



Rotation Stage

M102

Features

Hall-sensor controlled automatic zero-positioning

Robust design

Load on motor axis

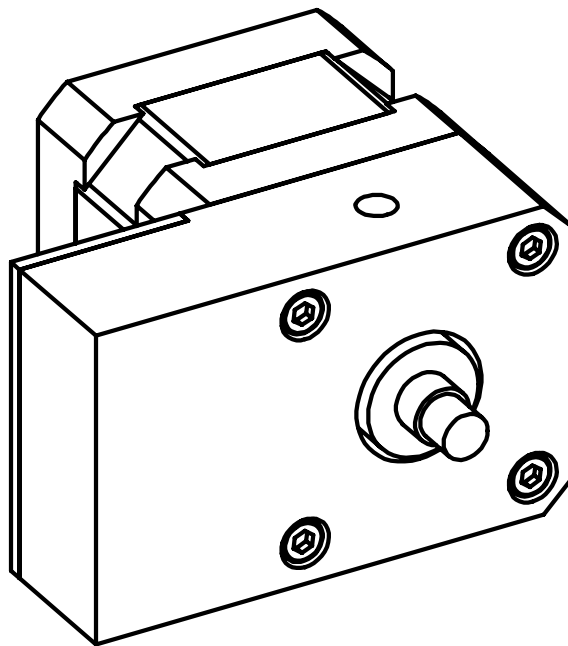
Applications

Changing optical filters

Neutral density filter positioning

Description

The LK-Instruments M102 is a robust rotation stage designed for either carrying optical elements or being used in custom applications. It can be mounted to the experimental setup in any orientation utilizing standard M6 screws, set screws, posts and post holders.



LK-Instruments
Welzheimer Str. 49
71554 Weissach im Tal
Germany
www.lk-instruments.com

