# Technical data MTL industrial security

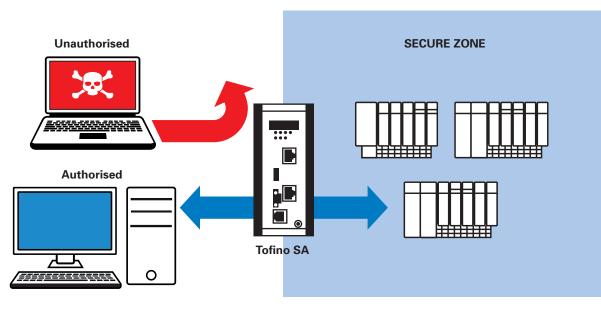
August 2024 EPS MTL 9202-ETS Rev 6

# CROUSE-HINDS SERIES

# Tofino<sup>™</sup>9202-ETS range

# **Key Features:**

- Improved system reliability and stability
- Reduced down time and production losses
- Lower maintenance costs
- Simplified regulatory and security standard compliance
- Plug-n-Protect installation requires no preconfiguration, no network changes, and no disruption to the control system
- Simple configuration over the network using the free Tofino Configurator software
- Unique 'Test' mode allows firewall testing with no risk
  to your operation
- Pre-installed Firewall, Event Logger and NetConnect Loadable Security Modules (LSM)
- Compatible with all DCS, PLC, SCADA, networking, and software products
- Both Multimode and Singlemode fibre optic hardware versions for long distance applications
- Rugged hardware design for years of reliable service
- Secure networks with security zones as per NERC, ANSI/ISA, and IEC standards
- Protect connections to partners networks and wireless networks
- Improve SCADA and process control network reliability and performance





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# **SPECIFICATIONS**

#### **Ethernet Interfaces**

| Part Number    | Media                     | Net 1      | Net 2      |  |
|----------------|---------------------------|------------|------------|--|
| 9202-ETS       | Copper/Copper             | 100BASE-TX | 100BASE-TX |  |
| 9202-ETS-MC-SC | Multi-mode/<br>Copper     | 100BASE-FX | 100BASE-TX |  |
| 9202-ETS-MM-SC | Multi-mode/<br>Multi-mode | 100BASE-FX | 100BASE-FX |  |
| 9202-ETS-SC-SC | Single-mode/<br>Copper    | 100BASE-FX | 100BASE-TX |  |

(dependent of device variant)

# Additional Interfaces

#### USB Interface

1 x USB socket to connect load/verify configuration

#### Digital Input

1 x plug-in terminal block, 2-pin

#### Signalling Contact

1 x max. 60 V DC or max. 30 V AC, SELV, max. 1A

#### Network Size

Twisted Pair

#### (TP) 0 to 100 m

Multimode Fibre (MM) 50/125  $\mu$ 

0 to 5000 m, 8 dB Link Budget at 1300 nm, A = 1 dB/km,

# 3 dB Reserve, B = 800 MHz x km

Multimode Fibre (MM) 62,5/125 µm

0 to 4000 m, 11 dB Link Budget at 1300 nm, A = 1 dB/km, 3 dB Reserve, B = 500 MHz x km

#### Singlemode Fibre (SM) 9/125 µm

0 to 30 km, 16 dB Link Budget at 1300 nm, A = 0.4 dB/km,

#### 3 dB Reserve, D = 3.5 ps/(nm x km)

Power Requirements

#### **Operating Voltage**

12 to 48 V DC, 24 V AC redundant power supply

## **Power Consumption**

5 Watts

#### Power Supply/Signaling Contact

1 x plug-in terminal block, 6-pin

#### Software

Management

MTL Tofino Configurator (TC) software

#### Loadable Security Modules (LSMs)

Basic LSMs (pre-installed): Firewall, Event Logger & NetConnect Enforcer.

