

# PRODUCT DATASHEET

iID® Transponder

## MINI-TAGspecial 8.5

### HF-RFID transponder, for extreme environment

- passive RFID communication 13.56 MHz
- round TAG, diameter 8.5 mm
- PEEK packaging
- on metal and flat mounting in metal possible
- up to 64 kbit memory
- designed for aircraft and automotive part tagging
- successful in industrial applications over 15 years

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

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



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RFID in motion

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

MINI-TAGsp85-007

<b>RFID Technology:</b>	closed coupling RFID system iID®2000, ISO 15693 system iID®3000, ISO 14443B
<b>Chip Type:</b>	EM4135, iID®-G, iID®-K, iID®-X others on request
<b>Carrier Frequency:</b>	13.56 MHz
<b>Communication Rate:</b>	down link 26.4 or 106 kbps
<b>Communication Distance:</b>	0 ... 5 mm dependent on reader antenna, chip type and metal environment
<b>Memory:</b>	EEPROM endurance >100.000 cycles, data retention 10 years or up to 60 years
<b>Memory Capacity:</b>	2 kbit, 16 kbit and 64 kbit available
<b>Special Functionality:</b>	see data sheet of chip manufacturer
<b>Operating Temperature:</b>	-25°C ... +65°C
<b>Storage Temperature:</b>	-45°C ... 160°C long term max. +85°C, short time 200°C
<b>Dimensions:</b>	D 8.5 +/-0.1 mm, TH 2.0 mm
<b>Packaging Material:</b>	PEEK, back side epoxy inlet mixed ferrite epoxy
<b>Marking:</b>	laser printing
<b>Mounting Instructions:</b>	using flat in metal possible plane and printed side on top recommended glue: 2K-EP "plus endfest 300" UHU GmbH Germany DO160 not all chip types
<b>Environment Condition:</b>	IP67 and DO160 proved
<b>Appropriate RFID Reader:</b>	PEN reader with RS232TTL, USB or Bluetooth interface, POCKET reader with USB and Bluetooth interface especially for mobile data capture UNI113 or Q10 13.56 MHz read write module, for <i>microsensys</i> OEM partner only
<b>HOST Command Set:</b>	see actual API documentation of <i>microsensys</i> iID® driver engine or data sheets of silicon chip manufacturer
<b>Software:</b>	different software for Windows PC or mobile devices available, for application software please ask at info@microsensys.de

Type :	15.32.502	15.82.502	15.54.502	15.26.502	
<b>Chip Type:</b>	EM4135	iID-X	iID-G	iID-K	
<b>Standard:</b>	ISO 15693	ISO 15693	ISO 15693-2	ISO 14443 B	
<b>Memory:</b>	2k EEPROM	2k FRAM	16k EEPROM	64k EEPROM	bit
<b>Communication Rate:</b>	26.4	26.4	26.4	106	kbitps
<b>Communication Distance:</b>	3	3	3	2	mm
					measured with PENmini