

# PRODUCT DATASHEET

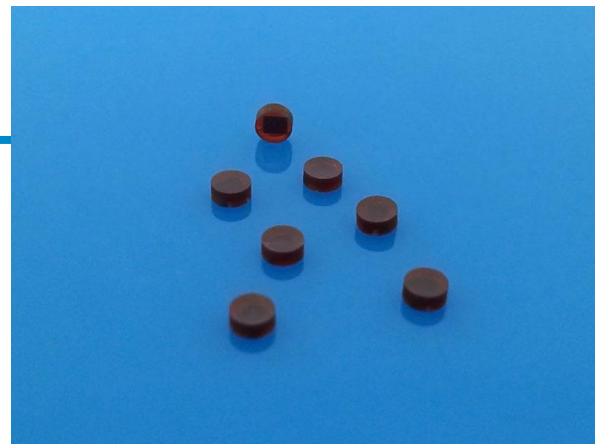
iID<sup>®</sup> Transponder

## C2.8-UTAG

### UHF-RFID miniature transponder

- passive RFID communication ISM UHF band, EPC Class1 Gen2 or ISO 18000-6c
- ultra small form factor, 2.8mm miniature cylindric TAG for unique identification and data storage in IoT applications
- designed for direct product and replacement part integration, specially for use in medical and other harsh environments

This transponder device is an integral part of *microsensys* iID<sup>®</sup> system solutions. This TAG operates with *microsensys* standard RFID reader components.



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**microSensys**  
RFID in motion

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

C2.8-UTAG 001.c

<b>RFID Technology:</b>	UHF close coupling system iID <sup>®</sup> 4000,	based on ISO 18000-6c, EPC Class1 Gen2
<b>Chip Types:</b>		UCODE 8, UCODE DNA
<b>Frequency Range:</b>	preferably EU ISM Band 860-868MHz	
<b>Polarisation:</b>		without polarisation, inductive coupling
<b>Communication Rate:</b>		forward link: 40-160kBit/s return link: 40-640kBit/s
<b>Communication Distance:</b>	0 ... 20 mm	with close coupling UHF readers in any case depending on reader system and environmental conditions
<b>Memory:</b>	EEPROM	endurance 100000 cycles, data retention 50 year (T<55°C) features depending on RFID chip
<b>Memory Capacity:</b>		see type information
<b>User Memory:</b>		see type information
<b>Special Functionality:</b>		optional security features, only type 19.943.220.170
<b>Operating Temperature:</b>	-25°C ... +85°C	
<b>Storage Temperature:</b>		-45°C ... +125°C, short time +150°C, recommended 21°C
<b>Dimensions:</b>	2.8 mm, TH 1.2 mm	
<b>Case Material:</b>	epoxy housing	
<b>Mounting Instructions:</b>		best working in non metal environment with glue, plane side on bottom, possible mounting flush in cavity recommended glue: 2K-EP "plus endfest 300" UHU GmbH Germany
<b>Protection Class:</b>	IP64	
<b>Marking:</b>	no marking	
<b>Appropriate RFID Reader:</b>	POCKETwork UHFcc PENsolid UHF INDUSTRY 0906 UHF plus M18 UHFcc others possible	wireless handheld reader wireless pen reader stationary industrial read write unit
<b>HOST Command Set:</b>	see actual API documentation of <i>microsensys</i> iID <sup>®</sup> driver engine	

<b>Type :</b>	<b>19.948.220.170</b>	<b>19.943.220.170*</b>	
<b>Chip Type:</b>	UCODE 8	UCODE DNA	
<b>TID:</b>	96	96	bit
<b>EPC memory:</b>	128	128	bit
<b>User memory:</b>	0	up to 3	kbit
<b>Dimension:</b>	2.8 x 1.2	2.8 x 1.2	mm <sup>3</sup>
<b>Communication Distance**:</b>	10	10	mm

\*in development or on inquiry, \*\*measured with M18 UHF antenna