Actuator LA33
CAN Bus
Connection diagram
Connection diagram

Please be aware that if the power supply is not properly connected, you might damage the actuator!

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>
<thead>
<tr>
<th>Input/Output</th>
<th>Specification</th>
<th>Comments</th>
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<tr>
<td><strong>Description</strong></td>
<td>Compatible with the SAE J1939 standard. Uses CAN messages to command movement, setting parameters and to deliver feedback from the actuator. Actuator identification is provided, using standard J1939 address claim or fixed addresses. See connection diagram, figure above.</td>
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| **Brown** | 12-24VDC + (VCC)  
Connect Brown to positive  
12V ± 20%  
24V ± 10%  
12V, current limit 15A  
24V, current limit 10A | Note:  
Do not change the power supply polarity on the brown and blue wires!  
Power supply GND (-) is electrically connected to the housing  
Current limit levels can be adjusted through BusLink  
If the temperature drops below 0°C, all current limits will automatically increase to  
20A for 12V  
15A for 24V |
| **Blue** | 12-24VDC - (GND)  
Connect Blue to negative  
12V ± 20%  
24V ± 10% | If the temperature drops below 0°C, all current limits will automatically increase to  
20A for 12V  
15A for 24V |
| **Red** | Extends the actuator | On/off voltages:  
> 67% of $V_{IN}$ = ON  
< 33% of $V_{IN}$ = OFF |
| **Black** | Retracts the actuator |  |
| **Green** | CAN_L | LA37 with CAN bus does not contain the 120Ω terminal resistor. The physical layer is in accordance with J1939-15.*  
Speed: Autobaud up to 500 kbps  
(CAN Bus prior to version 3.0 up to 250 kbps)  
Max bus length: 40 meters  
Max stub length: 3 meters  
Max node count: 10 (can be extended to 30 under certain circumstances)  
Wiring: Unshielded twisted pair  
Cable impedance: 120 Ω (±10%) |
| **Yellow** | CAN_H |  |
| **Violet** | Service interface | Only BusLink can be used as service interface. Use green adapter cable |
| **White** | Service interface GND |  |

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* J1939-15 refers to Twisted Pair and Shielded cables.  
The standard/default cables delivered with LA33 CAN do not comply with this.  
BusLink cables must be purchased separately from the actuator!  
Find more information about the CAN bus actuators in the CAN bus user manual  
The newest version is available online at [LINAK.COM/TECHLINE](http://www.linak.com/techline)
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