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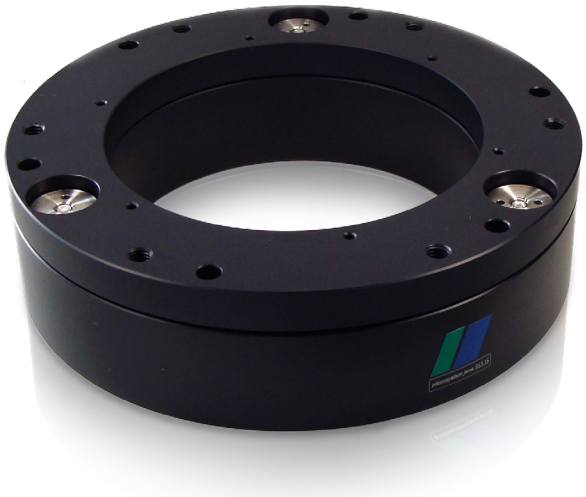
MIPOS 16

Lens Turret System



- ***16µm Adjustment Range (Open Loop)***
- ***High Stiffness for Lowest Settling Times and Lateral Run-out***
- ***Typ. Step Resolution 0.04 nm***
- ***Additional Load up to 3 kg***

The MIPOS is specifically designed for high precision positioning of optical systems with accuracy in the sub-nanometer range. The positioner is suitable for **4“ and 6“ objectives**. Other sizes are available on request.

Based on its unique design, which includes an **aperture up to 104 mm** and a **stage height down to 42 mm**, the MIPOS 16 offers technical specifications that match the requirements for white light interferometry. It can achieve a **focus range of up to 16 µm** and a **single-step resolution of less than 0.1 nm**, while operating at a **voltage range between -20 and 130 V**.

The MIPOS 16 is made for integration into metrology set-ups and devices. The robust drive is equipped with a high resolution piezo based actuating system. The internal mechanical pre-load design enables the MIPOS to operate in highly dynamic environments while reducing the settling time down to microseconds.

Variants:

- 2 size versions

Recommended Controller:

- NV200/D Net

Applications

- Metrology
- White light interferometry
- Probe alignment
- Phase shifting
- Surface scanning processes

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Technical Data

		Unit	MIPOS 16-158	MIPOS 16 M85
Part #		-	O-309-50	O-309-10
Axis		-	Z	
Motion in Open Loop (±10%)*		µm	16	
Capacitance (±20%)**		µF	5.4	
Integrated measurement system		-	none	
Resolution Open Loop***		nm	0.04	
Resonant Frequency	unloaded	Hz	823	
	with load 3000g		247	
Stiffness		N/µm	8.2	
max. Load		kg	3	
Rotational Error (full motion)		µrad	<8	
Voltage		V	-20...+130	
Connector		-	LEMO 0S.302	
Cable Length		m	1.0	
Material		-	Aluminum	
Dimensions (Ø x H)		mm	Ø158 x 42	Ø93 x 50
Central Aperture		mm	Ø104	Ø61
Mass		g	1240	300

* Typical value measured with 0.3 mV noise controller.

