



Data Diode DD1G

Unidirectional data flow

DD1G series are pure hardware based data diodes with optical separation to assure unidirectional data flow. DD1G series offer high performance and secure data transfer for Ethernet Layer 2.



Data diode DD1G

The DD1G series offers full 1 Gbps data throughput. The series includes stand alone devices and DIN rail mounted devices.

Ethernet Layer 2

The DD1G series works on Ethernet Layer 2. All network data on the upstream network will be automatically transferred to the downstream network regardless of overlaying network protocol. The data diode requires unidirectional network protocols, e.g. UDP, to function correctly in a system. If any other protocol is needed, the interfacing systems must act as proxy services and convert these protocols into a unidirectional flow.

By using a proxy service, the SecuriCDS Data Diode can handle common communication protocols, e.g. file or network time transfers. All services translate the protocols into unidirectional dataflows.

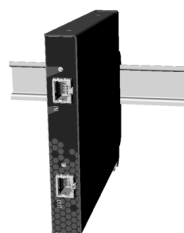


Powerful Data Diode applications

- Media streaming or CCTV monitoring
- Sensor output from OT (Operation Technology) networks to IT (Information Technology) networks
- File export
- File import
- Software updates, e.g. WSUS, antivirus
- Protecting confidentiality of log servers
- Secure log output to administrative network
- Website import
- Weather radar import
- Sensor input from lower classified network to higher classified network, for example AIS (Automatic Identification System) data import



DD1G-S, Stand-alone



DD1G-D, DIN rail mounted

Security

The DD1G series withstands modern attack methods by having a multi layered unidirectional design. At the centre, an optical fibre connection ensures the separation of the two connected networks.

As the DD1G series are pure hardware data diodes with no configuration options, the risk of having a unintentional faulty configuration is fully mitigated.

DD1G-S and DD1G-D Technical data

Gigabit Ethernet data diodes for Ethernet Layer 2.

Protocols supported

Protocols

Unidirectional protocols, e.g. UDP

Ports

Network data (Upstream + Downstream)

2x Gigabit Ethernet 8P8C (RJ45)

Electrical characteristics

Input voltage

1x or 2x 12VDC (Redundant power inlets)

Power consumption

5W

External power supply (included for DD1G-S)

1x 90-264VAC / 12VDC (Power supply rating 15W)

Depending on your requirements, one or two power supplies may be used to power DD1G-S

External power supply requirements for DD1G-D

1x or 2x 12VDC (11-13VDC) 5W

Power is connected by using a terminal screw plint.

Environmental characteristics

Storage

-20 - +60°C, 5% - 95% RH non-condensing IEC 60721-3-1 (1K3/1B1/1C2/1S2/1M2)

Transport

-20 - +60°C, 5% - 95% RH non-condensing IEC 60721-3-2 (2K2/2B1/2C1/2S1/2M2)

Stationary use

0 - +50°C, 20% - 90% RH non-condensing IEC 60721-3-3 (3K3/3Z1/3B1/3C1/3S1/3M2)

Cooling

Passive

Performance

Network interfaces

Full Gigabit Ethernet wire speed

Data throughput

Full Gigabit Ethernet wire speed

Error correction

None (Must be handled by interfacing systems if needed)

MTBF

91 000 h (Fides 2009 Edition A)

Dimensions and Weight

Device Size

DD1G-S: 130x20x150 (WxHxD)

DD1G-D: 130x20x163 (WxHxD)

Device Weight

0,6 kg

Supported standards

Network data ports

IEEE 802.3ab, 1000Base-T, Auto MDI/MDIX