

Features

- **Embedded 24VDC Power Supply Module**
 - 110VAC (5A) Fused Input
 - 24VDC (5A) Fused Output
- **Embedded 110VAC Relay Output Module**
 - 2 x Single Relay Contacts – Multi-Pole N/C & N/O (Control & Pilot)
 - Microprocessor Controlled
- **CAN Network**
 - Opto-Coupler Isolation
 - CAN 2.0B Compatible
- **Operates -10°C to +85°C**
 - All industrial components
- **Heavy Duty Enclosure**
 - Electro Nickel Plated
 - Rugged Construction

Description

The L0L9 Industrial Power Supply Module is of the Obelix genus designed to provide ripple free 24VDC to Obelix Modules.



Obelix

Industrial Power Supply Module
Type L0L9



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Typical Applications

- Continuous Bolter/Miners
- Continuous Haulage
- Long Wall Shearers
- Mobile Bolters
- Mobile Roof Supports
- Remote Control Scoops
- Remote Control Loaders
- Any industrial power supply application

Ordering Information

Part Number	Description
L0L90101	Industrial Power Supply Module (DBT) N/C Control Contact
L0L90201	Industrial Power Supply Module (Generic) N/O Control Contact
L0L90301	Industrial Power Supply Module (Generic) N/C Control Contact
H0L90101	Connector Assembly A6 (2.2 metres)
H0L90201	Connector Assembly A5 (2.2 metres)

Interface Description

The Type L0L9 Power Supply Module utilizes industrial connectors that are unique when configured for use with the Obelix Control System via type, gender or keying physically preventing improper installation.



Wiring Assignments

Connector A5 Burndy Female 8 Way		
PIN	Description	Signal
A5-A	Supply Output	24VDC Supply Output
A5-B	Supply Output	0VDC Supply Output
A5-C	CAN (Positive)	Communications
A5-D	CAN (Positive)	Communications
A5-E	CAN (Negative)	Communications
A5-F	CAN (Negative)	Communications
A5-G	Termination Link 1 – 1	Termination Link Input
A5-H	Termination Link 1 – 2	Termination Link Input

Connector A6 Burndy Male 8 Way		
PIN	Description	Signal
A6-A	110VAC Active Supply Input	110VAC Active Input
A6-B	110VAC Neutral Supply Input	110VAC Neutral Input
A6-C	Pilot Relay Input	110VAC Input
A6-D	Pilot Relay Output (Normally Closed)	110VAC Output
A6-E	Pilot Relay Output (Normally Open)	110VAC Output
A6-F	Control Relay Input	110VAC Input
A6-G	Control Relay Output (Normally Open/Closed)	110VAC Output
A6-H	Control Relay Reference	110VAC Neutral



CAN Definitions

RX				
Message	Byte	Type	Mask	Description
0x0720 ¹	1	UINT8	0x01	Control Relay Output (1 = ON, 0 = OFF)
			0x02	-
			0x04	-
			0x08	Pilot Relay Output (1 = ON, 0 = OFF)
			0x10	-
			0x20	-
			0x40	-
			0x80	-
	2	UINT8	N/A	-
	3	UINT8	N/A	-
	4	UINT8	N/A	-
	5	UINT8	N/A	-
	6	UINT8	N/A	-
	7	UINT8	N/A	-
	8	UINT8	N/A	-

TX				
Message	Byte	Type	Mask	Description
0x01B8 ²	1	UINT8	N/A	Software Revision
	2	UINT8	N/A	Board Status
	3	INT8	N/A	Temperature -55°C (-67°F)..+125°C(+257°F)
	4	UINT8	0x01	Control Relay Feedback (1 = ON, 0 = OFF)
			0x02	-
			0x04	-
			0x08	-
			0x10	-
			0x20	-
			0x40	-
			0x80	-
	5	UINT8	N/A	-
	6	UINT8	N/A	-
	7	UINT8	N/A	-
	8	UINT8	N/A	-

CAN Address Modifiers

There are multiple variants of the L0L9 module permitting multiple modules per single configuration. This is determined by internal links which provide additional CAN address modifiers.

