TFM260 *Multi-Channel Quartz Thin Film Monitor*

The TFM260 mutli 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 high resolution measurement of 0.01 Hz at up to 10 Hz sampling rate. 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 TFM260 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.

Features

- **2 high resolution measurement channels; optional up to 6 channels**
- **4.3" touch screen graphical display**
- **Rate/thickness/frequency vs. time charts**
- **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 SQM160**
- **User Interface: RS232/RS485 and Ethernet**
- **Front panel USB port for storage and firmware upgrade**
- **Supports one QMB6-transducer (USB/RS485) directly and QMB6-PoE units via external PoE-switch**

TFM260 – 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 readings/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 programmable alpha-filter
Stored Films	99
Analog Outputs	6 outputs (0 to 10 VDC), (rate, thickness, frequency)
Digital Inputs/Outputs	4 inputs (5V), 8 relay outputs
Serial Interfaces	External: RS-232 / RS485 + Ethernet QMB6 Transducer: QMB6-U or QMB6-4; QMB6-PoE via external PoE Switch
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

Film Menu

Sensor Info Menu

Rate vs. Time Chart

ORDERING INFORMATION

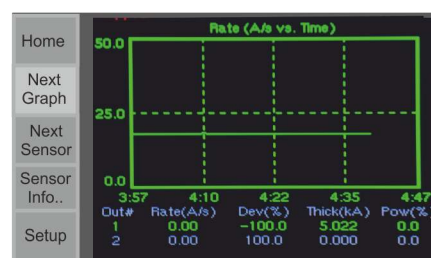|	
BT-TFM260	TFM260 with 2 input channels
BT-TFM260-4C	TFM260 with 4 input channels
BT-TFM260-6C	TFM260 with 6 input channels
BT-TFM260-REXT	TFM260 full rack mount extension
BT-QM-EO	Passive external oscillator incl. 6" BNC cable
BT-QM-EO-CBL10	Passive external oscillator incl. 6" and 10' BNC cables

External Oscillator