

# Data Diode DD500E

**Physically enforced one-way data flow  
for industrial installations**

Data Diode DD500E is a small form factor IP-capable data diode optimised for industrial installations. Optical technology enables secure export of data from vital networks, enabling automation of data collection while preserving the protective characteristics of air-gap.



## Main benefits

- Physically separated source and destination networks
- Compact form factor
- Low touch installation process
- Native support for UDP
- DIN rail mounting
- Power over Ethernet (PoE)
- Certifications for industrial environments

## Bridging the air-gap

Extract sensor or other operational data from field devices to any local or cloud platform without compromising the integrity or availability of the source network.

The Advenica Data Diode DD500E enables use cases such as data analysis for predictive maintenance, live monitoring of sensor data, statistics data collection or machine-to-machine communication within a production environment.

## Tailored for industrial use

The DD500E is optimised for industrial environments, with a robust design for DIN rail mounting.

With PoE (Power over Ethernet) as a power supply option, the model design facilitates installation in settings with restricted space in challenging environments.

## Physical separation

The Data Diode DD500E guarantees physical separation of the source and destination network, enforcing unidirectional data flow using an optical one-way barrier.

## Low-touch installation

The Data Diode DD500E is ideal for all applications with data transfer over UDP and requires minimal configuration settings prior to the device being operational.

IP connectivity capabilities enables a smooth integration in existing network environments which is unique for a small form factor data diode.

Significant effort has been directed toward ensuring a low-touch installation process and secure management of the device.

# Technical specification\*

Model characteristics	Data Diode DD500E, DD500E-R
Device type	DIN rail
Device Size	58(D) x 50(W) x 75(H) mm
Device Weight	175g
Casing material	Metal
Operating voltage/power input	+24VDC (External power supply, PSU included) or IEEE 802.3af (PoE)
Power Supply Unit (PSU)	Mean Well HDR-15-24
Power	2.5 W PoE class 2
Ethernet ports	100BASE-TX, RJ45 connectors IEEE 802.3af, PoE
Configuration ports	Proprietary (configuration cables included)
Performance	100 Mbps network interfaces
Ingress protection	IP40 (EN 60529)

Certifications	Data Diode DD500E, DD500E-R
CE, UKCA	Compliance with applicable directives for EU and UK
Safety	IEC/EN/UL 62368
FCC classification	FCC Subpart 15B/ICES003
Vibration	IEC 60068-2-6, IEC 60068-2-64
Shock	IEC 60068-2-27
Environmental	Reach, RoHS, WEEE

Model specific	Data Diode DD500E	Data Diode DD500E-R
Operating temperature	-20°C to +65°C, 5-95% RH non-condensing	-40°C to +70°C, 5-95% RH non-condensing
Storage and transport	-40°C to +85°C, 5-95% RH non-condensing	-40°C to +85°C, 5-95% RH non-condensing
Additional certifications	-	EN50121-4, EMC requirements for signaling and telecommunications equipment EN50125-3, Environmental conditions for signaling and telecommunications equipment

**\*Product release in 2025. Specifications and details are subject to revision and may be modified as necessary.**