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# Actuator LA33
## With CAN bus
# **Connection diagram**



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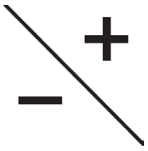
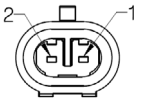
## Connection diagram

33XXXXXXXX003XXX=XXXXXX07XXXXX

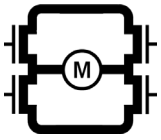


| | | Power |
|---|---|---|
| 12/24/48 V DC + | **BROWN** | **2** |
| GND - | **BLUE** | **1** |

AMP

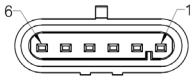



Deutsch

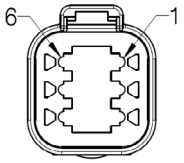




| | | Signal |
|---|---|---|
| Digital input<br>HW Addressing pin 2 | **RED** | **2** |
| Digital input<br>HW Addressing pin 1 | **BLACK** | **1** |

AMP




Deutsch





| | | |
|---|---|---|
| Bus | **GREEN** | **6** |
| Bus | **YELLOW** | **5** |

Service-Interface

| | | |
|---|---|---|
| Data | **VIOLET** | **4** |
| Data GND<br>HW Addressing pin 3 | **WHITE** | **3** |

**The BusLink software tool is available for CAN bus actuators and can be used for:**

Diagnostics, manual run and configuration

The newest version is available online at LINAK.COM/TECHLINE

Please note: The BusLink configuration cable must be purchased separately

Item number for BusLink cable kit: 0367997 (adapter + USB2Lin)

# I/O specifications

<table>
<tr><th>Input/Output</th><th colspan="4">Specification</th><th>Comments</th></tr>
<tr><td>Description</td><td colspan="4">Compatible with the SAE J1939 standard. Uses CAN messages to command movement, setting parameters and to deliver feedback from the actuator.<br>Actuator identification is provided using standard J1939 address claim or fixed addresses.</td><td rowspan="2">  </td></tr>
<tr><td rowspan="8">Brown<br>Connect to positive</td><td colspan="4">12 - 48 V DC + (VCC)</td><td rowspan="4">Note:<br>Do not change the power supply polarity on the Brown and Blue wires!<br>Power supply GND (-) is electrically connected to the housing.<br>Current limit levels can be adjusted through BusLink.<br>12 V ± 20 %, current limit 30 A<br>24 V ± 10 %, current limit 20 A<br>48 V ± 10 %, current limit 8 A<br>If the temperature drops below 0 °C, all current limits will automatically increase to:<br>30 A for 12 V and 25 A for 24 V</td></tr>
<tr><td>Vsup</td><td>Vmin</td><td>Vmax</td><td></td></tr>
<tr><td rowspan="2">12 V</td><td>10,5 V</td><td>16 V</td><td>Motor running</td></tr>
<tr><td>6 V</td><td>16 V</td><td>Only CAN communication</td></tr>
<tr><td rowspan="2">24 V</td><td>18 V</td><td>32 V</td><td>Motor running</td></tr>
<tr><td>10 V</td><td>32 V</td><td>Only CAN communication</td></tr>
<tr><td rowspan="2">48 V</td><td>34 V</td><td>58 V</td><td>Motor running</td></tr>
<tr><td>24 V</td><td>60 V</td><td>only CAN communication</td></tr>
<tr><td>Blue</td><td colspan="4">- (GND)<br>Connect Blue to negative</td></tr>
<tr><td>Red</td><td colspan="4">Extends the actuator</td><td rowspan="2">The signal becomes active at:<br>> 67% of $V_{IN}$ (Brown wire)<br>The signal becomes inactive at:<br>< 33% of $V_{IN}$ (Brown wire)<br>Input current: 10 mA</td></tr>
<tr><td>Black</td><td colspan="4">Retracts the actuator</td></tr>
<tr><td>Green</td><td colspan="4">CAN_L</td><td rowspan="2">Actuators with CAN bus does not contain the 120 Ω terminal resistor. The physical layer is in accordance with J1939-15.*<br>Speed: Autobaud up to 500 kbps<br>(CAN bus prior to version 3.0 up to 250 kbps)<br>Max. bus length: 40 meters<br>Max. stub length: 3 meters<br>Max. node count: 10 (can be extended to 30 under certain circumstances)<br>Wiring: Unshielded twisted pair<br>Cable impedance: 120 Ω (±10 %)</td></tr>
<tr><td>Yellow</td><td colspan="4">CAN_H</td></tr>
<tr><td>Violet</td><td colspan="4">Service interface</td><td rowspan="2">Only BusLink can be used as service interface.<br>Use the Green adapter cable</td></tr>
<tr><td>White</td><td colspan="4">Service interface GND</td></tr>
</table>

* J1939-15 refers to Twisted Pair and Shielded cables.
The standard/default cables delivered with CAN actuators do not comply with this.



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