

PRODUCT DATASHEET

TELID® RFID Sensors

TELID® 740-D30MP

BLE Pressure Sensor and Identification Beacon

- unique identification number
- integrated pressure and temperature sensor
- designed for rainwater level measurements
- Bluetooth Low Energy data communication

TELID®700 extends the proven range of passive sensors and sensor data loggers with wireless RFID interface by a Bluetooth Low Energy communication interface.

TELID®700 devices are useful for long range identification or sensing demands. The product can be attached to metal or non metal surfaces and is useable under water. The completely hermetically sealed housing offers no option to change the battery.



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TELID740-001.docx

Contactless Interface:	BLE TELID®7	long range identification and sensor system TELID®700
<i>RF Communication:</i>		Bluetooth Low Energy 4.2
<i>Carrier Frequency:</i>		2,4GHZ
<i>Communication Distance:</i>	0 ... 10 m, depending on gateway type and environmental conditions	
Environmental Conditions:	IP68	maximum 2m water
<i>Working Temperature in Air:</i>		-25°C ... +60°C
<i>Working Temperature in Water:</i>		0°C ... +30°C
<i>Storage Temperature:</i>		-40°C ... +85°C, recommended 25°C
Sensors:	MEMS pressure sensor with integrated 24bit $\Delta\Sigma$ ADC	
	Silicon temperature sensor	
<i>Working Range:</i>	0 ... 30 bar	see type version
<i>Resolution RMS:</i>	theoretical 0.02 mbar or 0.28 mbar	at OSR=4096
<i>Response Time:</i>	8 ms	
<i>Working Range:</i>	-20°C ... +85°C	
<i>Thermal Time Constant:</i>	approx. 10 s	
Data Memory:	EEPROM	non volatile memory, write endurance >10 ⁶ cycles
<i>Standard Content:</i>		unique TELID identification number, parameter and calibration data
<i>Remark:</i>		programmable by TELID®700 configuration tool
<i>Security features*:</i>	Write Protection:	partial read-only protection
	Data Encoding:	128-bit hash encoding
	Originality:	ECC-based programmable originality signature
Operation:	SLEEP, RUN, MEASURE	
<i>Basic functions:</i>		PROGRAM, BROADCAST, CONNECT*
<i>Sampling rate:</i>		15 sec ... 900 sec, programmable
<i>Broadcast period:</i>		> 1 sec, depending on connection period
Housing:	D30MP	hermetically closed
<i>Dimension:</i>		D30 mm, thickness 15 mm
<i>Material:</i>		stainless steel and epoxy
<i>Protection Class:</i>		IP68
<i>Mounting Instruction:</i>		see application note
Energy Source:	Li primary cell	
<i>Consumption:</i>		SLEEP: 4 μ A, RUN: 2mA, MEASURE/TRANSMIT: 4mA
<i>Battery:</i>		not replaceable
<i>Life Time:</i>		1 ... 3 years, depending on usage
Operation Devices:	Smart Phone or BLE Gateway with TELID®7 software	
<i>Appropriate Gateway:</i>		iID®controller CCO, BLE4.2 enabled smartphone
<i>Configuration Software:</i>		TELID®700 configuration tool (Android)
<i>Operating Software:</i>		TELID®740soft (Android) or iID® DATAcapture for iID®controller*
Device Interface:	TELID®700 beacon protocol	driverless based on iID® interface protocol V4

*) in development or on request

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TELID® RFID Sensors

TELID® 742-D30MP



TELID®740 is a battery powered pressure sensor beacon for unique object identification, temperature and pressure measurement supporting operation with smartphones and other iID®contactless components such as gateways.

Device type:	Pressure and temperature sensor beacon	Unit
Measurement Range	0.3 to 1.2	bar
Accuracy Pressure	+/-0.5 at 20°C, 600...1000 mbar +/-2 at 0°...+60°C, 300...1100 +/-4 at -20°...+85°C, 300...1100 mbar	mbar
Accuracy Temperature	+/-0.3 at 25°C +/-2.0 at -20°C ... +85°C	°K
Productcode	14.742.450.00	

TELID® 743-D30MP



TELID®740 is a battery powered pressure sensor beacon for unique object identification, temperature and pressure measurement supporting operation with smartphones and other iID®contactless components such as gateways.

Device type:	Pressure and temperature sensor beacon	Unit
Measurement Range	0 to 30	bar
Accuracy Pressure	+/-50 at 0°...+40°C, 0...6 bar +/-100 at 0°...+40°C, 0...20 bar +/-100 at -20°...+85°C, 0...6 bar	mbar
Accuracy Temperature	+/-1.5 at 25°C +/-4.0 at -20°C ... +85°C	°K
Productcode	14.743.450.00	

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