

The second generation Advenica Data Diode DD1G provides physically enforced one-way data flow within Ethernet network environments. A hardware only, robust cybersecurity solution for protecting the most valuable digital information.



Main benefits

- Guaranteed one-way data flow based on optical fiber
- Common Criteria EAL4+ certified, supporting deployment in regulated environments
- Pure hardware device, eliminates the risk of misconfiguration
- Flexible installation with multiple mounting options
- Combine with proxy software Advenica Data Diode Engine for versatile solutions

The core of robust cybersecurity solutions

Engineered for enforced one-way data flow, the DD1G serve as an impenetrable barrier against cyber threats. Ensuring that data can be securely transferred between intended networks without the risk of external attacks or unauthorised access.

No configuration required

The Advenica DD1G is a pure hardware data diode without configuration options enabling a plug-and-play deployment process.

Equally important, the risk of having an unintentional faulty configuration or outdated software exposing vulnerabilities, is fully mitigated.

Gigabit data diode using optical technology

The DD1G is an Ethernet-based data diode with Gigabit performance. At the centre, a purpose-built optical fibre connection secures the separation of the two connected networks.

Extended functionality with proxy services

For use cases requiring bidirectional communication, the DD1G can be combined with the Advenica Data Diode Engine, a proxy software solution that manages data transfer through Ethernet-based data diodes.

The Data Diode Engine supports a range of application specific software services for use cases such as file transfer or sensor data export.

Technical specification

Model characteristics

Device type	Gigabit Ethernet data diode
Installation	Tabletop or DIN rail mount
Performance	1 Gbps network interfaces
Supported protocols	Unidirectional protocols, e.g. UDP, RTP, Syslog

Mechanical and environmental

Dimensions	138 mm (D) x 100 mm (W) x 32 mm (H)
Weight	0.5 kg
Casing material	Metal
Cooling	Passive (fanless)
Operating temperature	0°C to +50°C, 5-95% RH non-condensing
Storage and transport temperature	-20°C to +60°C, 5-95% RH non-condensing
Physical security	Tamper evident casing

Interfaces and connectors

Input voltage	+24 VDC (External power supply, PSU included) or IEEE 802.3af (PoE)
Power supply options	1x or 2x 100-240VAC / 24VDC (1x Power supply rating 18W included) 1x or 2x 24VDC 6W (Terminal screw plint included) Power over Ethernet (PoE)
Power consumption	6 W PoE class 2
Network data ports	2x Gbit Ethernet (RJ45)
Supported standards	IEEE 802.3ab, 1000Base-T, RJ45 connectors IEEE 802.3af, PoE

Regulatory compliance

CE	Compliance with applicable directives for EU
Environmental	REACH, RoHS, WEEE
Security certification	Common Criteria, EAL4+



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Advenica provides cybersecurity solutions within encryption and network segmentation with the highest level of EU- and national approvals. We were founded in 1993 and are based in Malmö, Sweden, where most of our products are designed, developed, and manufactured. Advenica specialises in the sectors of defence, authorities, infrastructure, and industry. With decades of experience working with Sweden's national security, Advenica is known for delivering cybersecurity with exceptional service.

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