Intrinsically Safe certified for underground coal mines
High bandwidth, low latency network backbone
Open standards for wired and wireless integration
Integrated VLAN and QoS for multi service applications
Rugged and mine-hardened enclosure
The Mine Site Technologies’ (MST) intrinsically safe Wireless Network Switch is the heart of a scalable, high-speed, communications system for both underground and surface operations. Designed to cope with time-sensitive, high-bandwidth applications and enabling functionality such as VoIP, IP video streaming, control system management, mobile data acquisition, real-time vehicle diagnostics, and asset / personnel tracking right to the coal face. The IMPACT Wireless Network Switch provides a quantum leap forward from traditional technologies by delivering improvements in reliability, bandwidth, data quality, system capacity and support for open standards. It also addresses the challenge of power distribution in an underground environment.

### SPECIFICATIONS

**FIBRE PORTS**
- 4 x 100BASE-FX single mode transceivers
- IP65 connectors

**WIRELESS RADIO PORTS**
- 2 x IEEE 802.11 b/g wireless access points
- Support for 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54 Mbps modes

**Wireless Modulation**
- CCK (802.11b)
- DSSS/OFDM (802.11g)

**Transmit Power**
- Max Approved 24dBm (251mW)

**Receive Sensitivity**
- 802.11b: 1 Mbps: -95dBm
- 11 Mbps: -90dBm
- 6 Mbps: -90dBm
- 54 Mbps: -74dBm

**Wireless Security**
- WEP (64/128 bit encryption)
- WPA
- WPA2

**SWITCH PROCESSOR**
- Wire speed switching
- Quality of Service (QoS) support with four traffic classes
- VLAN support

**QoS Support**
- IEEE 802.1p tagged Frames
- Automatic 802.1p tagging based on 802.1Q VLAN ID

**Redundancy**
- Spanning Tree Protocol

### REMOTE MANAGEMENT
- Remote monitoring via SNMP
- NTP time synchronisation
- Device modes:
  - AP
  - Bridge
  - Repeater
- MAC Filter
- Web based device configuration
- Remote firmware upgrades via LAN
- MST device discovery protocol

### CONNECTORS
- All connectors are IP65

### I.S. APPROVED OPERATING PARAMETERS
- Input voltage: 8 - 15.1V DC
- Max input current: 1.5A DC
- Operating temperature: 0°C - 40°C
- Max operating humidity: 90%
- Dimensions: 410mm x 380mm x 80mm
- IP rating: IP65

### CERTIFICATIONS
- IEC - Exia IECEx TSA 10.0022X
- MSHA - Exia 23-A100003-0

### IEC ENTITIES

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