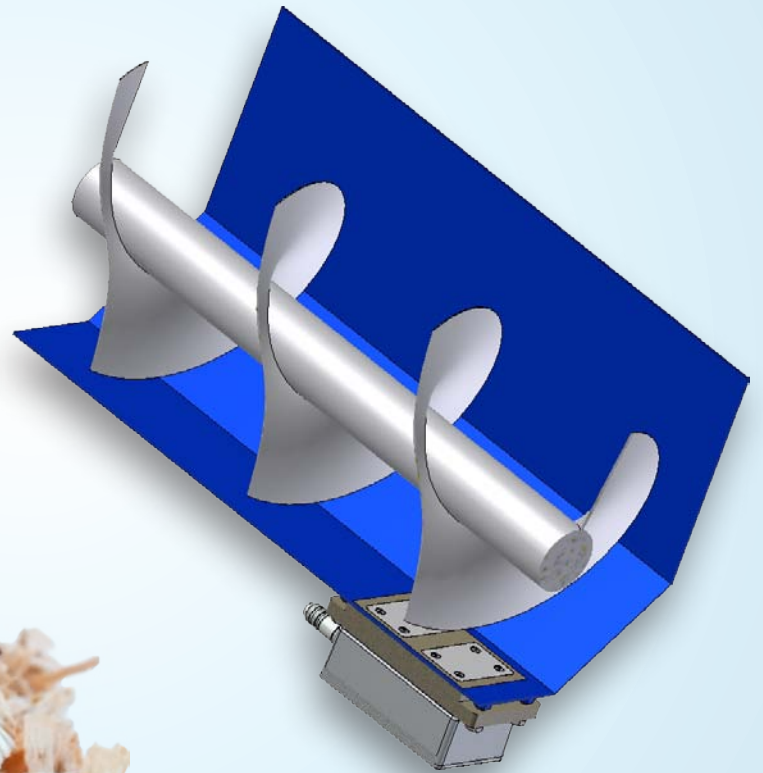


## Installation instructions for wood chips moisture transmitter (art. no. 12199)



## Installation instructions for wood chips moisture transmitter (art. no. 12199)

### Requirements:

During the measurement, the two stainless metal sheets have to have constant contact with the product (wood chips). To ensure correct measuring results, the wood chips have to exert a minimum pressure of 20 N/dm<sup>2</sup> on the sensor surface. The sensor measures the material that directly touches the sensor field. It must be ensured that no electrically conductive material affects the sensor surface.

### Possible installation positions:

- Screw conveyor: installation at the bottom of the trough
- In-feed chute with hydraulic ram: installation at the side wall
- Bunker: installation at the side wall (to ensure the minimum pressure, the sensor possibly has to be mounted at an angle)

### Electrical connection:

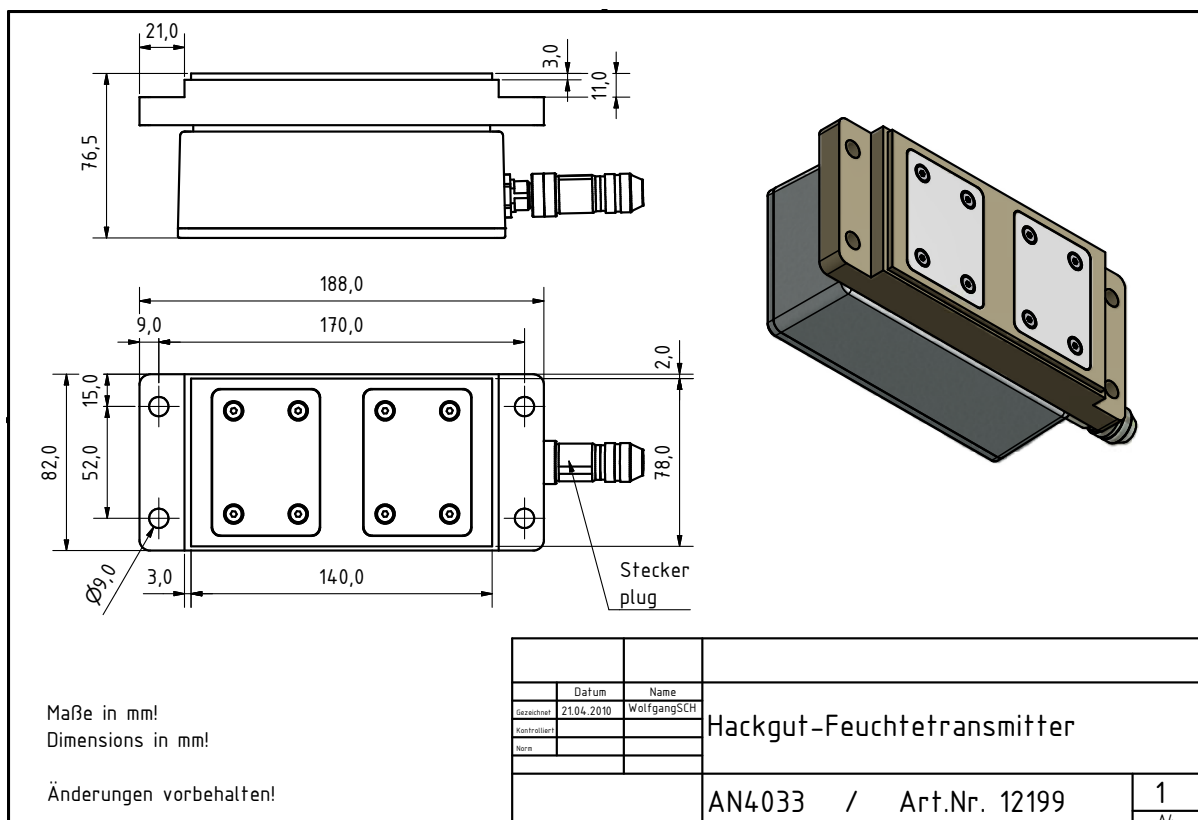
The wood chips moisture transmitter has to be powered with 24 VDC (15 to 29 VDC). The output of the measuring results is effected via an analogue 4-20mA output. The delivery includes a plug with open cable ends for power supply and analogue output.

