enables sub-20ms mission-critical failover suitable for precision manufacturing.

## Smart Campus/City Surveillance

Ample bandwidth for 4K/8K video streaming, while temperature and moisture tolerances enable deployments in outdoor cabinets, and PoE support simplifies the wiring for both switches and cameras.



## Smart Transportation

Versatile and capable enough to handle a variety of duties in roadside (ETC), transit hub, and railway scenarios.



## Smart Warehouse

Versatile mounting options, Power-over Ethernet (PoE) capabilities, and dust, impact, and vibration tolerances make these switches suitable for remote deployment in warehouses and other remote logistics sites, while R3 supports their automation.



## Smart Parking

Sufficient reliability and bandwidth for all the functions necessary to automate a parking lot, including License Plate Identification, Electronic Payment, Gate Operation, driver guidance, and more.





# Employs Rapid-Recovery Ring (R3) Architecture

Our Industrial Switches employ Rapid-Recovery Ring (R3) architecture, enabling faster failover, greater range, and more nodes than traditional Ethernet Ring Protection Switching (ERPS) can allow.

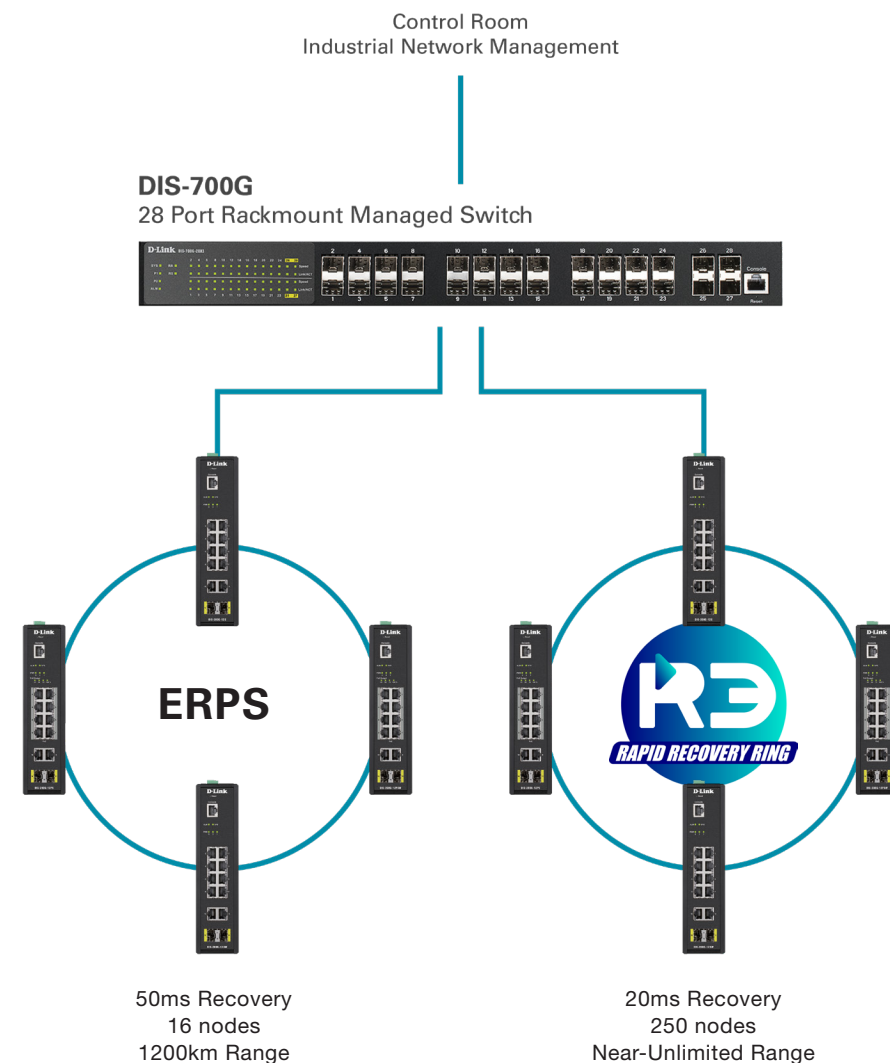
## ERPS vs. Rapid-Ring Recovery (R3)

### ERPS

- 50ms Recovery
- 16-Node Capacity
- 1200km Range

### Rapid-Recovery Ring (R3)

- 20ms Recovery
- 250-Node Capacity
- Near-Unlimited Range



# SMART Transportation

D-Link Industrial Switches have the speed you need to keep things moving, and the reliability that lives can depend on.

## Smart Railways

### Key Requirements

- Real-time transmission, scheduling, and updating of safety information such as train speed, train location, and track integrity. Reliability & redundancy.
- Reliability, redundancy, and seamless connectivity.
- An intuitive open platform that can manage large amounts of data from wayside sensors and stations.

### D-Link Benefits

- Quick & reliable intrastation connection & long-distance transmission.
- Electrical backup via dual power input.

- Robust surge protection (6kV).
- Rugged and reliable design (IP30 rated) suitable for wayside cabinets, where it can withstand extreme temperature, vibration, and electromagnetic interference (EMI).
- NEMA-TS2 & EN50121-4 compliance.

