

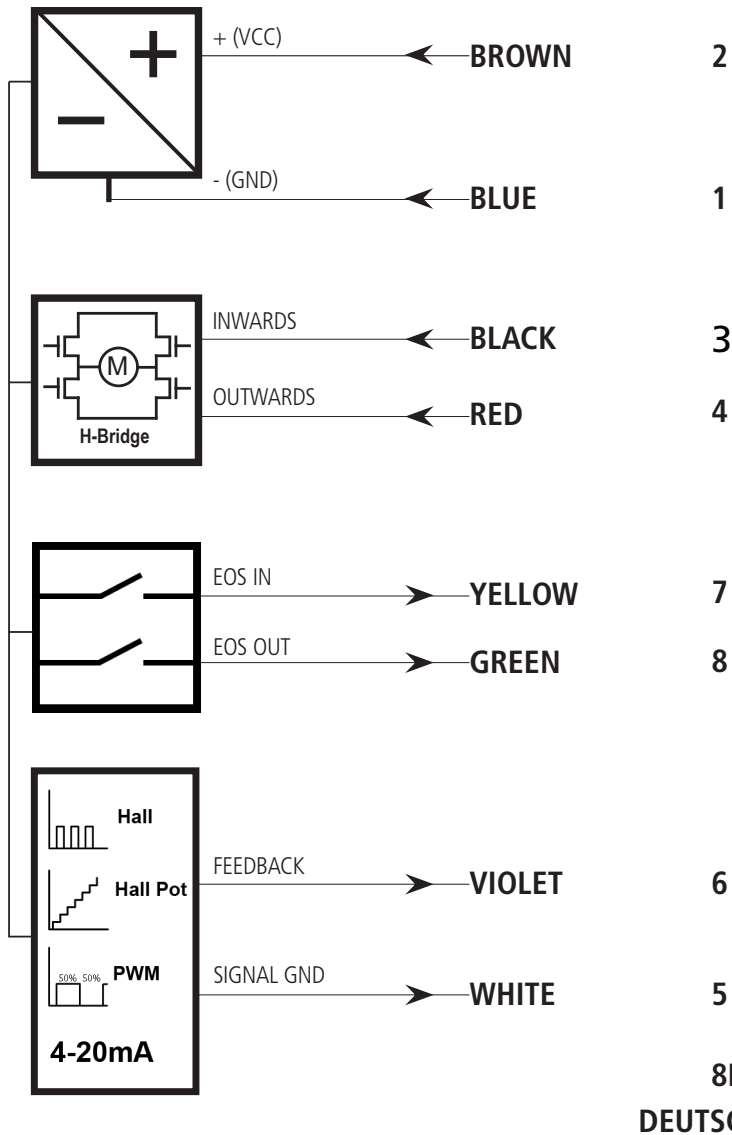
Actuator LA25

IC Advanced with feedback and End Stop Signal

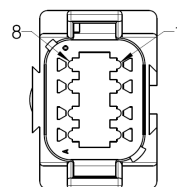
*Connection diagram*

# Connection diagram

25XXXXXXXXXX3X1X=XXXXXAXXXXXXX



Compliant with:



Standard connector front view



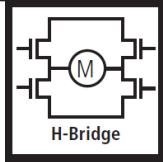
Please be aware that if the power supply is not properly connected, you might damage the actuator!



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: 0147999 (adapter + USB2Lin)

