

## Quality Crystals®

In 6MHz and 5MHz in Gold, Stress-Relieving Alloy®, Longer Life Gold®, Silver and Advanced Adhesion Alloy®. The metal used for the contact electrode on the crystal has an effect on the crystal's ability to measure film thickness. Choose the best electrode for your coating process.



Fil-Tech		INFICON STYLE	FREQUENCY & P/N
QI8010	\$49.50	Gold	6MHz 008-010-G10
QI8012	49.50	Longer Life Gold	6MHz
QI8008	49.50	Stress Relieving Alloy	6MHz 679
QI8014	49.50	Advanced Adhesion Alloy	6MHz
QI8009	49.50	Silver	6MHz 008-009-G10
Fil-Tech		BALZERS STYLE	
QB104G	\$57	Gold	5MHz B489-025-T
QB104GL	57	Longer Life Gold	5MHz
QB104A	57	Stress Relieving Alloy	5MHz
QB104S	57	Silver	5MHz BN845-104-T
Fil-Tech		SLOAN STYLE	
QS3952	\$54	Gold	5MHz 103952
QS3952GL	54	Longer Life Gold	5MHz
QS3954	54	Stress Relieving Alloy	5MHz
QS3950	54	Silver	5MHz 103950
Fil-Tech		INTELLEMETRICS STYLE	
QI8010F	\$49.50	Gold	6MHz SN66NG
QI8012F	49.50	Longer Life Gold	6MHz
QI8008F	49.50	Stress Relieving Alloy	6MHz
QI8009F	49.50	Silver	6MHz SN66NS

## Liquid Plating Crystals

1" Diameter 5MHz polished, plano/plano crystals for measurements in gas or liquid

Fil-Tech	ELECTRODE	SRS	INFICON
QM1001	\$31 each Cr/Au	0100RX1 \$395/10	149273-1 \$57 each
QM1003	36.50 Ti/Au	0100RX3 395/10	149257-1 53
QM1004	41.50 Ti/Pt	0100RX4 595/10	149274-1 66
QM1007	41.50 Ti/Ni		
QM1012	41.50 Ti/Cu		
QM1015	41.50 Ti/SiO2		
QM1018	36.50 Ti/Cr		

## INFICON Crystals Comparable to Q-SENSE

.550" Diameter 4.95MHz polished, piano/piano, wrap around electrode.

INFICON	ELECTRODE	Q-SENSE
750-1072-G5	\$112/5 Au	QSX 301 \$295/5
SPC-2487-GI	130/5 SiO2	QSX 303 450/5

MOQ: 50 pieces

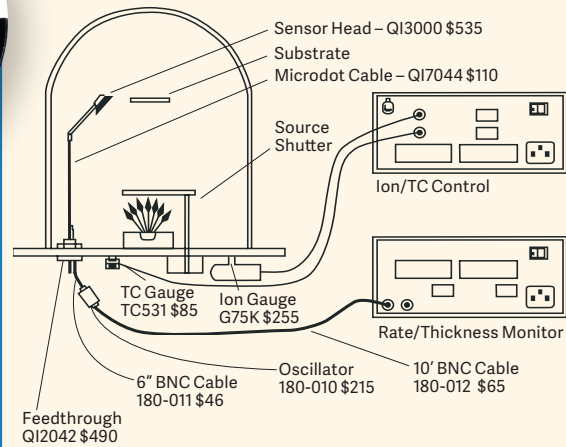
## QCM-I Quartz Crystal Microbalance with Impedance Analysis



The QCM-I is a high sensitivity, mass sensing instrument that probes the interactions of molecules, polymers and biological assemblies with surfaces, label-free and in real time. The QCM-I can measure the hydrated mass and rigidity of nm to micron scale layers at the sensor curve, as well as fluid properties. The measurement uses impedance analysis of a quartz crystal sensor to determine the resonant frequency and bandwidth of the resonant conductance curve, fundamental and overtones. The QCM-I has 2-4 channel measurement with independent temperature and flow control on the channels. Fil-Tech crystals and external sensors are available for a range of applications.

