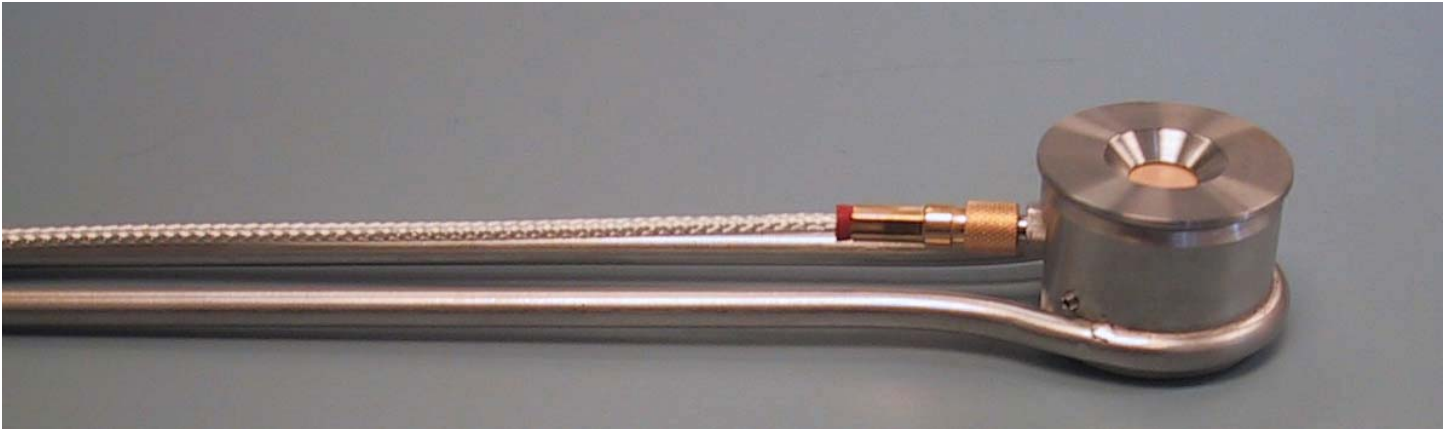


VSO-100

In Vacuum Sensor Oscillator package



SYCON VSO-100

Historically, when QCM's were first used to monitor thin film depositions, the oscillator that drove the sensing crystal was imbedded in the sensing head inside the vacuum chamber. These internal oscillators were designed with discrete components and were large in size, expensive, and generally non-repairable. As oscillator design and integrated circuits improved, new lower cost designs came about which allowed the oscillator circuit to be moved to a more friendly, space available, location outside of the vacuum chamber. This works well for most applications but since the sensing crystal and the cable connecting it to a remote oscillator are part of the oscillator design, the allowable capacitance (length) of this internal cable is limited. It is generally recommended that this cable length be kept to less than 30 inches for optimum performance and life of the sensing crystal. Longer cable length lowers the useful life to the sensing crystal. As systems became larger the 30-inch cable limitation becomes a problem.

Now advanced, low cost, hybrid circuit technology allows the design of a compact in vacuum oscillator/sensor package, to solve the large system application for QCM's. Sycon has developed a hybrid oscillator in a compact sensor holder for use in large systems where standard sensing heads cannot be used. The oscillator is closely coupled to the sensing crystal for higher reliability and longer sensor life. For large system applications the maximum in-vacuum cable lengths are specified in feet instead of inches. A single water line cools both the sensing crystal and the electronics package.

For large system applications the Sycon In-Vac oscillator/sensor package is the solution.

