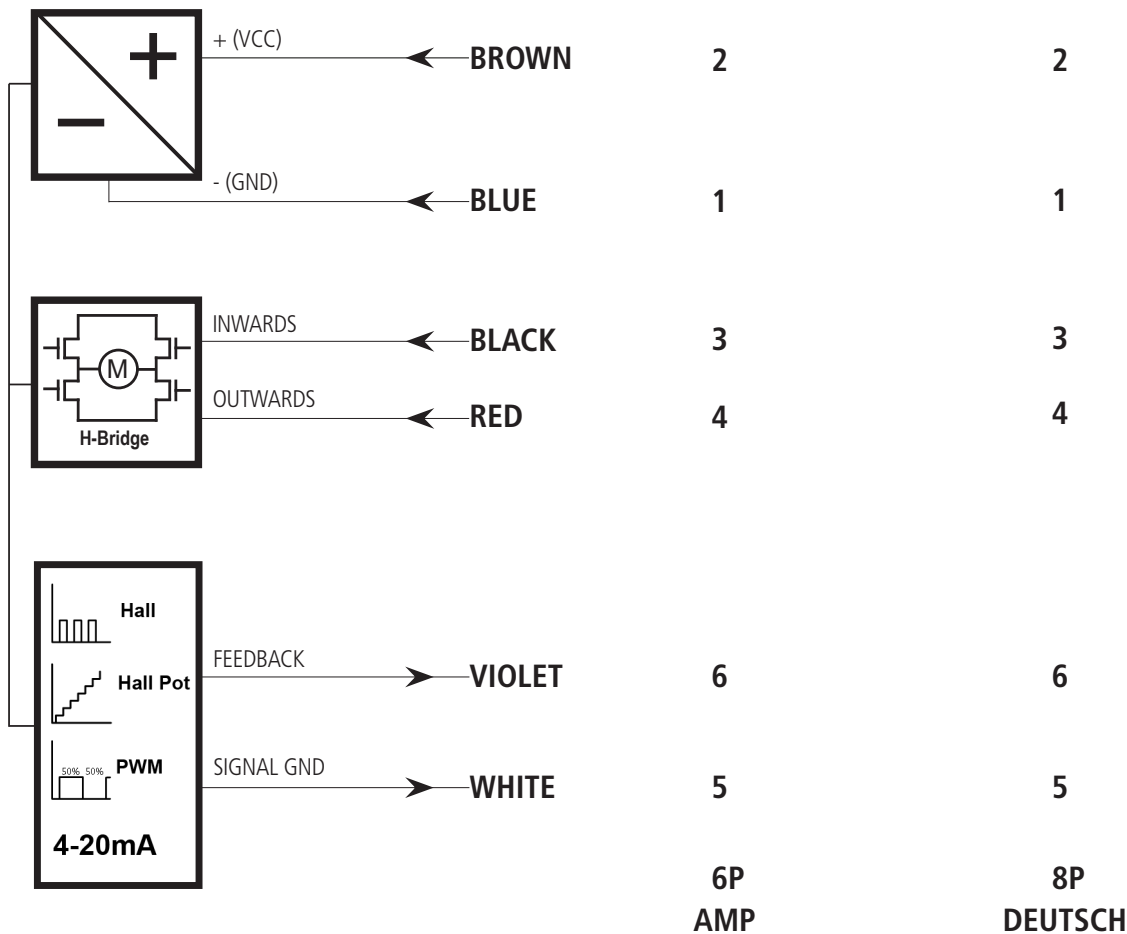




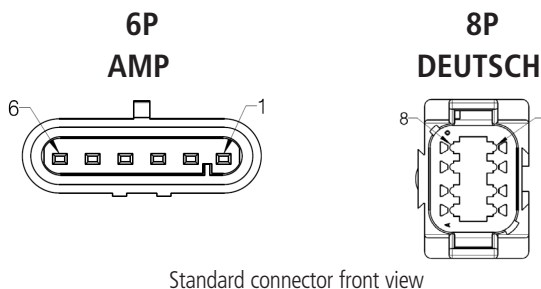
Actuator LA25  
IC Advanced with feedback  
*Connection diagram*

# Connection diagram

25XXXXXXXXXXXX3X1X=XXXXX0XXXXXXXXXX



Compliant with:



