

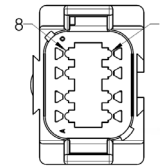


Actuator LA14
IC Advanced with feedback and with EOS
Connection diagram

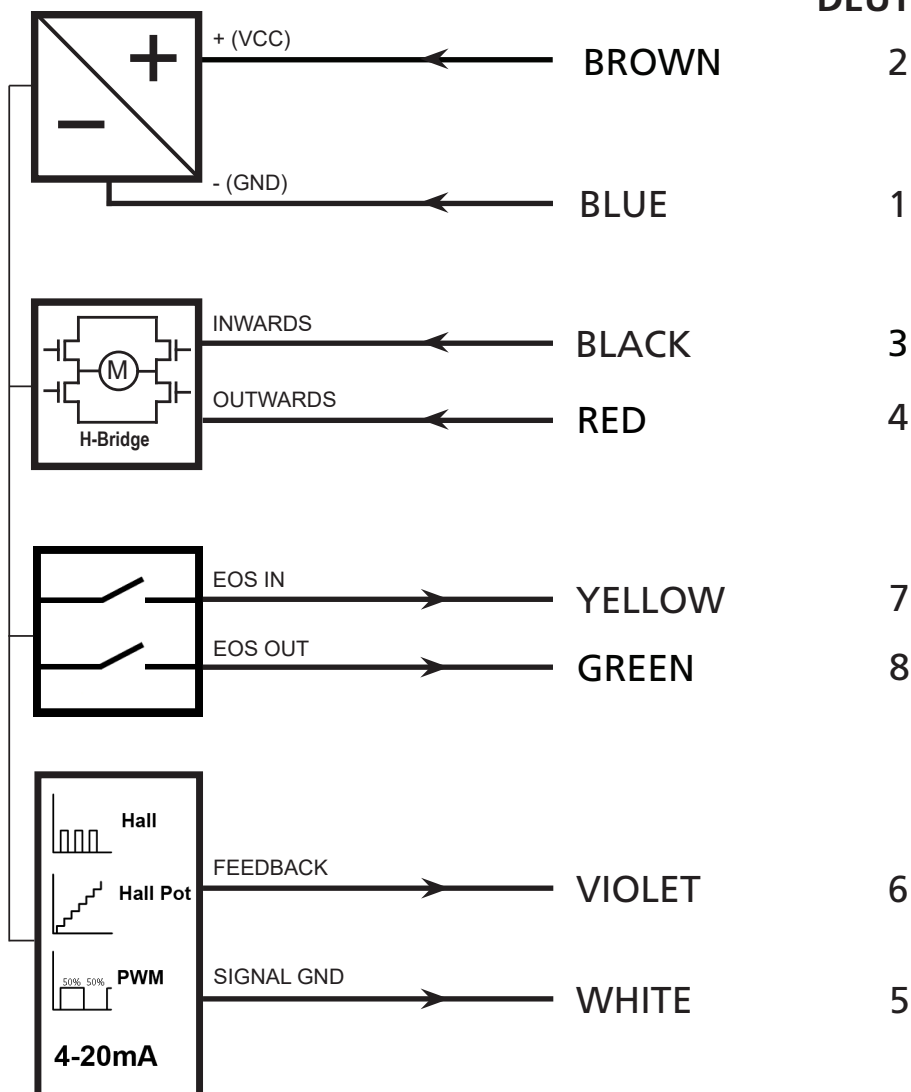
Connection diagram

14XXXXXXXXXX3X1X=XX1XXXXXXXXXX

IC INTEGRATED CONTROLLER



DEUTSCH



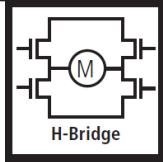
Please be aware that if the power supply is not properly connected, you might damage the actuator!



