

## 1 Purpose

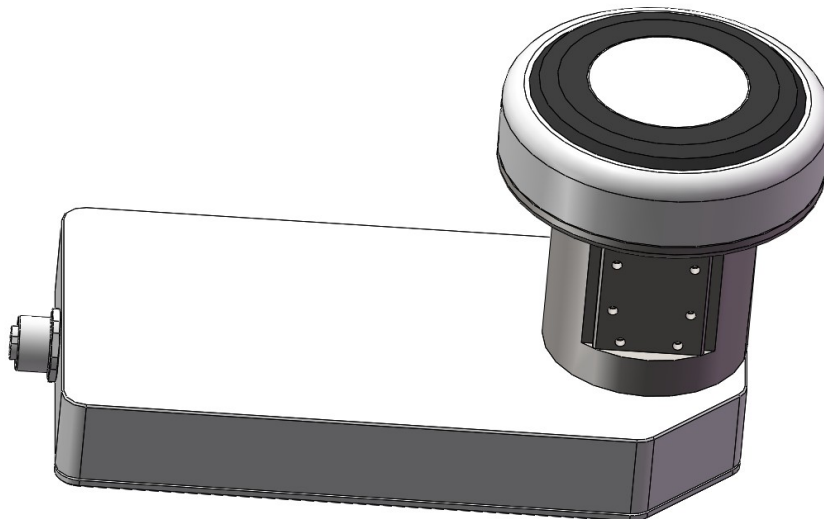
Sensor for measuring moisture or water content.  
Resonator head with ceramic ring of SiC as abrasion protection.  
The ceramic ring and coupling ring is replaceable:

## 2 Measurement principle

The sensor uses a microwave resonator. The resonator is open to one side and covered with a white ceramic plate.  
The resonator must have direct contact to the measured material.

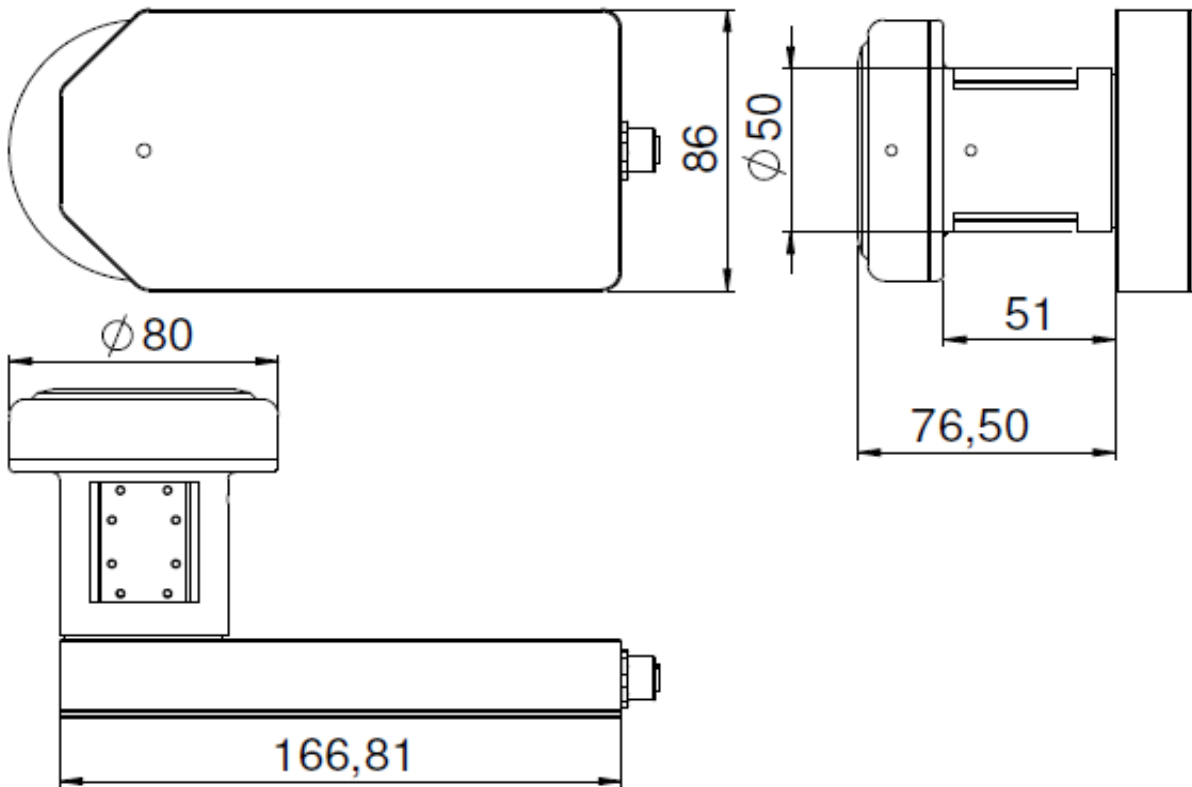
## 3 Setup

Microwave sensor 87150.036



picture 1: Microwave sensor with resonator head under 90°

## 4 Dimensions



picture 2: dimensions in mm

## 5 Technical data

<b>Description</b>		
	sensor for measuring moisture or water content	
	resonator head under 90°	
	with ceramic ring as abrasion protection	
<b>Measurement principle</b>		
	resonance method, evaluating of dielectric constant of the measured material	
	frequency range 1 GHz	
	sensor in direct contact to measured material	
<b>Measurement range</b>		
	measurement range	0 ... 100 % moisture or water content
<b>Supply voltage</b>		
	supply voltage	+22 ... +30V typ.: +24V
<b>Current consumption</b>	measured with connector box	
	operation current	ca. 280mA at 24V
	in rush current	<1A
<b>Weight</b>		
	weight	ca. 2,4 kg

## 6 Order information

Model no	Description	Connector
87150.036	- Resonator with 1,5 mm ceramic plate - Resonator head under 90° - with current loop 4...20 mA - Measurement range up to 100% moisture or water content - ceramic ring with coupling ring replaceable	M12 8-pole. female
87151.383	- Replacement kit with ceramic ring and coupling ring	
87151.384	- Mounting tool for Replacement kit	

## 7 Company address

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