Microwave barrier transceiver Soliwave FQR16

Ultra-compact microwave barrier for non-contact point level detection, piece goods counting and object detection

Benefits:
- Non-contact measuring principle - detection almost independent of process properties
- High security - permanent self-diagnosis and full self-test
- First microwave barrier with IP69 protection classification
- Meets the requirements of EU 1935/2004
- Very simple and cost-effective commissioning
- Safe detection - non-contact measuring method guarantees wear-free and maintenance-free continuous operation
- Robust design - housing made of stainless steel

Specs at a glance

- **Process temperature** Non-contact installation: any Within installation: -20 °C ... +60 °C (-4 °F ... +140 °F) With HT-Adapter: up to +450 °C (+842 °F)
- **Process pressure / max. overpressure limit** Non-contact installation: any Within installation: 0.5 bar ... 6.8 bar (7.2 psi ... 99 psi) abs. With HP-Adapter: up to +21 bar (+305 psi) abs.
- **Min. density of medium** Solid weight: > 10 g/l

Field of application: The Soliwave FQR16 is an ultra-compact transceiver for non-contact point level detection of bulk solids and liquids, as well as piece goods counting and object detection. The Soliwave FQR16 is used together with the FDR16. The microwave barrier works with a non-contact detection method and can also be used in applications with difficult-to-access or confined installation conditions due to its ultra-
compact design. For non-metallic container materials, measurement from the outside is possible.

**Features and specifications**

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**Characteristic / Application**
- Microwave barrier
- Non-contact point level detection
- (min/max, e.g. full and empty detection for overflow and dry run protection) for all types of bulk solids (from powdery to lumpy) and liquids, also in potentially explosive atmospheres (dust Ex).
- Detection, counting, and positioning of objects
- Object detection on conveyor belts

**Specialities**
- Detection range: max. 20 m

**Supply / Communication**
- 18 V ... 30 V DC,
- Plug M12

**Ambient temperature**
- -20 °C ... +60 °C (-4 °F ... +140 °F)

**Process temperature**
- Non-contact installation: any
- Within installation:
  - -20 °C ... +60 °C (-4 °F ... +140 °F)
- With HT-Adapter:
  - up to +450 °C (+842 °F)
Point Level / Solids

**Process pressure / max. overpressure limit**

- Non-contact installation: any
- Within installation:
  - 0.5 bar ... 6.8 bar (7.2 psi ... 99 psi) abs.
- With HP-Adapter:
  - up to +21 bar (+305 psi) abs.

**Min. density of medium**

- Solid weight: > 10 g/l

**Main wetted parts**

- Non-contact installation: no wetted parts
- Contact installation:
  - 316L, PTFE

**Process connection**

- ISO228-1: G1", G1-1/2"
- ASME: NPT1-1/2"

**Process connection hygienic**

- Non-contact installation

**Communication**

- 3-wire-DC-PNP,
- 2 DC-PNP-outputs

**Certificates / Approvals**

- ATEX, IEC Ex

**Design approvals**

- EN10204-3.1

**Hygienic approvals**

- EG1935/2004
Point Level / Solids

Options
Mounting bracket
Counternut
Welding sleeve
Connection cable
Connecting cable
High-pressure adapter
High-temperature adapter
Extension for HT adapter
Mounting flange
Sight glass fitting
FAR50, FAR51, FAR52, FAR54

Components
FDR16

Application limits
Solid weight: < 10 g/l