



# Distance measurement even in poor visibility

Radar sensor for harsh environmental and weather conditions

- Long ranges and a wide temperature range
- Reliable measurements even in precipitation, fog, dust and dirt
- Simultaneous detection of distance and speed
- Adaptable to specific applications thanks to various operating modes
- Intuitive set-up and visualisation of the measured data using the ifm Vision Assistant software

**ifm** – close to you!



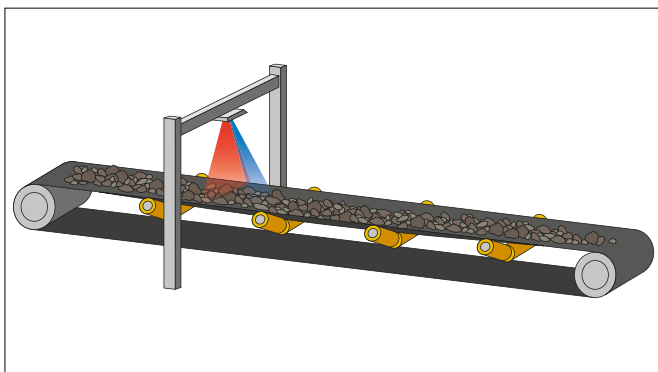
Type	Angle of aperture horizontal x vertical [°]	Frequency [GHz]	Outputs (2x configurable)	Order no.
Distance sensor	40 x 30	60...64	IO-Link   binary   4...20 mA   0...10 V	<b>R1D100</b>
Distance sensor	40 x 30	60...64	CAN J1939	<b>R1D101</b>
Distance sensor with reduced transmitter power	40 x 30	60...64	IO-Link   binary   4...20 mA   0...10 V	<b>R1D102</b>
Distance sensor	40 x 20	77...81	IO-Link   binary   4...20 mA   0...10 V	<b>R1D200</b>
Distance sensor	40 x 20	77...81	CAN J1939	<b>R1D201</b>

The application area of the device depends on the base frequency used and the country in which it is operated. You will find an overview in the operating instructions and at ifm.com.

### Distance sensor

The distance sensor detects objects by means of a focused radar beam. The powerful technology also allows the detection of targets whose reflection properties are poor.

The data obtained in this way can be clearly visualised using the "Vision Assistant" software. For example, the distance profile can show multiple objects simultaneously, while their relative speed can also be output at the same time.



The radar sensor detects the load height and speed of a conveyor belt.

### Common technical data

Temperature range	[°C]	-40...80
Protection rating		IP65   IP67   IP69K

### Reliable detection in harsh environments

With its long range, shock and vibration resistance properties and different operating modes, the radar sensor is designed to accurately detect objects even in the most adverse conditions. Whether in rain, snow, strong wind or extreme dust: the powerful radar sensor technology ensures reliable operation at all times.

### Application areas

The result is a wide range of applications for the sensor, for example the detection of vehicles such as trucks and ships, during docking processes at loading and unloading ramps. In addition, the radar sensor enables conveyor belt monitoring with regard to load and speed and scores in car washes with its robustness against spray. In a nutshell: a true all-rounder in distance and speed measurement.

## BEST FRIENDS

We reserve the right to make technical alterations without prior notice. · 11.2024  
ifm electronic gmbh · Friedrichstr. 1 · 45128 Essen



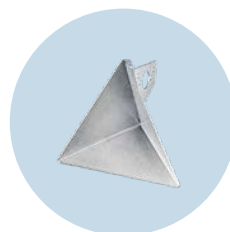
### IO-Link interface

For setting the parameters of IO-Link devices on the PC



### io-key

Sending sensor data to the cloud via a mobile network



### Corner reflectors

Used as set-up aid and as a reliable target object



For further technical details, please visit: [ifm.com/fs/R1D100](https://ifm.com/fs/R1D100)