The LOLE Mining PLC Relay I/O Module provides a collection of relay outputs, digital inputs and analog inputs in a compact form factor that is well suited to mobile mining applications.

The industry-standard CAN (Controller Area Network) connection provides a host PLC with the ability to control and monitor all I/O resources.

## **Specifications**

### **Embedded 220VAC Digital Input Module**

- 16 x 220VAC Inputs
- **Embedded Temperature Sensor**
- Microprocessor Controlled Sampling
- Minimum Voltage 75VAC
- Maximum Voltage 145VAC

### Embedded 4-20mA Analogue Input Module

- 24 x 4-20mA Inputs
- Embedded Temperature Sensor
- Microprocessor Controlled Sampling
- Resolution 8 bits (255 units)

### Embedded 220VAC Relay Output Module

- 10 x Dual Relay Contacts 100K+ Operations .
- Multi-Stage Diagnostic Monitoring
- 110VAC, 16A Switching Capacity
- Sequential Switching Redundancy
- Microprocessor Controlled

### Supply

- Voltage 24VDC Nominal
- Wattage MIN 1W
- Wattage MAX 24W

### **CAN Network**

- **Opto-Coupler Isolation**
- CAN 2.0B Compatible

### Operates -10 C to +85 C

All industrial components

### **Heavy Duty Enclosure**

- **Electros Nickel Plated**
- **Rugged Construction**

### 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

• 4.5kg (10.1lb)

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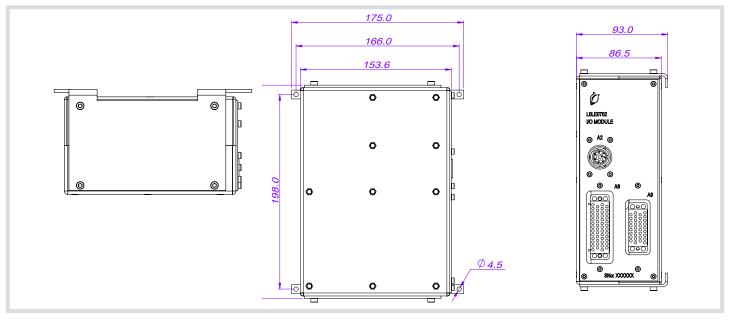


made for mining

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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 switching application



Dimensions (mm)

### **CONNECTOR A2**

PIN	Connector A2 Burndy Female 8 Way	Signal
A2-A	Supply Input	24VDC Supply Input
A2-B	Supply Input	0VDC Supply Input
A2-C	CAN A (Positive)	Communications
A2-D	CAN A (Positive)	Communications
A2-E	CAN A (Negative)	Communications
A2-F	CAN A (Negative)	Communications
A2-G	Termination Link 1 - 1	Termination Link Input
A2-H	Termination Link 1 - 2	Termination Link Input



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### **CONNECTOR A9**

PIN	Connector A9 V35 Female	Signal
	34 Way	
A9-A	Relay 1 (Input)	220VAC Input
А9-В	Relay 1 (Output)	220VAC Output
A9-C	Relay 1 (Input)	220VAC Input
A9-D	Relay 1 (Output)	220VAC Output
А9-Е	Relay 1 (Input)	220VAC Input
A9-F	Relay 1 (Output)	220VAC Output
А9-Н	Relay 1 (Input)	220VAC Input
A9-J	Relay 1 (Output)	220VAC Output
А9-К	Relay 1 (Input)	220VAC Input
A9-L	Relay 1 (Output)	220VAC Output
A9-M	Relay 1 (Input)	220VAC Input
A9-N	Relay 1 (Output)	220VAC Output
A9-P	Relay 1 (Input)	220VAC Input
A9-R	Relay 1 (Output)	220VAC Output
A9-S	Relay 1 (Input)	220VAC Input
A9-T	Relay 1 (Output)	220VAC Output
A9-U	Relay 1 (Input)	220VAC Input
A9-V	Relay 1 (Output)	220VAC Output
A9-W	Relay 1 (Input)	220VAC Input
А9-Х	Relay 1 (Output)	220VAC Output
A9-Y	Reference - Relays 1 & 2	220VAC Neutral
A9-Z	Reference - Relays 3 & 4	220VAC Neutral
A9-AA	Reference - Relays 5 & 6	220VAC Neutral
A9-BB	Reference - Relays 7 & 8	220VAC Neutral
A9-CC	Reference - Relays 9 & 10	220VAC Neutral





