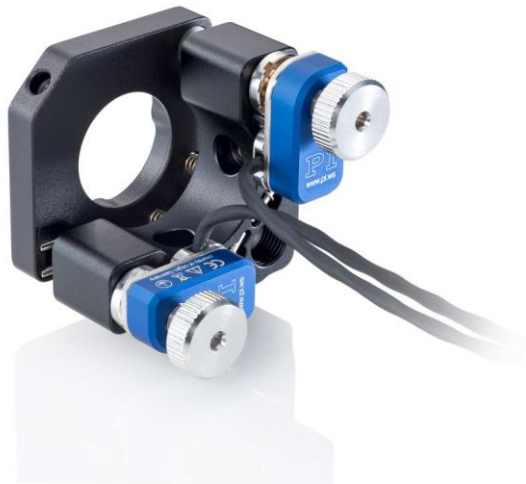


PiezoMike Miniature Linear Actuator

With Kinematic Mirror Mount



N-480

- High stability
- For optics with 0.5", 1" or 2" diameter
- Step size 0.3 or 0.5 μ rad
- Lifetime > 1.000.000.000 steps
- Vacuum-compatible versions to 10^{-6} hPa available

Kinematic mirror mounts with piezo motors

Linear screw-type actuator with piezo inertia drive for high-resolution and stable positioning.

Piezo motors

Compact, inexpensive inertia drive principle (stick-slip). At rest, the drive is self-locking, requires no current, and does not generate any heat. It holds the position with maximum force.

Alignment of optical components

Stable alignment of optical paths. Long-term positioning stability: High stability at target position, reliable startup even after longer downtimes. High holding force and resolution by combining piezo actuators with mechanical thread translation. Vacuum-compatible versions to 10^{-6} hPa available.

Specifications

Mechanical properties	N-480.205C0; N-480.205CV / N-480.205CU	N-480.210C0; N-480.210CV / N-480.210CU	N-480.210L0; N-480.210LV / N-480.210LU	N-480.210R0; N-480.210RV / N-480.210RU	Unit
Mechanical interface	0,5" optics, closed frame V: Vacuum to 10^{-6} hPa U: Vacuum to 10^{-9} hPa	1" optics, closed frame V: Vacuum to 10^{-6} hPa U: Vacuum to 10^{-9} hPa	1" optics, right-hand V: Vacuum to 10^{-6} hPa U: Vacuum to 10^{-9} hPa	1" optics, left-hand V: Vacuum to 10^{-6} hPa U: Vacuum to 10^{-9} hPa	
Holding force, power off	>100	>100	>100	>100	N
Feed force (active)	22	22	22	22	N

Motion and positioning	N-480.x05x, N-480.x10x	Unit
Active axis	θ_x, θ_y	
Tip/tilt angle	± 8	°
Step size	0.5	μrad

Mechanical properties	N-480.220C0; N-480.220CV / N-480.220CU	N-480.220L0; N-480.220LV / N-480.220LU	N-480.220R0; N-480.220RV / N-480.220RU	Unit
Mechanical interface	2" optics, closed frame V: Vacuum to 10^{-6} hPa U: Vacuum to 10^{-9} hPa	2" optics, right-hand V: Vacuum to 10^{-6} hPa U: Vacuum to 10^{-9} hPa	2" optics, left-hand V: Vacuum to 10^{-6} hPa U: Vacuum to 10^{-9} hPa	
Holding force, power off	>100	>100	>100	N
Feed force (active)	22	22	22	N

Motion and positioning	N-480.x20x	Unit
Active axis	θ_x, θ_y	
Tip/tilt angle	± 4	°
Step size	0.3	μrad

Drive properties	N-480	Unit
Drive type	Piezo inertia drive	
Motor voltage	80	V

Miscellaneous	N-480	Unit
Operating temperature	10 to 40	°C
Material	Screw: Stainless steel Holder: Aluminum	
Cable length	2	m
Connector	LEMO type 0S, 3-pin	
Recommended controller	E-872.401	

Ask about customized versions.