### Additional Scenarios

- Electronic Toll Collection (ETC)
- Fare Collection
- Traffic Monitoring

Electronic Toll Collection

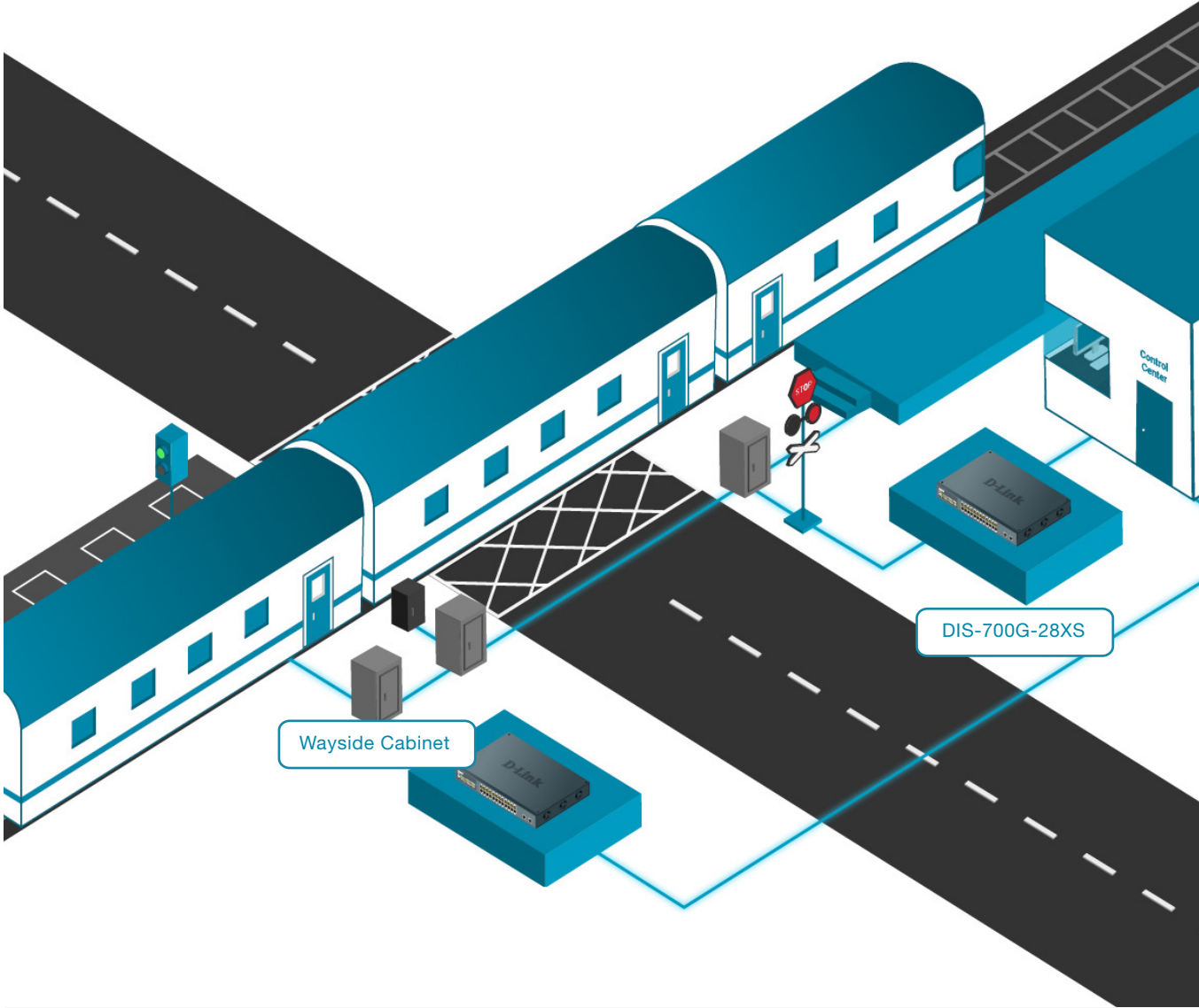


Fare Collection





Smart Railways



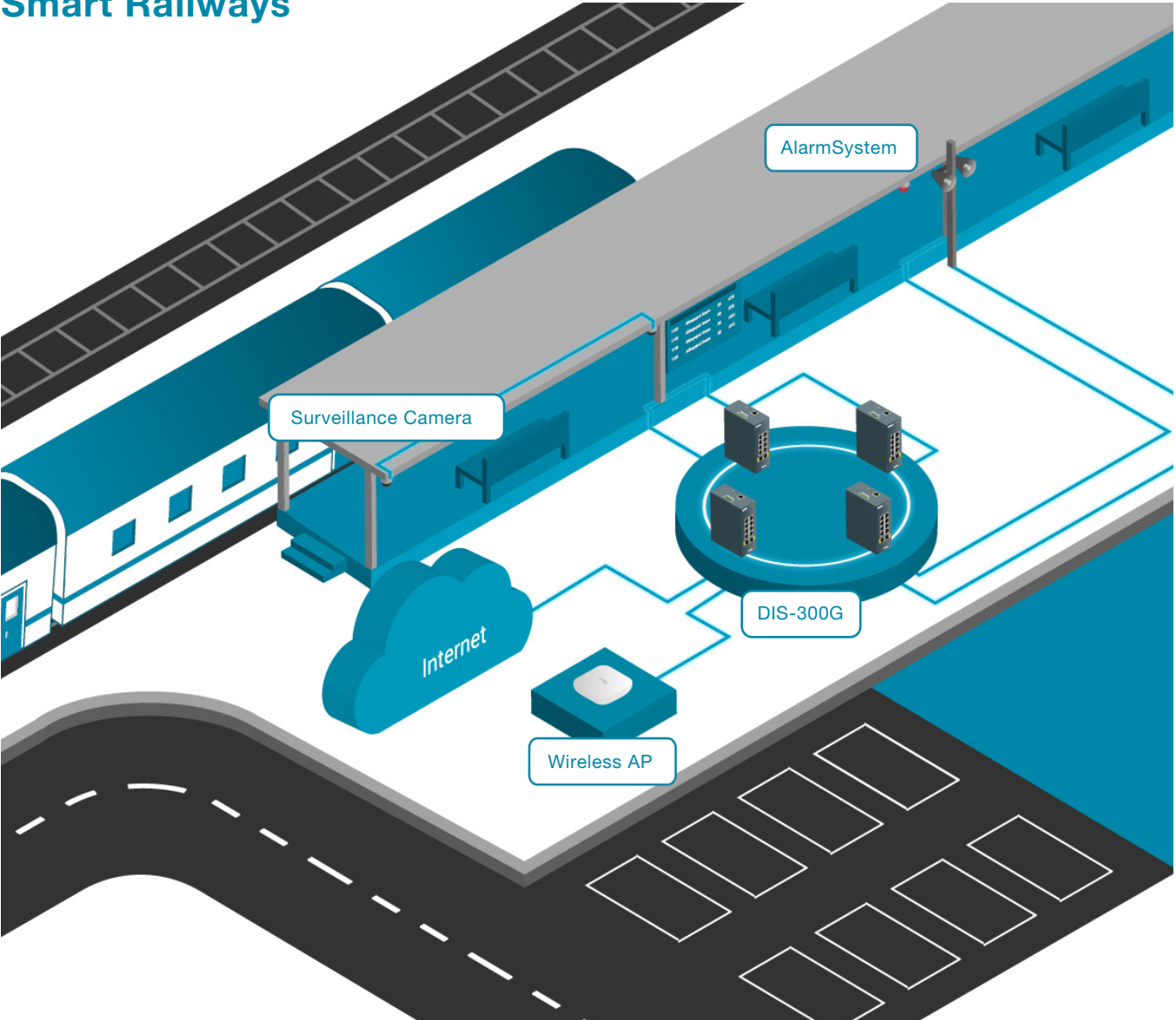
DIS-700G-28XS

(Industrial Layer 2+ Gigabit Managed Switches)

- Quick & reliable intrastation connection & long-distance transmission.
- Electrical backup via dual power input.
- Robust surge protection (6kV)
- Rugged and reliable design (IP30 rated) suitable for wayside cabinets, where it can withstand extreme temperature, vibration, and electromagnetic interference (EMI).
- NEMA-TS2 & EN50121-4 compliance.



