



Datasheet QT014-UDP

Ultrasonic Density Probe

Principle

Ceramic ultrasonic spectroscopy

Description

Model UDP is designed to measure acoustical physical properties of abrasive slurries in mining, drilling and dredging fluids.

The Arenal ultrasonic probes are fit to be applied in high density abrasive slurries with flows up to 7 m/s.

The ceramic sensor is made from one of the toughest materials on earth: Sintered Silicon Carbide (SiC). They are much more wear resistant compared to all other ceramics. Secondly the acoustical and physical properties of SiC are perfect for the applications in abrasive slurry density monitoring.



Model SPC



Model WFC



Model PRC

Features

- The probe does not erode, it is wear resistant
- Stable measurement
- Suits slurries and pastes
- For low and medium temperature slurries

Specification

- SSIC (silicon carbide) sensing element
- SS316 housing
- Coaxial cable connection
- Suits density up to 4000 g/l
- Suits temperatures up to 130 degC

Connectivity

- Coaxial cable

Mounting

- Thread M28x1,5

Engineering specifications

Make: Arenal PCS BV, The Netherlands
Advanced Ultrasonic Probe for abrasive slurries
Material sensor: Sintered Silicon Carbide
Material housing: SS316
Temperature range 3-55 degC or 3-130 degC
Fixing thread: M28x1,5

Product variations

QT014-UDP-SPC-SIC-LT-FLAT

Model SPC is only used in most demanding applications in spool pieces with PU lining. The small flange on the top of the SPC sensor is coated with Tungsten Carbide to prevent erosion. After more than three years of operation, this solution has proven itself as maintenance free.

- > Probe is designed to fit inside a spoolpiece with lining
- > Mounting is from inside to outside the pipe
- > Fixed coax cable, 35 cm

QT014-UDP-WFC-SIC-LT

Model WFC is applied in spool pieces, Saddle Type Flanges and Wafer Cells when the sensor is mounted from outside to inside the pipe.

- > Probe is designed to fit inside a spoolpiece with lining
- > Mounting is from outside to inside the pipe
- > Fixed coax cable, 35 cm

QT014-UDP-PRC-SIC-LT

Model PRC is selected in all other applications, like in process nipples and tank walls. > Probe is designed to fit inside a spoolpiece with lining

- > Mounting is from outside to inside the pipe
- > LEMO 1V connector

Dimensional drawing

