QPM60
Quartz Process Monitor

EDFelectronics

QPM60 – Quartz Process Monitor

The QPM60 multi channel thin film monitor is used to measure rate and thickness in thin film deposition processes. The touch screen display allows for intuitive operation and provides time charts for detailed process control.

Two sensor inputs are standard and four additional sensor inputs are optional with all of them featuring a high resolution measurement of *0.01 Hz* at up to *10 Hz* sampling rate.

Stability and control

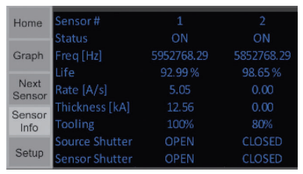
Six analog outputs allow rate and thickness recording or can be assigned to control manual power with any deposition units.

Sensor inputs can be assigned to different materials, configured for dual sensors or averaged using individual weights. Four relay outputs allow the **QPM60** to control source or sensor shutters, trigger time and thickness setpoints, and signal crystal failure. Digital inputs allow external signals to start/stop the layer and zero readings.

QM20- External Oscillator

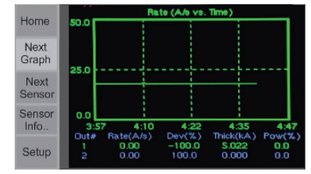
Features and benefits

- 2 high resolution measurements channels; optional up to 6 channels
- 4.3" touch screen graphical display
- Rate / thickness / power vs. time charts*1
- 6 programmable analog outputs for rate / thickness recording or power control
- 4 digital inputs (5V); 4 relay outputs
- D / A and RS232 interface compatibility to QM20
- User interface: RS232 and Ethernet
- Front panel USB port for storage and firmware upgrade
- Supports one QM20-transducer (USB / RS485) directly and QM20-PoE units via external PoE-switch*1



Sensor Info Menu

Film Menu



Rate vs. Time Chart
subject to firmware option*

QPM60 – Specifications

Specifications	
QCM Sensor Inputs	Standard 2; optional: 4 or 6 utilizing passive external oscillators
Frequency Range	4- 6.5 MHz
Frequency Resolution	± 0.01 Hz at 10 reading/sec
Frequency Stability	± 2 ppm total, over 0° to 50°C
Selectable Measurement Period	0.10 to 2 sec (in .05 sec increments)
Measurement Filter	1 to 20 readings with alpha-filter
Stored Films	99
Analog Outputs	6 outputs (0 to 10 VDC), rate & thickness, power
Digital Inputs/Outputs	4 inputs (5V), 8 relay outputs
Serial Interfaces	External: RS232 + Ethernet QMB6 Transducer: QMB6-U or QMB6-4; QMB6-PoE via external PoE
Front Panel Operation	4.3” touch screen display with rotary encoder
Power	100-240 VAC, 50/60 Hz, 20 W
CE Compliance	Class 1 equipment, 73/72/EEC LVD, 89/336/EEC ECD
Housing/Mounting	1/2-rack cabinet, 3-1/2” high,
Weight	3.0 Kg
Windows Software (included)	Provides remote setup and operation, datalogging functions; operates also with SQM160 software

Ordering information	
QPM60	QPM60 with 2 input channels
QPM60-4C	QPM60 with 4 input channels
QPM60-6C	QPM60 with 6 input channels
QPM60-REXT	QPM60 full rack mount extension
QPM60-QM20	Passive external oscillator incl. 6” BNC cable
QPM60-QM20-CBL10	Passive external oscillator incl. 6” and 10’ BNC cables

Regulatory Compliance

QPM60 units are CE marked and conform to Low Voltage Directive 73/23/EEC and Electromagnetic Compatibility Directive 89/366/EEC—meeting EN55011 (emissions), EN61000-6-2 (immunity), and EN50178 (safety).

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