Smart Railways



DIS-300G Series

(Layer 2 Gigabit Industrial Smart Managed Switches)

- A wide variety of port options offers the flexibility to choose the best switch for the situation, including PoE options
- High redundancy features to provide industrial-grade reliability: Dual power inputs, Ring Protection with <20ms
- Resistant to temperatures between -40 and 75°C
- Power external devices with Power over Ethernet (IEEE 802.3af/at) for simpler installations
- Shock and vibration resistance further boost resilience to outside conditions
- IP30-rated ingress protection provides defense against small objects entering the switch





## Smart Factory/Smart Warehouse

D-Link Industrial Switches have the capabilities to transform and automate your operations from production to shipping.

- PoE capabilities that minimize installation hassle.
- Smart power failure alarm enables crisis management.

### Key Requirements

- Low CAPEX & OPEX so that resources can be devoted to transformation. Reliability, redundancy, and seamless connectivity.
- Minimal cabling and need for auxiliary resources.
- Uninterrupted operations and modest maintenance.

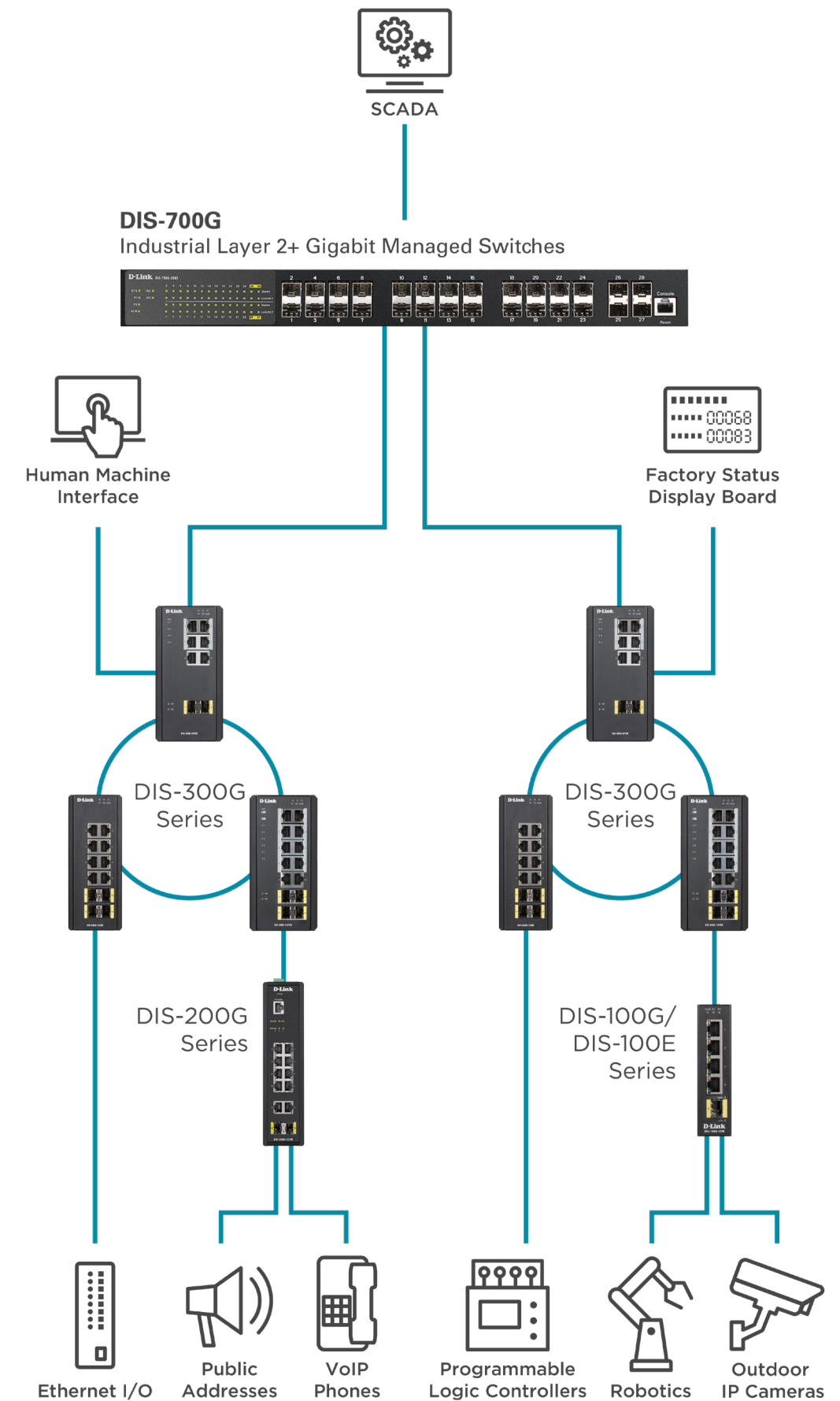
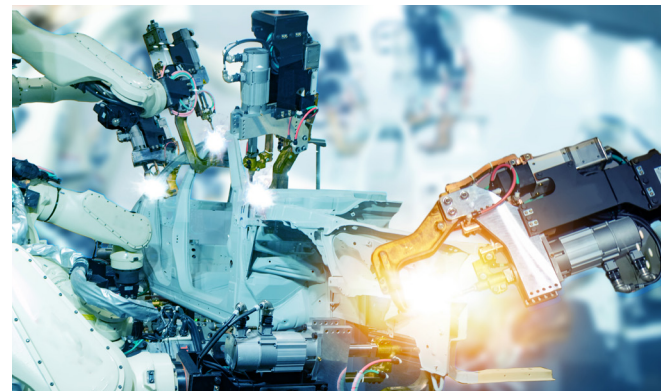
### D-Link Benefits

- Robust environmental tolerances of dust, vibration, and EMI. Electrical backup via dual power input.
- Ultra-rapid redundant failover (<20ms).
- Dual power input enables back without re-cabling or reconstruction.

Factory Office



Factory Automation





## Smart Campus/City

### Smart Surveillance/Smart Parking

#### Key Requirements

- Easy integration with legacy infrastructure.
- Robust scalability, compatibility with diverse terminal devices, and future-readiness for Cloud, AI, 4K, and other cutting-edge technologies.
- Tolerances for moisture and extreme temperature.

#### D-Link Benefits

- Comprehensive portfolio of innovative, rugged, reliable & scalable solutions.
- High efficiency and minimal maintenance thanks to remote monitoring.
- Rapid deployment capabilities.
- Dual-power input for continuous operation.
- Auto-surveillance VLAN capability.

