

IMPACT[™]

NS41



Improving the safety
of your underground
environment

- > 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
- > Enhanced power supply ranges



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MST's 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, it enables 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 capability and support for open standards. It also addresses the challenge of power distribution in an underground environment. The release of the NS41 enables the use of 12.6V DC 2.5A DC intrinsically safe power supplies, further enhancing the ease of use.

SPECIFICATIONS

FIBRE PORTS

- > 4 x 100BASE-LX 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: -95 dBm
11 Mbps: -90 dBm
- 802.11g: 6 Mbps: -90 dBm
54 Mbps: -74 dBm

Wireless Security

- WEP (64/128 bit encryption)
- WPA
- WPA2

SWITCH PROCESSOR

- > Wireless 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 with 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/Max input current:
 - 8 – 12.6V DC and 2.5A DC
 - 8 – 15.1V DC and 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

CERTIFICATE NO.S

IECEX TSA 10.0022X[†]

IEC ENTITIES[†]

Input Parameters		RF Output Parameters		Optical Output Parameters
Ui=15.1V	Ii=1.5A	Po=223.7mW		Po=0.158mW
Ui=12.6V	Ii=2.5A			
Ci=0µF	Li=0µH	Uo=4.67V	Io=10A	
		Co=5µF	Lo=5.9µH	