Actuator LA33
IC Parallel
Connection diagram
FOR MOUNTING INSTRUCTIONS AND GUIDANCE IN USAGE, PLEASE SEE THE RELEVANT USER’S MANUALS

- Please be aware that if the power supply is not properly connected, you might damage the actuator!
- The green and yellow wires from parallel connected actuators must NOT be interconnected
## I/O Specifications

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<th>Input/Output</th>
<th>Specification</th>
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<td>Description</td>
<td>Parallel drive of up to 8 actuators. A master actuator with an integrated H-bridge controller controls up to 7 slaves. The version with “IC option” cannot be operated with PWM (power supply). See connection diagram, figure above</td>
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| Brown        | 12-24VDC + (VCC)  
Connect Brown to positive  
12V ± 20%  
24V ± 10%  
12V, max. 13A - current cut off @ 15A  
24V, max. 9A - current cut off @10A | Note:  
Do not change the power supply polarity on the brown and blue wires!  
The parallel actuators can run on one OR separate power supplies  
Power supply GND (-) is electrically connected to the housing  
Current limit levels can be adjusted through BusLink (only one actuator at a time for parallel)  
If the temperature drops below 0°C, all current limits will automatically increase to 20A for 12V and 15A for 24V |
| Blue         | 12-24VDC - (GND)  
Connect Blue to negative  
12V ± 20%  
24V ± 10%  
12V, max. 13A - current cut off @ 15A  
24V, max. 9A - current cut off @10A | |
| Red          | Extends the actuator | On/off voltages:  
> 67% of VIN = ON  
< 33% of VIN = OFF  
Input current: 10mA  
It does not matter where the in/out signals are applied. You can either choose to connect the signal cable to one actuator OR you can choose to connect the signal cable to each actuator on the line. Either way this will ensure parallel drive |
| Black        | Retracts the actuator | |
| Green        | Endstop signal out | Output voltage min. VIN - 2V  
Source current max. 100mA  
Endstop signals are NOT potential free. Endstop signals can be configured with BusLink software according to any position needed. |
| Yellow       | Endstop signal in | |
| Violet       | Parallel communication:  
Violet cords must be connected together | Standby power consumption:  
12V, 85mA  
24V, 50mA  
No feedback available during parallel drive |
| White        | Signal GND:  
White cords must be connected together | For correct wiring of power GND and Signal GND see next page |

- Current cut-offs should not be used as stop function! This might damage the actuator. Current cut-offs should only be used in emergencies!  
- Current cut-off limits are not proportional with the load curves of the actuator. This means that the current cut-offs cannot be used as load indicator.  
- There are tolerances on the spindle, nut, gear wheels etc. and these tolerances will have an influence on the current consumption for the specific actuator.
The parallel drive function will support a number of actuators working jointly:

It is both possible to run parallel with a single power supply, or to run each actuator with separate power supplies:

Only standard power and signal cables are available for parallel.
If separate power supplies are used, they must have the same potential, and the power supply GND (blue wires) must be connected in a common ground.
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