Image depict coding pins required

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### **CONNECTOR A8**

CONNECTO	DR A8	
PIN	Connector A8 V35 Female 34 Way	Signal
A8-A	Analog Ground	Analog Reference
A8-B	Analog Supply External	Analog Supply Output
A8-C	Analog Input 13	4-20mA Input
A8-D	Analog Input 12	4-20mA Input
A8-E	Analog Input 14	4-20mA Input
A8-F	Analog Input 11	4-20mA Input
A8-H	Analog Input 15	4-20mA Input
A8-J	Analog Input 10	4-20mA Input
A8-K	Analog Input 16	4-20mA Input
A8-L	Analog Input 9	4-20mA Input
A8-M	Analog Input 17	4-20mA Input
A8-N	Analog Input 8	4-20mA Input
A8-P	Analog Input 18	4-20mA Input
A8-R	Analog Input 7	4-20mA Input
A8-S	Analog Input 19	4-20mA Input
A8-T	Analog Input 6	4-20mA Input
A8-U	Analog Input 20	4-20mA Input
A8-V	Analog Input 5	4-20mA Input
A8-W	Analog Input 21	4-20mA Input
A8-X	Analog Input 4	4-20mA Input
A8-Y	Analog Input 22	4-20mA Input
A8-Z	Analog Input 3	4-20mA Input
A8-a	Analog Input 23	4-20mA Input
A8-b	Analog Input 2	4-20mA Input
A8-c	Analog Input 24	4-20mA Input
A8-d	Analog Input 1	4-20mA Input
A8-e	-	-
A8-f	Digital Input 16	220VAC Digital Input
A8-h	-	-
A8-j A8-k	Digital Input 15 -	220VAC Digital Input
A8-m	Digital Input 14	220VAC Digital Input
A8-n	Digital Input Reference	220VAC Neutral
А8-р	Digital Input 13	220VAC Digital Input
A8-r	Digital Input Reference	220VAC Neutral
A8-s	-	-
A8-t	Digital Input Reference	220VAC Neutral
A8-u	Digital Input Reference	220VAC Neutral
A8-v	Digital Input 1	220VAC Digital Input
A8-w	Digital Input 12	220VAC Digital Input
A8-x	Digital Input 2	220VAC Digital Input
A8-y	Digital Input 11	220VAC Digital Input
A8-z	Digital Input 3	220VAC Digital Input
A8-AA	Digital Input 10	220VAC Digital Input
A8-BB	Digital Input 5	220VAC Digital Input
A8-CC	Digital Input 9	220VAC Digital Input
A8-DD	Digital Input 4	220VAC Digital Input
A8-EE	Digital Input 7	220VAC Digital Input
A8-FF	Digital Input 6	220VAC Digital Input
A8-HH	Digital Input 8	220VAC Digital Input





Image depict coding pins required

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### **Connector Assembly**

Part Number	Description
HOLEO101	Connector Assembly A8 (2.2 metres)
HOLE0301	Connector Assembly A9 (2.2 metres)

## **Connector Assembly Specifications**

- Product Type: Pre-manufactured cable assembly
- Construction: Connector with flying leads (pigtail)
- HOLEO101 Connector 1: Obelix A8 Male Plug (50-pin)
- HOLEO301 Connector 1: Obelix A9 Male Plug (34-pin)
- Connector 2: Unterminated, flying leads •
- H0LE0101 Conductors: 46
- H0LE0301 Conductors: 25
- Cable Length: 2.2 metres
- Pin Type: Female (Gold-plated)
- Conductor Type: PVDF Tinned Stranded Wire
- Insulation Rating: 600 volts
- Temperature Rating: -65°C to 105°C
- Recommended Tools: PVDF / Teflon Insulation Stripping Tool

Cable options can vary depending on customer requirements.

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