



# RSH-600 Sensor

Maximize PVD accuracy and production with six crystals per sensor and a long-lasting sensor design. INFICON RSH-600 Sensors are designed and manufactured to provide the best quality and reliability in thickness monitoring for applications where one or two crystals do not last through the complete process.

## Quality

Maximize film quality: long lifetime design, quality manufacturing, and effective crystal cooling maximizes accuracy. RSH-600 holds six crystals in a thermally shielded, water cooled housing, ensuring excellent crystal performance in temperature environments up to 300°C.

Maximize throughput: maximum uptime with easy, on-site maintenance. Crystals are housed in an easy to remove stainless steel crystal holder. Crystal position is incremented pneumatically by applying a one second pulse to a 115 V (ac) or 24 V (dc) solenoid valve. A 7-pin connector provides individual switch closures to ground to indicate the current crystal position.

## Sensor Configurations

RSH-600 can be configured with a flat head for top mount installation through an O-ring sealed feedthrough (not included). The 45° angle head can be configured for installation through the side of the chamber.

Standard head covers are made of stainless steel. Copper head covers are available for applications where temperature is a concern.

RSH-600 is available in the following in-vacuum lengths:

- 200 mm (7.9 in.)
- 350 mm (13.8 in.)
- 450 mm (17.7 in.)
- 540 mm (21.3 in.)
- 650 mm (25.6 in.)

Note: Angled heads add 11 mm (0.4 in.) to in-vacuum length. (See the drawing on page 4.)

## ADVANTAGES

- Maximize yield and film accuracy with the highest quality design and manufacturing available
- Increase production with maximum uptime
- Maximize throughput with fast and easy crystal exchange
- Save time with easy, on-site maintenance and installation
- Optimize system performance through worldwide expert applications support