Drawings / Images



N-480.210L0, PiezoMike mirror holder, right-hand frame



N-480.210R0, PiezoMike mirror holder, left-hand frame



N-480.210RU, PiezoMike mirror holder for ultrahigh vacuum

Ordering Information

N-480.205C0

Kinematic mirror mount with PiezoMike drives, closed frame, for 1/2" optics

N-480.205CU

Kinematic mirror mount with PiezoMike drives, closed frame, for 1/2" optics, vacuum compatible to 10^{-9} hPa

N-480.205CV

Kinematic mirror mount with PiezoMike drives, closed frame, for 1/2" optics, vacuum compatible to 10^{-6} hPa

N-480.210C0

Kinematic mirror mount with PiezoMike drives, closed frame, for 1" optics

N-480.210CU

Kinematic mirror mount with PiezoMike drives, closed frame, for 1" optics, vacuum compatible to 10^{-9} hPa

N-480.210CV

Kinematic mirror mount with PiezoMike drives, closed frame, for 1" optics, vacuum compatible to 10^{-6} hPa

N-480.210L0

Kinematic mirror mount with PiezoMike drives, left-hand open edge, for 1" optics

N-480.210LU

Kinematic mirror mount with PiezoMike drives, left-hand open edge, for 1" optics, vacuum compatible to 10^{-9} hPa

N-480.210LV

Kinematic mirror mount with PiezoMike drives, left-hand open edge, for 1" optics, vacuum compatible to 10^{-6} hPa

N-480.210RO

Kinematic mirror mount with PiezoMike drives, right-hand open edge, for 1" optics

N-480.210RU

Kinematic mirror mount with PiezoMike drives, right-hand open edge, for 1" optics, vacuum compatible to 10^{-9} hPa

N-480.210RV

Kinematic mirror mount with PiezoMike drives, right-hand open edge, for 1" optics, vacuum compatible to 10^{-6} hPa

N-480.220CO

Kinematic mirror mount with PiezoMike drives, closed frame, for 2" optics

N-480.220CU

Kinematic mirror mount with PiezoMike drives, closed frame, for 2" optics, vacuum compatible to 10^{-9} hPa

N-480.220CV

Kinematic mirror mount with PiezoMike drives, closed frame, for 2" optics, vacuum compatible to 10^{-6} hPa

N-480.220LO

Kinematic mirror mount with PiezoMike drives, left-hand open edge, for 2" optics

N-480.220LU

Kinematic mirror mount with PiezoMike drives, left-hand open edge, for 2" optics, vacuum compatible to 10^{-9} hPa

N-480.220LV

Kinematic mirror mount with PiezoMike drives, left-hand open edge, for 2" optics, vacuum compatible to 10^{-6} hPa

N-480.220RO

Kinematic mirror mount with PiezoMike drives, right-hand open edge, for 2" optics

N-480.220RU

Kinematic mirror mount with PiezoMike drives, right-hand open edge, for 2" optics, vacuum compatible to 10^{-9} hPa

N-480.220RV

Kinematic mirror mount with PiezoMike drives, right-hand open edge, for 2" optics, vacuum compatible to 10^{-6} hPa

Accessories**N-400.A02**

Extension cable, LEMO connector 3-pin to LEMO connector 3-pin, 2 m

N-400.A05

Extension cable, LEMO connector 3-pin to LEMO connector 3-pin, 5 m

N-400.A08

Extension cable, LEMO connector 3-pin to LEMO connector 3-pin, 8 m

N-400.A12

Extension cable, LEMO connector 3-pin to LEMO connector 3-pin, 12 m

N-400.ALM

Adapter, LEMO 3-pin to Mini DIN

N-400.AML

Adapter, Mini DIN to LEMO 3-pin