#### Smart Parking Features

- License-Plate Recognition
- Gate Automation
- Object Tracking
- Remote Recording
- Driver Guidance

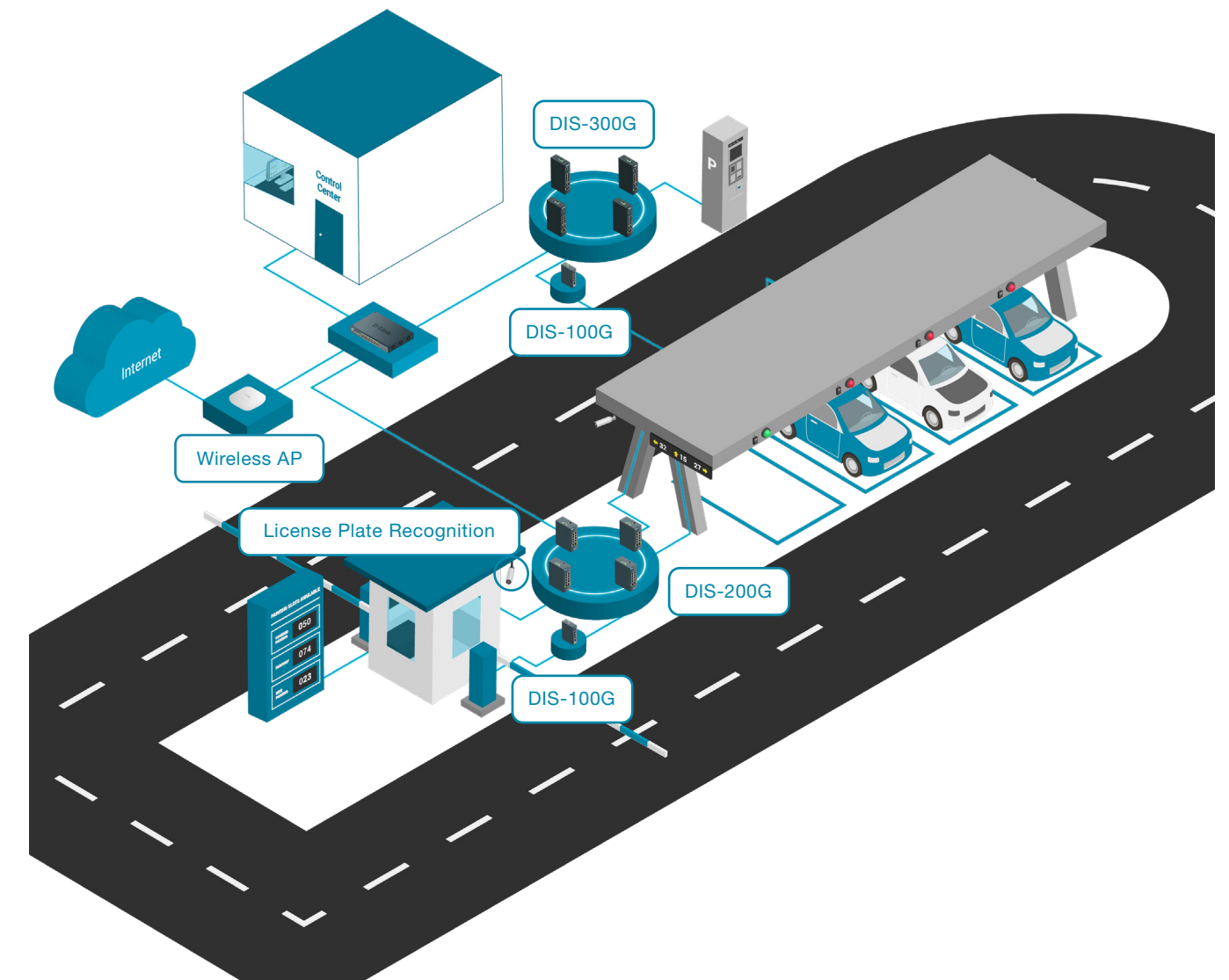
License-Plate Recognition



Gate Automation



### Smart Surveillance/Smart Parking



#### DIS-100G Series

(Gigabit Industrial Unmanaged Switches)

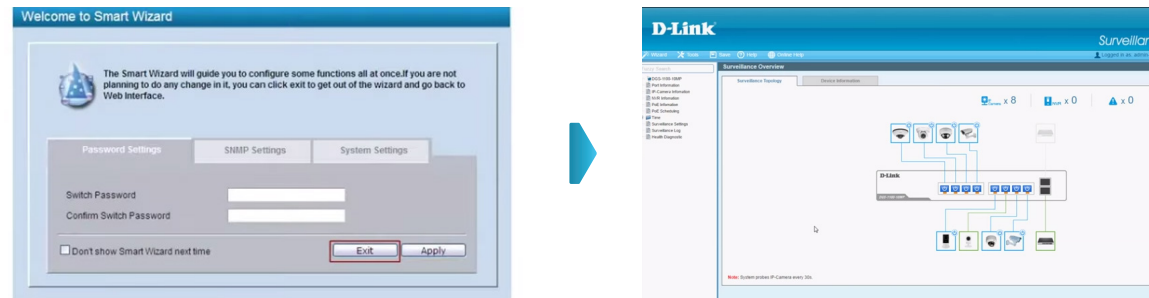
- Available in PoE and non-PoE models
- SFP port for long distance connections
- Plug-and-Play installation
- Fanless, passive cooling design
- Wide operating temperature (-40 ~ 75 °C)
- High EMC endurance
- Durable IP30-rated housing
- Dual power input for redundant power supplies



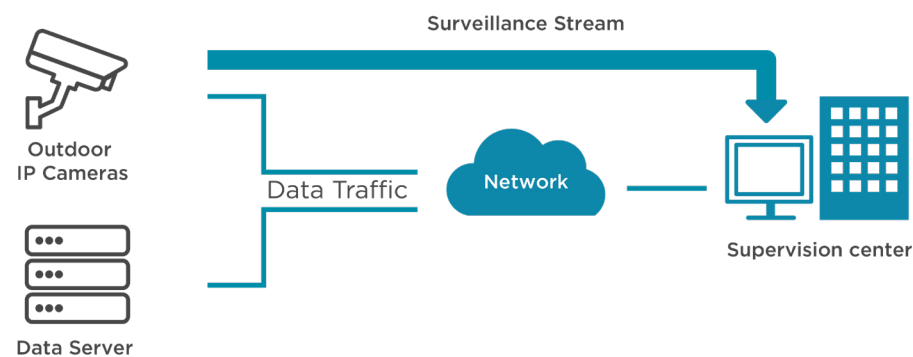


# Auto Surveillance Mode 2.0

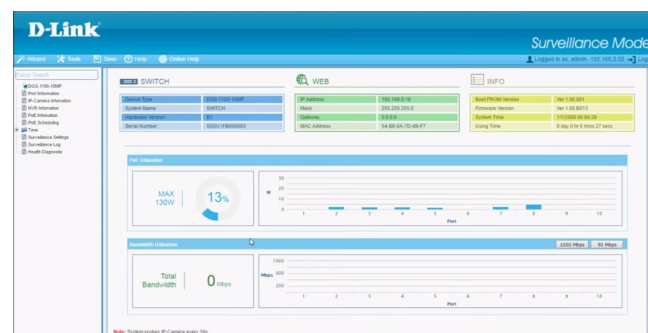
Three-step setup.



