Tofino™ 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

Unauthorised

Authorised

SECURE ZONE
**SPECIFICATIONS**

**Ethernet Interfaces**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Media</th>
<th>Net 1</th>
<th>Net 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>9202-ETS</td>
<td>Copper/Copper</td>
<td>100BASE-TX</td>
<td>100BASE-TX</td>
</tr>
<tr>
<td>9202-ETS-MC-SC</td>
<td>Multi-mode/ Copper</td>
<td>100BASE-FX</td>
<td>100BASE-TX</td>
</tr>
<tr>
<td>9202-ETS-MM-SC</td>
<td>Multi-mode/ Multi-mode</td>
<td>100BASE-FX</td>
<td>100BASE-FX</td>
</tr>
<tr>
<td>9202-ETS-SC-SC</td>
<td>Single-mode/ Copper</td>
<td>100BASE-FX</td>
<td>100BASE-TX</td>
</tr>
</tbody>
</table>

(dependent on 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 μm**
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/Signalling 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**
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 (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**

**Declaration of Conformity**
CE, FCC, EN 61131, C-TICK, EN 60950

**Safety of Industrial Control Equipment**
cUL508

**Hazardous Locations**
ISA-12.12.-01 Class 1 Div. 2 – Haz. Loc, ATEX-95 Category 3G (Zone 2)

**Reliability**

**MTBF**
74.5 years

**Warranty**
5 years (standard)
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.

**DIMENSIONS**

**Tofino Hardware**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>9202-ETS</td>
<td>MTL Tofino SA Copper only</td>
</tr>
<tr>
<td>9202-ETS-MC-SC</td>
<td>MTL Tofino SA Multi-mode Fibre &amp; Copper</td>
</tr>
<tr>
<td>9202-ETS-MM-SC</td>
<td>MTL Tofino SA Multi-mode Fibre only</td>
</tr>
<tr>
<td>9202-ETS-SC-SC</td>
<td>MTL Tofino SA Single-mode Fibre &amp; Copper</td>
</tr>
<tr>
<td>Add - CC to above part numbers for Conformally Coated version for installations in corrosive environments</td>
<td></td>
</tr>
</tbody>
</table>

**Tofino LSM**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>9522-MBT</td>
<td>MTL Tofino Modbus TCP Enforcer LSM</td>
</tr>
<tr>
<td>9522-OPC</td>
<td>MTL Tofino OPC Enforcer LSM</td>
</tr>
<tr>
<td>9522-EIP</td>
<td>MTL Tofino Ethernet IP Enforcer LSM</td>
</tr>
<tr>
<td>9522-DNP3</td>
<td>MTL Tofino DNP3 Enforcer LSM</td>
</tr>
<tr>
<td>9522-IEC104</td>
<td>MTL Tofino IEC 104 Enforcer LSM</td>
</tr>
<tr>
<td>9522-GOOSE</td>
<td>MTL Tofino IEC 61850 GOOSE Enforcer LSM</td>
</tr>
</tbody>
</table>

Eaton Electric Limited,
Great Marlings, Butterfield, Luton
Beds, LU2 8DL, UK.
Tel: +44 (0)1582 723633 Fax: +44 (0)1582 422283
E-mail: mtlenquiry@eaton.com
www.mtl-inst.com
© 2018 Eaton
All Rights Reserved
Publication No. EPS MTL 9202-ETS Rev4 150318
March 2018

EATON
Powering Business Worldwide

EUROPE (EMEA):
+44 (0)1582 723633
mtlenquiry@eaton.com

THE AMERICAS:
+1 902 853 7075
mtl-us-info@eaton.com

ASIA-PACIFIC:
+65 6 645 9888
sales.mtlasing@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.