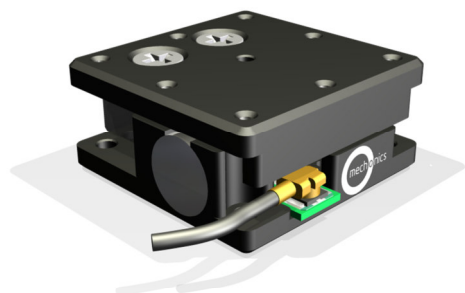


## MS15

# Ultra small Miniature Translation Stages with piezo electric inertial drive



### Specifications

- Piezo driven step motor with low hysteresis
- holds reached position without current
- step width about 10 nm (depends on controller)
- velocity up to 1.5 mm/s (depends on controller)
- travel ranges 3.5 mm and 10 mm
- xy or xyz combinations
- CNC-machined aluminium body
- precision ball bearing guides
- no limit switches necessary
- vacuum preparation optionally
- customized designs possible
- driven by hand-held CN30 (CN.030.0003) or USB controller C30 (CU.030.0003) or USB controller CF30 (CF.030.0003)
- connection cable CK.015.0001 (2pin Hirose-micro-axial plug to 2pin MMCX socket female) recommended

### Application Examples

- Micro-/Nano Technology
- Bio Technology
- Microscopy
- Quality Control
- Metrology
- R & D

### Technical Data

Travel:	3.5 and 10 mm
Max. speed:	1.5 mm/s (depends on controller)
Mass:	8 g or 15 g

### Load characteristics

Max. load	
$M_x, M_y, M_z$	0.2 Nm
$F_x$ (blocking force)	1.5 (2) N
$F_y, F_z$	20 N

### Resolution (calculated)

Single step	~ 600 nm
1/16-step	~ 30 nm
(with controller CU 30)	
1/64-step	~ 10 nm
(with controller CF 30)	
Half step	~ 300 nm
Double step	~ 1200 nm
(with controller CN 30)	

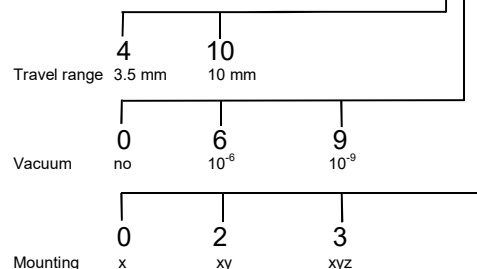
### Guidance accuracy (without load)

Yaw angle	< 20 arc sec
Pitch angle	< 60 arc sec
Vertical deviation	< 1 $\mu$ m
Lateral deviation	< 2 $\mu$ m

### Miniature Translation Stage MS15

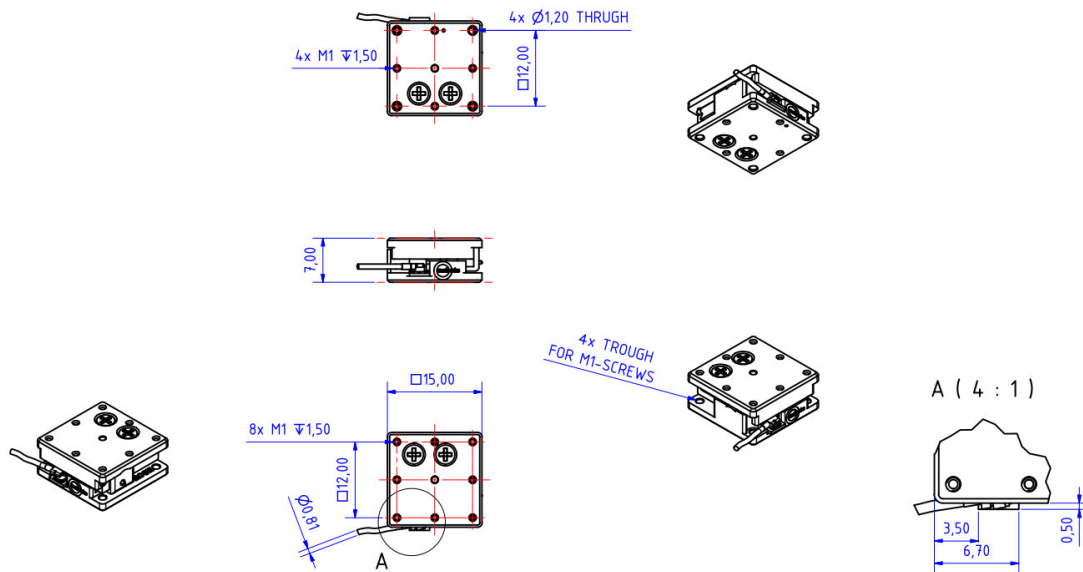
Part no.

