# Actuator LA36

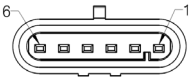
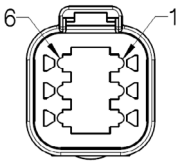
## With endstop reached and relative positioning - Dual Hall

# **Connection diagram**

## Connection diagram

36XXXXXXXH00XX-XXXXXXXXXXXXXXXX

| | | Power | AMP | Deutsch |
|---|---|---|---|---|
| M | BROWN | 2 |  |  |
| | BLUE | 1 | | |

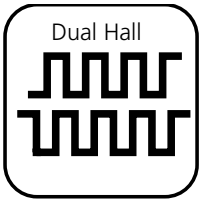
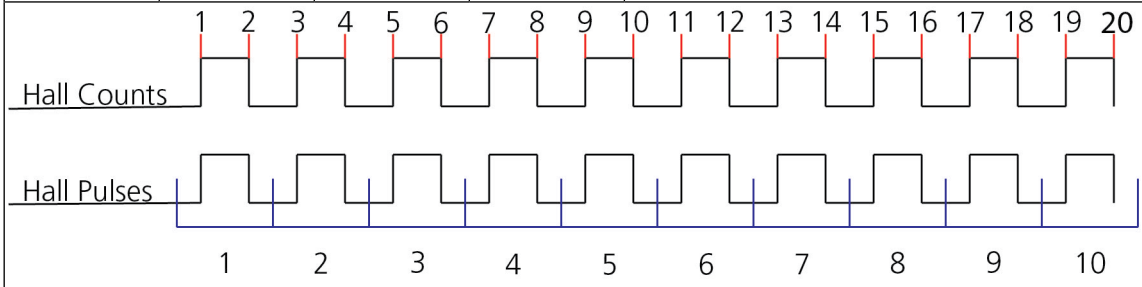
| | | Signal | AMP | Deutsch |
|---|---|---|---|---|
| Supply for feedback | + RED | 2 |  |  |
| Digital output | YELLOW | 5 | | |
| Digital output | GREEN | 6 | | |
| Digital output | VIOLET | 4 | | |
| Digital output | WHITE | 3 | | |
| Supply for feedback | - BLACK | 1 | | |

Dual Hall

A Hall pulse consists of two Hall counts.
A Hall count occurs every time the signal changes direction, either upwards or downwards.

If you wish to use the endstop reached, you will have to keep power on the Brown, Blue, Red and Black wires, otherwise the signal will be lost.

# I/O specifications

<table>
<tr><th>Input/Output</th><th colspan="4">Specification</th><th>Comments</th></tr>
<tr><td>Description</td><td colspan="4">The actuator can be equipped with Dual Hall that gives a relative positioning feedback signal when the actuator moves.</td><td> 
</td></tr>
<tr><td>Brown</td><td colspan="4" rowspan="2">12 V DC ± 20 %, max. 26 A depending on load<br>24 V DC ± 10 %, max. 13 A depending on load<br>36 V DC ± 10 %, max. 10 A depending on load<br>48 V DC ± 10 %, max. 8 A depending on load</td><td>To extend actuator:<br>Connect Brown to positive<br>To retract actuator:<br>Connect Brown to negative</td></tr>
<tr><td>Blue</td><td>To extend actuator:<br>Connect Blue to negative<br>To retract actuator:<br>Connect Blue to positive</td></tr>
<tr><td>Red</td><td colspan="4">Signal power supply (+) 12 - 36 V DC</td><td rowspan="2">Current consumption:<br>Max. 40 mA during run and pause<br>There will accure a higher inrush current</td></tr>
<tr><td>Black</td><td colspan="4">Signal power supply GND (-)</td></tr>
<tr><td rowspan="6">Green</td><td rowspan="3">Hall B</td><td colspan="3">Hall output (PNP)<br>Movement per each Hall count</td><td rowspan="6">The Hall sensor signals are generated by the turning of the actuator gearing.<br><br>These signals can be fed into a PLC (Programmable Logic Controller).<br>In the PLC the quadrature signals can be used to register the direction and position of the piston rod.<br>Output voltage min. $V_{IN}$ - 2 V<br>Current output 12 mA<br>Higher voltage on the motor can result in shorter pulses.</td></tr>
<tr><td>Gear</td><td>Pitch</td><td>mm/count</td></tr>
<tr><td>H</td><td>8 mm</td><td>0,221</td></tr>
<tr><td>H</td><td>12 mm</td><td>0,331</td></tr>
<tr><td rowspan="5">Hall A</td><td>H</td><td>16 mm</td><td>0,442</td></tr>
<tr><td>G</td><td>16 mm</td><td>0,508</td></tr>
<tr><td>F</td><td>16 mm</td><td>1,155</td></tr>
<tr><td>F</td><td>20 mm</td><td>1,445</td></tr>
<tr><td>Yellow</td><td colspan="5"> 
<br>A Hall pulse consists of two Hall counts.<br>A Hall count occurs every time the signal changes direction, either upwards or downwards.</td></tr>
</table>

| Input/Output | Specification | Comments |
|---|---|---|
| Violet | Endstop reached in | Output voltage min. VIN - 2 V<br>Source current max. 30 mA<br>NOT potential free |
| White | Endstop reached out | |