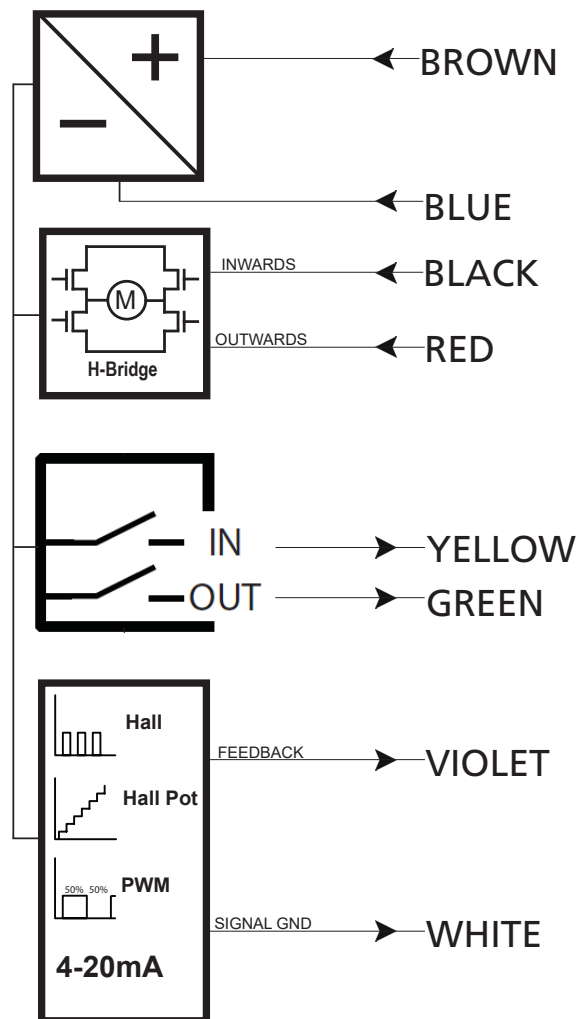




Actuator LA33  
IC Advanced and BusLink  
*Connection diagram*

# Connection diagram

33XXXXXXXXXXXX3XXX=XXXXXXXX2XXXXX



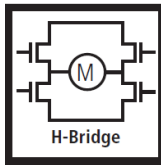
Please be aware that if the power supply is not properly connected, you might damage the actuator!



Configuration of IC Advanced is possible with the BusLink software for PC. The newest version is available online at [LINAK.COM/TECHLINE](http://LINAK.COM/TECHLINE)

Please note: The BusLink configuration cable must be purchased separately. Item number for BusLink cable kit: 0367999 (adapter + USB2Lin)

