

**Ethernet based  
Industrial Security Appliance**



**Tofino™ 9211-ET**



- ◆ industrial network protection
- ◆ simple installation
- ◆ 10/100Mbps Ethernet
- ◆ downloadable configurations
- ◆ "transparent listening" option
- ◆ power supply redundancy
- ◆ power-fail monitoring
- ◆ DIN-rail mounting

**The Tofino™ Industrial Security System** is a new and unique solution from MTL and Byres Security that addresses the important issue of protecting Industrial Networks from malicious or accidental disruptions.

**Instead of the standard, highly complex,** "IT-style" firewall that requires highly-trained staff to install it, the Tofino™ appliance only requires a field technician to attach power and two network cables to it and then walk away. For a small pre-configured system, that may be the extent of the work. Larger installations will normally make use of a central management platform (CMP) that enables the user to configure and monitor the overall system.

**The system has the flexibility to protect** a small plant with a single PLC, or a multi-national organization with thousands of critical devices scattered around the globe. By deploying Tofino™ appliances in front of each control device (or group of devices), they provide SCADA and process control companies with a layered security solution for their systems.

**The Tofino™ uses Loadable Security Modules (LSMs),** which are tailored software modules providing protection directly in front of the critical

device, in a similar fashion to the way firewalls provide local protection for desktop computers. So, if a hacker or virus penetrates or bypasses a main corporate firewall, they will still be faced with an array of SCADA-focused security devices that need to be breached before any damage can be done.

**Configuration consists of allocating permissions** to individual devices, defining which devices on the network they may talk to and, conversely, those permitted to talk to them. Not only can "talkers" and "listeners" be named but the particular language and even the "dialect" spoken can be specified.

**The Tofino™ appliance can also log** "events of interest". Chosen events, such as power anomalies, abnormal or unsolicited traffic and intrusions can be recorded and downloaded for later examination. The appliance can also be put into a "transparent listening mode" that passes all traffic but is capable of logging all such events.

**Redundant power supply inputs** enable the user to reduce the risk of power failure to the module and power-fail inputs are provided to enable any supply failures to be signalled directly to the appliance for data logging.



## SPECIFICATIONS

### Tofino™ Security Appliance

#### Model

9211-ET

#### Description

Tofino™ Two Port Security Appliance

#### Protected Devices

Up to 16 Devices (using 9520-FW-G-I firewall)

### COMMUNICATIONS

#### Ethernet Ports

Two IEEE 802.3 BASE-T ports (auto sensing or manual)

10 or 100Mbps, full or half-duplex

Auto Tx/Rx sensing

#### USB-2 Ports (Load configuration/Save Logs)

Two

### POWER (+ redundant power + power fail)

#### Power Inputs

Two (dual redundant)

#### Operating Voltage

24V nominal (9V – 32V)

#### Current Consumption at 24 VDC

< 170mA typ.

< 350mA max.

#### Power Fail Inputs

Two

#### Connections

Screw cage-clamp 24...12AWG, 0.2...2.5mm<sup>2</sup>

### SERVICE

#### Indicators

Power, Fault, Event, Mode

Link Activity and Speed

#### Mode Switch

Test/Operation Mode

#### Config Switch

Load configuration from USB storage or

Save log files to USB storage

### ENVIRONMENTAL

#### Temperature Specifications

Operating –40°C to +70°C

Storage/Transport –40°C to +85°C

#### Relative Humidity

10% to 90% (non-condensing)

### MECHANICAL

#### Protection Class

IP 20

#### Mounting

35mm DIN rail or panel mounting

#### Dimensions (W x H x D) mm

146 x 138 x 42

#### Weight

0.36 kg

#### Vibration and Shock

IEC 60068-2-6 1g @ 20-500Hz

IEC 60068-2-27 30g for 11ms shock

EN 61326 EMC Annex A Industrial Locations

EN 61010-1

### Tofino™ Loadable Firewall

#### Model

9520-FW-G-I

#### Description

Tofino™ Stateful Firewall Module

#### Type

Layer 2 Stateful Firewall

#### Layers Filtered

Layer 2–7 (Based on Protocol Options)

