



Datasheet QA03-SDA/MFA

Slurry Density Analyzer / Massflow Analyser

Principle

Ultrasonic spectroscopy

Description

Model SDA is designed to monitor the density, flow and massflow of slurries in mineral processing industry, dredging, drilling and tunneling. 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.

Depending on the settings, the standard measuring screen starts showing specific gravity, density, total suspended solids, flow, massflow, production and/or temperature.

The user can select different start screens, like values or a cross meter in dredging applications. The controller communicates with the field transmitters and to the scada/dcs system.



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
- GPRS

Specification

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

Connectivity

- (2x) 4-20 mA output and 2x mA input. Optional (6x) 4-20 mA output
- (1x) 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 aluminum 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)

- QA03-SDA-DIS-VAC-XXX-XXX-PORT, or
QA03-SDA-DIS-VAC-UDT-XXX-PORT, or
QA03-SDA-DIS-VAC-XXX-RMM-PORT, or
QA03-SDA-DIS-VAC-UDT-RMM-PORT
Portable analyzer with or without (XXX) embedded:
- Ultrasonic Density Transmitter: QT018-UDT
- Remote Monitoring Module: QM146-RMM
Mounted in a Pelican transportable waterproof case.



Dimensional drawing

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

