

## Quartz Microbalance

The MTM-10 Quartz Microbalance is a compact, easy to use UHV compatible deposition control system. It's a high resolution instrument with digital display and analog output for in-situ measurement and documentation of for thin film growth. The controller can store the densities of 2 materials and 2 tooling factors.

The sensor head is mounted on a CF-40 (2.75"OD) rotatable Conflat flange. A standard 6 MHz, gold coated, AT-cut quartz is included. The standard sensor head has a length of 250mm from the knife edge of the flange to the centre of the quartz. This cooling tubes are the support of the sensor head. These tubes are made from special annealed stainless steel to ease the bending of the tubes to optimise the position of the sensor head to the sample to be deposited.



### Specification

#### MTM-10 Controller:

- Display: 4 Digits
- Measurement Range: -99,9 nm to + 999,9 nm
- Resolution: better than 0,1 nm (for Al)
- Measurement frequency: 6 MHz
- Update Rate: 10/sec
- Crystal Check: 0,0 to 999,0 kHz
- Density: 0,50 to 30,00 g/cm<sup>3</sup>
- Tooling Factor: 0,25 to 8,00
- Temperature stability: < 0,01 nm/5 min
- Storage of 2 Material (Density and Tooling Factor)

#### UHV Sensor Head:

- Cooling: integrated watercooling
- Flange: CF40 (2.75"OD) rotatable
- Feedthroughs: integrated on CF-40 flange
- Connections: side end
- Sensor Length: 250mm centre quartz to knife edge (other length on request)
- Head dimensions: dia Ø25mm, height 12mm
- Min. bending radius: 25mm