#### Logging

Alarms via CMP

#### IP Spoofing Protection

Yes

#### SYN Flood Protection

Yes

#### Bi-Directional Filtering

Yes

#### Test/Learning Mode

Yes

#### SCADA Protocol Support

Extendable support for SCADA protocols via firewall sub-modules

#### Maximum Protected Devices

16 (Additional devices available with expansion license)

#### Throughput with 20 FW Rules

95.5 MBPS at 1500 Byte Frames

#### Throughput with 500 FW Rules

90.0 MBPS at 1500 Byte Frames

### Tofino™ Central Management Platform (CMP)

#### Model

9510-MP

#### Description

Tofino™ Central Management Platform

### SYSTEM REQUIREMENTS

#### O/S

Windows XP, Server 2003 or Vista

#### CPU

AMD Opteron, equivalent or better recommended

#### Memory

1 GB Minimum, 2GB recommended

#### Hard Drive

250 GB SATA

#### Video

VGA or better functionality

#### Support Multiple Administrators

Yes

#### SQL Database Support

Yes

#### Report Generation of Events

SQL and Text file offload for custom report generation

Tofino™ is a trademark of Byres Security Inc.



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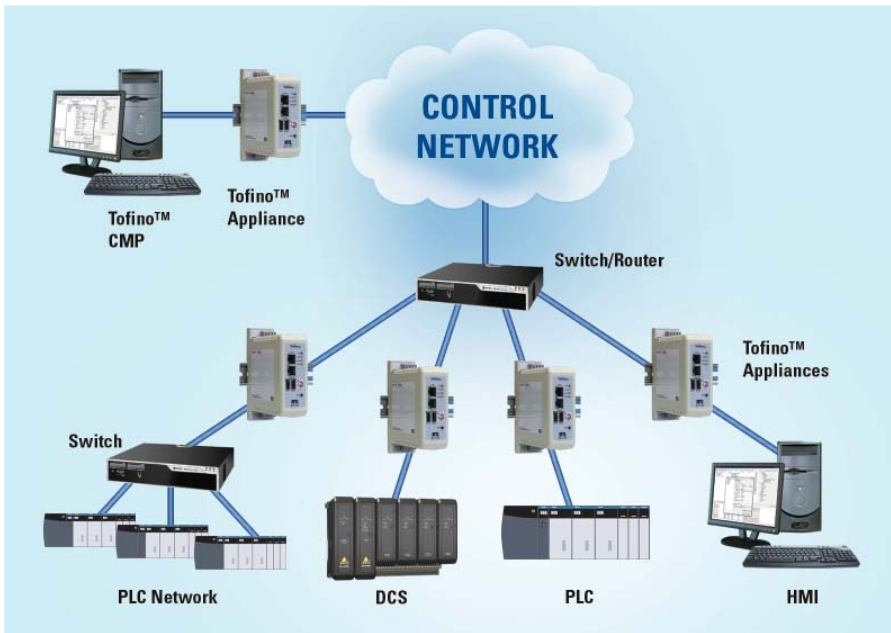
Fax: +44 (0)1582 422283

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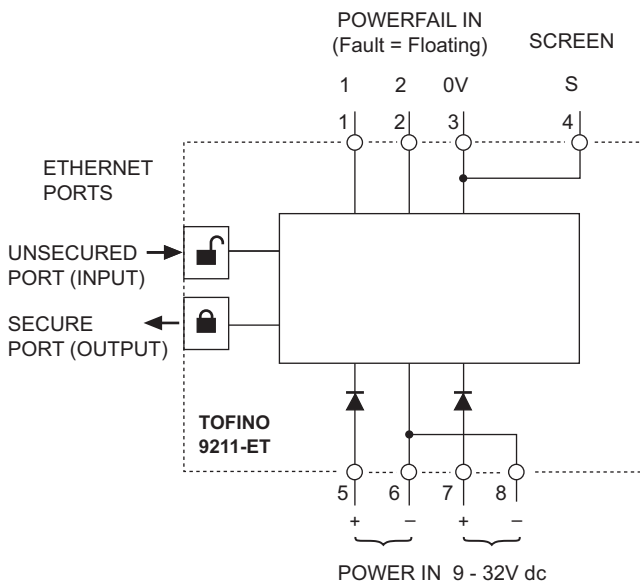
Fax: +65 6 487 7997

