



## Datasheet QT01-UDT

### Ultrasonic Density Transmitter

#### Principle

Ultrasonic spectroscopy

#### Description

Model UDT is designed to control ultrasonic probes, to convert its analog echo's to digital information and to calculate the properties of the reflected echo's. This data is available on the Modbus RTU dataline for connection to remote PLC's. The heart of the system is a Spartan Xilinx FPGA, for accurate and fast calculation of ultrasonic information.



#### Features

- Control of ultrasonic probes in the field
- Calculating walking average of monitored data
- Echo tracking and tracing
- Calculation of deviation coefficient
- Low power consumption

#### Specification

- Ultrasonic probes up to 2 nF, suits all Arenal ultrasonic probes
- Ambient temperature range: 3-55°C
- Power supply: 24Vdc-11W

#### Connectivity

- 2-wire RS485 Modbus RTU
- 4-wire PT1000
- Ultrasonic probe terminals

#### Mounting

- Strong and durable aluminium enclosure with powder coating.
- Mounting max 5 meter from the ultrasonic sensor..
- Wall mounting without opening lid.

#### Engineering specifications

- Make: Arenal PCS BV, The Netherlands  
Advanced Ultrasonic Transmitter electronics in industrial enclosure
- With T-Piece functionality
  - Firmware version: v53
  - Enclosure material: powder coated aluminium, off-white
  - Enclosure Model: AR120
  - Protection degree: IP66
  - Power supply by PCA only (24Vdc)
  - Power consumption: 11W
  - Digital data communication line, Modbus RTU over RS485
  - Probe type: all Arenal ultrasonic probes
  - With PT1000 circuitry

### Product variations

QT016-UDT-SPC-A

- > Cable gland M6 for coax cable (on bottom)
- > Cable gland 1x M20x1,5

QT016-UDT-SPC-B

- > LEMO.1V connector
- > Cable gland 1x M20x1,5

QT016-UDT-SPC-C

- > Cable gland 1x M16x1,5
- > Cable gland 1x M20x1,5

### Dimensional drawing

