Radio transmission system        RFT 2.x and RFR 2.0

Description

This radio transmission system was specially developed for wireless transmission of measurement data from strain gauge sensors. The radio transmission system consists of a radio transmitter and a radio receiver. The transmitter is linked by cable to a sensor. It records the analog sensor measurement signals and transmits the data to the receiver via a 2.4GHz radio link. The receiver in turn transmits an analog signal. Digital transmission via USB is also optionally available on the receiver.

We can provide you with two radio transmitters with different power supplies. The RFT 2.0 transmitter operates with easily replaceable batteries. The RFT 2.1 transmitter is powered by two rechargeable batteries. It is equipped with internal battery recharging electronics.

The radio transmission system has two automatic deactivation durations of differing lengths which can be selected by the user. The system also has a fault detector which can detect a transmitter failure, radio transmission disruption or range exceeding.

One significant advantage of the radio transmission system is its use in locations which cannot be accessed with cable connections, or only to a limited extent.

Features

- For strain gauge sensors
- No registration or charge for frequency (2.4 GHz)
- Range 25m
- Power supply via batteries/rechargeable batteries
- Fault detection
- Optional: digital output

Applications

- Measurement of forces, loads or pressures
### Technical data

<table>
<thead>
<tr>
<th>Frequency</th>
<th>2.4 GHz</th>
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<tbody>
<tr>
<td>Transmission channels</td>
<td>80</td>
</tr>
<tr>
<td>Range</td>
<td>25 m</td>
</tr>
<tr>
<td>Transmission rate</td>
<td>200 Hz</td>
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</tbody>
</table>

#### RFT 2.x transmitter

- **RFT 2.0 transmitter power supply**: 4 x battery, type AA (Mignon)
- **RFT 2.1 transmitter power supply**: 4 x rechargeable battery, type AA (Mignon) with internal battery recharging electronics (transmission is not possible during recharging)
- **Power consumption**: 150 mW (30 mA)
- **Automatic deactivation durations**: 10 min. / 60 min.
- **Operating temperature**: -10 °C to +50 °C
- **Storage temperature**: -30 °C to +50 °C (without batteries/rechargeable batteries)
- **Degree of protection**: IP 40
- **Housing**: Plastic housing with protective frame
- **Dimensions**: w 78 x l 145 x h 44 mm
- **Weight**: 200 g (without batteries/rechargeable batteries)
- **Cable**
  - **Type**: FDCY / 4 x 0.14 mm²
  - **Length**: 1.5 m

#### RFR 2.0 receiver

- **Power supply**: 12–14 VDC
- **Analog output**: 1 - 9 mA or 4 - 20 mA
- **Power consumption**: 700 mW (60 mA)
- **Degree of protection**: IP 40
- **Housing**: Plastic housing
- **Dimensions**: w 67 x l 125 x h 30 mm
- **Cable**
  - **Type**: LIYCY / 4 x 0.25 mm²
  - **Length**: 0.5 m

### Options

Digital output via USB port in N, kg, decimal or hexadecimal values