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

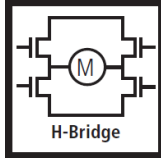


**Configuration of IC Advanced is possible with the BusLink software for PC**

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

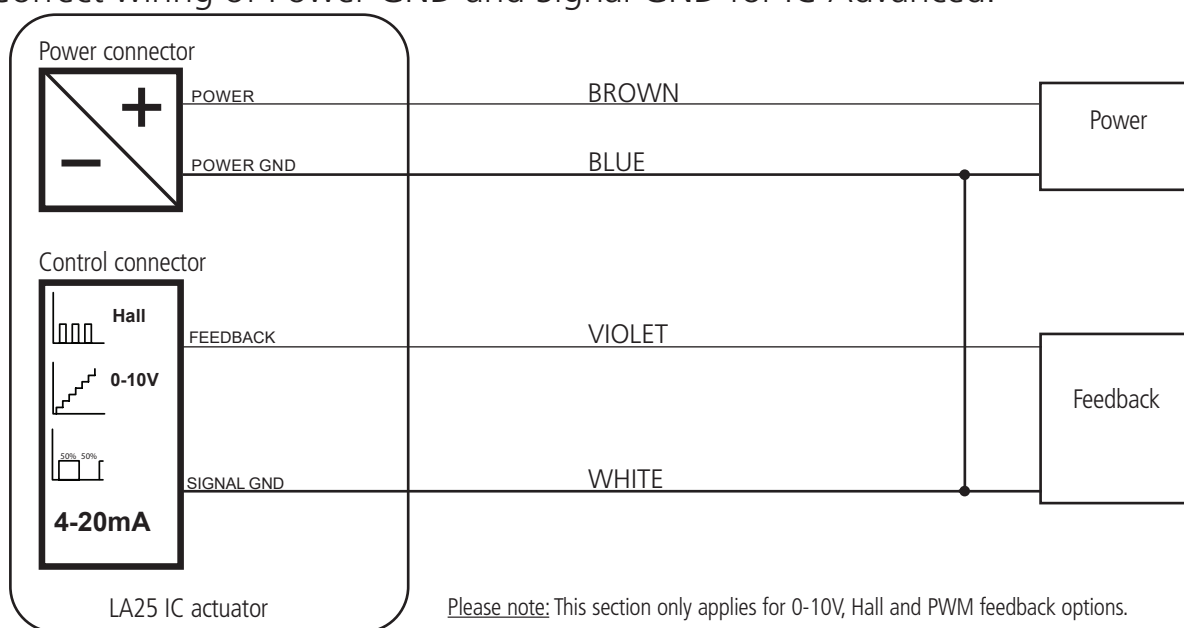
| Input/Output | Specification  | Comments   |
|--------------|--|--|
| Description  | Easy to use interface with integrated power electronics (H-bridge).<br>The actuator can also be equipped with electronic circuit that gives an absolute or relative feedback signal.<br>Actuators with "IC" cannot be operated with PWM (power supply).  | <br>H-Bridge  |
| Brown        | 12-24 VDC + (VCC)<br>Connect Brown to positive<br>12 V ± 20% - 5 A at max load<br>24 V ± 10% - 2.5 A at max load<br>12 V, current limit 8 A<br>24 V, current limit 5 A   | Note:<br>Do not change the power supply polarity on the brown and blue wires!<br><br>Power supply GND (-) is electrically connected to the housing   |
| Blue         | 12-24 VDC - (GND)<br>Connect Blue to negative  | Current limit levels can be adjusted through BusLink<br><br>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                                       |
| Red          | Extends the actuator   | The signal becomes active at:<br>> 67% of $V_{IN}$ = ON  |
| Black        | Retracts the actuator  | The signal becomes inactive at:<br>< 33% of $V_{IN}$ = OFF<br>Input current: 10 mA   |
| Violet       | Analogue feedback (0-10 V):<br>Configure any high/low combination between 0-10 V   | Ripple max. 200 mV<br>Transaction delay 20 ms<br>Linear feedback 0.5%<br>Max. current output. 1 mA   |
|              | Single Hall output (PNP)<br>Movement per Single Hall pulse:<br>LA25030 Actuator = 0.25 mm per pulse<br>LA25060 Actuator = 0.5 mm per pulse<br>LA25090 Actuator = 0.75 mm per pulse<br>LA25120 Actuator = 1.0 mm per pulse<br>LA25200 Actuator = 1.7 mm per pulse<br>Depending on load the frequency is 10-20 Hz<br>Pulse ON time is minimum 8 ms.OFF time between two ON pulses is minimum 8 ms.<br>Overvoltage on the motor can result in shorter pulses. | Output voltage min. $V_{IN}$ - 2 V Max.<br>current output: 12 mA<br>Max. 680 nF  |
|              | Digital output feedback PWM:<br>Configure any high/low combination between 0-100%  | Output voltage min. $V_{IN}$ - 2 V<br>Frequency: 75 Hz ± 10 Hz as standard, but this can be customised.<br>Duty cycle: Any low/high combination between 0 and 100 percent.<br>Open collector source current max. 12 mA |

| Input/Output          | Specification  | Comments   |
|-----------------------|--|--|
| Violet<br>(continued) | Analogue feedback (4-20 mA):<br>Configure any high/low combination between 4-20 mA | Tolerances +/- 0.2 mA<br>Transaction delay 20 ms<br>Linear feedback 0.5%<br>Output: Source<br>Serial resistance:<br>12 V max. 300 ohm<br>24 V max. 900 ohm |
|                       | All absolute value feedbacks (0-10V , PWM and 4-20 mA)                             | Standby power consumption:<br>12 V, 60 mA<br>24 V, 45 mA   |
| White                 | Signal GND   | For correct wiring of Power GND and Signal GND - please see figure below   |
| Green                 | Not to be connected  |  |
| Yellow                | Not to be connected  |  |



- 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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