

## Endstation Beam Position Monitor

Bruker ASC offers an in-situ High Vacuum (HV) Beam Position Monitors (BPM) based on the detection of x-ray back fluorescence from a metal foil using a simple quadrant photodiode array. The BPM's are designed to be used as in-situ permanent beam position monitors during standard operation of the endstation.



### Overall Characteristics

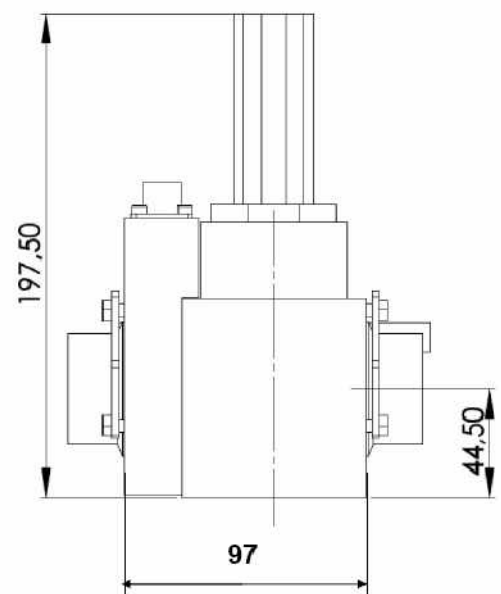
- Four PIN diodes for photocurrent measurement
- Suited for beam sizes up to a few millimetres
- Pneumatic actuated foil exchanger which allows the use of two different foils
- Designed to meet high vacuum standards

### User Friendliness

- Small dimensions
- Standard small flange connection (DN 40 KF)
- Easy integration into each endstation; flanges can easily be connected to other components like slits or bellows
- Easy exchange of scattering foil
- Standard current feedthrough
- Ready to use with any current amplifier

### Technical data:

Energy range	5 keV to 25 keV (depends on scattering foil)	Typical:
Resolution of changes in beam position (hor. and vert.):	< 5 $\mu\text{m}$	
Foil size:	diameter 15mm (pre-clamped foils on rings)	
Free beam path:	10 mm x 10 mm	
Diodes:	4 x UDT S100V; 10.5 x 11mm	
Electrical connections	Amphenol plug & socket	
Connecting flanges:	2 x DN 40 KF	
Housing material:	Aluminium	
Operating pressure:	$10^3 - 10^{-7}$ mbar	
Pneumatic supply pressure:	5 - 7 bar	
Mounting:	4 x M5 threaded holes in base plate	



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