

Features

- ▶ UHV compatible construction
- ▶ Three axis (XYZ)
- ▶ $200\ \mu\text{m} \times 200\ \mu\text{m} \times 200\ \mu\text{m}$ motion
- ▶ Bakeable to 100°C
- ▶ Titanium and 316SS construction
- ▶ **pico**™ sensor technology
- ▶ Closed loop control

Typical Applications

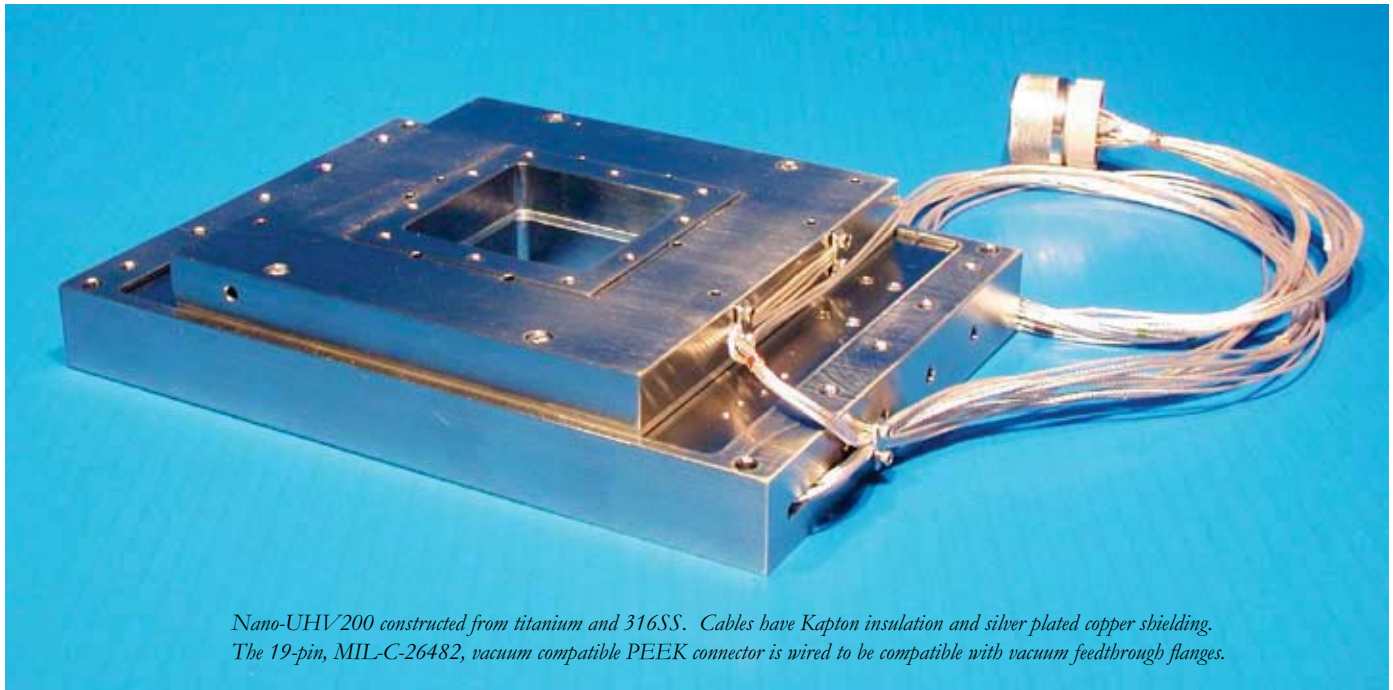
- ▶ X-ray, VUV, and optical microscopy
- ▶ Surface metrology
- ▶ UHV atomic scale microscopy

02.583.2511 פז"מ-טק (1991) בע"מ
<Michael.Storch@pazam-tech.co.il>

LabVIEW Compatible USB Interfaces



Examples, tutorial, and
Nano-Route™ 3D supplied
with Nano-Drive™ USB
interfaces.



Nano-UHV200 constructed from titanium and 316SS. Cables have Kapton insulation and silver plated copper shielding. The 19-pin, MIL-C-26482, vacuum compatible PEEK connector is wired to be compatible with vacuum feedthrough flanges.

Product Description

The Nano-UHV200 is a three axis UHV compatible nanopositioning system constructed from titanium and 316 stainless steel. Made entirely from non-magnetic UHV compatible materials, the Nano-UHV200 is bakeable to 100°C for vacuum applications in the 10^{-10} Torr range. A 2 inch x 2 inch center aperture provides an optical pathway or access for sample holders. Internal position sensors utilizing proprietary **pico**™

technology provide absolute, repeatable position measurement with picometer accuracy. Cable lengths and connectors are customized for the actual installation. Connector wiring is compatible with MDC electrical feedthrough flanges - compatibility with other types of flanges may be requested.

