

# Microwave barrier transceiver Soliwave FDR16

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



More information and current pricing:

[www.casc.endress.com/FDR16](http://www.casc.endress.com/FDR16)

## 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:  $-20\text{ °C} \dots +60\text{ °C}$  ( $-4\text{ °F} \dots +140\text{ °F}$ ) With HT-Adapter: up to  $+450\text{ °C}$  ( $+842\text{ °F}$ )
- **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:  $> 10\text{ g/l}$

**Field of application:** The Soliwave FDR16 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 FDR16 is used together with the FQR16. 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

### Point Level / Solids

#### Measuring principle

Microwave barrier

#### 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)

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

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Within installation:  
0.5 bar ... 6.8 bar (7.2 psi ... 99 psi) abs.  
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up to +21 bar (+305 psi) abs.

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**Min. density of medium**

Solid weight: > 10 g/l

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**Main wetted parts**

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

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**Process connection**

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

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**Process connection hygienic**

Non-contact installation

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**Communication**

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

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**Certificates / Approvals**

ATEX, IEC Ex

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**Design approvals**

EN10204-3.1

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**Hygienic approvals**

EG1935/2004

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## 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

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### Components

FQR16

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### Application limits

Solid weight: < 10 g/l

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