



TPU 4030 PCB

User Manual

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Regulatory Notices

Europe

Hereby, deister electronic GmbH declares that this equipment - if used according to the instructions - is in compliance with the essential requirements and other relevant provisions of the RTTE Directive 1999/5/EC.

A full declaration of conformity can be requested at:

info@deister-gmbh.de



Approved for use in all European countries.

FCC Warning

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Industry Canada

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Note:

When installing the board into other devices, under no circumstances should an electrical connection be established.

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Disclaimer

deister electronic GmbH is not able to supervise the observance of the instructions given in this manual as well as the conditions and methods used during installation, operation and maintenance of the electronic devices and components respectively. Therefore we disclaim liability and reject responsibility for any losses, damages or costs that are caused by misapplication, installation, handling errors or faulty operation or related to the above in any other way. All our products are subject to current advancement, therefore we reserve the right for modifications without prior notice.

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1. Technical Data

Dimensions:

mm (inch) W x H x D 31.8 x 54.4 x 10 (1.25 x 2.14 x 0.41)

Operating Temperature:

°C (°F) 5 ... 50 (41 ... 122)

Relative Humidity:

5 %...95 %, non-condensing

Power Requirement:

1x CR 2450

Frequency:

8 kHz, 125 kHz, 433 MHz

Reading Distance:

in m (ft.) up to 10 (32.8)

OTP:

(e.g. Formats up to 64 Bit)

Fixcode:

(e.g. 32 Bit)

Conformity:

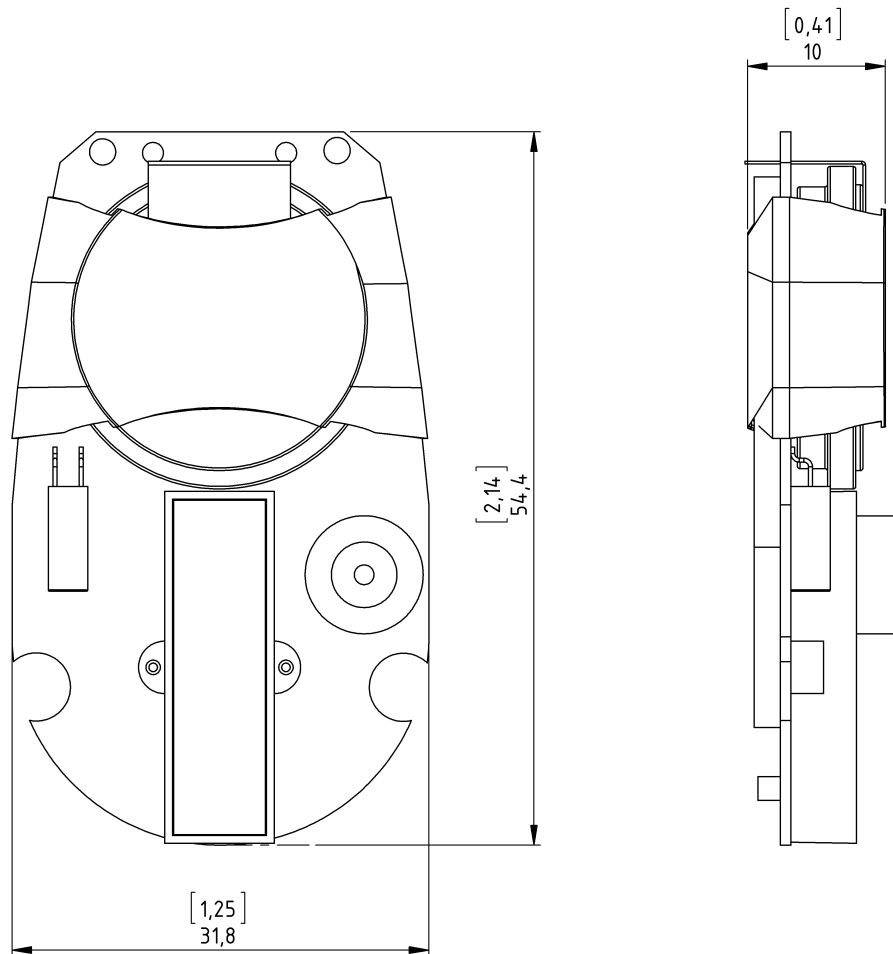
EN 50364
EN 301489
EN 300330
FCC Part 15

Air interface (EU)

Air interface (US)

2. Mechanical Dimensions

All dimensions in mm [inch].



3. General Information

TPU 4030 is an active transponder, which was developed to be used in combination with Amantag Compact and / or PRX5 reader or ADA (Amantag deactivator).

The transponder has three interfaces for communication with readers.

- Receiving via 8,1 kHz
- Sending via 433 MHz
- Sending and receiving via 125 kHz (passive modulation)

Amantag Compact readers are using 8.1 kHz and 433 MHz frequencies. These low-frequency fields are generated by the reader and serve to activate the transponder and to communicate with the transponder. Messages from the transponder to the reader are transmitted via 433 MHz. Once a transponder is brought into the sphere of the low frequency field, it is activated and gets recorded by the reader. Reader and transponder will remain in a constant communication with each other until the transponder leaves the field. The transponder can also send out an acoustic signal when it is detected by the reader.

An 125 kHz interface is used for data exchange with PRX 5 reader or ADA. After activation, the transponder sends data to the reader for about 3 seconds. To activate the transponder again, it must first be removed from the reader field and then brought in again.

4. Activating the Transponder

For transportation, the transponders are set to transport mode. Before use, they must be activated. The activation is done by an Amantag compact reader. The DIP switch B6 needs to be set to ON position.

ON								ON							
#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
A1	A2	A3	A4	A5	A6	A7	A8	B1	B2	B3	B4	B5	B6	B7	B8

Attention!

Possibly, the field strength must be increased. Therefore, set DIP switch B1 to B4 to "ON" position. After configuration, the transponder should be placed close to the reader (it requires high power to wake up the transponder from transport mode).

As long as the switch B6 is in ON position, there is no reaction from the reader to the transponder. Whether a transponder is active can only be revealed when the switch B6 is in OFF position.

This way, several transponders are activated simultaneously. After activation, the switches must all be brought back into starting position.

Attention!

Once activated, transponders can not be switched into transport mode again.

5. Acoustic Signal

The TPU 4030 has a built-in beeper, which can be activated by an Amantag compact reader. The acoustic signal is triggered by an Amantag compact reader whenever its door number is greater than seven.

The picture below shows the switches A5 - A8 set to door number 9.

ON								ON							
#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
A1	A2	A3	A4	A5	A6	A7	A8	B1	B2	B3	B4	B5	B6	B7	B8

Attention!

Once activated, the alarm can only be disabled by an ADA unit (article number: 0723.000). Otherwise, the transponder will beep, until the battery is empty.

6. Battery Monitoring

The battery status of the PrisonTag can be monitored. An ADA unit (article number: 0723.000) can read and display the current battery status. For more information, please refer to the description of the ADA unit.

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