

# DODECON

nanotechnology GmbH

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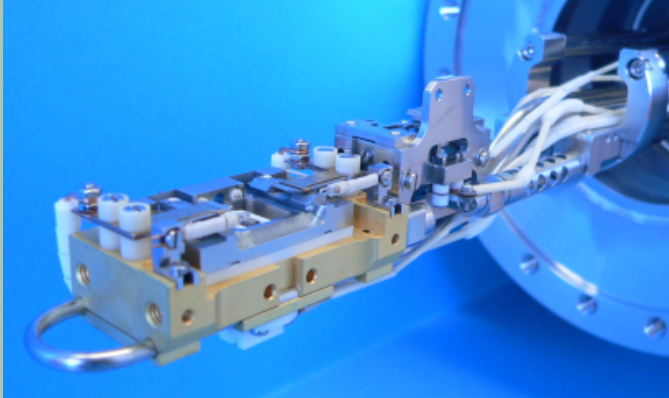
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## Universal Manipulator Sample Stage



**Power feedthrough contacts and temperature readouts**

**Compatible with several commercial sample holders**

**Independent heating and temperature measurement stage**

**Sample cooling**

**Optional tip-preparation stage**

Compact manipulator sample stage for different types of sample holders. Besides delivering the corresponding contacts and temperature readouts for sample holders with integrated sample heating and T-measurement (e.g. Dodecon i-Sample Holder), it is endowed with an independent heating stage and temperature measurement. This allows to heat and control the temperature also of simple sample holders. The Universal Manipulator Sample Stage is compatible with some of the most widely used commercial sample holders for Scanning Probe Microscopy (information on request).

### Sample Holders

- Sample stage design compatible with various sample transfer mechanisms (through wobble stick, transfer rod, mechanical hand, ...).
- Power feedthrough via spring contacts (for sample holders with integrated heating as the Dodecon i-Sample Holder).
- Temperature readout via flexible thermocouple contacts (for sample holders with integrated temperature measurement as the Dodecon i-Sample Holder).

### Independent heating and temperature measurement (optional)

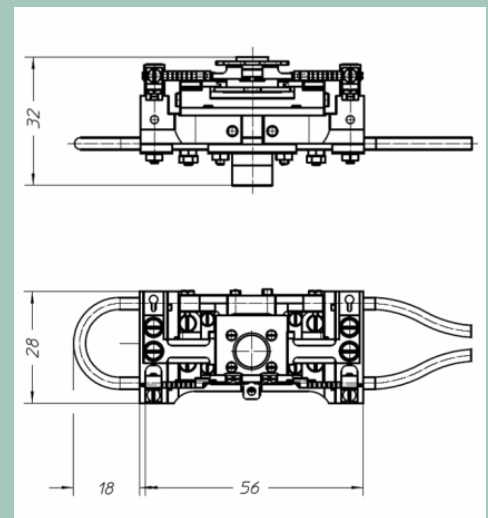
- An optional heating module that can be operated both in the e-bombardment and in the radiative modus allows the heating of standard sample holders.
- An optional thermocouple (K-type standard, others on request) with spring contacts allows to measure the temperature also of standard sample holders.

### Sample cooling

- Different interfaces can be chosen in order to connect the manipulator head to several commercial cryostats (as the Dodecon LN2 Cryostat).
- The copper block ensures optimal thermal conductivity from the cryostat, best contact with the sample holder and a rapid cooling.

### Tip preparation stage (optional)

- Optional module for holding exchangeable tip holders.
- Might be used for preparing Scanning Tunneling Microscopy tips through ion bombardment.



### Technical data

thermocouple	type K (5-1500 K) others on request
standard sample heating	up to 500 K (radiative) up to 1200 K (e-beam)
copper body block cooling	down to 97 K (LN2)* down to 40 K (LHe)

\* with Dodecon LN2 Cryostat