Features

- **Industrial Flameproof Transceiver**
  - Aus Ex / MSHA Approval Pending
  - Integral 2.4GHz / 5.0GHz Transceiver
  - Integral Capacitive Barrier
  - 115kbs / 1.5mbps throughput
- **Embedded Industrial Microcontroller**
  - 50Mip ARM Controller
  - Integral Flash / RAM
  - Advanced Store/Forward Software
- **Broadband Frequency Hopping Spread Spectrum**
  - Worldwide Licence Free Bands
  - Up to 32 Channels
  - CCITT CRC Data Protection
  - Up to 100m line-of-sight range.
- **Operates Minus 10°C to +55°C**
  - All industrial components
- **Heavy Duty Enclosure**
  - Fully Self Contained IP67 Rating
  - Stainless Steel Engraved Facia
  - Integral Teflon Radome & Antenna
  - Rugged Construction

Description

The L0MT Series Flameproof High speed transceiver is an AS4240 compliant device designed for the most rigorous of environments. Fully waterproof and impact resistant, the L0MT Series of high speed transceivers can be used for a variety of industrial remote control/data acquisition applications where a safety critical interface is required.

Obelix

Flameproof
High Speed Transceiver
Type L0MT

Pempek Systems

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Typical Applications

- Continuous Bolter/Miners
- Continuous Haulage
- Mobile Bolters
- Mobile Roof Supports
- Remote Control Scoops
- Remote Control Loaders
- Remote Control Feeder/Breakers
- Any intrinsically safe industrial remote control application

Ordering Information

Part Number	Description
L0MT0101	High Speed Transceiver 2.4GHz / 115kbs
L0MT0201	High Speed Transceiver 5.0GHz / 1.5mbs

Wiring Specification

	Connector 19mm Ex id Gland	
PIN	**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

Electrical Characteristics

Supply	
Voltage	24VDC
Wattage MIN	1.2W
Wattage MAX	2.5W

Radio Module	
Supply	5.0VDC @ 115mA / 3.3VDC @ 220mA
Frequency	UHF 2.4GHz / 5.0GHz
Power	100mW
Channels	32 (250KHz Spacing) / 16 (3.0MHz Spacing)
Modulation	Frequency Hopping Spread Spectrum
Range MIN	100 metres "Line of Sight"
Range MAX	500 metres "Line of Sight"
Data Integrity	CCITT CRC (16 Bit)
Bandwidth	250KHz / 3.0MHz @ 115Kbs / 1.5Mbs
Antenna	Internal Passive Loop Antenna
Classification	Transceiver

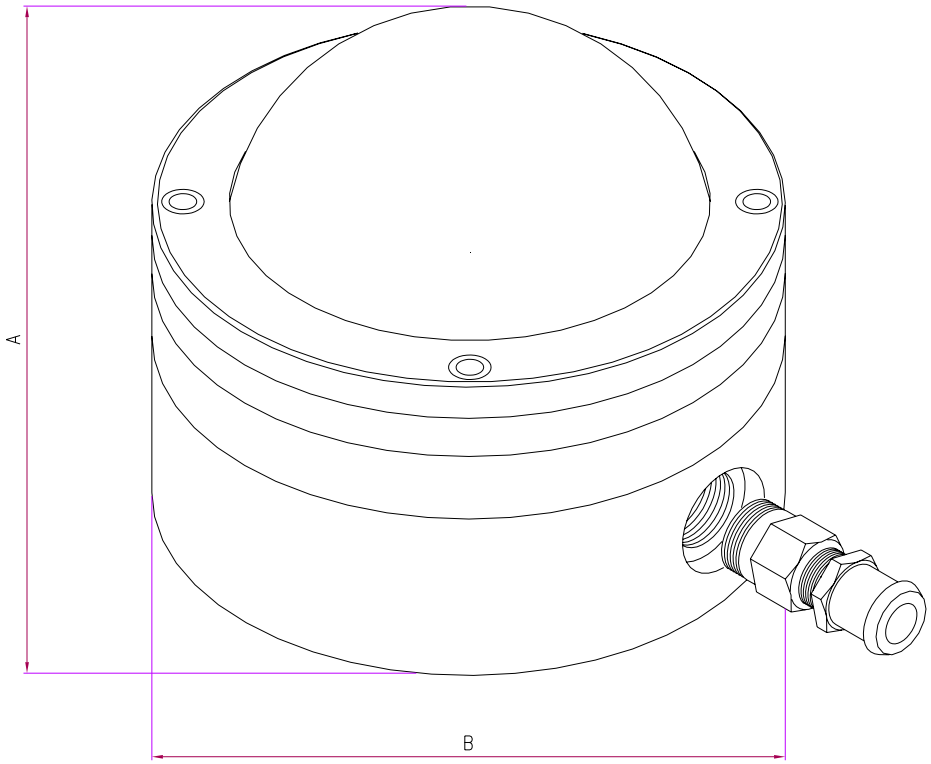
Communications	
Baud	115Kbs / 1.5Mbs RS-422
Format	8N1
CRC	CCITT 16-bit
Frame	Packet Oriented, Bit Masks
Throughput	T.B.A.

Environmental	
Operating Temperature	Minus 10°C to +55°C
IP Rating	IP67
Humidity	T.B.A.
MTBF	10,000 hours*

Certification	
Australia	Pending
Europe	-
USA	Pending

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

Mechanical Characteristics



Dimension	Measurement	Description
A	190	Height
B	185	Diameter

Notes
- All dimensions are in millimetres.

Material
- Enclosure is free machining brass.
- Enclosure retainer is stainless steel.
- Radome is Teflon.

Fasteners
- M6 x 50mm x 4

Mass
- 7.5kg (16.5lb)