For example, L0L9 Module 1 would support CAN Address 0x0720 whilst L0L9 Module 2 would support CAN Address 0x721 and so on. Up to four modules per configuration are supported.

¹ Plus Internal PCB ID

² Plus Internal PCB ID



Electrical Characteristics

Supply	
Voltage Input	110VAC
Wattage Input	
Voltage Output	24VDC
Wattage Output	100W

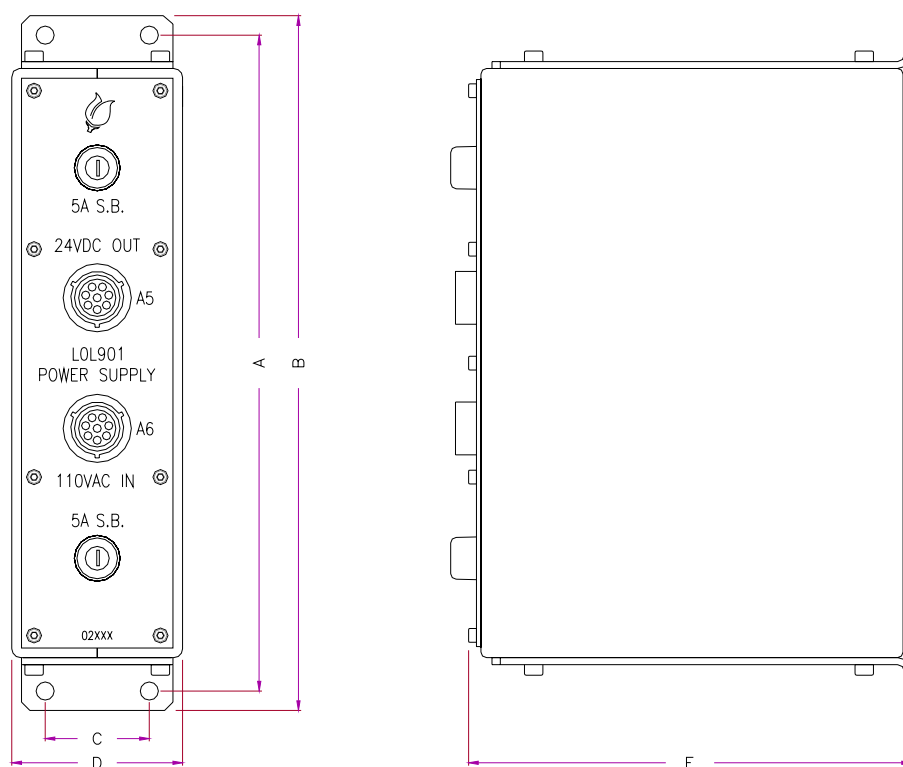
Relay Outputs	
Installed	2
Voltage	110VAC
Minimum Voltage	75VAC
Maximum Voltage	145VAC

Communications	
Interface	CAN 2.0B
Throughput	500kbs (Supports Autobaud)
Protocol(s)	Message Oriented
Medium	Copper

Environmental	
Operating Temperature	Minus 20°C to +85°C
Humidity	T.B.A.
MTBF	12,000 hours



Mechanical Characteristics



Dimension	Measurement	Description
A	236	Height Mounting Centre
B	250	Height
C	36.5	Width Mounting Centre
D	61.5	Width
E	159.5	Depth

Notes

- All dimensions are in millimetres.

Material

- Enclosure is Electroless nickel plated mild steel.
- Facia is stainless steel.
- Mounting brackets are stainless steel.

Fasteners

- M5 x 10mm x 4
- M4 x 10mm x 8
- M3 x 10mm x 8

Mass

- 2.5kg (5.5lb)