



Datasheet QA03-SDA

Slurry Density Analyzer

Principle

Ultrasonic spectroscopy

Description

Model SDA is designed to monitor Slurry Density and Mass Flow of heavy industrial slurries. The controller consists of an advanced industrial PLC based HMI, which offers great flexibility with advanced settings and clear screens and graphs for interaction with the user. The standard measuring screen starts showing specific gravity, density, total suspended solids and temperature. The user can select different start screens like a cross-meter in dredging applications. The controller communicates with the field transmitters and two measuring points can be connected simultaneously.



Features

- Control of ultrasonic transmitters in the field
- Data logging of monitored data
- Control sample taking and ID tracking
- Time trend graphs
- Echo scope functions
- Alarm screens
- Network connectivity

Specification

Density range: 0-3000 g/l
Density accuracy: up to 3 g/l
Temperature range: 3-55°C and 3-130°C
Temperature accuracy: ≤ 0,01 °C

Connectivity

- (2x) 4-20 mA output and 2x mA input. Optional (6x) 4-20 mA output
- (2x) 4-20 mA input for external flow meter
- Ethernet
- 2-wire RS485 Modbus RTU
- Modbus TCP/IP as standard. Hart, Fieldbus, Profibus optional

Mounting

- Strong and durable aluminium enclosure with powder coating.
- Remote mounting up to 200 meters from the measuring point.
 - Wall mounting without opening lid.

Engineering specifications

Make: Arenal PCS BV, The Netherlands

Process analyzer designed for continuous monitoring of slurry density in mining, dredging and drilling applications, based on ultrasonic spectroscopy.

Weatherproof enclosure

QA03-SDA-DIS-VAC-XXX-XXX standard model

- > Material: powder coated aluminum
- > Hinges on right (small) side
- > Dimensions: 330x200x120 mm
- > Protection degree: IP65
- > 3x M20x1,5 cable glands (power, analog output, relay contacts)
- > TFT Soft touch color display 5,7"
- > Software version: KWR-7QA03-517

Power supply:

- > Nominal: 100-240 Vac 50-60 Hz
- > Converter 24Vdc 42W
- > Terminals max 2,5 mm²

Product variations

- QA03-SDA-DIS-VAC-XXX-UDT
With embedded Ultrasonic Density Transmitter: QT018-UDT
> 1x LEMO coaxial cable connector
- QA03-SDA-DIS-VAC-IOM-XXX
With embedded IO Module: QM138-IOM
> (4x) 4-20 mA out galvanically isolated
> (2x) 4-20 mA in (flow) galvanically isolated
> (4x) relay contacts 3A at 240VAC galvanically isolated
- QA03-SDA-DIS-24V-XXX-UDT-EXDE
With embedded Ultrasonic Density Transmitter: QT018-UDT
In explosion proof EXD housing with EXE enclosure mounted on bottom
EXD: 358 x 278 x 270 mm (wxhxd)
EXE: 360 x 160 x 90 (wxhxd) mm
> (2x) 4-20 mA out
> (1x) 4-20 mA in (flow)

Dimensional drawing

- QA03-SDA-DIS-VAC-XXX-UDT
- QA03-SDA-DIS-VAC-IOM-XXX

