Technical data
MTL industrial ethernet

June 2017
EPS 9661-ETW Rev 1

CROUSE-HINDS
SERIES

9661-ETW

MTL intrinsically safe ethernet to serial 4 port communication module

- **Intrinsically safe ATEX / IECEx certification**
- **4 Communication Ports - RS232/422/485 (2 & 4 Wire)**
- **Serial Modbus Protocol**
- **Bluetooth Dual Mode V2.1**
- **Wi-Fi supporting 802.11 a/b/g/n standards (2.4 & 5 GHz)**
- **Dual Port Switch 10/100Mb LAN (daisy-chain capability)**
- **LAN or Wi-Fi to Serial comms**
- **Wi-Fi, Bluetooth & LAN co-existence**
- **Modbus/TCP <-> Modbus/RTU (or ASCII) protocol**
- **Compact design**
- **Certified for a variety of applications including Mining**
- **Zone 0 mounting**
- **Connection into Zone 0 Gas or Zone 20 Dust Hazardous Areas**

The 9661-ETW is an MTL Intrinsically Safe (IS) Ethernet to Serial 4 Port Communication Module suitable for Zone 1 mounting with a suitable Ex ib power supply, Zone 0 with a suitable Ex ia power supply.

The Module allows existing Intrinsically Safe equipment with an **RS485/RS422 or RS232/TTL** port to become **Ethernet Enabled** via either Wi-Fi (WLAN) or a Cat5/6 cable connection into an **IS Ethernet Network** (LAN). The unit has 4 serial ports, each one supporting either RS485/RS422 or RS232/TTL depending upon the configuration required. There are 2 RJ45 (LAN) ports that support 10/100 IS Ethernet connections - these allow 'daisy-chaining' of units together.

Power (12V DC) is supplied to the module either locally or using **Power over Ethernet (PoEx™)** from the LAN port - This requires the PoEx output to be wired to the Supply Input terminals by the user.

The compact and cost effective design makes it the ideal choice for many applications such as **Petrochemical -** Process Monitoring, Legacy Systems and **Mining -** Underground Communication Links, Machine Monitoring and Legacy Systems.

Electrical connections are made via cage-clamp plug/socket terminals along with a dual RJ45 type connector for the Ethernet LAN ports. Twin SMA Style RF connectors allow one or two antenna to be connected as required.

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SPECIFICATION

Power Supplies
12VDC Power Supply input or PoEx™ (Power over IS Ethernet) typically 12V @ 150mA
9492-PS recommended

Ethernet
Intrinsically Safe 10/100Base-T

Connector
RJ45

Cable Length
Up to 100m Cat5e

PoEx
Powered device

IS SERIAL CONNECTIONS

	RS232/422/485
No. of Channels	4
Connector Type	Screw terminals
Baudrate	1200-230K4 baud
Parity	Even/Odd/None
Data Bits	8
Stop Bits	1

SAFETY

Location of Unit
Zone 0, IIC T4 hazardous area
Zone 0, I hazardous area

Certification Code
Ex ia IIC T4 Ga
[Ex ia Da] IIIC T135°C (non-mining)
Ex ia I Ma (M1 mining)
Ta = -40°C to +70°C

Certificate numbers
CML 16ATEX2131X
IECEx CML 16.0053X

See certificates for further information

ENVIRONMENTAL

Operating Temperature
-40°C…+70°C

Storage Temperature
-40°C…+70°C

Humidity
0…95% RH, non-condensing

Ingress Protection
Select enclosure to suit application, see certificates for information

MECHANICAL

Width	45mm
Height	147mm
Depth	155mm
Weight	357g
Mounting	DIN-rail

LED INDICATORS

	OFF	FLASH	ON
PWR (green)	Power Fail	N/A	Power OK
WDG (red/green)	Fault	Green - Healthy (10Hz)	Fault
WLAN (red/blue)	Idle	Red (config mode) Blue data	Red (fault) Blue (connected) Purple (connecting)
TX (green)	Idle	Transmitting Serial Data	N/A
RX (red)	Idle	Receiving Serial Data	Fault – RX data polarity is inverted
STAT (red/green)	N/A	Green – Identify module mode	Red (fault) Green (healthy)
RJ45 ACT (yellow)	Ethernet link disconnected	Ethernet link activity	Ethernet link connected
RJ45 100 (green)	10Mbps	N/A	100Mbps

DATA & POWER TERMINALS

PORT 1,2,3,4 (CON6+7)
RS485/422/232/TTL Ports

Pin	Function
1 (9)	Tx+/A
2 (10)	Tx-/B
3 (11)	Rx+
4 (12)	Rx-
5 (13)	Tx (RS232)
6 (14)	0V
7 (15)	Rx (RS232)
8 (16)	0V

LAN (RJ45)
10/100 BASE-T Ethernet

Pin	Function
1	Tx +
2	Tx-
3	Rx +
4	PoEx +12V*
5	PoEx +12V*
6	Rx-
7	PoEx 0V*
8	PoEx 0V*

Screw Terminals (CON5+3)
***Note - PoEx only on LAN2 port**

Pin	Function
1	PoEx +12V
2	NC
3	PoEx 0V
4	Power +12V
5	NC
6	Power 0V

WiFi Antenna Connectors (SMA)

SMA Connector	Antenna
Front	Main (2.4 + 5GHz)
Rear	MIMO (2.4GHz)

Ordering information

Part No.	
9661-ETW	4-Port Serial Gateway with Wi-Fi

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