### Measuring principle:

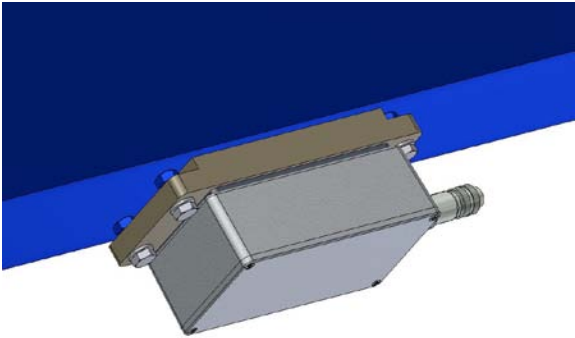
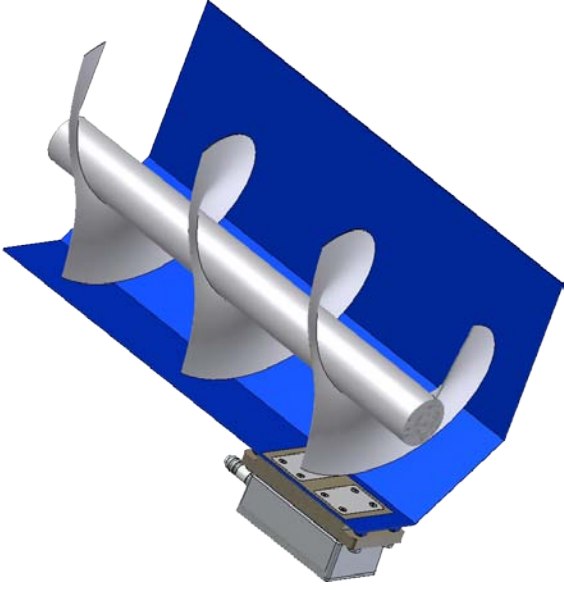
The wood chips moisture transmitter uses a conductance measurement specially developed by Schaller GmbH. This principle is based on the fact that electrical conductivity changes according to the moisture content of a porous material. Electrical conductivity in dry material is lower than in wet material. The evaluation electronics converts the measured conductance value into weight percent and shows the water content on the display.

### Information for installation after dryer:

After the drying process the material surface of the wood chips is much dryer than its core. Therefore an installation directly after the dryer will lead to too low measuring values. The specified minimum measuring range of 10% water content (for wood chips) will not be possible, in fact the measuring range limit is higher.



# Example applications:



## *humimeter* wood chips moisture transmitter

## *humimeter* universal moisture transmitter

online moisture transmitter for determination of water content of wood chips and further  
 analogue output water content 4-20 mA  
 optional: analogue output temperature 4-20 mA, display and keypad

### Key data:

*humimeter* wood chips moisture transmitter for online determination of water content of wood chips class P16 to P45 for installation in a screw conveyor

- Power supply 24VDC (15 to 29VDC)
- Measuring range 10 – 50% water content (represents 100% wood moisture)
- Resolution 0.1%
- Close material contact to measuring surface of sensor required

*humimeter* universal moisture transmitter (with customer-specific adapted sensors)

- Power supply 24VDC (15 to 29VDC)
- Measuring range dependent on application
- Large, well-lit LC display
- Analogue outputs 4-20 mA for water content and temperature
- Automatic temperature compensation



symbolic photo  
 universal moisture transmitter

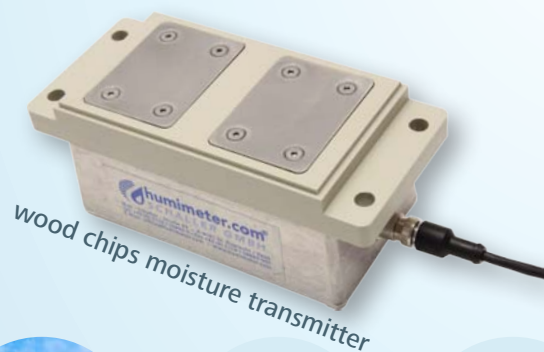
### Online determination of water content:

The *humimeter* wood chips moisture transmitter enables the facile online determination of water content of wood chips or further material.

*humimeter* wood chips moisture transmitters can easily be integrated also in existing plants and are therefore ideal for optimizing your dryer, oven or plant relating to the water content.

This enables an efficiency improvement of your oven, a reduction of the energy consumption for drying and in general a rising efficiency of your plant, which means the fabrication of a product of higher quality.

The connection to a control system can be realised by the 4-20mA analogue output. As the *humimeter* online wood chips moisture transmitter is readily calibrated, the installation can be realised with a modicum of effort.



Climate /  
 Environment



Foods



Bioenergy



Material



Buildings



Paper / Board

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Any technical changes reserved. Pictures do not show possible changes that have been made on different models.  
 A wide range of other instruments and external sensors can be found at [www.humimeter.com](http://www.humimeter.com)

