

# Maxtek BDS-250/BDS-251

## Bakeable Dual Sensor Head/Feedthrough



### WELL-SUITED FOR HIGH TEMPERATURE ENVIRONMENTS

The BDS-250/251 is designed for high temperature processes where reliability is critical. Constructed of stainless steel and ceramic materials, it is suitable for applications requiring high temperature bake out. The use of two Cool Drawer™ crystal holders provide excellent thermal stability, and the reliability of a backup crystal in temperature environments up to 450°C with water-cooling or 400°C without water cooling. No coaxial cables inside the chamber allow for a cleaner and more reliable vacuum system installation.

The BDS-250/251 is pre-installed in a special two piece 7 cm (2-3/4") ConFlat® feedthrough, which allows the sensor head to be rotated independently of the flange. Sensor head length is adjustable from 15 to 66 cm (6" to 26") by sliding the five sensor head tubes through 0.48 cm (3/16") tubing stubs in the feedthrough. Brazing of the five tubes is required once the desired length is established. Brazing can be provided upon request.

Two sensor configurations are offered: The T (top mounted version) and the S (side mounted version). The T version is designed for installation through the top of the vacuum system. In this version the water cooling tubes are perpendicular to the crystal face. The S version is designed for installation from the side or bottom of the chamber and the water cooling tubes and the crystal face are parallel.

#### FEATURES AT A GLANCE

- Bakeable
- Rotatable
- Dual crystals
- Crystal shutter
- Adjustable length
- No internal cables
- 7 cm (2-3/4") ConFlat® feedthrough
- Cool Drawer™ crystal holder



*Cool Drawer™ crystal holder*

## SPECIFICATIONS

Materials	304 CRES, Ceramic, Beryllium Nickel
Finish	Stainless steel, gold plated Cool Drawer™
Cooling	Water 0.2 GPM using 1/8" O.D. tube
Temperature	Operational environment to 450°C with water cooling or 400°C without
Electrical Connection	(1) standard female BNC on atmosphere side
Crystal	Industry standard 0.550" diameter
Air Supply	55 o 60 PSI regulated
Adjustable Length	15 to 66 cm (6" to 26") for BDS-250 10 to 66 cm (4" to 26") for BDS-251
Mounting	Mates with 2-3/4" ConFlat® type flanges

## ORDERING INFORMATION

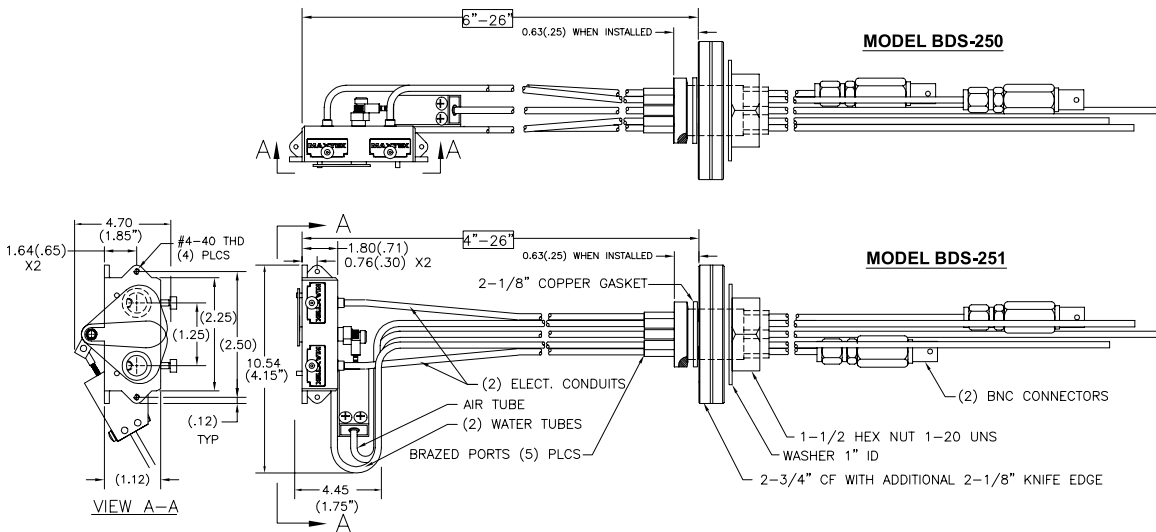
Each sensor head includes: (1) BDS-250 or BDS-251, (1) package of 10 each SC-101 crystals

Model #	Part #	Description
BDS-250	150224-2	Dual sensor head with shutter, 7 cm (2-3/4") ConFlat flange. Crystal face is parallel to the water tubes for side or base plate mounting.
BDS-251	150220-2	Dual sensor head with shutter, 7 cm (2-3/4") ConFlat flange. Crystal face is perpendicular to the water tubes for side or top mounting.

Each sensor head kit includes:

(1) BDS-250 or BDS-251, (2) SO-100 oscillators, (2) 10' BNC cables, (2) 6" BNC cables, (1) PSV-100 pneumatic valve and (1) package of 10 each SC-101 crystals

BDS-250 Kit	150909-SB	Dual sensor head with shutter, 7 cm (2-3/4") ConFlat flange. Crystal face is parallel to the water tubes for side or base plate mounting. Brazing required.
BDS-251 Kit	150909-TB	Dual sensor head with shutter, 7 cm (2-3/4") ConFlat flange. Crystal face is perpendicular to the water tubes for side or top mounting.



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