

Features

- **Flame Proof Enclosure**
 - Precision Machined Mild Steel
 - IEC Ex d I Approved
- **Flame Proof Connector Assembly**
 - Unique flameproof connector
 - IEC Ex d I Approved
- **Industrial Display Module**
 - 10.4" True Colour LCD
 - Rugged XScale CPU Core with GPU
 - Highly Configurable WinCE Platform
 - Highly viewable at distance
- **Industrial Communication Interfaces**
 - Supports Ethernet 10/100 via TCP/IP
 - Supports RS-422 via Proprietary Protocol
 - Supports CAN 2.0B as Option
- **Heavy Duty Enclosure**
 - Electroless Nickel Plated
 - Ingress protection to IP65 ('O' ringed)
 - Ultra Rugged Construction

Description

The Type L0RA Display Module is an industrial IEC approved flame proof display module designed for remote viewing purposes. Its unique construction allows it to be used in the most rugged of environments and is designed to permit installation onto any machine with minimal integration requirements.

The WinCE 5.0 operating system platform permits a flexible development environment allowing end users to develop their own graphical solutions if required using freely available Microsoft Embedded tools. (The WinCE distribution license is included in the platform.) Alternatively, dedicated Software Engineers at Pempek Systems can develop customised multi-page graphic solutions.



Obelix

Flame Proof Display Module
Type L0RA



Pempek Systems

Australia
Unit 3 / 13 Hoyle Ave
Castle Hill NSW 2154
Phone + (612) 9634 2540
Fax + (612) 9894 0379

USA
640 Bizzell Drive
Lexington KY 40510
Phone + (859) 252 4439
Fax + (859) 252 4641

Web www.pempek.com.au



Typical Applications

- Continuous Miners / Bolters
- Continuous Haulage
- Long Wall Shearers
- Mobile Bolters
- Mobile Roof Supports
- Remote Control Scoops
- Remote Control Loaders
- Shuttle Cars
- Any Ex d I display application

Ordering Information

Part Number	Description
L0RA0101	IEC Flameproof 10.4" Colour Display Module
H0RA0101	IEC Flameproof Connector Assembly

Interface Description

The Type L0RA Display Module supports an approved explosion proof connector assembly permitting simple connection and removal as necessary without ever having to enter the flameproof enclosure.



Wiring Assignments

Flameproof Connector Assembly Burndy 12 Way Female		
PIN	Description	Signal
A	Supply Input Active	110-240VAC Line
B	-	-
C	Supply Input Neutral	110-240VAC Neutral
D	RS-422 RXD -	Communications
E	RS-422 RXD +	Communications
F	RS-422 RXD -	Communications
G	RS-422 RXD +	Communications
H	Ethernet RX +	Communications
J	Ethernet RX -	Communications
K	Ethernet TX +	Communications
L	Ethernet TX -	Communications
M	-	-

Electrical Characteristics

Supply	
Voltage	110VAC – 240VAC
Power Consumption	15W typical
Maximum Dissipation	17W

Communications	
Interface	Ethernet 10/100
Throughput	Up to 100Mbps per second
Protocol	TCP/IP
Medium	Hybrid Twisted Pair
Interface	RS-422 Isolated
Throughput	57.6KBits
Protocol	Packet Oriented
Medium	Hybrid Twisted Pair

Visualisation	
LCD	NEC 10.4" SVGA True Colour
Computing	Marvell 400MHz with companion Silicon Graphics GPU
Operating System	Windows CE 5.0

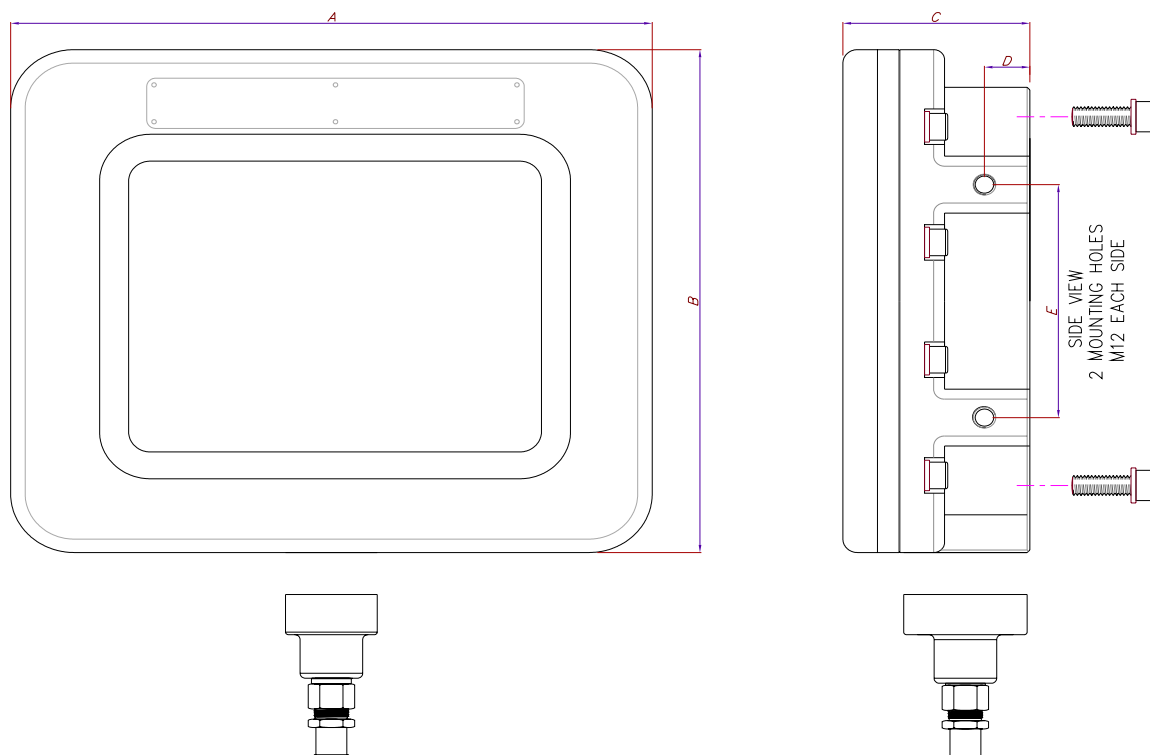
Environmental	
Ingress Protection	IP65
Operating Temperature	Minus 10°C to +75°C ¹
Humidity	TBA
MTBF	12,000 hours

Certification	
Australia	IEC Ex TSA 06.0045X
Europe	-
USA	-

¹ MR10 Lexan Lens is limited to 60°C ambient environment per IEC approval.



Mechanical Characteristics



Dimension	Measurement	Description
A	355	Width
B	300	Height
C	105	Depth
D	25	Mounting Centre Rear Offset
E	139	Mounting Centre Side

Notes

- All dimensions are in millimetres.

Material

- Enclosure is Electroless nickel plated mild steel.
- Lens is Lexan MR10.

Fasteners

- M10 x 30mm x 16

Mass

- 60kg (132lb)