Auto detection and secure bandwidth for surveillance traffic.



Status dashboard for easy management.



Diagnostic capabilities for easy troubleshooting.

| Port | Connected | Cable Link | Port Status | Traffic Error Counter | Recommended Action |
|------|-----------|------------|-------------|-----------------------|--------------------|
| 1    | Online    | Pass       | Pass        | 0                     | Normal             |
| 2    | Online    | Pass       | Pass        | 0                     | Normal             |
| 3    | Online    | Pass       | Pass        | 0                     | Normal             |
| 4    | Online    | Pass       | Pass        | 0                     | Normal             |
| 5    | Online    | Pass       | Pass        | 0                     | Normal             |
| 6    | Online    | Pass       | Pass        | 0                     | Normal             |
| 7    | Online    | Pass       | Pass        | 0                     | Normal             |
| 8    | Online    | Pass       | Pass        | 0                     | Normal             |
| 9    | Online    | Pass       | Pass        | 0                     | Normal             |
| 10   | Online    | Pass       | Pass        | 0                     | Normal             |

# D-Link Network Assistant (DNA) Chrome Edition

All D-Link SMB Solution devices, the switches, wireless APs, storages etc., can be discovered immediately. Support essential configuration to start your network rapidly



## First Time Setup

Configure your network devices for first time deployment.



## Solve IP Conflict

"Auto IP assignment" to quickly set devices IP address in a range.



## Batch Config

Configure devices to perform actions at once.



## Workspace

Manage different devices in different network scope.

## Configure your network devices for first time deployment

Quickly perform the first time setup for your D-Link devices. Solve IP conflicts, change user credentials, configure time and date, and enable or disable SNMP for network management.

| System Name | IP Address   |
|-------------|--------------|
| DNR-202L    | 172.17.5.135 |
| DCS-932L    | 172.17.5.135 |
| DCS-2132L   | 172.17.5.150 |
| DCS-942L    | 172.17.5.151 |

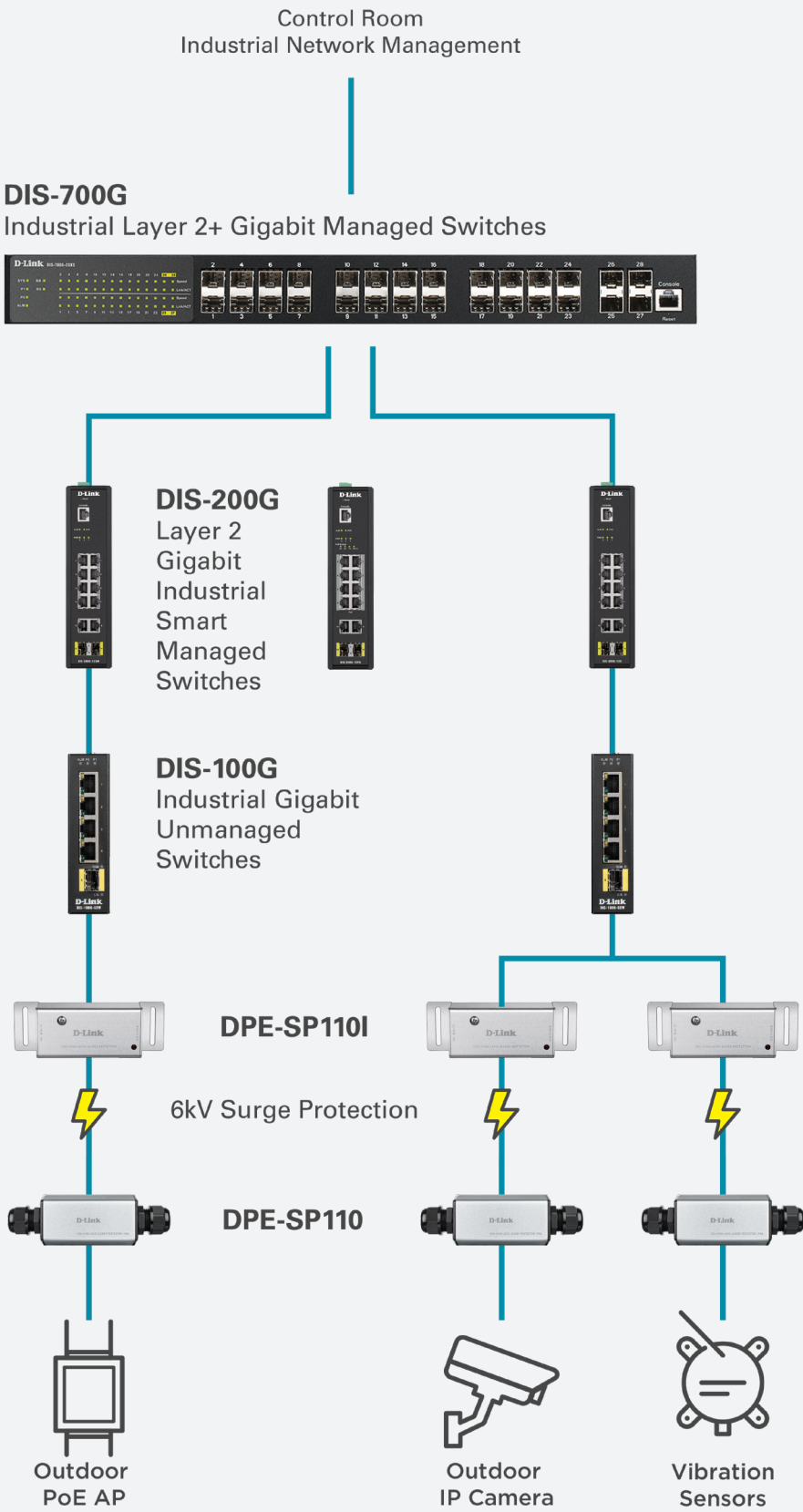
## An intuitive interface for setting up individual devices

Easily configure individual settings for each separate device. Use DNA to upgrade firmware, back up or restore configurations, change user credentials and reboot or reset a device.

