



# Rotation Stage

## M102

### Features

Hall-sensor controlled automatic zero-positioning

Robust design

Load on motor axis

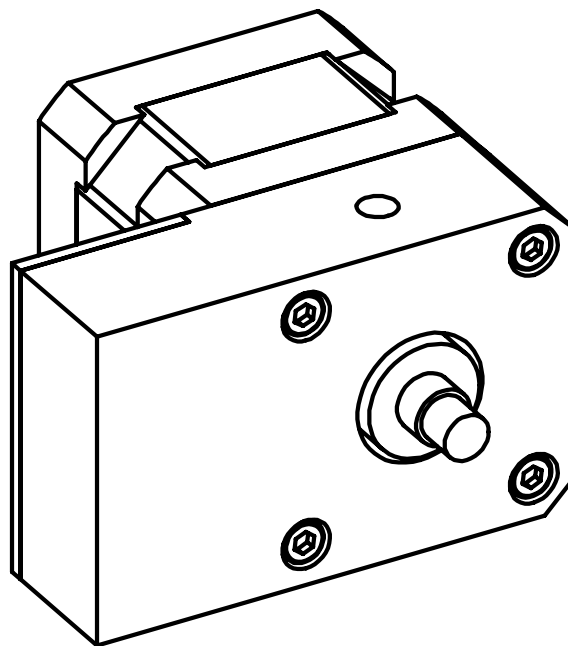
### Applications

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.



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## Specifications

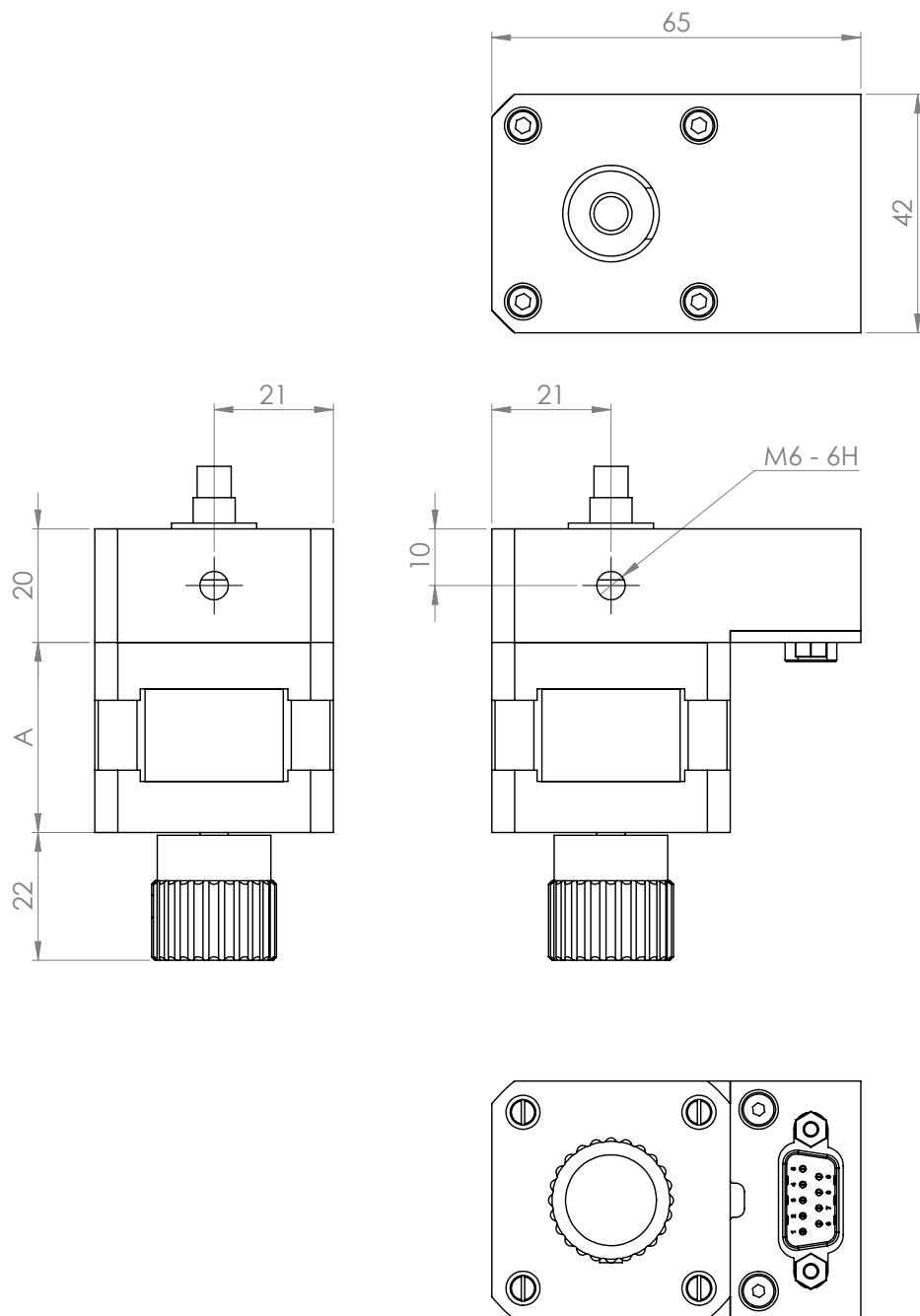
$T_A = 25^\circ\text{C}$  and 50% RH unless otherwise noted.

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			0.38			0.51		kg
Temperature range		-10		50	-10		50	$^\circ\text{C}$

## Outer Dimensions

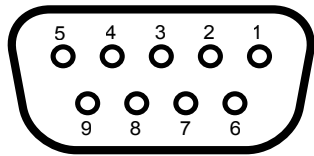
All dimensions in millimeters.

With  $A = 33.5$  mm for M102A and  $A = 47$  mm for M102B.



Pin Configuration

D-SUB-9 female connector



Front view

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