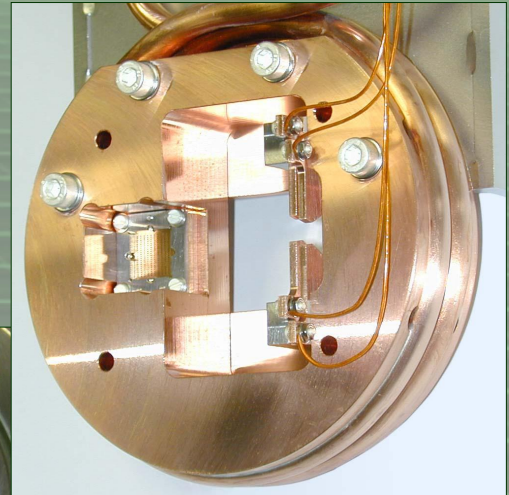
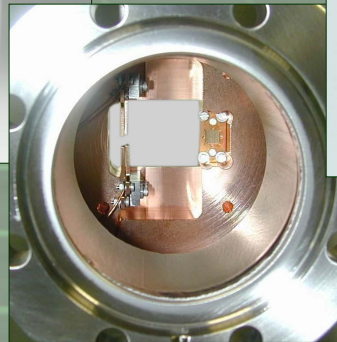
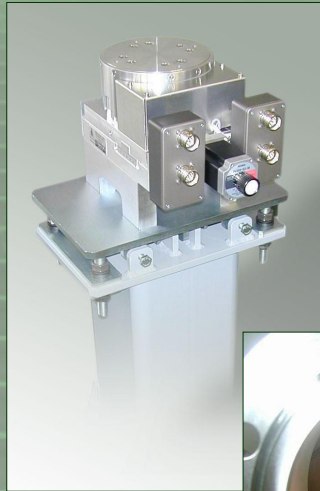


Motorised H-, V- Stage 10 / 10 Column , LCAD and Cables



The well-known Beam Position Monitor (BPM)- inserts, described in our datasheets, are preferably to be installed into a complete BPM-unit.

Complete BPM-unit consist of

- the BPM-chamber
- the motorised H- V – Stage and
- the under frame (column).

The motorised H-V-Stage was developed by FMB.

The unit is able, to adjust the complete pre-set BPM into its accurate measurement position within the beam line. Especially the high precision and compactness of the X-Z-stage are remarkable. If required an additional encoder (Manufacturer: AMO, Austria) can be installed in every direction (inside of the stage). As an additional option FMB offers implementation of another special types of encoder (for example: SLS/PSI). Furthermore, the manual operation of the stage is possible. Necessary mechanical limitations are installed.

For a complete package BPM we provide as an under frame a massive standard column, which we can fill with sand, too. It is possible to insulate the column against variations in temperature. Customers space conditions can be considered. In this case, the under frame will be designed accordingly.

For the analysis of the detected signals we provide the suitable electronic device LCAD 4 (four channel Low Current Asymmetry Detector). The Low Current / Voltage- Converter LCAD 4 is a useful instrument for the simultaneous determination of the four independent photocurrents between 1nA and 1mA. The beam position can be precisely obtained from the asymmetry of the measured photocurrents. The generated currents on the blades flow via double-screened measuring cable into the 4 channels of the LCAD 4, where they are converted into proportional voltages. All 4 measurement circuits are closed to the earth potential via a switchable BIAS- voltage (between +/-280 V - included in this device).

The manufacturer of the LCAD 4 is Messrs. GMS Frank Optic Products GmbH, Berlin. Delivery also includes the special double-screened measurement cable (length about 20 meters).

FMB GmbH

FMB Feinwerk- und Meßtechnik GmbH
Friedrich Wöhler Strasse 2
D - 12489 Berlin
Germany

Phone : +49 (0) 30 67 77 30 - 0
Fax : +49 (0) 30 67 77 30 - 40
E-mail : info@fmb-berlin.de
www.fmb-berlin.de



Motorised H-, V- Stage 10 / 10 Column , LCAD and Cables

Technical Data.

H-, V- Stage10/10

Length over all	≈ 354.4 mm
Width over all	≈ 195 mm
Height over all	≈ 215.5 mm ... 225.5 mm
Stroke Y (horz.)	10 mm
Stroke Z (vert.)	10 mm
Repeat accuracy with Encoder (option)	± 0,001 mm
Repeat accuracy with limit switch	± 0,01 mm
Threaded spindle:	
- Dimension	M12x1
- Normal backlash	0,02 mm
- Pitch error	0,003 mm...0,008 mm

Stepper motor

Company	ORIENTAL
Type	High-torque PK-type
No.	PK268-E2.0B
Holding Torque	1.35 Nm
Current per Phase	2 A
Voltage	4.5 VDC
Resitance per Phase	2.25 Ω
Angle per fullstep	1.8°
Repeat accuracy with Encoder(optional)	± 0,001mm
Step mode	Full / half / micro
Connection motor	Connei socket 9 pin
Connection limit switch	Connei socket 12 pin

Encoder (option)

Company	AMO
Type	PMK-02 with 1024 interpolation
Dissolution	1/1024 mm
Signal	TTL RS-422
Current	200 mA
Voltage	5 VDC ±5%
Connection	Connei plug 12 pin

FMB GmbH

FMB Feinwerk- und Meßtechnik GmbH
Friedrich Wöhler Strasse 2
D - 12489 Berlin
Germany

Phone : +49 (0) 30 67 77 30 - 0
Fax : +49 (0) 30 67 77 30 - 40
E-mail : info@fmb-berlin.de
www.fmb-berlin.de