| System Name  | IP Address | Model    | Version    |
|--------------|------------|----------|------------|
| 201117004011 | DHCP       | 3.0.0.14 | DOP V2     |
| 201117004011 | DHCP       | 3.0.0.14 | DOP V2.0.2 |
| 201117004011 | DHCP       | 3.0.0.14 | DOP V2.0.2 |
| 201117004011 | DHCP       | 3.0.0.14 | DOP V2.0.2 |
| 201117004011 | DHCP       | 3.0.0.14 | DOP V2.0.2 |
| 201117004011 | DHCP       | 3.0.0.14 | DOP V2.0.2 |
| 201117004011 | DHCP       | 3.0.0.14 | DOP V2.0.2 |
| 201117004011 | DHCP       | 3.0.0.14 | DOP V2.0.2 |
| 201117004011 | DHCP       | 3.0.0.14 | DOP V2.0.2 |
| 201117004011 | DHCP       | 3.0.0.14 | DOP V2.0.2 |



D-Link Solutions



DIS-100E Series

(Fast Ethernet Industrial Unmanaged Switches)



| General                 | DIS-100E-5W                                    | DIS-100E-8W                                  |
|-------------------------|------------------------------------------------|----------------------------------------------|
| Hardware Version        | A1                                             | A1                                           |
| Number of Ports         | 5 x 10/100BASE-T ports                         | 8 x 10/100BASE-T ports                       |
| Performance             |                                                |                                              |
| Switching Capacity      | 1 Gbps                                         | 1.6 Gbps                                     |
| Maximum Forwarding Rate | 0.744 Mpps                                     | 1.19 Mpps                                    |
| MAC Address Table Size  | Up to 1K entries                               |                                              |
| Physical                |                                                |                                              |
| Power Input             | 12 to 58 V DC terminal block dual input        | 12 to 58 V DC terminal block dual input      |
| Power Consumptions      | Maximum: 1.56 W<br>Minimum: 0.95 W             | Maximum: 1.64 W<br>Minimum: 1.41 W           |
| Heat Dissipation        | 5.323 BTU/hr                                   | 5.596 BTU/hr                                 |
| Weight                  | 0.32 kg (0.71 lbs)                             | 0.405 kg (0.89 lbs)                          |
| Dimensions              | 109.2 x 29.1 x 89.4 mm (4.30 x 1.15 x 3.52 in) | 117.8 x 39 x 96.9 mm (4.64 x 1.54 x 3.80 in) |
| Ventilation             | Fanless, passive cooling                       |                                              |
| Operating Temperature   | -40 to 75 °C (-40 to 167 °F)                   |                                              |
| Storage Temperature     | -40 to 85 °C (-40 to 185 °F)                   |                                              |
| Material                | IP30-rated metal casing                        |                                              |
| Installation            | DIN rail/wall-mountable                        |                                              |

DIS-100G Series

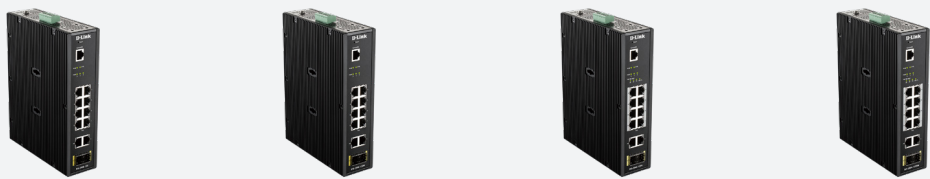
(Gigabit Industrial Unmanaged Switches)



| Model                   | DIS-100G-5W                                                                                                    | DIS-100G-5SW                                   | DIS-100G-5PSW                                           | DIS-100G-8W                                  | DIS-100G-8SW                                 |
|-------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------|----------------------------------------------|----------------------------------------------|
| Hardware Version        | A1                                                                                                             | A1                                             | A1                                                      | A1                                           | A1                                           |
| Number of Ports         | 5 x 10/100/1000BASE-T ports                                                                                    | 4 x 10/100/1000BASE-T ports<br>1 x SFP port    | 4 x 10/100/1000BASE-T PoE ports<br>1 x SFP ports        | 8 x 10/100/1000BASE-T ports                  | 6 x 10/100/1000BASE-T ports<br>2 x SFP ports |
| Performance             |                                                                                                                |                                                |                                                         |                                              |                                              |
| Switching Capacity      | 10 Gbps                                                                                                        | 10 Gbps                                        | 10 Gbps                                                 | 16 Gbps                                      | 16 Gbps                                      |
| Maximum Forwarding Rate | 7.44 Mpps                                                                                                      | 7.44 Mpps                                      | 7.44 Mpps                                               | 11.9 Mpps                                    | 11.9 Mpps                                    |
| Advanced Features       | Broadcast/Multicast/Unicast Storm Control<br>IEEE 802.1p Quality of Service (QoS) - 4 hardware queues per port |                                                |                                                         |                                              |                                              |
| PoE                     |                                                                                                                |                                                |                                                         |                                              |                                              |
| PoE Standards           | –                                                                                                              | –                                              | IEEE 802.3af/at                                         | –                                            | –                                            |
| PoE Capable Ports       | –                                                                                                              | –                                              | Ports 1 to 4                                            | –                                            | –                                            |
| PoE Power Budget        | –                                                                                                              | –                                              | Max. 120 W                                              | –                                            | –                                            |
| Physical                |                                                                                                                |                                                |                                                         |                                              |                                              |
| Power Input             | 12 to 58 V DC terminal block dual input                                                                        | 12 to 58 V DC terminal block dual input        | 48 to 58 V DC terminal block dual input                 | 12 to 58 V DC terminal block dual input      | 12 to 58 V DC terminal block dual input      |
| Power Consumptions      | Maximum: 3.18 W                                                                                                | Maximum: 3.82 W                                | Maximum: 4.46 W (PoE off)<br>Maximum: 131.57 W (PoE on) | Maximum: 7.8 W                               | Maximum: 8.5 W                               |
| Heat Dissipation        | 10.85 BTU/hr                                                                                                   | 13.03 BTU/hr                                   | 15.22 BTU/hr (PoE off)<br>448.94 BTU/hr (PoE on)        | 26.61 BTU/hr                                 | 29 BTU/hr                                    |
| Weight                  | 0.32 kg (0.71 lbs)                                                                                             | 0.32 kg (0.71 lbs)                             | 0.50 kg (1.10 lbs)                                      | 0.44 kg (0.98 lbs)                           | 0.45 kg (0.99 lbs)                           |
| Dimensions              | 112.2 x 29.1 x 89.4 mm (4.42 x 1.15 x 3.52 in)                                                                 | 112.2 x 29.1 x 89.4 mm (4.42 x 1.15 x 3.52 in) | 139 x 29 x 107 mm (5.47 x 1.14 x 4.21 in)               | 117.8 x 39 x 96.9 mm (4.64 x 1.54 x 3.81 in) | 117.8 x 39 x 96.9 mm (4.64 x 1.54 x 3.81 in) |
| Material                | IP30-rated metal casing                                                                                        |                                                |                                                         |                                              |                                              |
| Operating Temperature   | -40 to 75 °C (-40 to 167°F)                                                                                    |                                                |                                                         |                                              |                                              |
| Storage Temperature     | -40 to 85 °C (-40 to 185 °F)                                                                                   |                                                |                                                         |                                              |                                              |
| Installation            | DIN rail/wall-mountable                                                                                        |                                                |                                                         |                                              |                                              |