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## Typical System



### Monitor/Controller Options

SQM-160	Rate/thickness monitor	\$2,185
STM-2	Deposition Monitor	852
XC3S	Deposition Controller	4,855
SQC-310	Deposition Controller	3,495
IC6	Deposition Controller	13,550
CYGNUS 2	Deposition Controller	13,330

### Components Required for a Complete System

180-010	Remote analog oscillator	\$215
180-011	6" BNC cable M/F	46
180-012	10' BNC cable M/M	65
QI3000	Sensor head single sensor	535
QI7044	30" Microdot cable	110
QI2042	Feedthrough 1" bolt	490
TC531	Thermocouple gauge	85
G75K	Ion gauge, 3/4" kovar, iridium	255

## INFICON Multi-Film Rate/Thickness Monitors and Controllers

SHOP ONLINE NOW!

INFICON  
authorized distributor

Fil-Tech is an authorized distributor for INFICON® products. Choose your INFICON monitor or controller, or call 617-227-1133 with your application requests and for best pricing.



### SQM-160 Multi-Film Rate/Thickness Monitor

Has 2 sensor inputs standard and 4 additional sensor inputs optional with 2 recorder outputs to provide analog rate and thickness signals. Sensor inputs can be assigned to different materials, averaged for accurate deposition, or configured for a dual sensor. Rate displays of 0.1Å/sec or 0.01Å/sec and frequency or mass display can be selected. Four relay outputs allow control of the source of sensor shutters, signal time and thickness setpoints, and signal crystal failure.

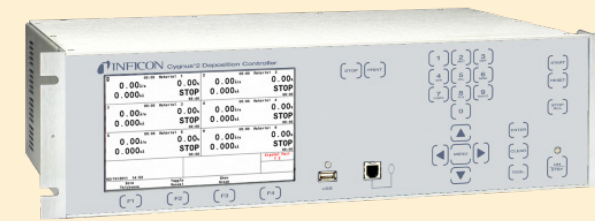
SQM160-S-2-R \$2,185



### STM-2 USB Rate/Thickness Monitor

INFICON's STM-2 combines the simplicity of USB connectivity with the accuracy of a precision measurement engine in a compact, inexpensive package. Ten measurements are taken per second while achieving a resolution of 0.037 Å per measurement. The STM-2 comes with everything you need to connect your sensor/feedthrough to a Windows® PC. Simply connect the included BNC cable from the feedthrough to STM-2 and then connect the STM-2 to your PC using a standard mini-USB cable. STM-2 includes LabVIEW® software and Windows software for operation and data logging of up to eight STM-2s simultaneously.

STM-2 \$852



### Cygnus 2 Thin Film Deposition Controller

Provides exceptional value by combining the proven performance of INFICON thin film controllers with unique features, all designed for you to achieve the most from your OLED process. Cygnus 2 uses the ModelLock frequency measurement system to provide stable, high-resolution rate and thickness measurement with an industry leading rate resolution of .004..Å/s every 1/10 second.

CYG2-1101000 \$13,330



### Zevision IMC300 Rate and Thickness Controller

INFICON's next-generation Zevision® IMC300 deposition controller offers new patented technology for today's optical coaters. The Zevision IMC300 maximizes reproducibility and uniformity with the highest thickness accuracy, the best measurement resolution, and the lowest rate noise using the ModelLock measurement system. The IMC300 maximizes the number of runs possible while lowering crystal consumable cost. Offered with Sequential Deposition and Codeposition.

IMC300-1001A00 POR  
IMC300-2001A00 POR



### SQC-310 Thin Film Deposition & Codeposition Controller

Offers advanced electronics, improved display and an affordable price. Choose SQC-310 for sequential deposition or the SCQ-310C for codeposition. SQC-310 comes standard RS-232 and USB, a "Quick Setup" menu, Windows® program, is accurate with ±0.03 Hz resolution at 10 reading/second and storage capacity for up to 100 processes, 1,000 layers and 50 films. Available in English or Chinese.

SQC310-2-R-1-C \$3,495  
SQC310C-4-R-1-C \$6,305



### IC6 Thin Film Deposition Controller

Provides exceptional value by combining the proven performance of INFICON thin film controllers with unique features, all designed to achieve the most from your deposition process. The IC6 uses the ModelLock frequency measurement system to provide stable, high-resolution rate and thickness measurement with an industry-leading rate resolution of 0.0043 Å/s every 1/10 second.