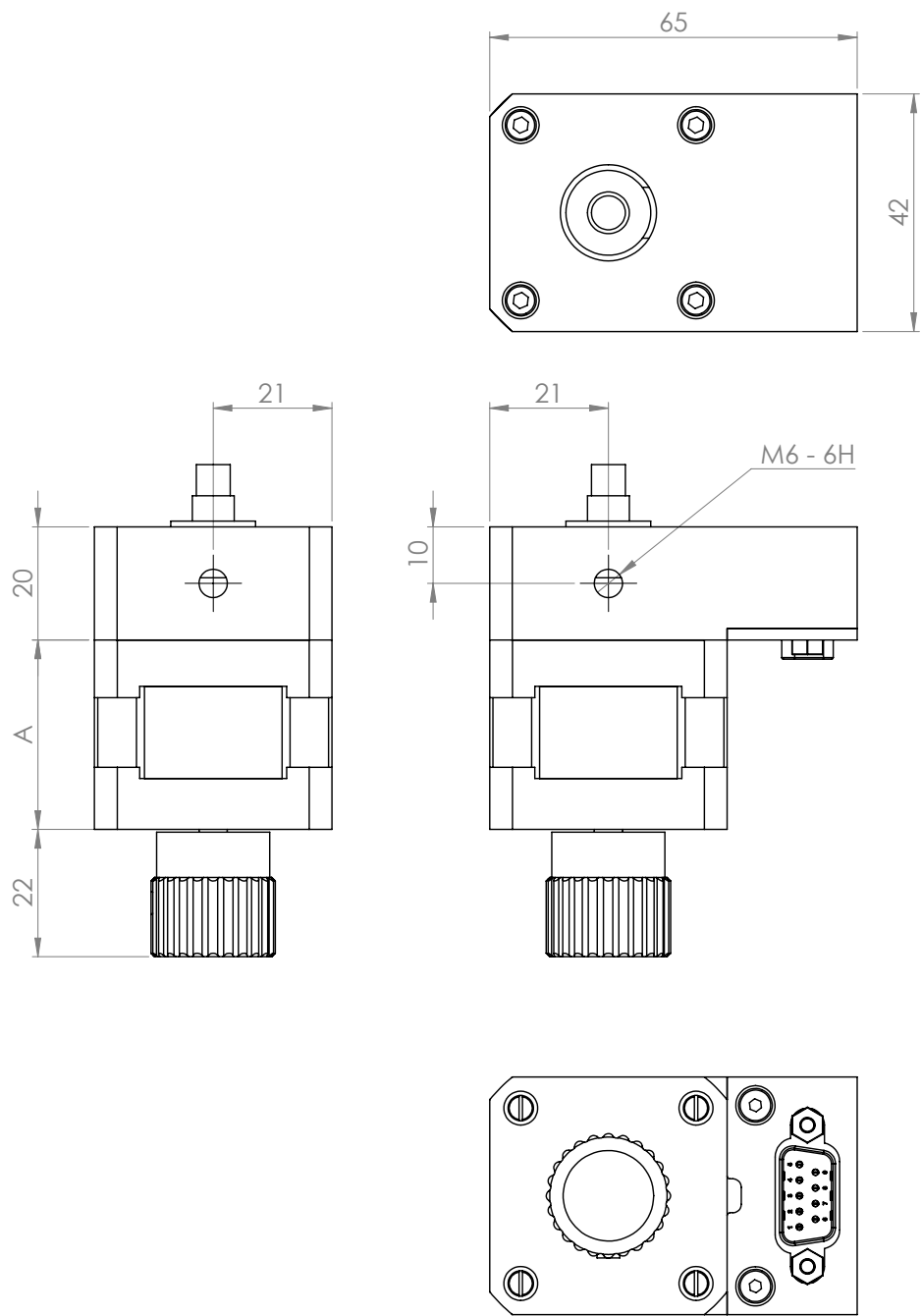
Specifications

$T_A = 25^\circ\text{C}$ and 50% RH unless otherwise noted.

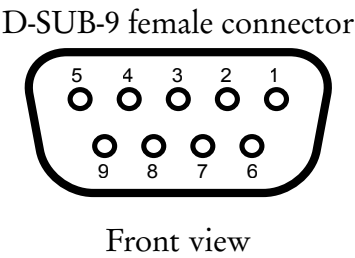
| Parameter | Conditions | M102A | | | M102B | | | Unit |
|---------------------|------------------------------|-------|-----|------|-------|--------|------|---------|
| | | Min | Typ | Max | Min | Typ | Max | |
| Current | | 0.1 | 1.3 | 1.33 | 0.1 | 1.65 | 1.68 | A/Phase |
| Holding torque | Microst. = 1, Curr. = Max | | 22 | | | 44 | | Ncm |
| Step angle | Microst. = 1 | | 0.9 | | | 0.9 | | deg |
| Step angle accuracy | | | 5 | | | 5 | | % |
| Backlash | | | - | | | - | | deg |
| Gear ratio | | | 1 | | | 1 | | |
| Velocity | Microst. = 1, 2 ms/step | | 450 | | | 450 | | deg/s |
| Load capacity | radial/axial | | | 20/7 | | | 20/7 | N |
| Weight | | | ? | | | ?+0.13 | | kg |
| Temperature range | | -10 | | 50 | -10 | | 50 | °C |

Outer Dimensions

All dimensions in millimeters.
With $A = 33.5$ mm for M102A and $A = 47$ mm for M102B.



Pin Configuration



| Pin | Function |
|--------|-----------|
| 1 | Phase B1 |
| 2 | Phase B2 |
| 3 | Phase A2 |
| 4 | Phase A1 |
| 5 | Ground |
| 6 | +5V |
| 7 | Zero sens |
| 8 | NC |
| 9 | NC |
| Shield | NC |

Ordering Information

| Model | Description |
|---------|--|
| M102A | 22 Ncm holding torque, with rotary knob |
| M102ANK | 22 Ncm holding torque, without rotary knob |
| M102B | 44 Ncm holding torque, with rotary knob |
| M102BNK | 44 Ncm holding torque, without rotary knob |