FEATURES

- Extends in-Vacuum cable length to 10 feet
- Hybrid design oscillator / sensor
- Small package, easy retrofit of existing installations
- Easy crystal replacement, robust design for tough environments
- Large 3/16" water cooling lines
- Single +5V Power/signal coax cable connection
- Quality vacuum tight construction
- Parts compatibility with other Sycon Products
- Shuttered Oscillator / Sensor available



Distributed Throughout Europe by:

LEWVAC

Quality Components For Vacuum Technology

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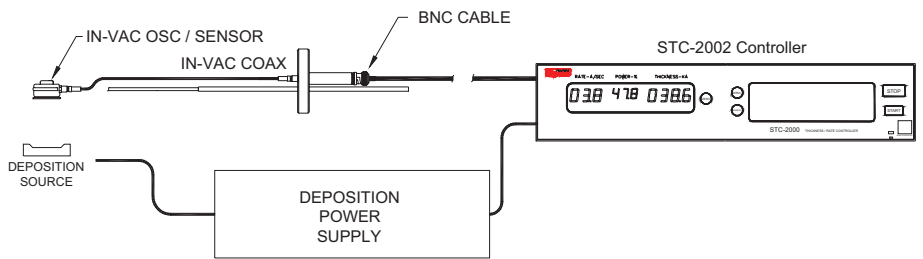
VSO-100 Specifications

Size	1.18" x 0.8"
With Shutter	1.18" x 1.5"
Max Temp	150 °C
Cooling Line	30" standard
Connectors	MicroDot Miniature
Materials	304 SS, Teflon, Alumina
Braze Material	High Vac Ni/Cr/Cu Alloy
Sensor to Controller	30 feet combined in-vacuum - atmosphere cable

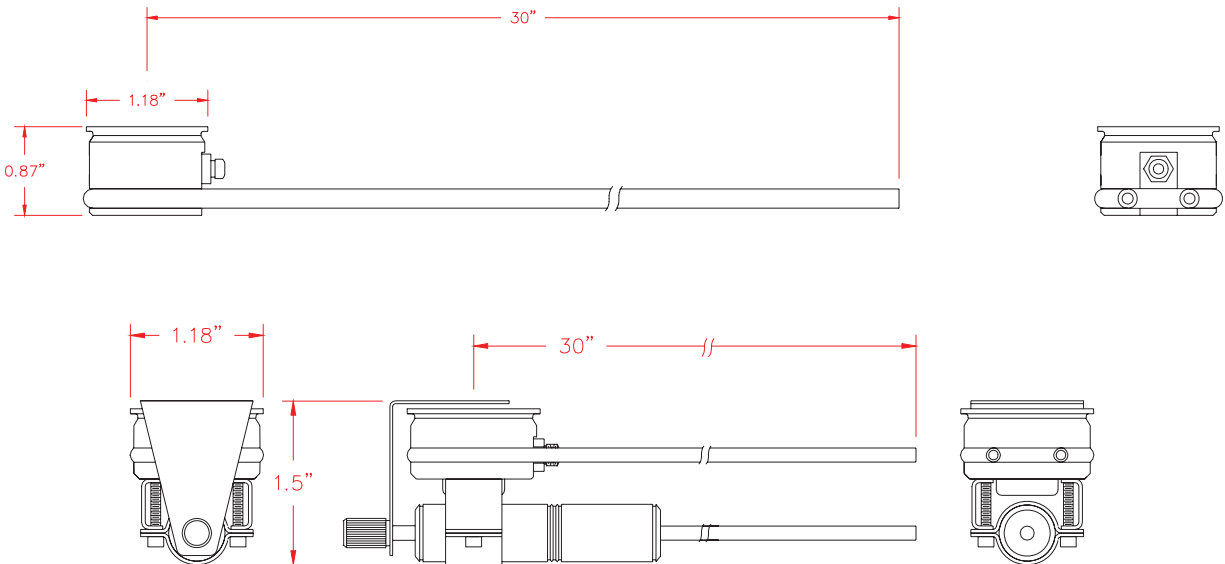


Ordering Information

- 500-218 VSO-100 In-vac Osc / Sensor
- 500-224 VSO-100 with shutter assembly
- 550-223 Replacement Sensor cap
- 500-117 Gold sensor crystals (10 pack)
- 500-016 1" Feedthrough with 1e 2f
- 500-017 2 3/4" ConFlat™ Feed through
- 500-024 30" In-Vacuum coax cable
- 500-026 10' Atmosphere BNC cable



Dimensions



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