

## Fast Miniature Rotation Stage

WITH ULTRASONIC PIEZO MOTOR



### U-624

- Only 30 mm in side length
- Integrated position encoder
- High velocity  $>720^\circ/\text{s}$
- Unlimited rotation range

#### Small, precision-class rotation stage

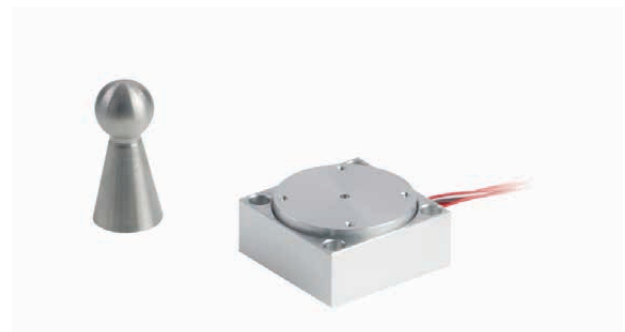
Integrated optical encoder for direct metrology.  
Unlimited rotation range. Reference point switch

#### PILine® ultrasonic piezo motor

The piezoceramic ring-shaped motor acts directly on the rotational platform. High velocity, holding torque 0.01 Nm

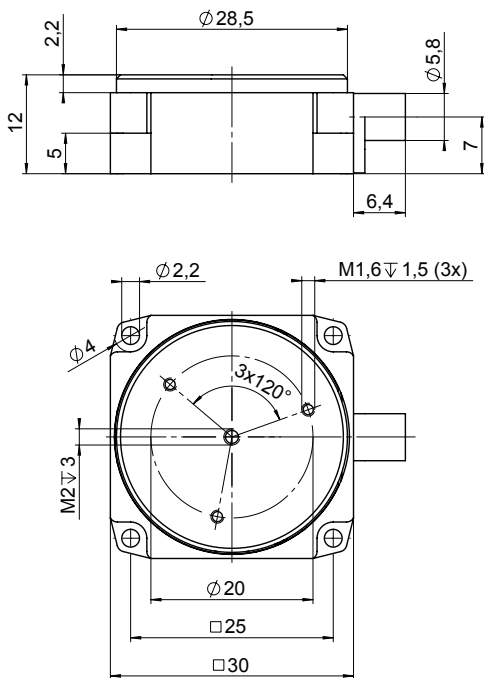
#### Fields of application

Sample handling and positioning in research and industry for installations limited in space. Vacuum version as option



Even smaller with 20 mm side length:  
Open-loop customized version of the U-624

Preliminary data	U-624.03
Active axes	$\Theta_z$
<b>Motion and positioning</b>	
Rotation range	No limit
Integrated sensor	Optical encoder, position metrology
Design resolution	52 $\mu\text{rad}$
Min. incremental motion	approx. 150 $\mu\text{rad}$
Bidirectional repeatability	<500 $\mu\text{rad}$
Velocity	>720°/s
<b>Mechanical properties</b>	
Load capacity / axial force	1 N
Holding force	0.01 Nm
Torque clockwise/counterclockwise ( $\Theta_z$ )	0.01 Nm
<b>Drive properties</b>	
Motor type	Piezoceramic ring-shaped motor
Reference point switch	Optical
<b>Miscellaneous</b>	
Dimensions	30 mm × 30 mm × 12 mm
Operating temperature range	-20 to 50 °C
Material	Aluminium
Cable length	1.5 m
Recommended controller/driver	C-867 PLine® Motion Controller



U-624, dimensions in mm