

Fibersystem
Data Diodes support:

Syslog
NTP Broadcast
SNMP Traps
UDP Unicast
UDP Broadcast
UDP Multicast

No extra software
needed!

Data Diode - Bidirectional 1Gbit

- 1 Gbit
- AC or DC
- Fiber and/or copper connectivity
- 19" Rack unit, 1 HU
- Redundant Power Supplies



Fibersystem hardware designed Data Diode with Bidirectional communication. The two way Data Diode with separated send and receive nodes are completely isolated from each other.

Bidirectional transfer of data over fiber cable or copper cable between two networks with hardware separation to guarantee security.

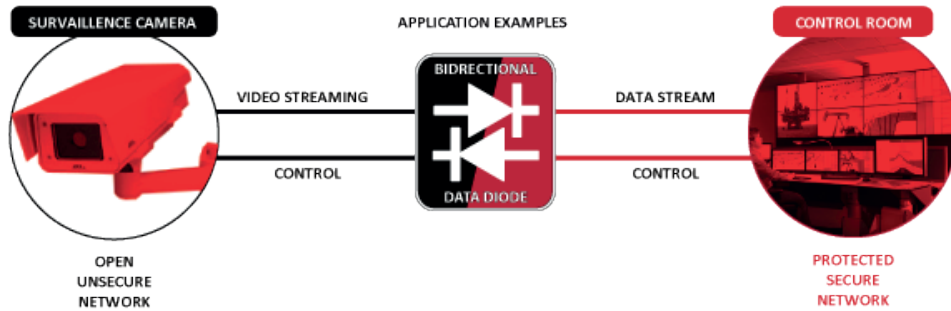
Fiber or Copper interface can be chosen independantly for In and Out. No need for extra converter!

The Fibersystem Data Diode Bidirectional gives the following advantages

- Based on hardware, no extra software needed. This completely eliminates the risk for data flowing in false direction
- Fiberoptical links for galvanic separation between networks
- Supports: Syslog, NTP Broadcast, SNMP traps
- Supports: UDP (Unicast, Broadcast, Multicast, Manycast)
- For Queue Mgmt, Logging, Mail, FTP, SNMP and SDK. Additional software is needed.

Features

- Fiber/copper connectivity
- 1 Gbit/s
- 19" Rack unit, 1 HU
- Redundant Power Supplies
- Hot swap of Power Supplies
- Physically secured , tampering protected enclosure against manipulation
- No crosstalk
- Fast and easy deployment
- Durable and long lasting
- Tested and accredited



Fibersystem Data Diodes manage UDP traffic without additional software

NTP client connects to the specified NTP server. IP address of NTP server must be set in `ntp-server` and/or `second-ntp-server` parameters. At first client synchronizes to NTP server. Afterwards client periodically (64...1024 s) sends time requests to NTP server. Unicast mode is the only one which uses `ntp-server` and `second-ntp-server` parameters.

UDP Broadcast mode

NTP client listens for broadcast messages sent by any NTP server. After receiving first broadcast message, client synchronizes local clock using unicast mode, and afterwards does not send any packets to that particular NTP server, but rather waits for the next broadcast messages.

UDP Multicast mode

Acts the same as broadcast mode, but instead of broadcast messages (IP address 255.255.255.255), multicast messages are received (IP address 224.0.1.1).

UDP Multicast mode

Actually is unicast mode, but with unknown IP address of NTP server. To discover NTP server, client sends multicast message (IP 239.192.1.1). If NTP server is configured to listen for these multicast messages (multicast mode is enabled), it replies. After client receives reply, it enters unicast mode and synchronizes to that NTP server. But in parallel client continues to look for more NTP servers by sending multicast messages periodically.

Secure File Transfer (additional software needed)

Transfer files from one network to another with no the risk of sending information in the opposite direction.

Secure Plant Monitoring (additional software needed)

Send continuous plant monitoring information from Production Network to Corporate Network securely.

Secure CCTV Recordings (additional software needed)

Ensure integrity of CCTV recordings by sending the unprocessed camera stream to safe storage and keep the network safe from hijackers trying to connect to the company network through the CCTV Camera wire.

Information Management

Control direction of information streams in your network.

Isolate secret networks

Create working isolated secret networks with necessary input sent unidirectionally from Open/ Unclassified networks.

Distribute NTP to secret networks

Securely distribute and synchronize NTP in secret networks.

Data Diode Bidirectional 1 Gbit

Galvanic/Electrical link	
Data speed	1 Gbps
Fibre optic links	
Data speed	1 Gbps
Wavelength	850 nm
Fibre optical connector	LC
Fibre	Multimode 50/125 µm or 62.5/125 µm.
Optical system budget	13 dB in 62.5/125 µm. 9 dB in 50/125 µm fibre
Typical distance	0 – 2km (3dB system margin for 50/125µm and 6dB for 62.5/125µm)
Environmental	
Temperature range	Operating: 0 °C to +50 °C. Storage: -40 °C to +70 °C
Relative humidity	Operating: 5 to 95 %RH. Storage: 5 to 95 %RH non condensing.
Power Supply	
AC (60-00-7563)	2x230 VAC ±20 %, 50–60 Hz, max 10 W
DC (60-00-7564)	2x24 VDC nom (9-36), 48 VDC nom (36-75)
Regulatory compliance	
Safety	CE
Environmental	Complies with appropriate requirements of RoHs and WEEE
Dimensions and weight	
Physical size	44 (H), 444 (W), 227 (D) mm
Weight	3 kg

Ordering information

Data Diode Bidirectional 1 Gbit

Part number	Model	M-Number	Description	In	Out
60-00-7563			Data Diode Bidirectional 1 Gbit 2xAC	RJ45 / LC	RJ45 / LC
60-00-7564			Data Diode Bidirectional 1 Gbit 2xDC	RJ45 / LC	RJ45 / LC