Datasheet

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L0MT0401 Oracle Data Flameproof Ex d Wi-Fi Oracle Access Point IEC Ex Cable Gland 6.6mm to 9.5mm

The L0MT0401 model Wi-Fi Oracle Data is an industrial, flameproof (Ex d) Wi-Fi Data Transceiver Module designed for reliable, high-speed data access in underground mining applications.

The L0MT0401 model is suitable for applications requiring IEC Ex flameproof certification.

This L0MT0401 model supports data and power cable with O.D. range of 6.6 to 9.5mm.
Pempek Gland Part Number: CWR0016

Deployment-ready Wi-Fi solution for underground mining

No external antenna cable required

Antenna is built into the housing of the product

Flexible power supply options (PoE or 24VDC)

Single gland entry for power and data cable

Simple way to add Wi-Fi connectivity

Cost effective (one product solution)

Easy maintenance

Easy configuration

Heavy Duty Enclosure: Self-contained, certified, flameproof (Ex d) housing, stainless steel engraved facia

Wi-Fi Compliance: IEEE 802.11 b/g (2.4GHz)

Power Supply: 24VDC or PoE (IEEE 802.3af)
(5W Max)

Ambient Temperature: -10°C to +60$^{\circ C}$

Ingress Protection: IP65

Default Cable Gland: 6.6 to 9.5mm O.D.

Fasteners: M6 x 50mm x 4

Mass: 7.5kg (16.5lb)

Typical Application

- Underground mining vehicles
- Longwall face equipment
- Telemetry relay networks
- Mesh networks

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Electrical Characteristics

Supply	
Supply	PoE or 16-48VDC
Power Method	PoE (Data pairs; Spare pairs) / External +24V DC
Wattage ^{MAX}	5W

Radio Module	
Frequency	ISM $^{2.4GHz}$
Deviation	+-20KHz
Transmit Power	Programmable up to +26dBm
Channels Spacing	125kHz
Modulation	OFDM
Range ^{MIN}	200 metres "Line of Sight"
Range ^{MAX}	1000 metres "Line of Sight"
Data Integrity	CCITT CRC (16 Bit)
Bandwidth	250KHz / 3.0MHz @ 115Kbs / 1.5Mbs
Antenna	Internal Passive Loop Antenna
Classification	Transceiver
Bit Rate	1Mbit 54Mbps
Receive Sensitivity	-97dBm @ 1Mbps

Communications	
Baud	115Kbs / 1.5Mbs RS-422
Format	8N1
CRC	CCITT 16-bit
Frame	Packet Oriented, Bit Masks
Throughput	T.B.A.

Environmental	
Operating Temperature	Minus -20°C + 50°C
Temperature Class	T6
Ingress Protection	IP65

*Figure cited on usage rate equaling 16 hours per day, 6 days per week, 52 weeks per year where failures are due to manufacturing.

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Dimensions (mm)
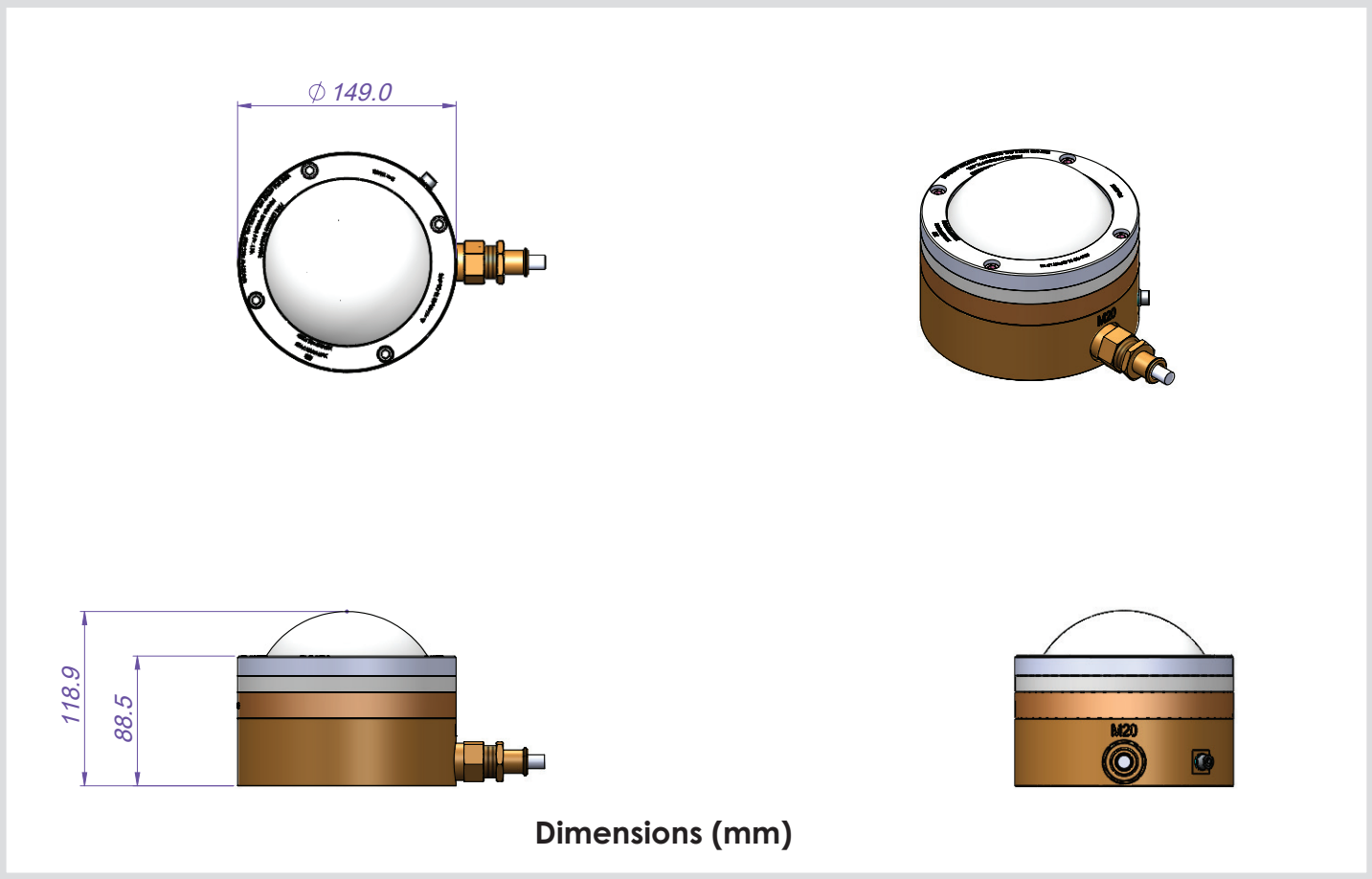
Wiring Specification

PIN	Connector 19mm Ex id Gland Description	Signal
1	24VDC Supply	24VDC Supply
2	24VDC Supply Return	24VDC Supply Return
3	RS-422 TX+	Communications
4	RS-422 TX-	Communications
5	RS-422 RX+	Communications
6	RS-422 RX-	Communications