



Innovation:

Radio microwave sensor type 18P

Radio microwave sensor for mixers with rotating trough

Technical data:

Measurement Frequency: 300-500 MHz
Measurement Area: All consistency areas
Temperature Area: 0 to + 60 °C
Output: 0-20 mA
Power Supply: Storage battery 14.4V, 16000 mAh

Size of Sensor:

Diameter 105 mm, length 35 mm

Size of Mounting Attachment:

Diameter 175 mm, height 10 mm



- Industry-standard analogue output module
- Output areas: 0-10 V, 0-20 mA, 4-20 mA
- Included antenna
- Additional open collector outputs for the status of the storage battery and status of the sensor for transfer to the PLC
- Robust IP65 terminal box
- Radio frequency 2.4 GHz, license-free wave band, CE/FCC authorization
- Changeable battery pack, 70 hours of operation
- Intelligent battery quick-charging system with conservation charging

Characteristics of the Bikotronic Microwave Sensor type 18P:

- Extremely wear-resistant ceramic plate, 10 mm (= 3/8") thick over the whole surface
- Temperature stable electronics from 0 to 60°C
- Absolute linearity which makes it possible to measure precisely the moisture content of very dry concrete as well as very wet concrete
- The sensors have been developed in cooperation with the chair for high frequency engineering of the technical faculty of the Christian-Albrecht-University in Kiel. The measurement accuracy of the Bikotronic microwave sensors in the laboratory is better than 0.1%.
- The sensor uses the high-frequency method to determine the moisture content in the concrete. Here, the dielectric constant of water ($\epsilon = 80$) is compared with that of the material. This measuring result is converted by the analyzing electronics and the moisture content is output as a percentage.



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