## L0NT0601 Obelix Proportional Solenoid I/O Module 24VDC Type F

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)

| L0NT Solenoid Module<br>Connector A26F (Bottom) – Klippon<br>12 Pin Female | | |
|---|---|---|
| **Pin** | **Description** | **Signal** |
| 1 | Proximity Input #9 Supply | 24VDC Supply |
| 3 | Proximity Input #9 Input | 24VDC Input |
| 5 | Proximity Input #9 Return | 24VDC Return |
| 7 | Proximity Input #10 Supply | 24VDC Supply |
| 9 | Proximity Input #10 Input | 24VDC Input |
| 11 | Proximity Input #10 Return | 24VDC Return |
| 13 | Proximity Input #11 Supply | 24VDC Supply |
| 15 | Proximity Input #11 Input | 24VDC Input |
| 17 | Proximity Input #11 Return | 24VDC Return |
| 19 | Proximity Input #12 Supply | 24VDC Supply |
| 21 | Proximity Input #12 Input | 24VDC Input |
| 23 | Proximity Input #12 Return | 24VDC Return |

| L0NT Solenoid Module<br>Connector A26F (Top) – Klippon<br>12 Pin Female | | |
|---|---|---|
| **Pin** | **Connector A26B (Top) – Klippon** | **Signal** |
| 2 | Proximity Input #13 Supply | 24VDC Supply |
| 4 | Proximity Input #13 Input | 24VDC Input |
| 6 | Proximity Input #13 Return | 24VDC Return |
| 8 | Proximity Input #14 Supply | 24VDC Supply |
| 10 | Proximity Input #14 Input | 24VDC Input |
| 12 | Proximity Input #14 Return | 24VDC Return |
| 14 | Proximity Input #15 Supply | 24VDC Supply |
| 16 | Proximity Input #15 Input | 24VDC Input |
| 18 | Proximity Input #15 Return | 24VDC Return |
| 20 | Supply Input | 24VDC Supply Input |
| 22 | Supply Input Return | 0VDC Return |
| 24 | Supply Input Return | 0VDC Return |

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

## L0NT0601 Obelix Proportional Solenoid I/O Module 24VDC Type F

### 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 | 24VDC |
| 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 |

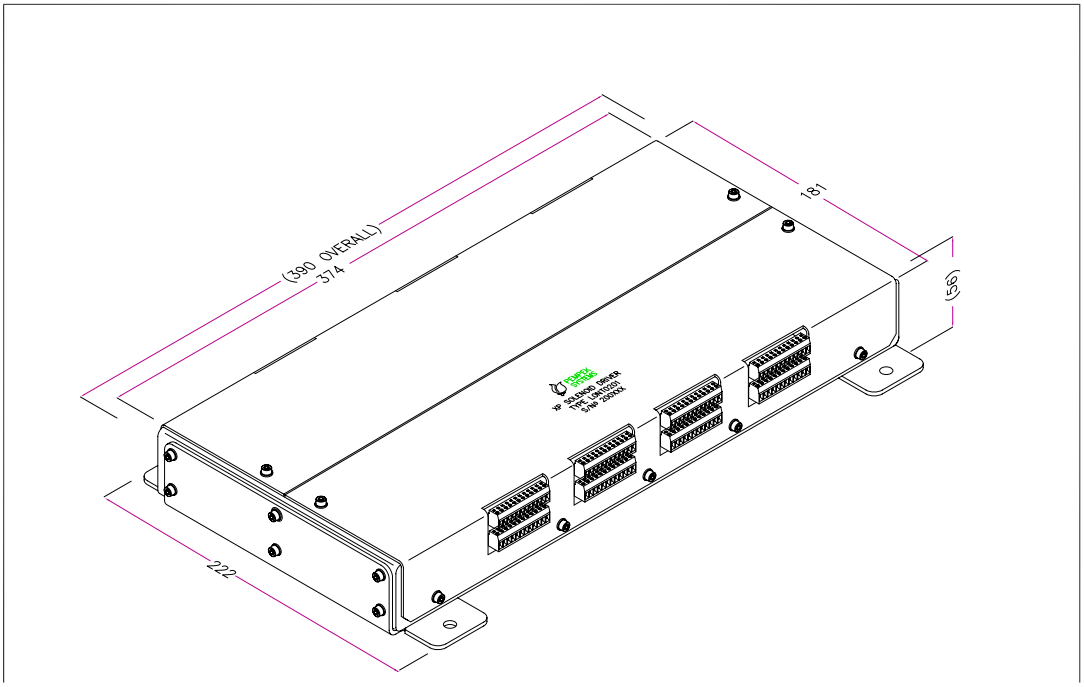
| Communications | |
|---|---|
| Interface | CAN 2.0B |
| Throughput | 500kbs (Supports Autobaud) |
| Protocol(s) | Message Oriented |
| Medium | Copper |

## L0NT0601 Obelix Proportional Solenoid I/O Module 24VDC Type F

### 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)