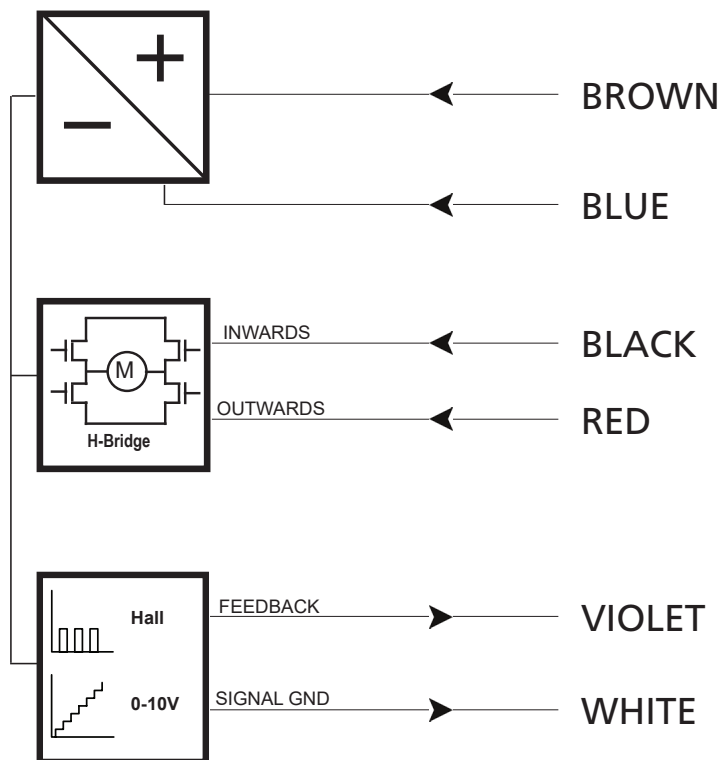


Actuator LA25  
IC Advanced with BusLink  
*Connection diagram*

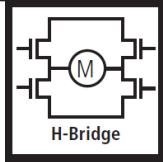
# Connection diagram

25xxxxxxxxxx3x1x=xxxxx18xxxxxx



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

# I/O Specifications

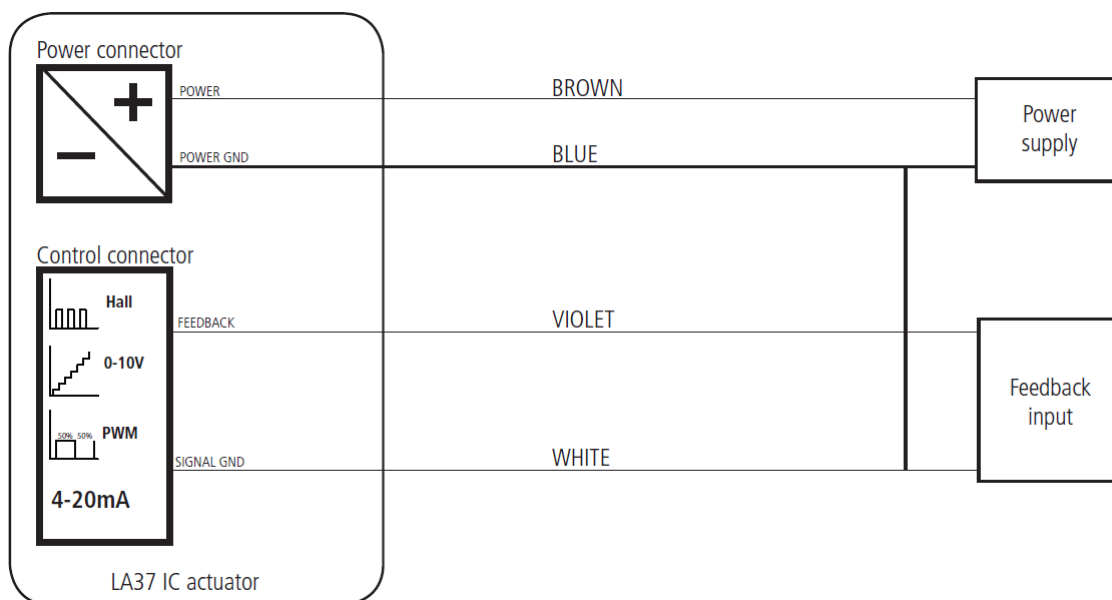
Input/Output	Specification	Comments
Description	<p>Easy to use interface with integrated power electronics (H-bridge).</p> <p>The actuator can also be equipped with electronic circuit that gives an absolute or relative feedback signal.</p> <p>The version with "IC option" cannot be operated with PWM (power 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% - max. 5A depending on load</p> <p>24V ± 10% - max. 2.5A depending on load</p> <p>12V, current limit 8A</p> <p>24V, current limit 5A</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% - max. 5A depending on load</p> <p>24V ± 10% - max. 2.5A depending on load</p> <p>12V, current limit 8A</p> <p>24V, current limit 5A</p>	<p>Current limit levels can be adjusted through BusLink</p> <p>If the temperature drops below 0°C, all current limits will automatically increase to 9A for 12V, and 6A 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>
Yellow	Endstop signal in	<p>When configuring virtual endstop, it is not necessary to choose the position feedback.</p> <p>EOS and virtual endstop will work even when feedback is not chosen.</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>LA25030 Actuator = 0.25 mm per pulse</p> <p>LA25060 Actuator = 0.5 mm per pulse</p> <p>LA25090 Actuator = 0.75 mm per pulse</p> <p>LA25120 Actuator = 1.0 mm per pulse</p> <p>LA25200 Actuator = 1.7 mm per pulse</p> <p>Depending on load the frequency is 10-20 Hz</p> <p>Pulse ON time is minimum 8ms.OFF time between two ON pulses is minimum 8ms.</p> <p>Overtoltage 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
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.
- For actuators with analogue feedback it is recommended to fully extract and retract the actuator on a regular basis (thereby activating the limit switches) in order to ensure precise positioning.

### 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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