



Advenica Data Diode DD1G

Unidirectional data flow



DD1G series are data diodes with optical unidirectional data flow to ensure physical separation in one direction. The DD1G series offers high performance data transfer for Ethernet layer 2 in a small package.

Native support

- Secure logging
- Sensor output from OT (Operation Technology) networks to IT (Information Technology) networks
- Sensor input from lower classified network to higher classified network, for example AIS (Automatic Identification System) data import
- Media streaming
- CCTV monitoring

With external proxies

- File transfer
- Software updates, e.g. WSUS, (Windows Server Update Services) antivirus
- Website mirroring

Advantages

- Optical high assurance separation
- Physical upstream separation
- Enables digitalisation without compromising security
- Fulfilment of internal and regulatory requirements

Compact 1GB Data Diode

The SecuriCDS DD1G offers full Gigabit data throughput in a small package. 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.

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.

Product models

DD1G-S can be used as a tabletop device, and DD1G-D as a DIN rail mounted system device.

DD1G Technical data

Gigabit Ethernet data diodes for Ethernet Layer 2.

Versions

DD1G-D (DIN rail)
DD1G-S (stand-alone)

Protocols supported

Unidirectional protocols, e.g. UDP, RTP, Syslog

Performance

Network interfaces
Gbit Ethernet
Data throughput
Gbit wire speed

Ports

Network data (Upstream + Downstream)
2x Gbit Ethernet (RJ45)

Supported standards

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

Dimensions and Weight

Device Size
DD1G-S: 130x20x150 (WxHxD)
DD1G-D: 130x20x163 (WxHxD)
Device Weight
0,6 kg

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)

Electrical characteristics

Input voltage

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

Power consumption

5W

External power supply (included for DD1G-S)

1x 90-260VAC / 12VDC (Power supply rating 15W)

Depending on your requirements, redundant 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.



Advenica provides expertise and world-class high assurance cybersecurity solutions for critical data in motion up to Top Secret classification. We enable countries, authorities and companies to raise information security and digitalise responsibly. Founded in 1993, we are EU approved to the highest level of security. Our unique products are designed, developed and manufactured in Sweden.

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