Crystal Retainer Assembly and  
Standard Stainless Steel Cover



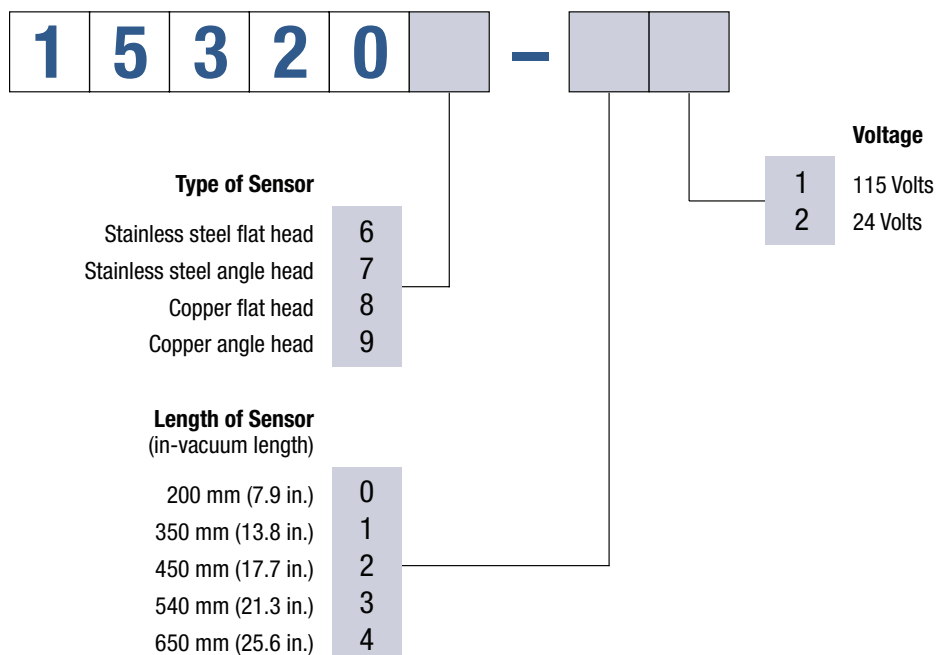
Copper Head Cover



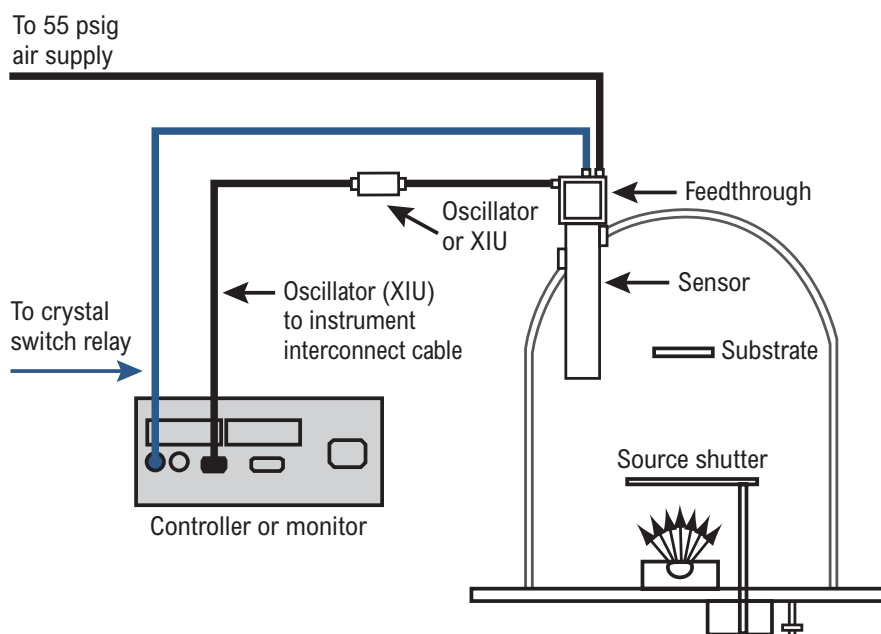
45° Angle Head

## ORDERING INFORMATION

### Rotary Sensor Head - RSH-600 Sensor



Note: Angled head adds 11 mm (0.4 in.) to in-vacuum length. (See the drawing on page 4.)



## SPECIFICATIONS

Number of crystals	Six
Crystal size	14 mm (0.550 in.) diameter
Installation aperture	50.8 mm (2.0 in.) diameter
Overall length	See chart on the following page
Power requirement	
24 V (dc) solenoid valve	21.6 – 26.4 V (dc), 40 mA
115 V (ac) solenoid valve	90 – 132 V (ac), 36/32 mA rms (50/60 Hz)
Crystal switching method	Air Actuated @ 55 psi (4 kg/cm <sup>2</sup> ) regulated
Cooling method	Water-cooled @ 5 L/m at 2 kg/cm <sup>2</sup> (28 psi) (Do not allow to freeze)
Air and water connections	One ¼ in. quick connect for air, two ¼ in. compression fittings for water
Maximum bakeout temperature without water	130°C
Operating temperature	300°C max with water cooling and stainless steel head cover 400°C max with water cooling and copper head cover
Weight	3.8 kg (8.5 lb.), varies with overall length
Materials	304 stainless steel, Teflon®, beryllium nickel

## ACCESSORIES

153202	RSH-600 adjustable flange
153204	Crystal retainer assembly, flat
153204-2	Crystal retainer assembly, angled
153708	Sensor head cover, stainless steel, flat
153713	Sensor head cover, stainless steel, angled
153731	Sensor head cover, copper, flat
153731-2	Sensor head cover, copper, angled

Note: Conversion from flat to angled head requires part numbers 153204-2 and either 153713 or 153731-2.  
Conversion from angled to flat requires part numbers 153204 and either 153708 or 153731.

## SPARE PARTS LIST

P/N	Description
153706	Spring Retainer Assembly – Flat
153707	24 V (dc) Solenoid Valve Assembly
153709	Retaining Screw for Flat Crystal Retainer
153710	Crystal Holder – Flat (includes 153709)
153714	Spring Retainer Assembly – Angled
153715	Retaining Screw for Angled Crystal Retainer
153716	Crystal Holder – Angled
153722	Signal and Ground Contact Module
153724	Spring Retainer Contact Kit – Flat (set of six)
153726	Spring Contact for Crystal Retainer Assembly
889128	7-pin Male Connector
889128-2	7-pin Female Connector
144-101	M3x6 SOC Head Screw for Flat Crystal Retainer

## DIMENSIONS

NOTE: measurements in mm [in.]

