

**ML 17****Miniature Translation Stages for Ultra Low Temperatures with piezo electric inertial drive****Technical Data**

Travel:	5 mm
Max. speed:	1.0 mm/s (with controller CU 17 LT)
Electrical connection:	2 solder points
Mass:	25 g

**Load characteristics**

Max. load	
$M_x$	3.0 Ncm
$M_y, M_z$	1.5 Ncm
$F_x$ (blocking force)	1.0 (1.5) N
$F_y, F_z$	1.0 N

**Resolution (calculated)**

Single step	
with 22 V (at 4.2 K)	~ 200 nm
with 42 V (at 4.2 K)	~ 500 nm
with 82 V (at 4.2 K)	~ 1 $\mu$ m

(with controller CU 17 LT)

**Guidance accuracy (without load)**

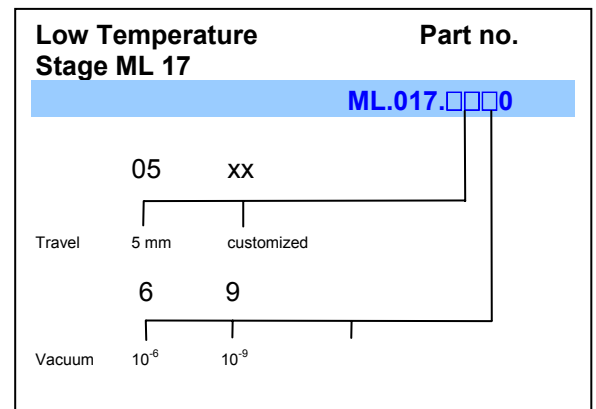
For 5 mm travel:	
Vertical deviation	< 2 $\mu$ m
Lateral deviation	< 2 $\mu$ m

**Specifications**

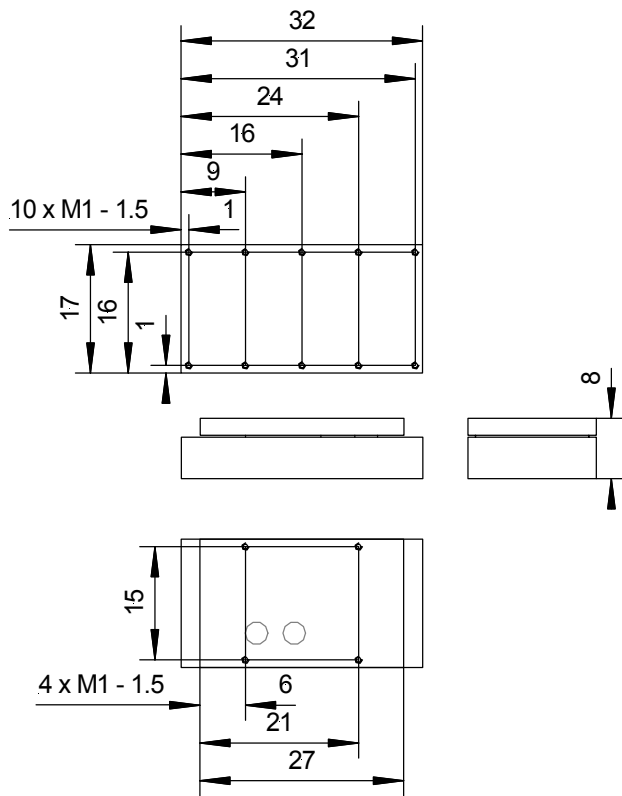
- Piezo driven step motor with low hysteresis
- holds reached position without current
- for use at ultra low temperatures up to 4 K
- step width about 200 nm
- positioning accuracy better than 1  $\mu$ m
- velocity up to 1.0 mm/s
- travels up to 5 mm
- xy or xyz combinations possible  
(L-bracket ML.017.9001 for xyz needed)
- CNC-machined steel body
- precision linear bearings
- no limit switches necessary
- vacuum preparation optionally
- customized designs possible
- driven by USB controller (CU.017.0003)

**Application Examples**

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



**Dimensions of the ML 17**



**xyz – combination of ML 17**

