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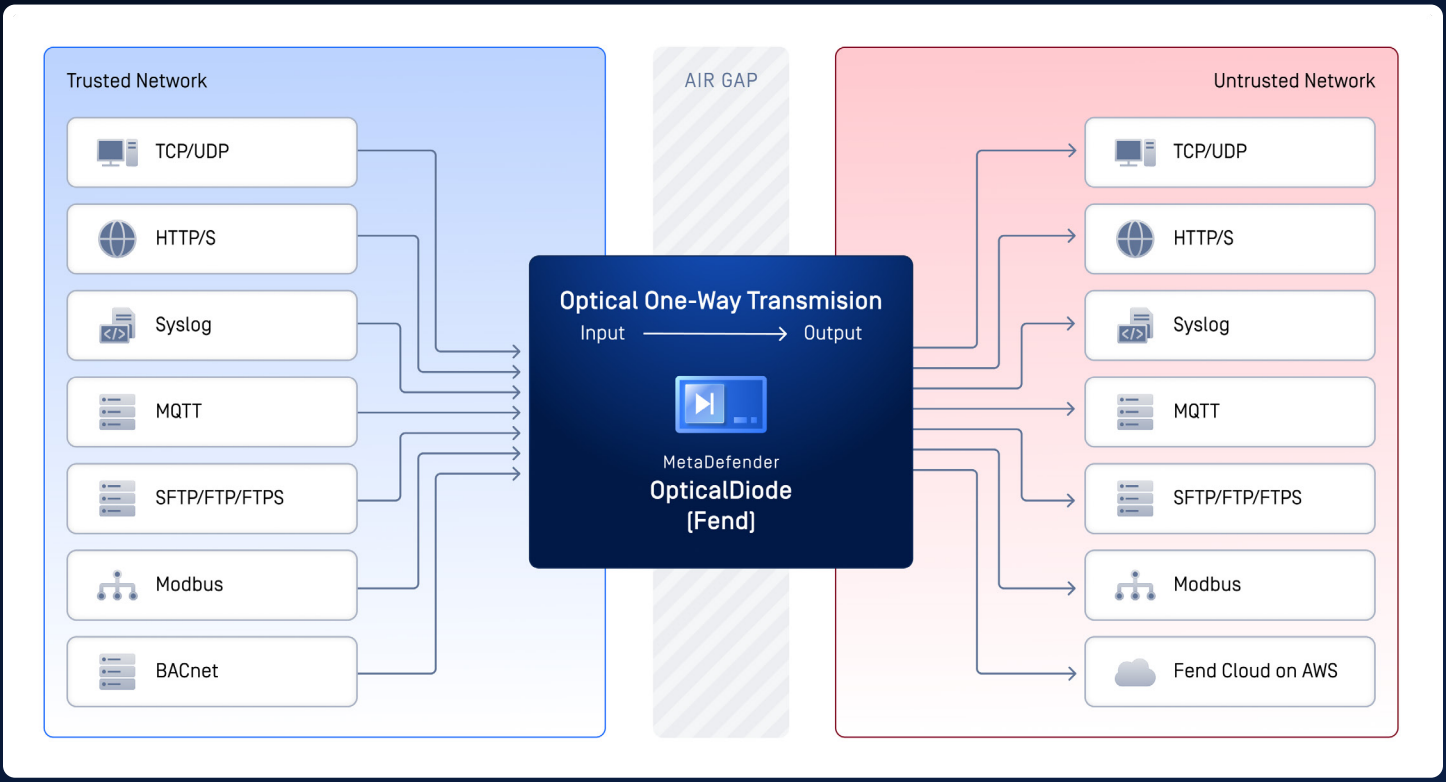
PROTOCOL SHEET

METADEFENDER™

Optical Diode XE, SE, and CE

This protocol sheet outlines supported data transfer protocols and specifications for MetaDefender Optical Diode models XE5, XE15, XE50, SE5, SE15, CE5, and CE15 within the Fend series.

Protocol Options



MetaDefender Optical Diode (Fend)
One-way communication diodes allow data to be sent securely from protected networks, increasing operational visibility and keeping threats out.

