

# PRODUCT DATASHEET

TELID® RFID Sensors

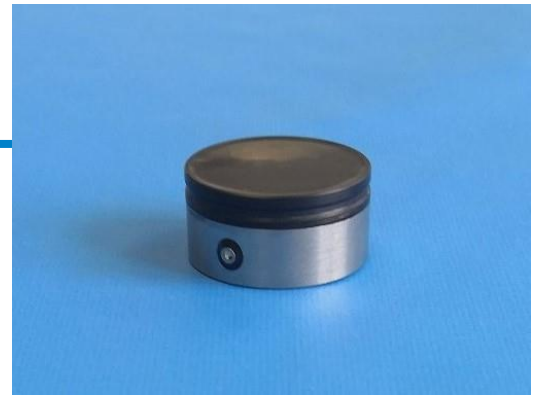
## TELID® 740

### 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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this data sheet is subject to change  
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TELID740-003.docx

<b>Contactless Interface:</b>	BLE TELID®7	long range identification and sensor system TELID®700
RF Communication:		Bluetooth Low Energy 4.2
Carrier Frequency:		2.4GHZ
Communication Distance:	0 ... 10 m, depending on gateway type and environmental conditions	
<b>Environmental Conditions:</b>	IP68	maximum 2m water
Working Temperature in Air:		-25°C ... +60°C
Working Temperature in Water:		0°C ... +30°C
Storage Temperature:		-40°C ... +85°C, recommended 25°C
<b>Sensors:</b>	MEMS pressure sensor with integrated 24bit $\Delta\Sigma$ ADC Silicon temperature sensor	
Working Range:	0 ... 30 bar	see type version
Resolution RMS:	theoretical 0.02 mbar or 0.28 mbar	at OSR=4096
Response Time:	8 ms	
Working Range:	-20°C ... +85°C	
Thermal Time Constant:	approx. 20 s	
<b>Data Memory:</b>	EEPROM	non volatile memory, write endurance >10 <sup>6</sup> cycles
Standard Content:		unique TELID identification number, parameter and calibration data
Remarks*:		programmable by TELID®700 configuration tool
Security features*:	Write Protection:	partial read-only protection
	Data Encoding:	128-bit hash encoding
	Originality:	ECC-based programmable originality signature
<b>Operation:</b>	SLEEP, RUN, MEASURE	
Basic functions:		PROGRAM, BROADCAST, CONNECT*
Sampling rate:		15 sec ... 900 sec, programmable
Broadcast period:		> 1 sec, depending on connection period
<b>Housing:</b>	D32P / D30MP	hermetically closed
Dimension:		D32.8 mm, thickness 9 mm / D30 mm, thickness 15 mm
Material:		PC / stainless steel and epoxy
Protection Class:		IP68
Mounting Instruction:		see application note
<b>Energy Source:</b>	Li primary cell	
Consumption:		SLEEP: 0.3 $\mu$ A, RUN: 265 $\mu$ A, MEASURE: 790 $\mu$ A, TRANSMIT: 13.5mA
Battery:		not replaceable
Life Time:		1 ... 5 years, depending on usage
<b>Operation Devices:</b>	Smart Phone or BLE Gateway with TELID®7 software	
Appropriate Gateway:	iID®controller CCO, BLE4.2 enabled smartphone	
Configuration Software:	TELID®700 configuration tool (Android)	
Operating Software:	TELID®740soft (Android) or iID® DATAcapture for iID®controller*	
<b>Device Interface:</b>	TELID®700 beacon protocol	driverless based on iID® interface protocol V4

\*) in development or on request

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## TELID® 741-D32P

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
Battery Capacity	Li primary cell approx.. 180 mAh	
Productcode	<b>14.741.450.00</b>	

## 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
Battery Capacity	Li primary cell 400 mAh	
Productcode	<b>14.742.450.00</b>	

## TELID® 743.K-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
Battery Capacity	Li primary cell 400 mAh	
Productcode	<b>14.743.450.00*</b>	

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