DIS-200G Series

(Layer 2 Gigabit Industrial Smart Managed Switches)



| Model                   | DIS-200G-12S                                                                    | DIS-200G-12SW                                                                   | DIS-200G-12PS                                                                                             | DIS-200G-12PSW                                                                                            |
|-------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Hardware Version        | A1                                                                              | A1                                                                              | A1                                                                                                        | A1                                                                                                        |
| Number of Ports         | 10 x 10/100/1000BASE-T ports<br>2 x SFP ports<br>1 x RJ-45 Console port         | 10 x 10/100/1000BASE-T ports<br>2 x SFP ports<br>1 x RJ-45 Console port         | 8 x 10/100/1000BASE-T PoE ports<br>2 x 10/100/1000BASE-T ports<br>2 x SFP ports<br>1 x RJ-45 Console port | 8 x 10/100/1000BASE-T PoE ports<br>2 x 10/100/1000BASE-T ports<br>2 x SFP ports<br>1 x RJ-45 Console port |
| Performance             |                                                                                 |                                                                                 |                                                                                                           |                                                                                                           |
| Switching Capacity      | 24 Gbps                                                                         |                                                                                 |                                                                                                           |                                                                                                           |
| Maximum Forwarding Rate | 17.85 Mpps                                                                      |                                                                                 |                                                                                                           |                                                                                                           |
| PoE                     |                                                                                 |                                                                                 |                                                                                                           |                                                                                                           |
| PoE Standards           | –                                                                               | –                                                                               | IEEE 802.3af/at                                                                                           | IEEE 802.3af/at                                                                                           |
| PoE Capable Ports       | –                                                                               | –                                                                               | Ports 1 to 8                                                                                              | Ports 1 to 8                                                                                              |
| PoE Power Budget        | –                                                                               | –                                                                               | Max. 240 W                                                                                                | Max. 240 W                                                                                                |
| Physical                |                                                                                 |                                                                                 |                                                                                                           |                                                                                                           |
| Power Input             | 12 to 48 V DC terminal block dual input<br>12 V DC 4-pin DIN single power input | 12 to 48 V DC terminal block dual input<br>12 V DC 4-pin DIN single power input | 48 to 54 V DC terminal block dual input<br>54 V DC 4-pin DIN single power input                           | 48 to 54 V DC terminal block dual input<br>54 V DC 4-pin DIN single power input                           |
| Power Consumptions      | Maximum: 10.26 W<br>Standby: 5.94 W                                             | Maximum: 10.26 W<br>Standby: 5.94 W                                             | Maximum: 260 W (PoE on)<br>Maximum: 10.8 W (PoE off)<br>Standby: 7.02 W                                   | Maximum: 260 W (PoE on)<br>Maximum: 10.8 W (PoE off)<br>Standby: 7.02 W                                   |
| Heat Dissipation        | 35.01 BTU/hr                                                                    | 35.01 BTU/hr                                                                    | 887.16 BTU/hr (PoE on)<br>36.85 BTU/hr (PoE off)                                                          | 887.16 BTU/hr (PoE on)<br>36.85 BTU/hr (PoE off)                                                          |
| Dimensions              | 210 x 171.2 x 53 mm (8.27 x 6.74 x 2.09 in)                                     |                                                                                 |                                                                                                           |                                                                                                           |
| Ventilation             | Fanless                                                                         |                                                                                 |                                                                                                           |                                                                                                           |
| Material                | IP30-rated metal casing                                                         |                                                                                 |                                                                                                           |                                                                                                           |
| Operating Temperature   | -40 to 65 °C (-40 to 149 °F)                                                    | -40 to 75 °C (-40 to 167 °F)                                                    | -40 to 65 °C (-40 to 149 °F)                                                                              | -40 to 75 °C (-40 to 167 °F)                                                                              |
| Storage Temperature     | -40 to 85 °C (-40 to 185 °F)                                                    |                                                                                 |                                                                                                           |                                                                                                           |
| Installation            | DIN rail/wall/rack mountable                                                    |                                                                                 |                                                                                                           |                                                                                                           |



DIS-300G Series

(Industrial Gigabit Managed Switches)



| General                 | DIS-300G-12SW                                                          | DIS-300G-8PSW                                                                                             | DIS-300G-14PSW                                                                                            |
|-------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Hardware Version        | A1                                                                     | A1                                                                                                        | A1                                                                                                        |
| Number of Ports         | 8 x 10/100/1000BASE-T ports<br>4 x SFP ports<br>1 x RJ-45 Console port | 4 x 10/100/1000BASE-T PoE ports<br>2 x 10/100/1000BASE-T ports<br>2 x SFP ports<br>1 x RJ-45 Console port | 8 x 10/100/1000BASE-T PoE ports<br>2 x 10/100/1000BASE-T ports<br>4 x SFP ports<br>1 x RJ-45 Console port |
| 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                |                                                                        |                                                                                                           |                                                                                                           |
| Power Input             | 12 to 58 V DC terminal block dual input                                | 54-58 V DC (802.3at PoE+)<br>48-58 V DC (802.3af PoE)<br>12-48 V DC (non-PoE)                             | 54-58 V DC (802.3at PoE+)<br>48-58 V DC (802.3af PoE)<br>12-48 V DC (non-PoE)                             |
| Power Consumptions      | Maximum: 17 W                                                          | Max. 14 W without PD connected<br>Max. 145 W with 120 W PSE power delivered                               | Max. 14 W without PD connected<br>Max. 265 W with 240 W PSE power delivered                               |
| Heat Dissipation        | 58 BTU/hr                                                              | 494.76 BTU/hr (PoE on)<br>47.77 BTU/hr (PoE off)                                                          | 904.22 BTU/hr (PoE on)<br>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                | IP30-rated metal casing                                                |                                                                                                           |                                                                                                           |
| Installation            | DIN rail/wall mountable                                                |                                                                                                           |                                                                                                           |

DIS-700G Series

(Industrial Layer 2+ Gigabit Managed Switches)



| General                 | DIS-700G-28XS                                              |
|-------------------------|------------------------------------------------------------|
| Hardware Version        | A1                                                         |
| Number of Ports         | 24 x SFP ports<br>4 x SFP+ ports<br>1 x RJ-45 Console port |
| Performance             |                                                            |
| Switching Capacity      | 128 Gbps                                                   |
| Maximum Forwarding Rate | 95.2 Mpps                                                  |
| MAC Address Table Size  | Up to 8K entries                                           |
| Transmission Method     | Store-and-forward                                          |
| Physical                |                                                            |
| Power Input             | Dual 20-57 V DC                                            |
| Power Consumptions      | Maximum: 35 W                                              |
| Alarm Relay             | 2 A at 24 V                                                |
| Heat Dissipation        | 119.42 BTU/hr                                              |
| Weight                  | 4.5 kg (9.92 lbs)                                          |
| Dimensions              | 440 x 44 x 318.5 mm (17.32 x 1.73 x 12.54 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            | Rack mountable                                             |

