**PRODUCT DATASHEET**

**TELID® RFID Sensors**

**TELID® 281.3Dm**

RFID 3D vibration sensor transponder
- wireless passive acceleration sensor device
- 3D vibration measurement 0..1600 Hz, up to +/- 16 g
- mid size hard TAG, mountable on metal objects
- contactless data communication based on ISO14443A

RFID Sensor TELID® devices are an integral part of microsensys® iID® system solution. These devices are very useful for wireless sensors applications in industrial solutions, for condition monitoring and in maintenance processes. TELIDs are operating optimal with microsensys standard RFID reader.

<table>
<thead>
<tr>
<th>RFID Technology</th>
<th>RFID system iID®3000 closed coupling passive HF sensor solution based on ISO 14443A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chip Type</td>
<td>TELID®200 with integrated micro controller</td>
</tr>
<tr>
<td>Carrier Frequency</td>
<td>13.56 MHz</td>
</tr>
<tr>
<td>Communication Rate</td>
<td>106 kbps</td>
</tr>
<tr>
<td>Communication Distance</td>
<td>0 ... 20 mm depending on reader antenna and environmental conditions</td>
</tr>
</tbody>
</table>

Object Data Memory: EEPROM read write type endurance >100,000 cycles, data retention > 10 years parameters, calibration data and UID

Static Memory: EEPROM
Free Memory: 7 kbit

Acceleration Data Memory: RAM
- max. 1536 samples for one axis
- max. 512 samples per axis in 3D mode
- max. 16 bit

Acceleration Sensor: MEMS sensor, 3D (x-, y-, z-axis)
- adjustable max. range: +/-2 g, +/-4 g, +/-8 g or +/-16 g independent of settings
- max. 16 kbit
- sampling rate: 10 bit, 12 bit or 14 bit
- sample rate: 10 kHz
- frequency range: 0 Hz ... 1600 Hz
- bandwidth: 0.5 * max. Frequency, -3 dB, sinuso.

Temperature Sensor: optional
- range: -40°C ... +85°C
- resolution: ±1°C

Operating Modes: PASSIVE RFID SENSOR
Measure Modes: ON LINE MEASUREMENT
- programming of sensor parameters and object data memory frequency range, filter limits, amount of samples, range
- calibration data (optional)

Battery: no battery

Working Temperature:
- Storage Temperature:
- recommended 25°C

Dimensions:
- D15 mm, thickness max. 3.5 mm
- on metal type
- laser printed product type on top
- optional unique ID-No
- <1 g

Appropriate RFID Reader:
- PEN reader with RS232TTL, USB or Bluetooth
- M30 or M18 HEAD reader with RS232TTL or USB for industrial application
- POCKETwork with USB or Bluetooth

Software: special TELID application software for Windows and mobile devices

<table>
<thead>
<tr>
<th>Type</th>
<th>12.281.150.10</th>
<th>12.281.150.11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package</td>
<td>on metal mounting</td>
<td>on metal mounting</td>
</tr>
<tr>
<td>Acceleration Sensor</td>
<td>3 axis</td>
<td>3 axis</td>
</tr>
<tr>
<td>Special Features</td>
<td>-</td>
<td>calibrated temperature sensor</td>
</tr>
</tbody>
</table>

*) in development

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