

LOPE0101 Obelix PWM Rexroth Proportional Solenoid Driver Module Type A

The LOPE0101 Obelix Mining PLC Solenoid Driver Module provides PWM - controlled proportional outputs in a compact, robust 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 outputs.

Uniquely Keyed Type A and B connectors to prevent incorrect machine installation

22 x PWM current-controlled 24VDC Proportional outputs (up to 1A continuous rating)

Module Type: Multi-channel Solenoid Driver

Supply Input 1: 24VDC (+/- 10%) / 3 Watts (Max)

Supply Input 2: 24VDC (+/- 10%) / 550 Watts (Max)
(based on output loads)

Data Communications: Obelix CAN (A2)

Operating Temperature: -20°C to 70°C

Inputs: None

Outputs: 22 x PWM Current-regulated Outputs (1A Maximum)

Connector 1: Obelix A2 (24VDC Input + CAN Bus)

Connector 2: Obelix A30
(PWM Outputs and 24VDC PWM Supply Input)

Connector 3: Obelix B30
(PWM Outputs and 24VDC PWM Supply Input)

Heavy Duty Enclosure:
Electros Nickel Plated
Rugged Construction

Fasteners

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

Mass

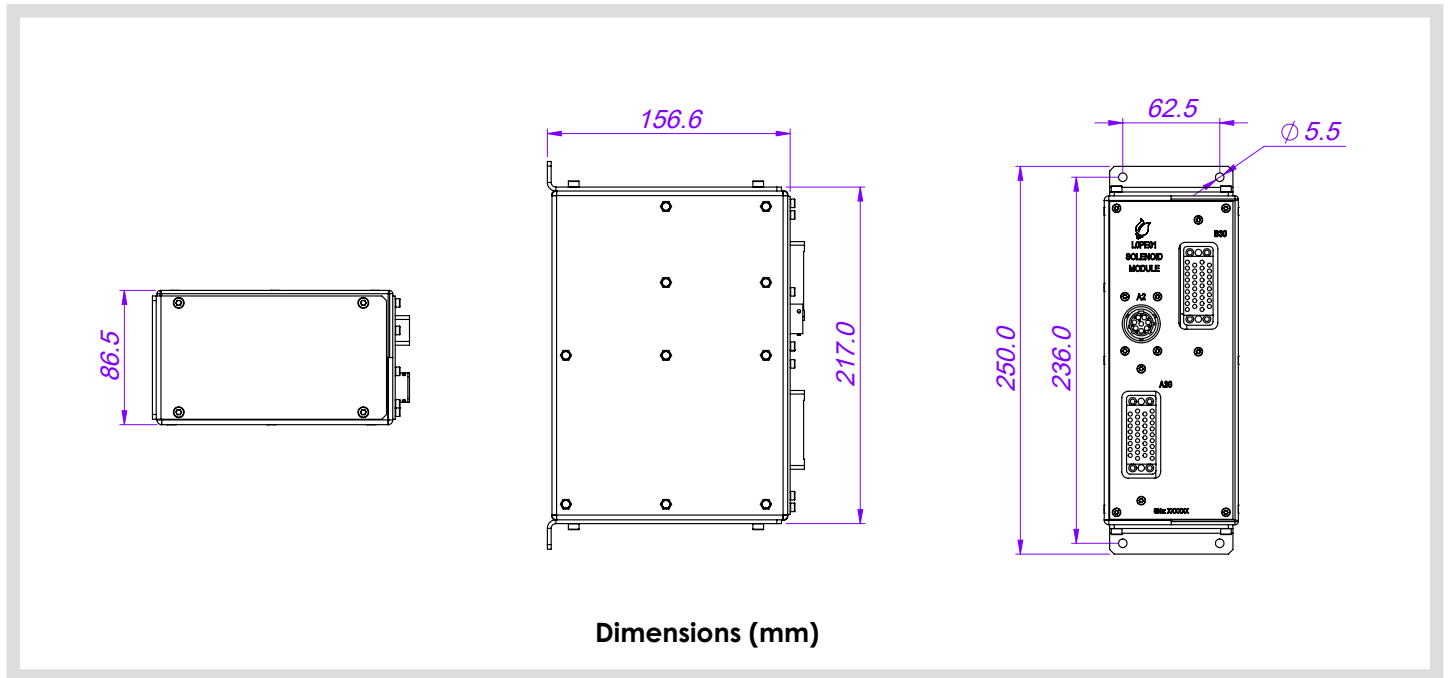
3.5kg (7.7lb)



