cyber-diode

Diodes

Facts and Features

Definition

cyber-diode is a highly resilient industrial software data diode based on a product approved by the German Federal Office of Information Security (BSI). The unidirectional security gateway enables highly secure industrial monitoring of machines, plants, and critical infrastructure. In contrast to physical data diodes that rely on modified fiber-optic cables to ensure one-way data flow, cyber-diode can use acknowledgements and flow control to achieve maximum throughput and provide feedback about successful or unsuccessful data delivery. The central filter component, implemented on a secure L4 microkernel, guarantees that no payload is ever transmitted in the opposite direction.

Supported protocols of cyber-diode are OPC UA, MODBUS TCP, FTP, FTPS, SFTP, SMTP, TCP, UDP, syslog, HTTP, and IPSec VPN.

Typical Use

- Non-intrusive secure monitoring of IT systems and OT facilities.
- Critical-infrastructure monitoring and protection

Reasons to Choose cyber-diode

- Absolutely reliable data transmission and assurance of receipt status via delivery confirmation on end-to-end connections
- IT and OT systems protection against infiltrating malware and unauthorized access when they are digitally networked
- With OPC UA and MODBUS TCP, cyber-diode supports the international digitalization standard for networking production plants
- User-friendly configuration via the Central Management Station genucenter or a local browser-based app

Customer Service

- Customer service directly from the manufacturer genua
- Hotline service
- Free hardware support for three years

SecurITy made in Germany

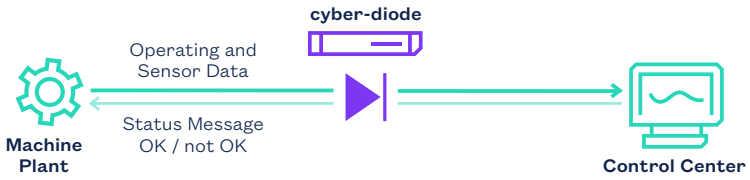
Supported Protocols	
OPC UA	+
MODBUS TCP	+
FTP	+
FTPS	+
SFTP	+
SMTP	+
TCP	+
UDP	+
syslog	+
HTTP	+
IPSec VPN	+

Application Level Gateway	
Protocol gateway	+
Internet services	+

Security Mechanisms	
Separation kernel	+
Configurationless part	+
Read-only boot medium	+
Secure boot	+

Approval	
Based on approved and CC-certified product components	+

Use Case



Secure Industrial Monitoring

All machines and plants that transmit data via the Internet are, by principle, also vulnerable for cyber-attacks. Therefore, systems must be protected against infiltrating malware and unauthorized access when they are digitally networked. Systems that control critical infrastructures or other facilities – whose flawless operation is essential for high material value or even human lives – have an especially high security requirement. Examples include turbines in power plants, chemical production facilities, or industrial robots on production lines. cyber-diode offers operators of these systems the highest level of industrial monitoring security.

0326-01E

Further Information:

www.genua.eu/cyber-diode

genua GmbH
Domagkstrasse 7 | 85551 Kirchheim | Germany
+49 89 991950-0 | info@genua.eu | www.genua.eu