

L0NT0401 Obelix Proportional Solenoid I/O Module 24VDC Type D

The L0NT Industrial Solenoid I/O Module range is designed to directly support 24VDC Solenoid applications together with a range of other I/Os. Additional analogue and digital input support make for a highly integrated I/O module.

- Embedded 24VDC Solenoid Outputs
 - 30 x Discreet Outputs with feedback output voltage monitoring.
 - 6 x Proportional Outputs with feedback current monitoring
 - Switched Coil Supply & Return
 - Multi-Stage Diagnostic Monitoring
 - Sequential Switching Redundancy
 - Microprocessor Controlled
- Embedded Proximity Inputs
 - 15 x 24VDC Proximity Inputs
 - Microprocessor Sampling
- Embedded Counters Inputs
 - 4 x Counter Inputs
 - 2 x Configurable Count Inputs
 - 20Hz to 6.5KHz
 - Quadrature Configurable.
- Embedded Analog Inputs
 - 12 x 4-20mA Inputs
 - Microprocessor Sampling
- Embedded Digital Inputs
 - 8 x 110VAC Digital Inputs
 - Microprocessor Sampling
- CAN Network
 - Opto-Coupler Isolation
 - CAN 2.0B Compatible
- Operates -10°C to +85°C
 - All industrial components
- Heavy Duty Enclosure
 - Electroless Nickel Plated
 - Rugged Construction



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

Interface Description

The Type L0NT Solenoid Module utilizes industrial connectors that are unique when configured for use with the Obelix Control System. 7x24(12 A-BOTTOM, 12 B-TOP) way connectors.

Each module in the series is allocated a unique connector prefix for schematic reference purposes. For example, L0NT0101 is allocated prefixes A26-A, A26-B whilst L0NT0201 has B26-A and B26-B etc.

Plugs are marked as X26A, .. X26G (where X is module type A, B, C, D, E, F, G, H)

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**LONT Solenoid Module
Connector A26D (Bottom) – Klippon
12 Pin Female**

Pin	Description	Signal
1	Counter Supply (1 & 2)	24VDC Supply
3	Counter 1	0Hz - 5KHz Pulses
5	Counter 2	0Hz - 5KHz Pulses
7	Counter Supply (3 & 4)	24VDC Supply
9	Counter 3	0Hz - 5KHz Pulses
11	Counter 4	0Hz - 5KHz Pulses
13	CAN Low	Communications
15	CAN Low	Communications
17	CAN High	Communications
19	CAN High	Communications
21	Termination Link	Communications
23	Termination Link	Communications

**LONT Solenoid Module
Connector A26D (Top) – Klippon
12 Pin Female**

Pin	Connector A26B (Top) – Klippon	Signal
2	Analog Input 1	4-20mA Input
4	Analog Input 2	4-20mA Input
6	Analog Input 3	4-20mA Input
8	Analog Input 4	4-20mA Input
10	Analog Input 5	4-20mA Input
12	Analog Input 6	4-20mA Input
14	Analog Input 7	4-20mA Input
16	Analog Input 8	4-20mA Input
18	Analog Input 9	4-20mA Input
20	Analog Input 10	4-20mA Input
22	Analog Input 11	4-20mA Input
24	Analog Input 12	4-20mA Input

² Solenoids Designated xA / xB can only be operated exclusively. For example, outputs 9A or 9B can be energised independently but not simultaneously.

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Electrical Characteristics

Supply

Voltage ^{Module}	24VDC ^{Nominal}
Wattage ^{MIN}	5W
Wattage ^{MAX}	12W
Voltage ^{Solenoids}	24VDC ^{Nominal}
Wattage ^{MIN}	0W
Wattage ^{MAX}	240W

Solenoid Outputs

Installed	30 Redundant Discreet
Voltage	24VDC
Minimum Voltage	24VDC
Maximum Voltage	24 ^{VDC}
Installed	6 Redundant Proportional
Voltage	24VDC
Minimum Voltage	24VDC
Maximum Voltage	24VDC

Proximity Inputs

Installed	15
Voltage	24VDC
Minimum Voltage	24VDC
Maximum Voltage	24VDC

Digital Inputs

Installed	8
Voltage	110VAC
Minimum Voltage	75VAC
Maximum Voltage	130VAC

Analog Inputs

Installed	12
Type	4-20mA
Scale	10-Bit
Maximum Voltage	5VDC

Communications

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

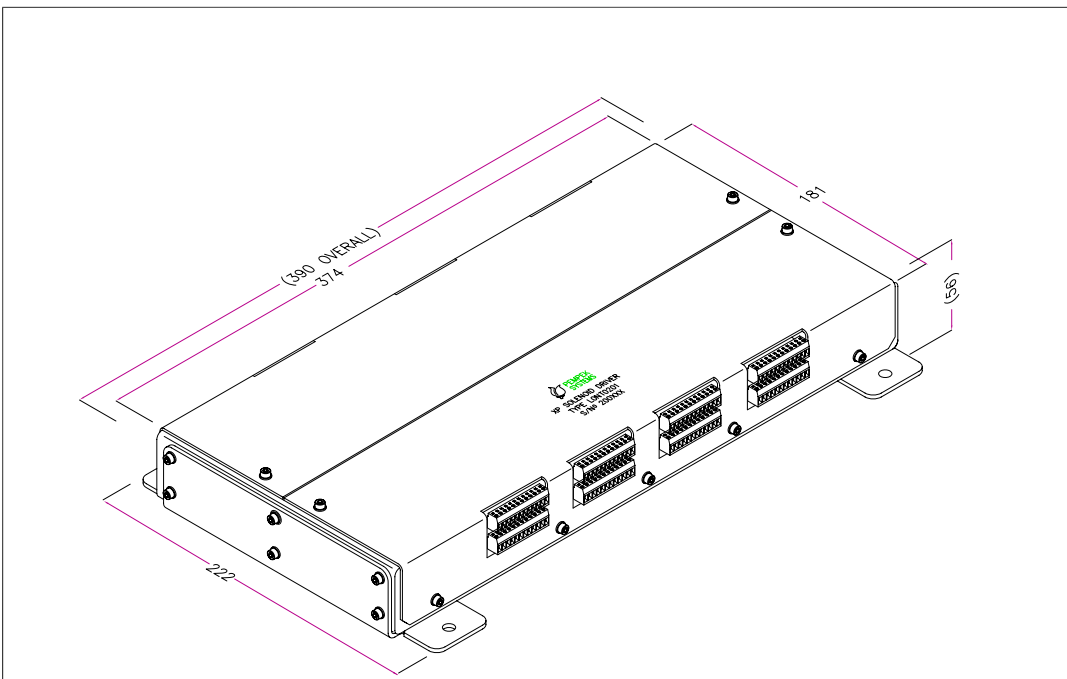
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Electrical Characteristics

Environmental

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

Mechanical Characteristics



Dimension	Measurement	Description
A	222	Mounting Flange Width
B	390	Length
C	181	Width
D	60	Height

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 24

Mass

- 3.5kg (7.7lb)