Product specifications are subject to change without notice

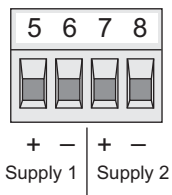
**TYPICAL APPLICATION METHOD**



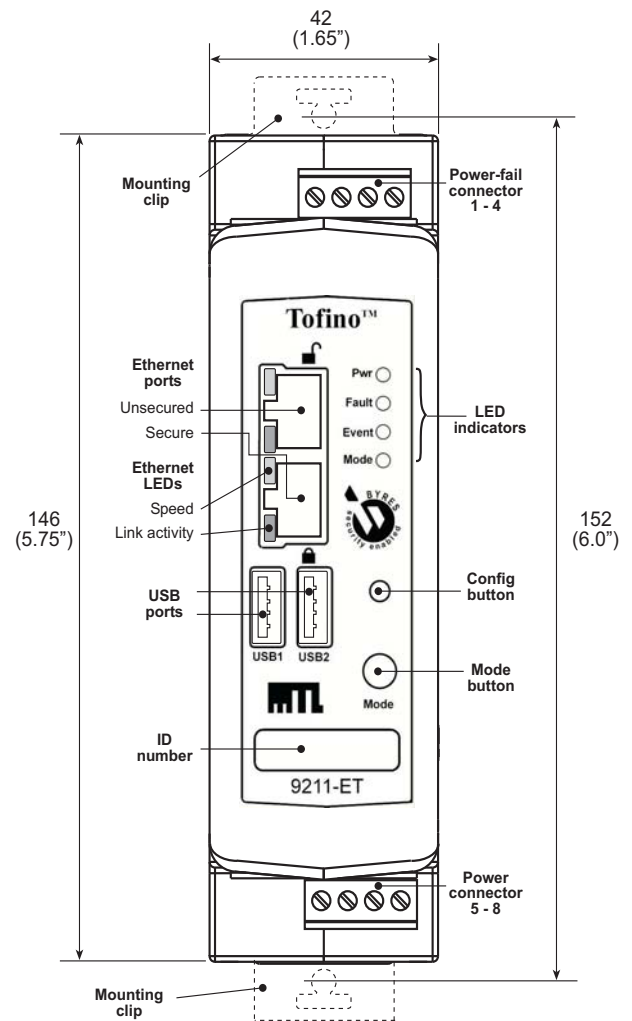
**CONNECTION DIAGRAM**



**POWER & POWER-FAIL CONNECTIONS**



**DIMENSIONS & PANEL DETAILS**



## APPROVALS

For the latest certification information visit: [http://www.mtl-inst.com/certs\\_1.nsf](http://www.mtl-inst.com/certs_1.nsf)

### 9211-ET - Tofino™ Industrial Security Appliance

Region	Europe	USA	Canada
Authority	ATEX	FM	FM
Standard	EN 60079-15:2005	Class 3600 1998 Class 3611 2004 Class 3610 2005	CAN/CSA E60079-0 2002 CAN/CSA E60079-15 2002 C22.2 No. 1010-1 2004
Approved for	⊕ II 3 G Ex nA nC IIC T4	Non-incendive for Class I, Div. 2 Grps A-D; Zone 2 AEx nC IIC T4 Ta=70°C	Non-sparking for Class I, Div. 2 Grps A-D; Zone 2 Ex nL IIC T4 Ta=70°C
Certificate Numbers	MTL07ATEX9211X	3029914	3029914C

