LT 28

Product
Tubular actuator 24 VDC with integrated brake, mechanical, overtorque limiter, 2 adjustable up & down limits by push buttons.

Application
Roller blinds and special softshades.

Maximum travel
40 revolutions of roller tube.

Adaptation to tube
① By identical to tube designed crown and drive wheel adapters.

Adaptation to support bracket ② ③ ④ By interchangeable by 2 self-tapping screws fixed motorbrackets or directly on blind side plates.

MOTORIZED BLIND

Mounting
Side mounting.

Limit: 1
• Down limit: adjustable by push button.
• Up limit: by push button.

Roller Blinds on ø 28 mm tube
• LT 28 : ≤ 5 kg
• Height : ≤ 3.5 m
max area < 7m²

Support Brackets with integrated Stoppers
• LT 28 : ≤ 5 kg
• Height : ≤ 3.5 m
max area < 7m²

Soft Blinds

Estimated maximum values, depending on type of fabrics, slats, bottom bar, hardware system. Consult Somfy for precise calculation.

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<table>
<thead>
<tr>
<th>TECHNICAL DATA</th>
<th>LT 28-B73 PIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal torque (Nm)</td>
<td>0.7</td>
</tr>
<tr>
<td>Nominal speed (r.p.m.)</td>
<td>27</td>
</tr>
<tr>
<td>No load speed (r.p.m.)</td>
<td>34</td>
</tr>
<tr>
<td>Maximum number of turns in one direction</td>
<td>40</td>
</tr>
<tr>
<td>Current consumption at nominal torque (mA)</td>
<td>380</td>
</tr>
<tr>
<td>Nominal supply voltage (VDC)</td>
<td>24</td>
</tr>
<tr>
<td>Minimum supply voltage (VDC)</td>
<td>20</td>
</tr>
<tr>
<td>Working temperature (°C)</td>
<td>-10 to +60°</td>
</tr>
<tr>
<td>Protection Index</td>
<td>IP44</td>
</tr>
<tr>
<td>Dielectric strength with a Safety Extra Low Voltage Standards</td>
<td>III</td>
</tr>
<tr>
<td>Minimum inside diameter of tube (mm)</td>
<td>26.6</td>
</tr>
<tr>
<td>Supply cable type (mm²)</td>
<td>2 x 0.24</td>
</tr>
<tr>
<td>Supply cable length (m)</td>
<td>2</td>
</tr>
<tr>
<td>Net Weight (g)</td>
<td>270</td>
</tr>
</tbody>
</table>

PATENTS PENDING

* for applications above 60°C please contact us

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2.1 ASSEMBLY INSTRUCTIONS

LT 28

1. PREPARING THE TUBE.
Cut the tube to the required length. Deburr the ends of the tube. Then clean the inside of the tube. Cut a slot/notch in the tube. Then fit the plug end (ref. KT02000) into the other end of the tube.

2. FITTING THE MOTOR INTO THE TUBE.
Fit the motor into the tube. Ensure that the slot/notch at the end of the tube fits into the raised key on the crown wheel. Indent a 3mm hole through the tube, 265mm from the tube end and secure the drive wheel with a 3 x 30 pop rivet. File the protruding pin to prevent damage to the carrying product.

3. MOUNTING THE MOTORISED TUBE.
- Fixing the brackets:
  Install the motor bracket on the same side as the power supply. Install the plug end bracket facing the motor bracket. Check that it is horizontal with a spirit leveller. Put the supports in place without tightening them.
- Fitting the tube:
  Fit the plug end shaft into the plug end bracket. Fit the motor to the motor bracket by sliding the pin of the motor into the support. Ensure that the tube is horizontal with a spirit leveller, then tighten the brackets.

4. RECOMMENDATIONS.
The LT28 motor is designed exclusively for interior window products. Please contact SOMFY for external applications. The LT28 motor must be powered by 12V DC or 24V DC (smooth), therefore, it is necessary to use a 240V/12V DC or 240V/24V DC transformer. Power supplies must provide a safe extra low voltage and be protected against short circuits. Power supplies must have rectification and filtering capabilities. Regulated or stabilized power supplies provide the best performance and reduce noise level.

Note:
- Use SOMFY power supplies and controllers to achieve the best performance.
- Do not connect two switches to the same motor.
2.1 ASSEMBLY INSTRUCTIONS

LT 28

CABLE SECTION OPTIONS.
The drop in voltage caused by travel of low voltage current through the wires must be calculated. When calculating the voltage drop, consider the length and the section of cable used.
The table on the right shows the cable length for the connection of a motor to a transformer of 12V/0.75A and 24V/0.38A. In a situation where one transformer is used for several motors, divide the length by the number of motors.

WIRING EXAMPLE.
A LT28 motor and an UPS 100 transformer with built in switch
After wiring, check that:
• the “UP” push button winds up the blind
• the “DOWN” push button lowers the blind
If this is not the case, exchange the white and white/grey wires of the switch.

SETTING THE LIMIT SWITCH.
Ensure the wall switch is in neutral position or “OFF”.
1. Fully depress both limit switch push buttons until they lock in automatically. Use the wall switch to operate and check that the system is working correctly, i.e. the up arrow on the switch corresponds to the winding up of the tube and vice versa. If this is not the case, reverse the cabling of the motor and test again.
2. Use the wall switch or test lead to adjust the blind to the desired “lower limit” position.
3. Once the desired position is achieved, release the DOWN limit switch push button.
4. & 5. Repeat the above process to set the upper limit.
6. Use the wall switch to check that the motor stops at the up and down positions just set.

If nothing works:

TROUBLESHOOTING.
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Maximum distance between the transformer and the motor:

<table>
<thead>
<tr>
<th>Cable 2 wires</th>
<th>Acceptable cable length per motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø 4.00 mm²</td>
<td>500 m</td>
</tr>
<tr>
<td>ø 2.50 mm²</td>
<td>380 m</td>
</tr>
<tr>
<td>ø 1.50 mm²</td>
<td>230 m</td>
</tr>
<tr>
<td>ø 0.75 mm²</td>
<td>90 m</td>
</tr>
<tr>
<td>ø 0.50 mm²</td>
<td>68 m</td>
</tr>
<tr>
<td></td>
<td>1000 m</td>
</tr>
<tr>
<td></td>
<td>760 m</td>
</tr>
<tr>
<td></td>
<td>460 m</td>
</tr>
<tr>
<td></td>
<td>180 m</td>
</tr>
<tr>
<td></td>
<td>140 m</td>
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</tbody>
</table>

Check the 12V DC or 24V DC voltage of the switch.
Check the wiring of the switch.
Check the wiring between the motor and the switch.
Check that the motor has not reached its limit in either direction by pressing the switch and one limit switch push button simultaneously.

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