** Typical value for a small electrical field strength.

*** The resolution is only limited by the noise of the controller.

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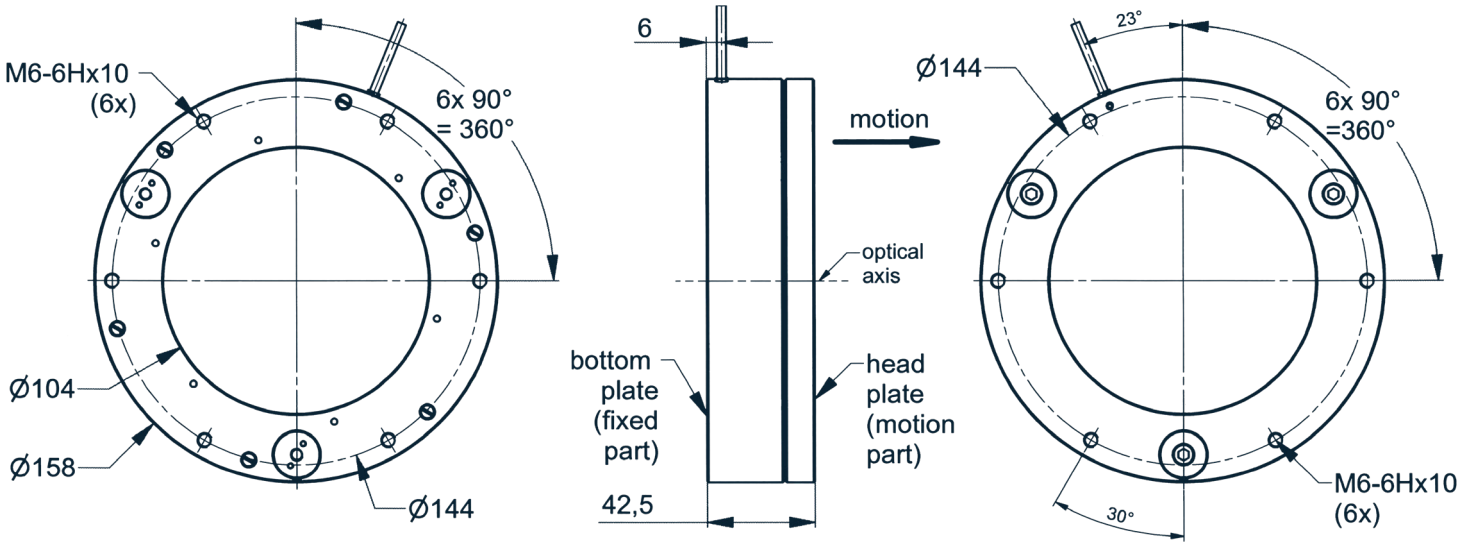
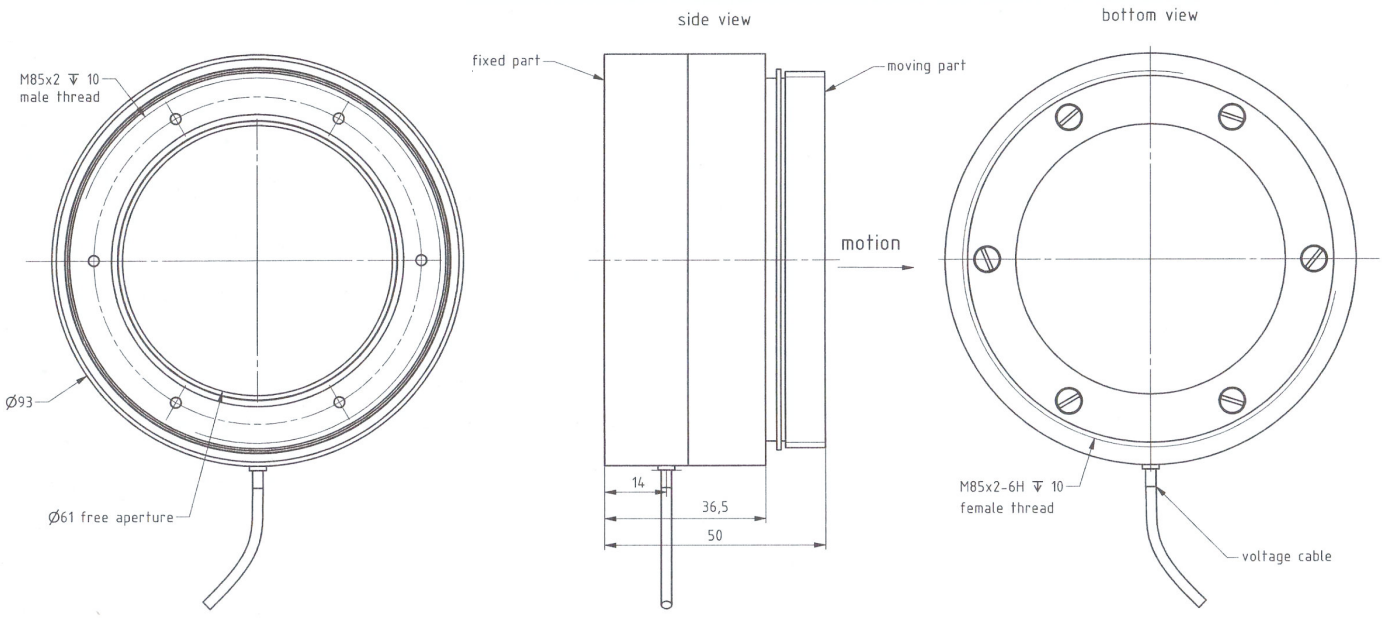
Part Drawing



top view *side view* *bottom view*



Dimensions given in mm.

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