#### LSMs (to be ordered separately):

Modbus TCP Enforcer (9522-MBT), OPC Enforcer (9522-OPC), EtherNet/IP Enforcer (9522-EIP), DNP3 Enforcer (9522-DNP3), IEC104 Enforcer (9522-IEC104) & GOOSE Enforcer (9522-GOOSE)

#### Diagnostics

LEDs (power, mode, fault, save/load, reset , link status), signal contact, syslog, configuration verify

#### Firewall

Stateful layer 2, 3 and 4 filtering with optional deep packet inspection for SCADA protocols (depending on purchased LSMs)

#### System Requirements

Windows XP, Windows 7 (32- and 64-bit), or Windows Server 2003, 2008, or 2008 SR2

#### **Configuration method**

#### Network

Tofino Configurator uses secure communications to configure the Tofino security appliance

#### Manual

Encrypted configuration files may be saved on a USB storage device and loaded into the Tofino security appliance via a secure USB port

#### **Operating modes**

#### Test

All traffic allowed; alerts generated as per user rules **Operational** 

#### perational

Traffic filtered and alerts generated as per user rules **Mode changes** 

Operating mode is controlled remotely from the free Tofino Configurator software

#### Audit log

Audit capabilities for tracking configuration changes **Security alerts** 

Simultaneous event logging to a remote syslog server and local nonvolatile memory for later download via network or USB storage device

# Ambient Conditions

**Operating Temperature** -40°C to +70°C

(IEC 60068-2-2 Dry Heat Test +85°C 16 hours)

#### Storage/Transport Temperature -40°C to +85°C

Relative Humidity (non-condensing)

# 10% to 95%

**Conformal Coating** 

Option available as (please see ordering information)

#### **Mechanical Construction**

Dimensions (WxHxD)

60 x 145 x 125 mm

Weight

660 g

# Protection Class

IP20 Mounting

DIN Rail 35 mm

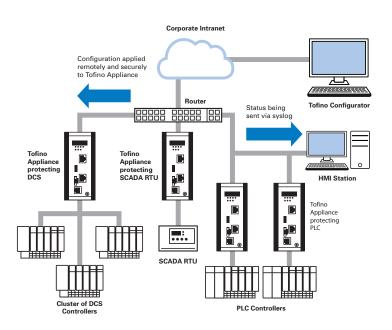
#### Approvals

For the latest certificate information, see www.mtl-inst.com/certificates

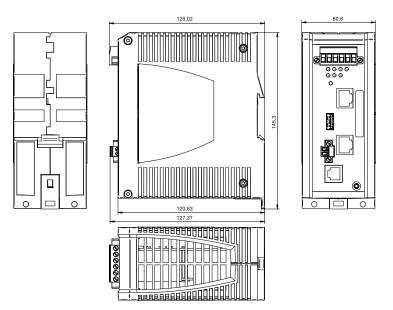
# Reliability

MTBF 74.5 years Warranty

## 5 years (standard)



**DIMENSIONS** 



# **ORDERING INFORMATION**

| Tofino Hardware   |  | Tofino LSM  |                                     |
|---|--|-------------|-------------------------------------|
| PART NUMBER   | DESCRIPTION                              | PART NUMBER | DESCRIPTION                         |
| 9202-ETS  | MTL Tofino SA Copper only                | 9522-MBT    | MTL Tofino Modbus TCP Enforcer LSM  |
| 9202-ETS-MC-SC  | MTL Tofino SA Multi-mode Fibre & Copper  | 9522-OPC    | MTL Tofino OPC Enforcer LSM         |
| 9202-ETS-MM-SC  | MTL Tofino SA Multi-mode Fibre only      | 9522-EIP    | MTL Tofino Ethernet IP Enforcer LSM |
| 9202-ETS-SC-SC  | MTL Tofino SA Single-mode Fibre & Copper | 9522-DNP3   | MTL Tofino DNP3 Enforcer LSM        |
| Add - CC to above part numbers for Conformally Coated version for |  | 9522-IEC104 | MTL Tofino IEC 104 Enforcer LSM     |

Add - CC to above part numbers for Conformally Coated version for installations in corrosive environments



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9522-GOOSE

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ASIA-PACIFIC: +65 6 645 9888 sales.mtlsing@eaton.com The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.

MTL Tofino IEC 61850 GOOSE Enforcer LSM