# I/O Specifications

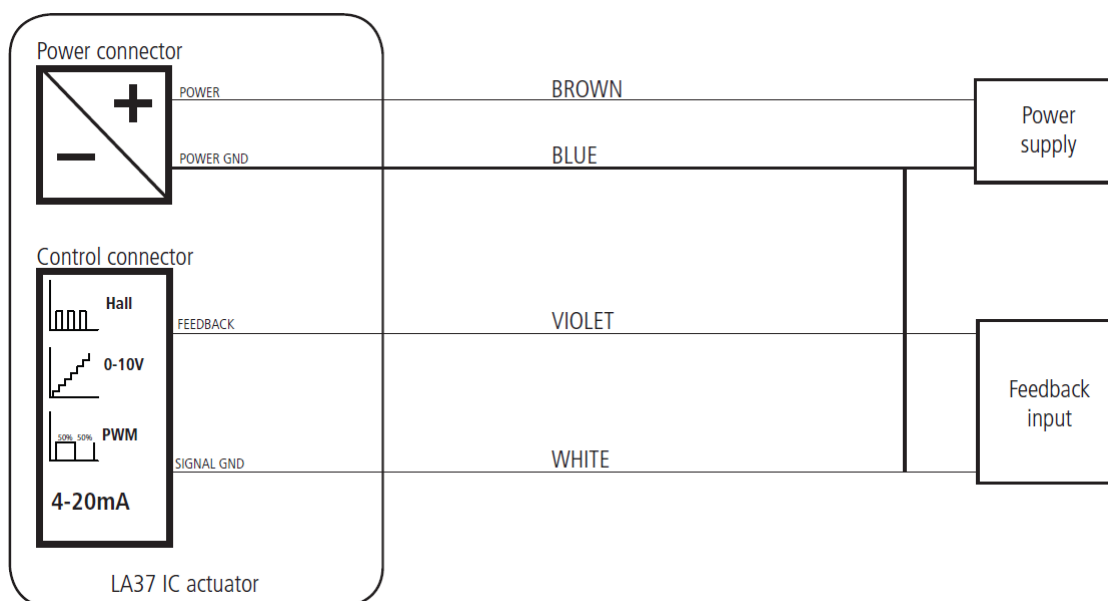
Input/Output	Specification	Comments
Description	<p>Easy to use interface with integrated power electronics (H-bridge).</p> <p>The actuator can also be equipped with electronic circuit that gives an absolute or relative feedback signal.</p> <p>The version with "IC option" cannot be operated with PWM (power supply).</p> <p>See connection diagram, figure above</p>	 <p>H-Bridge</p>
Brown	<p>12-24VDC + (VCC)</p> <p>Connect Brown to positive</p> <p>12V ± 20%</p> <p>24V ± 10%</p> <p>12V, max. 13A - current cut off @ 15A</p> <p>24V, max. 9A - current cut off @10A</p>	<p>Note:</p> <p>Do not change the power supply polarity on the brown and blue wires!</p> <p>Power supply GND (-) is electrically connected to the housing</p>
Blue	<p>12-24VDC - (GND)</p> <p>Connect Blue to negative</p> <p>12V ± 20%</p> <p>24V ± 10%</p> <p>12V, max. 13A - current cut off @ 15A</p> <p>24V, max. 9A - current cut off @10A</p>	<p>If the temperature drops below 0°C, all current limits will automatically increase to:</p> <p>20A for 12V</p> <p>15A for 24V</p>
Red	Extends the actuator	<p>On/off voltages:</p> <p>&gt; 67% of <math>V_{IN}</math> = ON</p> <p>&lt; 33% of <math>V_{IN}</math> = OFF</p> <p>Input current: 10mA</p>
Black	Retracts the actuator	
Green	Endstop signal out	<p>Output voltage min. <math>V_{IN} - 2V</math></p> <p>Source current max. 100mA</p> <p>Endstop signals are NOT potential free. Endstop signals can be configured with BusLink software according to any position needed.</p> <p>When configuring virtual endstop, it is not necessary to choose the position feedback. EOS and virtual endstop will work even when feedback is not chosen.</p>
Yellow	<p>Endstop signal in (Option 1)</p> <p>Constantly high (Option 2)</p>	
Violet	<p>Analogue feedback (0-10V):</p> <p>Configure any high/low combination between 0-10V</p>	<p>Ripple max. 200mV</p> <p>Transaction delay 20ms</p> <p>Linear feedback 0.5%</p> <p>Max. current output. 1mA</p>
	<p>Single Hall output (PNP)</p> <p>Movement per Single Hall pulse:</p> <p>LA371C: Actuator = 0.1372 mm per count</p> <p>Frequency is 14-26 Hz on Single Hall output depending on load.</p> <p>Overvoltage on the motor can result in shorter pulses</p>	<p>Output voltage min. <math>V_{IN} - 2V</math> Max.</p> <p>current output: 12mA</p> <p>Max. 680nF</p>
	<p>Digital output feedback PWM:</p> <p>Configure any high/low combination between 0-100%</p>	<p>Output voltage min. <math>V_{IN} - 2V</math></p> <p>Frequency: 75Hz ± 10Hz as standard, but this can be customised.</p> <p>Duty cycle: Any low/high combination between 0 and 100 percent.</p> <p>Open collector source current max. 12mA</p>

Input/Output	Specification	Comments
Violet (continued)	Analogue feedback (4-20mA): Configure any high/low combination between 4-20mA	Tolerances +/- 0.2mA Transaction delay 20ms Linear feedback 0.5% Output: Source Serial resistance: 12V max. 300 ohm 24V max. 900 ohm
	All absolute value feedbacks (0-10V, PWM and 4-20mA)	Standby power consumption: 12V, 60mA 24V, 45mA It is recommendable to have the actuator to activate its limit switches on a regular basis, to ensure more precise positioning
White	Signal GND	For correct wiring of Power GND and Signal GND - please see figure below



- 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.

### Correct wiring of Power GND and Signal GND for IC Advanced:



Please note: This section only applies for 0-10V, Hall and PWM feedback options.

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