IC6-110100 \$13,550

# FEEDTHROUGHS

**Single**

**Single 1" Bolt**  
**QI2042**  
 \$490  
 For Single Sensors

**Single 2 3/4" Flange**  
**QI2043**  
 \$560  
 For Single Sensors

**Dual**

**Dual 1" Bolt**  
**QI2000** \$1,050  
 For Dual Sensors

**Dual 2 3/4" Flange**  
**QI2080**  
 \$895  
 For Dual Sensors

All feedthrough lines 3/16" OD steel tubing.  
 Custom feedthroughs available.

## Sensor Head Parts, Oscillators and Cables

PART	INFICON	Fil-Tech
Ceramic Retainer	007-023 \$103	QI7023 \$90
Finger Spring	750-171-P1 41.50	QI0171 40
Crystal Holder	750-172-G1 94	QI0172 84
Crystal Holder	Fil-Tech Style	QI3010 84
Oscillator	783-500-013 260	180-010 215

CABLES	INFICON	Fil-Tech
Coaxial 30"	007-044 \$130	QI7044 \$110
Special Length		QI7044X 130
Right Angle		QI7045 110

Cables have an extra layer of Teflon to protect the shielded cable from deposition material, insuring longer life.

CABLES	PHELPS	Fil-Tech
Unsheathed 8"	Pe16016	QP16016 \$115
Unsheathed 36"	Pe16018	QP16018 115
Unsheathed 48"	Pe16020	QP16020 115

Cables have exposed metal sheath.

# SENSOR HEADS

SHOP ONLINE NOW!

**Single**

**In Line QI3000**  
 \$535

**In Line w/Shutter**  
**QI5000**  
 \$2,130

**Right Angle**  
**QI4000**  
 \$535

**Right Angle w/Shutter**  
**QI4050**  
 \$2,130

**Round Perpendicular**  
**QI3500\***  
 \$605

Custom sensor heads, feedthroughs and assemblies available.

All sensor lines 1/8" OD stainless tubing except QI3600 with 3/16".

WELD FREE | NO WATER LEAKS | REMOVABLE FROM WATER LINES | SPECIAL ORDER SENSORS AVAILABLE

**Dual with Shutter**

**In Line QI6000**  
 \$2,145

**Right Angle QI7000**  
 \$2,145

**Round Perpendicular QI3600**  
 \$2,600

3/16" OD water lines available  
 3/16" Cooling Tubes 1/8" Available

## Positional Sensor Heads

**QI1100** \$1,340  
 Includes Coaxial Cable

1/8" Water Lines  
 Ultra Torr compression fittings 3/16" Sleeves

## Bakeable Sensor Heads

Our Bakeable Sensor Heads are used for UHV and High Temp processes up to 300° C. The QI1200 is TIG welded to a rotatable conflat flange. A 1" baseplate bolt is available but the Viton O-ring will limit the temp to 205°C. The coaxial connection is sealed inside a rigid 3/16" OD stainless steel tube with cable included. Cooling tubes are 3/16" OD to maximize cooling. Sensor heads can be built to order with your choice of feedthrough type and length.

**QI1200** \$1,365 Includes Coaxial Cable

## Sputter Head With Internal Oscillator & Deep Water Pocket

**QP4600**

\*Head not removable

### Features

- Stainless steel construction
- Internal oscillator for 5MHz and 6MHz
- Removable from water lines for easy repair
- Deep water pocket for superior cooling
- Copper construction option for superior cooling

Sputter Head, SS	QP4500	\$695
Sputter Head Cap, SS	QP4501	90
Sputter Head, Copper	QP4600	750
Sputter Head Cap, Copper	QP4601	125

Specify crystal diameter for correct crystal holder style

## QC12 Crystal Sensor System

Sensor head holds 12 crystals and allows continuous monitoring without process interruption

### System Includes

- 2 Multi-crystal sensor heads
- 2 1" bolt or 2 3/4" flange feedthroughs
- Controller
- Vacuum, air and cooling cables
- 12 Complimentary Quality Crystals

The QC12 is precise and reliable and features a small footprint with easy installation and reload. Compatible with INFICON, Sigma, Maxtek and Sycon monitors.

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Specify Length (L)

All cooling and electrical tubing have a TIG welded seal