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

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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 A30

Number	Unit / PCB V-35 Female Board Mount PIN	Name
1	A	Solenoid 11 Positive
2	B	Solenoid 10 Positive
3	C	Solenoid 11 Negative
4	D	Solenoid 10 Negative
5	E	CAN Address 2
6	F	Solenoid 9 Positive
7	H	CAN Address 1
8	J	Solenoid 9 Negative
9	K	CAN Address 0
10	L	Solenoid 8 Positive
11	M	RS232 Tx Out
12	N	Solenoid 8 Negative
13	P	RS232 Rx In
14	R	Solenoid 7 Negative
15	S	SCI BOOT (0VDC for Serial Boot Mode)
16	T	Solenoid 7 Positive
17	U	Solenoid 1 Positive
18	V	Solenoid 6 Negative
19	W	Solenoid 1 Negative
20	X	Solenoid 6 Positive
21	Y	Solenoid 2 Positive
22	Z	Solenoid 5 Negative
23	AA	Solenoid 2 Negative
24	BB	Solenoid 5 Positive
25	CC	Solenoid 3 Positive
26	DD	Solenoid 4 Negative
27	EE	Solenoid 3 Negative
28	FF	Solenoid 4 Positive
29	HH	24V SOLENOID SUPPLY
30	JJ	0V SOLENOID SUPPLY
31	KK	24 SOLENOID SUPPLY
32	LL	0V SOLENOID SUPPLY
33	MM	24V SOLENOID SUPPLY
34	NN	0V SOLENOID SUPPLY



Image depict coding pins required

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CONNECTOR B30

Number	Unit / PCB VMCT-34F Female Board Mount PIN	Name
1	A	Solenoid 22 Positive
2	B	Solenoid 21 Positive
3	C	Solenoid 22 Negative
4	D	Solenoid 21 Negative
5	E	CAN Address Modifier 2
6	F	Solenoid 20 Positive
7	H	CAN Address Modifier 1
8	J	Solenoid 20 Negative
9	K	CAN Address Modifier 0
10	L	Solenoid 19 Positive
11	M	RS-232 Transmit
12	N	Solenoid 19 Negative
13	P	RS-232 Receive
14	R	Solenoid 18 Negative
15	S	RS-232 0VDC Reference
16	T	Solenoid 18 Positive
17	U	Solenoid 12 Positive
18	V	Solenoid 17 Negative
19	W	Solenoid 12 Negative
20	X	Solenoid 17 Positive
21	Y	Solenoid 13 Positive
22	Z	Solenoid 16 Negative
23	AA	Solenoid 13 Negative
24	BB	Solenoid 16 Positive
25	CC	Solenoid 14 Positive
26	DD	Solenoid 15 Negative
27	EE	Solenoid 14 Negative
28	FF	Solenoid 15 Positive
29	HH	Solenoid Supply 24VDC
30	JJ	Solenoid Supply 0VDC
31	KK	Solenoid Supply 24VDC
32	LL	Solenoid Supply 0VDC
33	MM	Solenoid Supply 24VDC
34	NN	Solenoid Supply 0VDC



Image depict coding pins required

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Connector Assembly

Part Number	Description
HOPE0401	Connector Assembly A30
HOPE0501	Connector Assembly B30

Connector Assembly Specifications

- **Product Type:** Pre-manufactured cable assembly
- **Construction:** Connector with flying leads (pigtail)
- **HOPE0401 Connector 1 :** Obelix A30 Male Plug (34-pin)
- **HOPE0501 Connector 1 :** Obelix B30 Male Plug (34-pin)
- **Connector 2:** Unterminated, flying leads
- **Conductors:** 26
- **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