# I/O Specifications

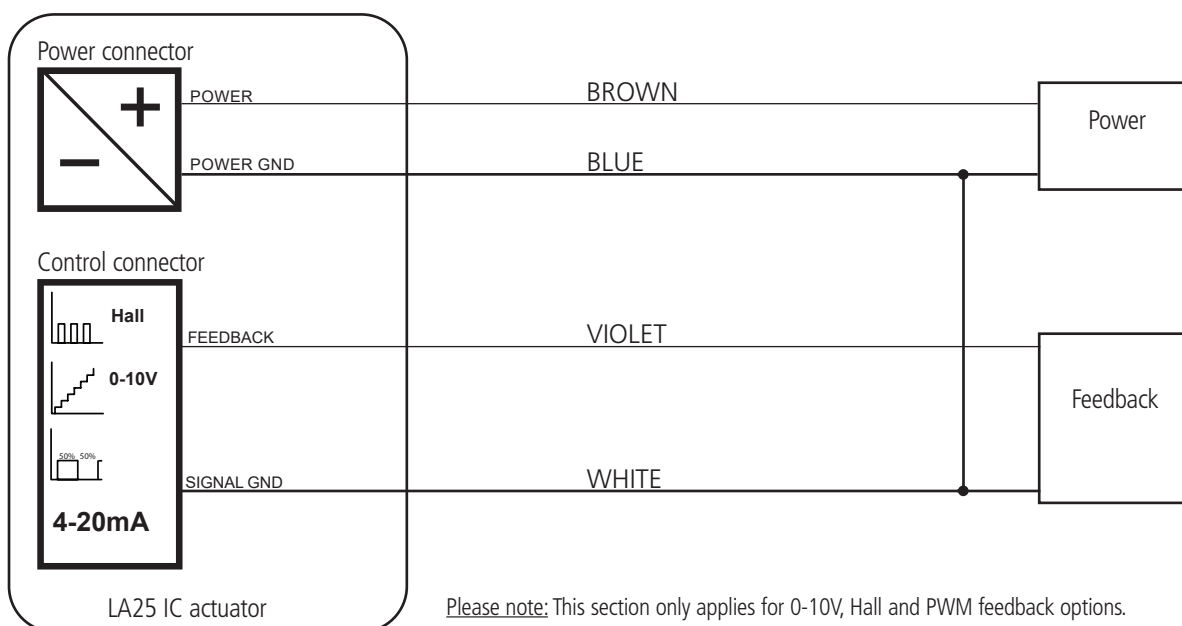
Input/Output	Specification	Comments
Description	<p>Easy to use interface with integrated power electronics (H-bridge).</p> <p>The actuator can also be equipped with electronic circuit that gives an absolute or relative feedback signal.</p> <p>Actuators with "IC" cannot be operated with PWM (power supply).</p>	 <p>H-Bridge</p>
Brown	<p>12-24 VDC + (VCC)</p> <p>Connect Brown to positive</p> <p>12 V ± 20% - 5 A at max load</p> <p>24 V ± 10% - 2.5 A at max load</p> <p>12 V, current limit 8 A</p> <p>24 V, current limit 5 A</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> <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 9 A for 12 V, and 6 A for 24 V</p>
Blue	<p>12-24 VDC - (GND)</p> <p>Connect Blue to negative</p>	
Red	Extends the actuator	The signal becomes active at: > 67% of $V_{IN}$ = ON
Black	Retracts the actuator	The signal becomes inactive at: < 33% of $V_{IN}$ = OFF Input current: 10 mA
Green	Endstop signal out	Output voltage min. $V_{IN}$ - 2 V Source current max. 100 mA Endstop signals are NOT potential free. Endstop signals can be configured with BusLink software according to any position needed.
Yellow	Endstop signal in	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.
Violet	<p>Analogue feedback (0-10 V):</p> <p>Configure any high/low combination between 0-10 V</p>	<p>Ripple max. 200 mV</p> <p>Transaction delay 20 ms</p> <p>Linear feedback 0.5%</p> <p>Max. current output. 1 mA</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 8 ms.</p> <p>Overvoltage on the motor can result in shorter pulses.</p>	<p>Output voltage min. <math>V_{IN}</math> - 2 V Max.</p> <p>current output: 12 mA</p> <p>Max. 680 nF</p>
	<p>Digital output feedback PWM:</p> <p>Configure any high/low combination between 0-100%</p>	<p>Output voltage min. <math>V_{IN}</math> - 2 V</p> <p>Frequency: 75 Hz ± 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. 12 mA</p>

Input/Output	Specification	Comments
Violet (continued)	Analogue feedback (4-20 mA): Configure any high/low combination between 4-20 mA	Tolerances +/- 0.2 mA Transaction delay 20 ms Linear feedback 0.5% Output: Source Serial resistance: 12 V max. 300 ohm 24 V max. 900 ohm
	All absolute value feedbacks (0-10 V, PWM and 4-20 mA)	Standby power consumption: 12 V, 60 mA 24 V, 45 mA
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:



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