MS.015.0000

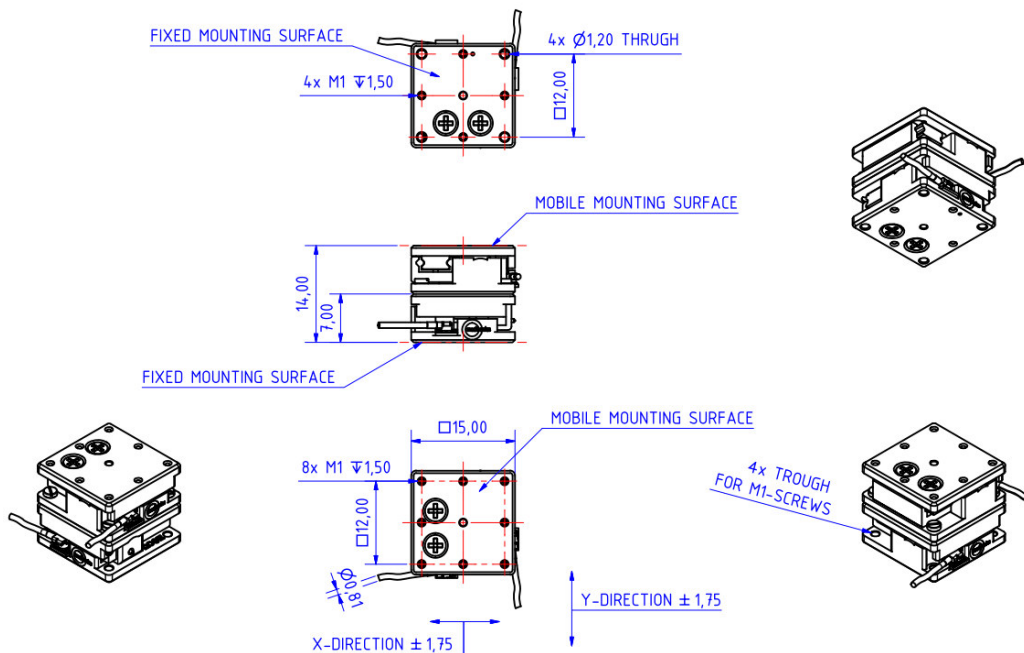


## Series MS

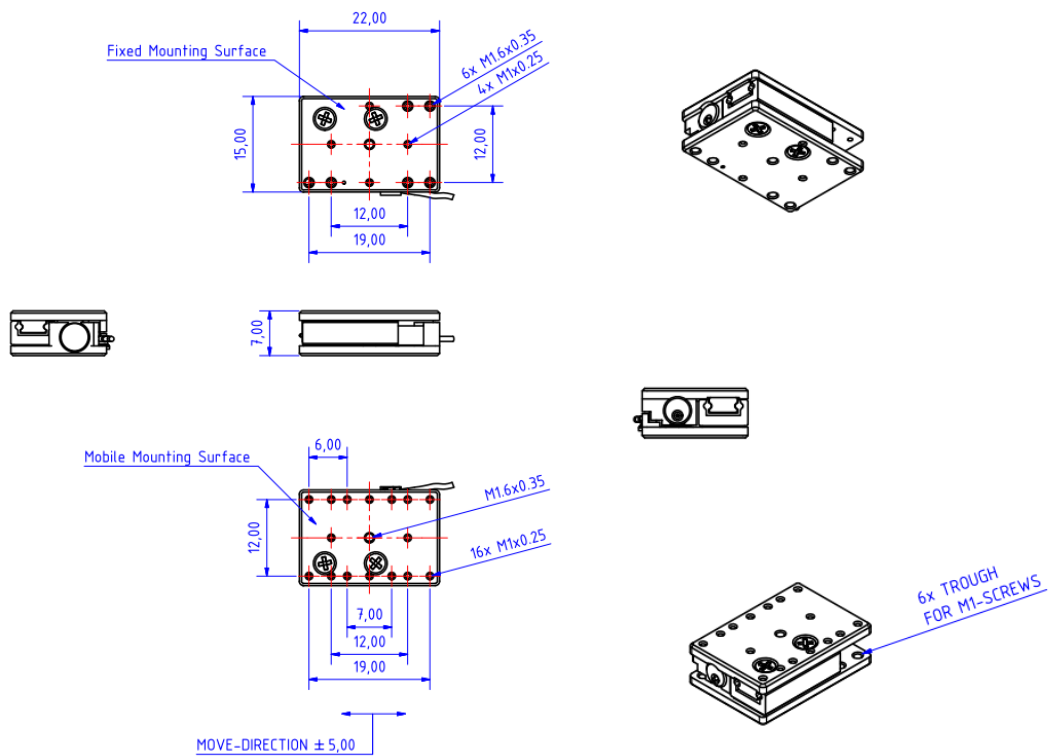
Drawings for single stage (3.5 mm travel range):



