

DETAILED SPECIFICATION FOR QCM SENSOR PART # QCM6125AgAl115-115-S

KEY FEATURES

- 6 MHz
- 12.5 MM SENSOR DIAMETER
- 11.5 / 11.5 MM ELECTRODE DIAMETER
- SILVER / ALUMINUM ELECTRODES
- SLOAN / ULVAC TEST JIG COMPATIBLE
- 100% TESTED ELECTRICALLY AND VISUALLY



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DESCRIPTION

For use in film thickness monitors. Very reliable function due to good adhesion of electrodes. Long operational life time. Same large size electrodes on both sides.

GENERAL

| Item | Parameter | Value |
|------|-----------------|--------------|
| 1.0 | Sensor design | Plano-Convex |
| 2.0 | Angle of cut | AT |
| 3.0 | Jig compability | Sloan, Ulvac |

ELECTRICAL

| | | |
|-----|-----------------------|------------|
| 4.1 | Nominal frequency | 6.000 MHz |
| 4.2 | Center frequency | 5.983 MHz |
| 4.3 | Frequency tolerance | +/- 7 KHz |
| 4.4 | Q-value | > 150 000 |
| 4.5 | Shunt capacitance, C0 | Typ. 21 pF |

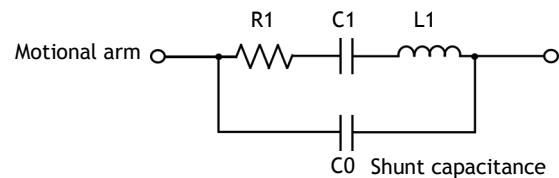
ELECTRODES

| | | |
|-----|--------------------------|--------------------------|
| 5.1 | Front electrode diameter | 11.5 mm |
| 5.2 | Front electrode material | Ag/Al Silver / Aluminium |
| 5.3 | Back electrode diameter | 11.5 mm |
| 5.4 | Back electrode material | Ag/Al Silver / Aluminium |
| 5.5 | One sided contacting | No |

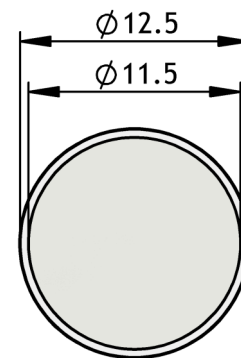
MECHANICAL & DRAWING

| | | |
|-----|--------------------------|---------|
| 6.1 | Nominal blank diameter | 12.5 mm |
| 6.2 | Crystal axes orientation | No |
| 6.3 | Surface appearance | Matte |
| 6.4 | Bevel | No |

Quartz Crystal
Electrical equivalent 2pole

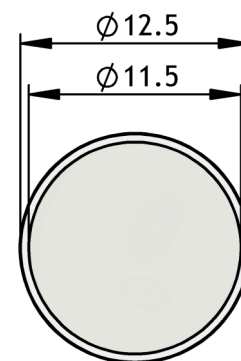


Front electrode



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Back electrode



DETAILED SPECIFICATION FOR QCM SENSOR PART # QCM6125AgAl115-115-S

MARKING / LABEL

| | | |
|-----|--------------------|---------------------------------|
| 7.1 | QR code | Simple info readout with QR app |
| 7.2 | Part Number | QCM6125AgAl115-115I-S |
| 7.3 | Nom. Frequency | 6.000 MHz |
| 7.4 | Sensor diameter | 12.5 mm |
| 7.5 | Electrode material | Ag/Al Silver / Aluminium |



PACKAGING & STORAGE

| | | |
|-----|------------------------|--|
| 8.1 | Sensor package type | Revolving plastic depository with a transparent lid for easy inspection |
| 8.2 | Storage quantity | 10 covered dust and shock protected storage positions and 1 open position for ejection |
| 8.3 | Package protection | Package is protected with a vacuum sealed plastic bag for prolonged storage and shipping |
| 8.4 | Storage recommendation | After opening plastic vacuum bag preferably store in dust free dry Air or Nitrogen @ room temperature. |
| 8.5 | Cleaning | No cleaning necessary before use. However after prolonged storage in humid air a light cleaning in a ultrasonic bath of either ultraclean water or alcohol without any denaturation can be done to remove adsorbed molecules on the surfaces |

REVISION HISTORY

| | Date | Description |
|-----|------------|------------------------|
| 9.0 | 2009.02.06 | First issue |
| 9.1 | 2014.08.15 | New detailed datasheet |
| 9.2 | | |
| 9.3 | | |
| 9.4 | | |
| 9.5 | | |

DETAILED SPECIFICATION FOR QCM SENSOR PART # QCM6125AgAl115-115-S

PRODUCT PART NUMBER DESIGNATION AND INTERPRETATION. FOR MORE ALTERNATIVES SEE PAGE 3

| Item | Product Category | 1. Nominal Frequency | 2. Sensor Diameter | 3a. Coating Multiple layer 3b. Coating Single layer | 4. Electrode Diameter Ø Front-Back | 5. Jig/Holder Compability |
|-----------|------------------|----------------------|--------------------|--|---------------------------------------|---------------------------|
| Parameter | QCM | 6 MHz | 14.0 | Silver / Aluminium | 11.5-11.5mm | Balzer |
| Code | QCM | 6 | 140 | AgAl | 115-115 | B |

Part number designation : QCM6125AgAl115-115-S

PART NUMBER DESIGNATION OPTIONS (AVAILABLE TYPES)

| 1. Nom Frequency | Designation | 2. Sensor Diameter Ø | Designation | 3a. Coating -Multiple layer | Designation |
|------------------|-------------|----------------------|-------------|-----------------------------|-------------|
| 5.00 MHz | 5 | 8.90 mm | 089 | Chromium/Gold | CrAu |
| 6.00 MHz | 6 | 12.45 mm | 125 | Silver/Aluminum | AgAl |
| 9.00 MHz | 9 | 14.0 mm | 140 | Nickel/Silver | NiAg |
| 10.7 MHz | 10 | 25.4 mm | 254 | Titanium/Gold | TiAu |
| | | | | Chromium/Gold/SiO2 | CrAuSiO2 |
| | | | | Nickel/Silver | NiAg |

| 4. Electrode Diameter Ø Front-Back | Designation | 5. Jig/Holder Compability | Designation | 3b. Coating -Single layer | Designation |
|---------------------------------------|-------------|---------------------------|-------------|---------------------------|-------------|
| 5.1-5.1 mm | 051-051 | Balzer | B | Gold | Au |
| 5.4-5.4 mm | 054-054 | Sloan/Ulvac | S | Silver | Ag |
| 7.5-5.0 mm | 075-050 | Inficon* | I | Copper | Cu |
| 7.5-7.5 mm | 075-075 | Q Sense | Q | Titanium | Ti |
| 11.5-11.5 mm | 115-115 | Maxtek 25.4 mm | M | Aluminum | Al |
| 12.0-5.0 mm | 120-050 | HC-50 | H | | |
| 12.8-6.4 mm | 128-064 | Custom | C | | |
| 13.0-6.4 mm | 130-064 | | | | |
| 13.0-13.0 mm | 130-130 | | | | |
| 13.3-6.0 mm | 133-060 | | | | |

* also compatible with Maxtek, Sycon, Sigma ,Intellimetrics, Fil-Tech, Phelps

Custom made products: In case you need something else that is not listed above, please feel free to ask and we will check our possibilities. Use our contact form under Contact. www.quartzpro.com