Configuration of IC Advanced is possible with the BusLink software for PC. The newest version is available online at LINAK.COM/TECHLINE

Please note: The BusLink configuration cable must be purchased separately. Item number for BusLink cable kit: 0147999 (adapter + USB2Lin)

I/O Specifications

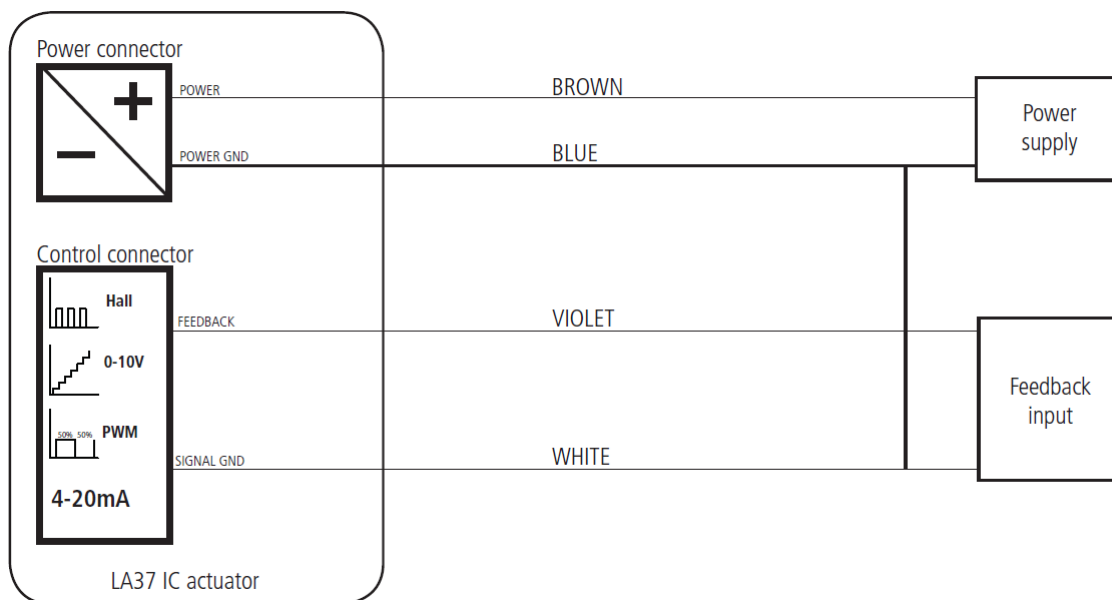
Input/Output	Specification	Comments
Description	<p>Easy to use interface with integrated power electronics (H-bridge). The actuator can also be equipped with electronic circuit that gives an absolute or relative feedback signal. The version with "IC option" cannot be operated with PWM (power supply). See connection diagram, figure above</p>	 <p>H-Bridge</p>
Brown	<p>12-24VDC + (VCC) Connect Brown to positive 12V ± 20% - max. 5A depending on load 24V ± 10% - max. 2.5A depending on load 12V, current limit 8A 24V, current limit 5A</p>	<p>Note: 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) Connect Blue to negative 12V ± 20% - max. 5A depending on load 24V ± 10% - max. 2.5A depending on load 12V, current limit 8A 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: > 67% of V_{IN} = ON < 33% of V_{IN} = OFF Input current: 10mA</p>
Black	Retracts the actuator	
Green	Endstop signal out	<p>Output voltage min. $V_{IN} - 2V$ Source current max. 100mA Endstop signals are NOT potential free. Endstop signals can be configured with BusLink software according to any position needed. 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	Endstop signal in	
Violet	<p>Analogue feedback (0-10V): Configure any high/low combination between 0-10V</p>	<p>Ripple max. 200mV Transaction delay 20ms Linear feedback 0.5% Max. current output. 1mA</p>
	<p>Single Hall output (PNP) Movement per Single Hall pulse: LA25030 Actuator = 0.25 mm per pulse LA25060 Actuator = 0.5 mm per pulse LA25090 Actuator = 0.75 mm per pulse LA25120 Actuator = 1.0 mm per pulse LA25200 Actuator = 1.7 mm per pulse Depending on load the frequency is 10-20 Hz Pulse ON time is minimum 8ms.OFF time between two ON pulses is minimum 8ms. Overvoltage on the motor can result in shorter pulses.</p>	<p>Output voltage min. $V_{IN} - 2V$ Max. current output: 12mA Max. 680nF</p>
	<p>Digital output feedback PWM: Configure any high/low combination between 0-100%</p>	<p>Output voltage min. $V_{IN} - 2V$ Frequency: 75Hz ± 10Hz as standard, but this can be customised. Duty cycle: Any low/high combination between 0 and 100 percent. 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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