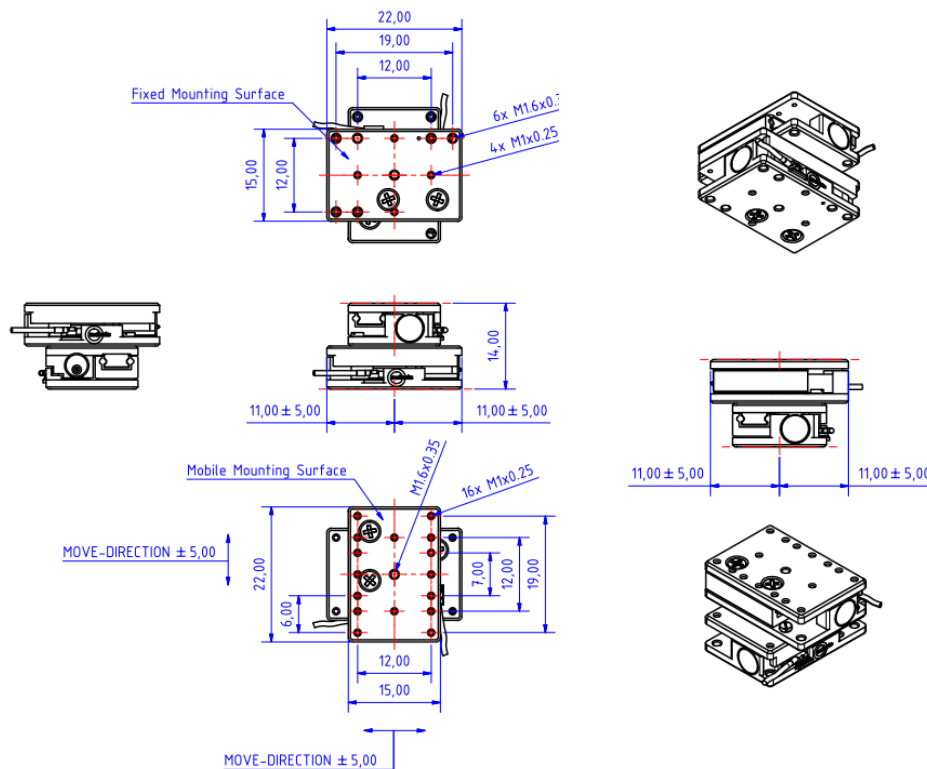
Drawings for xy mounting (3.5 mm travel range):



Drawings for single stage (10 mm travel range):

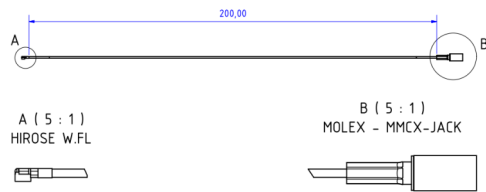


Drawings for xy mounting (10 mm travel range):

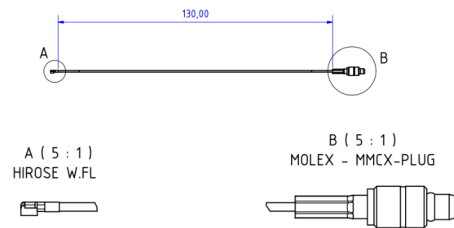


**Connection cables:**

CK.015.00x1:



CK.015.00x2:

**Connection cable for  
MS15 stage****Part no.****CK.015.00□□**

	0	6	9
Vacuum	no	$10^{-6}$	$10^{-9}$
Connector	1	2	3
	female 20 cm	male 13 cm	customized please specify