02.583.2511 פז"מ-טק (1991) בע"מ
<Michael.Storch@pazam-tech.co.il>

MCL

phone: 608-298-0855

fax: 608-298-9525

Technical Specifications

Range of motion (X)	200 μm
Range of motion (Y)	200 μm
Range of motion (Z)	200 μm
Resolution (XYZ).....	0.4 nm
Resonant Frequency (X)	300 Hz $\pm 20\%$
Resonant Frequency (Y)	150 Hz $\pm 20\%$
Resonant Frequency (Z)	175 Hz $\pm 20\%$
Stiffness	2 N/ μm
$\theta_{\text{roll}}, \theta_{\text{pitch}}$ (typical)	$\leq 1 \mu\text{rad}$
θ_{yaw} (typical)	$\leq 3 \mu\text{rad}$
Recommended max. load (horizontal)*	0.5 kg
Recommended max. load (vertical)*	0.2 kg
Body Material	Titanium and 316 SS
Controller	Nano-Drive™

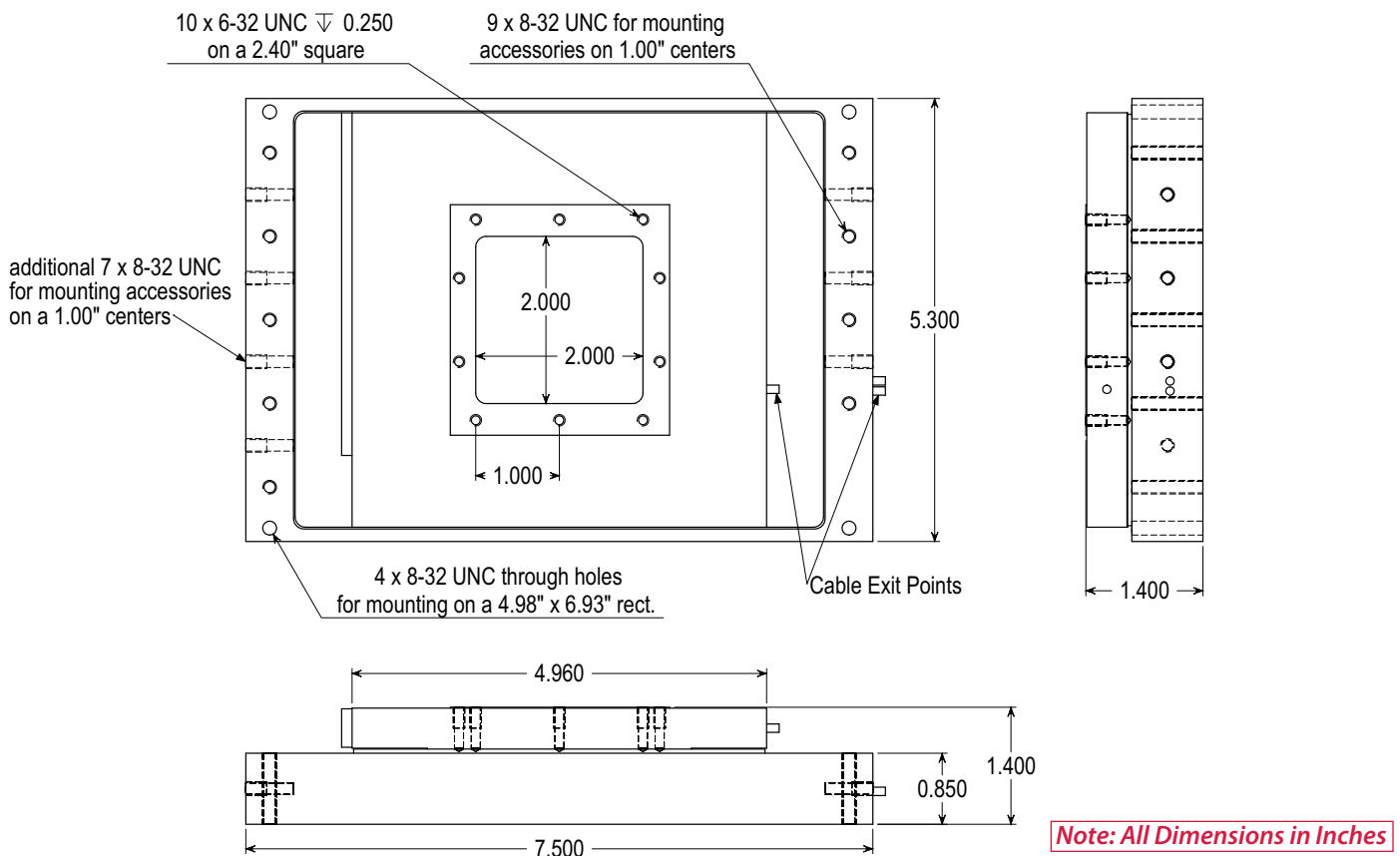
* Larger load requirements should be discussed with our engineering staff.

פז"מ-טק (1991) בע"מ

מייקל סטורץ | 02.583.2511

PaZaM-tech@pobox.com

www.PaZaM-tech.co.il



02.583.2511 פז"מ-טק (1991) בע"מ
[<Michael.Storch@pazam-tech.co.il>](mailto:Michael.Storch@pazam-tech.co.il)

MCL

phone: 608-298-0855

fax: 608-298-9525