# PRODUCT DATASHEET

TELID® RFID Sensors

TELID® 281.3D-A *preliminary*

RFID vibration 3D sensor transponder

- passive sensor device
- 3D vibration measurement 0...200 Hz, up to +/- 8 g
- small size half lens plastic package D15 mm or on metal type Q16 package
- contactless data communication based on ISO14443B

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 quality check in food and pharma industry, for temperature check in maintenance processes and transport and logistics. TELIDs are operating optimal with microsensys standard RFID reader.
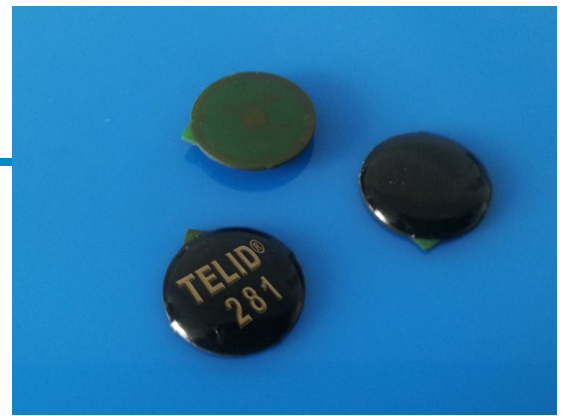
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This data sheet is subject to change
contact microsensys for latest information

TELID281A-02 preli

RFID Technology:	RFID system iID®3000	
Chip Type:	iID-L	closed coupling, 13.56 MHz, based on ISO 14443B
Carrier Frequency:	13.56 MHz	**Communication Rate:** 106 kbps
Communication Distance:	0 ... 20 mm	depending on reader antenna and environmental conditions
Object Data Memory:	EEPROM	read write type endurance >100.000 cycles, data retention > 10 years
Static Memory:	128bit, parameters, calibration and UID	
Free Memory:	128bit	
Acceleration Sensor:	MEMS sensor, 3D acceleration (x, y, z-axis)	
Measure Range:	0 g ... +/-2 g, +/-4 g, +/-8 g	programmable
Resolution:	8 bit	
Sample Rate:	max. 200 Hz (for 3 axis)	
Frequency Range:	0 Hz … 200 Hz	-3 dB, sinus,
	programmable bandwidth 25 Hz, 50 Hz, 100 Hz, 190 Hz	by digital filter
Sensitivity:	0.5 mg/Hz^-0.5	theoretical
Acceleration Data Memory:	RAM	
Samples:	170 samples per axis (for 3 axis)	
Resolution:	8 bit	
Temperature Sensor:	semiconductor sensor	optional
Working Temperature:	-30°C .... +95°C	
Resolution:	0. 5 K	**Accuracy:** +/- 0.5 K
Thermal Time Constant:	approximately 1 min	mounted on object
Operating Modes:	PASSIVE SENSOR	
Measure Modes:	ON LINE MEASUREMENT	
Basic Functions:		programming of sensor parameters and object data memory
Parameters:		start delay, sample time, filter limits, amount of samples, calibration data (optional)
Battery:	no battery	
Working Temperature:	-25°C ... +85°C	
Storage Temperature:	-35°C ... +125°C	recommended 25°C
Dimensions:	D 15 mm², thickness 3 mm	D14 package
	16 x 16 x 3 mm³	Q16 package, on metal type
Packaging:		plastic (black)
Marking:		laser printed / paper printed, optional unique ID-No
Weight:	0.5 g / 1.0g	
Appropriate RFID Reader:	PEN reader	with RS232TTL, USB or Bluetooth
	M30 HEAD reader	with RS232TTL, RS485 or USB for industrial application
Software:	special TELID application software for Windows	

Type :	12.281.100*	12.281.540	*) in development
Package:	no metal D14	on metal mounting Q16	
Acceleration Sensor:	3 axis type A	3 axis type A	
Temperature Sensor:	not activated	not activated	