Protocol Combinations for 5, 15 and 50 Series - By Output

Input		Output		Models
Ethernet Ethernet Ethernet	TCP Server UDP Server (Unicast, Broadcast, and Multicast) TLS over TCP Server	Ethernet	TCP Client	All Models
Ethernet Ethernet Ethernet	TCP Server UDP Server (Unicast, Broadcast, and Multicast) TLS over TCP Server	Ethernet	UDP Client (Unicast, Broadcast, and Multicast)	All Models
Ethernet	TLS over TCP Server	Ethernet	TLS over TCP Client	All Models
Ethernet Ethernet	HTTP Server HTTPS Server	Ethernet	HTTPS Client	XE50
Ethernet	HTTP Server	Ethernet	HTTP Client	XE50
Ethernet	Syslog (over UDP or TCP)	Ethernet	Syslog (over UDP or TCP)	All Models
Ethernet	MQTT Client Subscriber	Ethernet	MQTT Client Publisher	XE50
Ethernet	SFTP Server	Ethernet	SFTP Client	All Models
Ethernet	FTP Server	Ethernet	FTP Client	All Models
Ethernet	FTPS Server	Ethernet	FTPS Client	All Models
Ethernet RS485	Modbus TCP Master/Client or listen Modbus RTU Master/Client or listen	Ethernet	Modbus TCP Slave/Server	All Models
Ethernet RS485 Ethernet RS485 Ethernet	Modbus TCP Master/Client or listen Modbus RTU Master/Client or listen BACnet IP (Listen) BACnet MSTP (Listen) LON IP (Listen)	Ethernet	Fend Cloud AWS TCP Client (JSON)	All Models
Ethernet RS485 Ethernet RS485 Ethernet	Modbus TCP Master/Client or listen Modbus RTU Master/Client or listen BACnet IP (Listen) BACnet MSTP (Listen) LON IP (Listen)	Ethernet	MQTT Client (Publisher)	All Models
Ethernet RS485	Modbus TCP Master/Client or listen Modbus RTU Master/Client or listen	RS485	Modbus RTU Slave/Server	SE5/SE15 Only
Ethernet RS485 Ethernet RS485 Ethernet	Modbus TCP Master/Client or listen Modbus RTU Master/Client or listen BACnet IP (Listen) BACnet MSTP (Listen) LON IP (Listen)	Cellular	Fend Cloud AWS	CE5/CE15 Only (Available in United States Only)

Protocol Combinations for 5, 15 and 50 Series - By Input

Input		Output		Models
Ethernet	TCP Server	Ethernet	TCP Client	All Models
			UDP Client (Unicast, Broadcast, and Multicast)	
Ethernet	UDP Server (Unicast, Broadcast, and Multicast)	Ethernet	TCP Client	All Models
			UDP Client (Unicast, Broadcast, and Multicast)	
Ethernet	TLS over TCP Server	Ethernet	TLS over TCP Client	All Models
		Ethernet	TCP Client	
		Ethernet	UDP Client (Unicast, Broadcast, and Multicast)	
Ethernet	HTTPS Server	Ethernet	HTTPS Client	XE50
		Ethernet	HTTP Client	XE50
Ethernet	HTTP Server	Ethernet	HTTP Client	XE50
Ethernet	Syslog (over UDP or TCP)	Ethernet	Syslog (over UDP or TCP)	All Models
Ethernet	MQTT Client Subscriber	Ethernet	MQTT Client Publisher	XE50
Ethernet	SFTP Server	Ethernet	SFTP Client	All Models
Ethernet	FTP Server	Ethernet	FTP Client	All Models
Ethernet	FTPS Server	Ethernet	FTPS Client	All Models
Ethernet	Modbus TCP Master/Client or listen	Ethernet	Modbus TCP Slave/Server	All Models
		RS485	Modbus RTU Slave/Server	SE5/SE15 Only
		Ethernet	Fend Cloud AWS/TCP Client (JSON)	All Models
		Cellular	Fend Cloud AWS	CE5/CE15 Only
		Ethernet	MQTT Client (Publisher)	All Models
RS485	Modbus RTU Master/Client or listen	Ethernet	Modbus TCP Slave/Server	All Models
		RS485	Modbus RTU Slave/Server	SE5/SE15 Only
		Ethernet	Fend Cloud AWS/TCP Client (JSON)	All Models
		Cellular	Fend Cloud AWS	CE5/CE15 Only
		Ethernet	MQTT Client (Publisher)	All Models
Ethernet	BACnet IP (Listen)	Ethernet	Fend Cloud AWS/TCP Client (JSON)	All Models
		Cellular	Fend Cloud AWS	CE5/CE15 Only
		Ethernet	MQTT Client (Publisher)	All Models
RS485	BACnet MSTP (Listen)	Ethernet	Fend Cloud AWS/TCP Client (JSON)	All Models
		Cellular	Fend Cloud AWS	CE5/CE15 Only
		Ethernet	MQTT Client (Publisher)	All Models
Ethernet	LON IP (Listen)	Ethernet	Fend Cloud AWS/TCP Client (JSON)	All Models
		Cellular	Fend Cloud AWS	CE5/CE15 Only
		Ethernet	MQTT Client (Publisher)	All Models

OPSWAT Product Integrations

	5 Series	15 Series	50 Series
OPSWAT Screen View	✓	✓	✓
OPSWAT OPC DA Connector	✓	✓	✓
MetaDefender Managed File Transfer	✗	✗	✓
MetaDefender Kiosk	✗	✗	✓

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Protecting the World's Critical Infrastructure

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Built on a "Trust no file. Trust no device.™" philosophy, OPSWAT solves customers' challenges like hardware scanning to secure the transfer of data, files, and device access with zero-trust solutions and patented technologies across every level of their infrastructure. OPSWAT is trusted globally by more than 2,100 organizations, governments, and institutions across critical infrastructure to help secure their devices, files, and networks from known and unknown threats, zero-day attacks, and malware, while ensuring compliance with industry and government-driven policies and regulations.

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