

# Microwave barrier transceiver

## Soliwave FDR56

### Transceiver for non-contact point level detection in bulk solids



More information and current pricing:

[www.ca.endress.com/FDR56](http://www.ca.endress.com/FDR56)

#### Benefits:

- Highly reliable measurement due to flush-mounted installation and possible non-contact installation as well as indication of the signal strength on the transceiver
- Mechanical robust solution ensures cost savings over the whole life cycle of the product: No wear and tear, process-wetted ceramic sensor diaphragm (optional), long serviceable life, maintenance free
- Electronics housing can be rotated by 360°, allowing adjustment into optimum position after installation
- Direct connection of the supply voltage (emitter and receiver separately or together)
- Mechanically compatible to FQR50/FDR50 microwave barrier, existing process connections can continue to be used; likewise, accessories such as adapter flanges, installation brackets and sight glasses can continue to be used

#### Specs at a glance

- **Process temperature** Non-contact installation: any Within installation: -40 °C...+70 °C (-40 °F...+158 °F) With HT-Adapter: up to +450 °C (+842 °F)
- **Process pressure absolute / max. overpressure limit** Non-contact installation: any Within installation: 0.5 bar ... 6.8 bar (7.2 psi ... 99 psi) abs. With HD-Adapter: up to +21 bar (+305 psi) abs.
- **Min. density of medium** Solid weight: > 10 g/l

**Field of application:** The Soliwave FDR56 microwave barrier uses a contact-free procedure for detection of point levels. It can be installed in containers, conduits, shafts or on free fall shafts. It is possible to take a

measurement through non-metallic container materials from the outside. Suitable as point level switch for controlling and counting all types of bulk solids. It interacts with the Soliwave FQR56 emitter.

## Features and specifications

### Point Level / Solids

#### Measuring principle

Microwave barrier

#### Characteristic / Application

Transceiver

Non-contact point level detection and flow monitoring

Detecting, counting and positioning of objects

Monitoring of material transfer points

Detection and analysis of deposits and contamination

Installation:

Non-contact installation (transmission window) or front-flush installation (contact)

#### Specialities

Measurement range: max. 100 m

#### Supply / Communication

85 ... 253 VAC

20 ... 60 VDC/ 20 ... 30 VAC

#### Ambient temperature

-40 °C...+70 °C

(-40°F...+158°F)

#### Process temperature

Non-contact installation: any

Within installation:

-40 °C...+70 °C (-40 °F...+158 °F)

With HT-Adapter:

up to +450 °C (+842 °F)

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**Point Level / Solids****Process pressure absolute / max. overpressure limit**

Non-contact installation: any

Within installation:

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With HD-Adapter:

up to +21 bar (+305 psi) abs.

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**Min. density of medium**

Solid weight: &gt; 10 g/l

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**Main wetted parts**

Non-contact installation:

no wetted parts

Within installation:

316Ti or Aluminium;

PTFE or Ceramic

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**Process connection**

1-1/2" R, 1-1/2" G, 1-1/2" NPT

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**Process connection hygienic**

Non-contact installation

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**Communication**

Relays SPDT

Solid-State-Relay

4 ... 20 mA

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**Certificates / Approvals**

ATEX, CSA C/US, IEC Ex

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**Design approvals**

EN10204-3.1

Point Level / Solids

**Options**

Sight glass

High temperature adapter

High pressure adapter

Installation bracket

FAR50, FAR51, FAR52, FAR53, FAR54, FAR55

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**Components**

Transmitter: FQR56

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**Application limits**

Solid weight: < 10 g/l

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