Lonbox® PSD6048
Motor Controller for 4 sunblind or window 24 V motors

Next generation intelligent building automation controller for energy efficient buildings. The pre-programmed controller has build-in functionality for 4 motors.

One single device that integrates intelligent automation for a highly energy efficient building into one box. Ready to install and can be delivered directly to the construction site. Including a high efficiency 100W digital power supply.

This device is designed for use as stand-alone or as part of large building automation systems. The pre-programmed controller contains functionality for indoor or outdoor sunblind control with advanced features for automatic control according to sunlight, sun position, wind and other alarm functions. The controller can receive override and schedule command via the building network.

All channels have individual configuration of automatic functions, e.g. local hold time, light and wind levels etc.

Input and output connections:
- 230 V ac power supply input
- 8 Digital inputs for up / down switches
- 4 DC driver outputs with protection for motors
- LON and BACnet MS/TP bus connection

Program Features
- Sunblind controller with additional features for windows
- Sunblind actuators with optional venetian blind slat control
- Scenarios and advanced override types

Latest generation LonWorks 2.0 features. Supported protocols
- LonTalk TP/FT-10
- LonTalk/IP-FT
- BACnet/IP-FT
- BACnet MS/TP

The free topology IP Channel support DHCP, SMTP, IPMG and BACnet/IP and LonTalk/IP. BACnet and LonTalk can be used used simultaneously.

Self installing features allow for plug-and-play installation based on ISI protocol. When shipped the device has basic features already configured. Delivered in plastic enclosure ready to mount..
<table>
<thead>
<tr>
<th>Group</th>
<th>Name</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Description</td>
<td>4-Channel motor controller</td>
</tr>
<tr>
<td></td>
<td>Dimensions</td>
<td>180 x 180 x 60 mm</td>
</tr>
<tr>
<td></td>
<td>Enclosure material</td>
<td>ABS</td>
</tr>
<tr>
<td></td>
<td>EMC Immunity</td>
<td>61000-6-3</td>
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<td></td>
<td>EMC Emission</td>
<td>61000-6-2</td>
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<td></td>
<td>RoHS, WEEE</td>
<td>Yes</td>
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<tr>
<td>Power</td>
<td>Supply input</td>
<td>230 Volt AC @ 50 HZ ±10%</td>
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<tr>
<td></td>
<td>Controller supply</td>
<td>&lt; 0.9 Watt at 230 Vac, including supply loss</td>
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<tr>
<td></td>
<td>Maximum supply output</td>
<td>24 Volt DC maximum 4.0 A for motors</td>
</tr>
<tr>
<td></td>
<td>Supply Efficiency</td>
<td>&gt; 90%</td>
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<tr>
<td>LON-bus</td>
<td>LonWorks</td>
<td>TP/FT-10 78 kit twisted pair, bus or free topology with IsoT protocol</td>
</tr>
<tr>
<td>MS/TP bus</td>
<td>Output voltage</td>
<td>RS485 twisted pair with MS/TP protocol</td>
</tr>
<tr>
<td>Inputs</td>
<td>Digital inputs</td>
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</tr>
<tr>
<td></td>
<td>Digital input voltage</td>
<td>24 Volt dc, 10 Kohm pull-up</td>
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<tr>
<td></td>
<td>Digital Input impedance</td>
<td>72 k ohm</td>
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<tr>
<td>Outputs</td>
<td>H-Bridge motor drivers</td>
<td>4</td>
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<tr>
<td></td>
<td>Digital output effect</td>
<td>Maximum 1 A* pr. output (total 4.0 A)</td>
</tr>
<tr>
<td>Ordering</td>
<td>Model name</td>
<td>Lonbox PSD6048</td>
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<tr>
<td></td>
<td>GTIN / EAN code</td>
<td>5711536000598</td>
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</table>

*) The H-Bridge motor driver outputs are designed for connection directly to a DC motor. The driver has protection against undervoltage, overtemperature and overcurrent. The motor driver employs fixed-frequency PWM current regulation (also called current chopping). When a winding is activated, the current through it rises until it reaches a threshold, then the current is switched off until the next PWM period (fixed at 50 kHz). In current threshold is 1.5 A.
Connection Diagram Example

Prolon Control Systems
Lonbox Series Model: PSD6048
Neuron Id: XXXXXXXXXXXX
Serial No: YYYY-ZZZZ

Connection Diagram Example

LonWorks TP/FT-10 Net
BACnet MS/TP

Up / Down
Servo

Service

Motor 1
Motor 2
Motor 3
Motor 4

Input
MS/TP
MS/TP
LON
LON

230VAC

Switches x 2

Switch 1
Up

Switch 2
Down

Switch 3
Up

Switch 4
Down

Motor

Motor

Motor

Motor

L

PE

N