DPE-SP110I

(Indoor PoE Surge Protector)



| Interface                                   |                                                                                                                                                                                                                    |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Line In Port (Line IN)                      | 1 x RJ-45 port (power + data in)<br>Compatible with 10/100/1000BASE-T<br>PoE passthrough                                                                                                                           |
| Line Out Port (Device)                      | 1 x RJ-45 port (power + data out)<br>Compatible with 10/100/1000BASE-T<br>PoE passthrough                                                                                                                          |
| Performance                                 |                                                                                                                                                                                                                    |
| Maximum Discharge Current                   | 10 kA                                                                                                                                                                                                              |
| Common Mode (Line-to-Ground) Protection     | 20 kV (10/700 us)<br>10 kA (8/20 us)                                                                                                                                                                               |
| Differential Mode (Line-to-Line) Protection | 6 kV (10/700 us)<br>1 kA (8/20 us)                                                                                                                                                                                 |
| Clamping Voltage (Line-to-Ground)           | 600 V at 10 kA                                                                                                                                                                                                     |
| Clamping Voltage (Line-to-Line)             | 20 V at 1 kA                                                                                                                                                                                                       |
| Surge Protection Response Time              | 5 ns                                                                                                                                                                                                               |
| Ethernet PoE/Data Line                      | Added protection for 10/100/1000 Mbps Ethernet ports<br>Added protection for all RJ-45 8-pin assignments<br>Added protection for all four pairs of all types of Ethernet cables including Cat 5, Cat 5E, and Cat 6 |
| PoE Passthrough                             | Supports IEEE 802.3af/at<br>Supports up to 60 W PoE Passthrough                                                                                                                                                    |
| Physical                                    |                                                                                                                                                                                                                    |
| Dimensions (L x W x H)                      | 120 x 40 x 25 mm (4.72 x 1.57 x 0.98 in)                                                                                                                                                                           |
| Weight                                      | 152 g (0.34 lbs)                                                                                                                                                                                                   |
| Maximum PoE Operation DC Voltage            | 60 V DC                                                                                                                                                                                                            |
| Maximum PoE Operation DC Current            | 1 A                                                                                                                                                                                                                |
| Operation Temperature                       | -40 to 85 °C (-40 to 185 °F)                                                                                                                                                                                       |
| Storage Temperature                         | -40 to 85 °C (-40 to 185 °F)                                                                                                                                                                                       |
| Humidity                                    | 0 to 95%, non-condensing                                                                                                                                                                                           |
| Material                                    | Aluminium                                                                                                                                                                                                          |
| Ground Cable                                | AWG 12-type cable                                                                                                                                                                                                  |
| Mean Time Between Failure (MTBF)            | 923,617 hours                                                                                                                                                                                                      |
| Certifications                              | CE<br>IEC 61643-21 (10 kA)<br>IEC 61000-4-5<br>ITU-T K-Series<br>RoHS 6                                                                                                                                            |

DPE-SP110

(Outdoor PoE Surge Protector)



| Interface                                   |                                                                                                                                                                                                                    |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Line In Port (Line IN)                      | 1 x RJ-45 port (power + data in)<br>Compatible with 10/100/1000BASE-T<br>PoE passthrough                                                                                                                           |
| Line Out Port (Device)                      | 1 x RJ-45 port (power + data out)<br>Compatible with 10/100/1000BASE-T<br>PoE passthrough                                                                                                                          |
| Performance                                 |                                                                                                                                                                                                                    |
| Maximum Discharge Current                   | 10 kA                                                                                                                                                                                                              |
| Common Mode (Line-to-Ground) Protection     | 20 kV (10/700 us)<br>10 kA (8/20 us)                                                                                                                                                                               |
| Differential Mode (Line-to-Line) Protection | 6 kV (10/700 us)<br>1 kA (8/20 us)                                                                                                                                                                                 |
| Clamping Voltage (Line-to-Ground)           | 600 V at 10 kA                                                                                                                                                                                                     |
| Clamping Voltage (Line-to-Line)             | 20 V at 1 kA                                                                                                                                                                                                       |
| Surge Protection Response Time              | 5 ns                                                                                                                                                                                                               |
| Ethernet PoE/Data Line                      | Added protection for 10/100/1000 Mbps Ethernet ports<br>Added protection for all RJ-45 8-pin assignments<br>Added protection for all four pairs of all types of Ethernet cables including Cat 5, Cat 5E, and Cat 6 |
| PoE Passthrough                             | Supports IEEE 802.3af/at<br>Supports up to 35 W PoE passthrough                                                                                                                                                    |
| Physical                                    |                                                                                                                                                                                                                    |
| Dimensions (L x W x H)                      | 163 x 55 x 41.8 mm (6.41 x 2.17 x 1.65 in)                                                                                                                                                                         |
| Weight                                      | 220 g ± 10 g (0.49 lbs ± 0.02 lbs)                                                                                                                                                                                 |
| Maximum PoE Operation DC Voltage            | 57 V DC                                                                                                                                                                                                            |
| Maximum PoE Operation DC Current            | 0.6 A                                                                                                                                                                                                              |
| Operation Temperature                       | -40 to 75 °C (-40 to 167 °F)                                                                                                                                                                                       |
| Storage Temperature                         | -40 to 75 °C (-40 to 167 °F)                                                                                                                                                                                       |
| Humidity                                    | 0 to 95%, non-condensing                                                                                                                                                                                           |
| Material                                    | Aluminium<br>IP66 water-resistant enclosure                                                                                                                                                                        |
| Ground Cable                                | AWG 12-type cable<br>10-32 stud with wire clamp                                                                                                                                                                    |
| Mean Time Between Failure (MTBF)            | 528,513 hours                                                                                                                                                                                                      |
| Certifications                              | CE<br>IEC 61643-21 (10 kA)<br>IEC 61000-4-5<br>ITU-T K-Series<br>RoHS 6                                                                                                                                            |



# Why D-Link®

D-Link is a global leader in connecting people, businesses, and cities with our computer networking solutions and technology. Our innovative products and services meet the needs of digital home consumers, small to medium sized businesses, enterprise environments, and service providers. D-Link implements and supports unified network solutions that integrate capabilities in switching, wireless, broadband, IP surveillance, and cloud-based network management. An award-winning designer, developer, and manufacturer for over 30 years, D-Link has grown from a group of friends in Taiwan into a global brand with over 2,000 employees in 60 countries.

