

PRODUCT DATASHEET

iID® Transponder

MINI-TAGspecial U4.5

UHF-RFID miniature transponder, for extreme environmental conditions, mounting in metal

- passive RFID communication ISM UHF band, EPC Class1 Gen2 or ISO 18000-6C
- round TAG, diameter 4.5 mm (5.0 mm border)
- PEEK packaging, for mounting in metal surface
- EEPROM memory
- designed for small item tagging, tool management solutions, aircraft and automotive part tagging

These transponder device is an integral part of *microsensys* iID® system solution.

This TAG operates with *microsensys* standard RFID reader components and high sensitive demodulators.



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microSensys
RFID in motion

This data sheet is subject to change
contact *microsensys* for latest information

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RFID Technology:	UHF closed coupling system iID®4000, based on ISO 18000-6c, EPC Class1 Gen2
Chip Types:	NXP UCODE G2XM or Impinj Monza 5
Frequency Range:	preferably EU ISM Band 860-868MHz
Polarisation:	without polarisation, inductive coupled
Communication Rate:	forward link: 40-160kBit/s return link: 40-640kBit/s
Communication Distance:	0 ... 10 mm with closed coupling UHF readers in every case depending on reader system and environmental conditions
Memory:	EEPROM endurance 100000 cycles, data retention 50 year (T<55°C) features are depending on used RFID chip
Memory Capacity:	128 bit EPC, 64 bit TID 240 bit EPC, 64 bit TID Monza 5 G2XM
User Memory:	512 bit only G2XM
Special Functionality:	see application note <i>microsensys</i>
Operating Temperature:	-25°C ... +85°C
Storage Temperature:	-45°C ... +125°C (for short time +150°C)
Dimensions:	D 4.5 +/-0.1 mm (outside of metal 5.0 mm), approx. TH 2.2 mm
Packaging Material:	PEEK, back side epoxy inlet mixed ferrite epoxy PEEK material in black or nature colour, depending on the availability
Mounting Instructions:	using flat in metal possible plane side on top recommended glue: 2K-EP "plus endfest 300" UHU GmbH Germany
Protection Class:	IP67
Marking:	no marking
Appropriate RFID Reader:	POCKETwork UHFcc PENSolid UHFcc INDUSTRY 0906 UHF plus M18 UHFcc others possible wireless handheld reader wireless pen reader stationary industrial read write unit
HOST Command Set:	see actual API documentation of <i>microsensys</i> iID® driver engine

Type :	18.911.514.00*	18.933.514.00	*on inquiry
Chip Type:	UCODE G2XM	Monza 5	
User Memory:	512	0	
Geometry:	5 mm border	5mm border	
Communication Distance:	7	5	mm measured with M18 UHF antenna