

Product type designation

RF680T transponder

SIMATIC RF680T HEAT RESISTANT TAG; 130X32X15 MM ISO 18000-6C; EPC CLASS 1 GEN 2 FREQUENCY 860 UP TO 928 MHZ CHIP TYPE, NXP G2XM EPC 240 BIT 64 BYTE ADD-ON MEMORY -25 UP TO +220 DGR/C; MINIMAL ORDER QUANTITY 10 PCS



Wireless frequencies

Operating frequency	865 ... 928 MHz
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Electrical data

Range / maximum	4 m; observe system manual RF600: overrange is possible, range is reader dependent: observe http://support.automation.siemens.com/WW/view/en/67384964
Protocol / with radio transmission	EPCglobal Class 1 Gen 2 / ISO 18000-6C
Transfer rate / with radio transmission / maximum	320 kbit/s
Product property / multitag-capable	Yes
Polarization	Linear
Product component / Backup battery	No

Memory

Type of memory	EEPROM
Storage capacity / of the user memory	64 byte
Type of memory organization	EPC memory 96/240 bits, user memory 64 bytes (512 bits), TID memory 8 bytes
Number of read cycles / at ambient temperature < 40 °C / maximum	100000000000000
Number of write cycles / at ambient temperature < 40 °C / maximum	100000
Data retention time / at ambient temperature < 40 °C / not less than	10 y
Property of memory	lock, unlock, write protection, password protection
Type of transponder chip used	NXP G2XM

Mechanical data	
Material	PPS
Color	black
Tightening torque / of the screw for securing the equipment / maximum	1 N·m
Mounting distance / relating to metal surfaces / recommended / minimum	0 mm

Permitted ambient conditions	
Ambient temperature	
<ul style="list-style-type: none"> during read/write access 	-25 ... +100 °C
<ul style="list-style-type: none"> outside the read/write area 	-40 ... +220 °C
<ul style="list-style-type: none"> during storage 	-40 ... +100 °C
Ambient condition / for operation	Operating temperature permanent up to 140 °C, for 5000 hours or 3000 cycles up to 200 °C, for 2000 hours or 1500 cycles up to 220 °C
Protection class IP	IP68 / IPx9K
Shock resistance	According to DIN EN 60721-3-7 Class 7 M3
Shock acceleration	1000 m/s ²
Resistance against vibration	200 m/s ²
Resistance to mechanical stress	Torsion and bending stress not permissible

Design, dimensions and weight	
Width	32 mm
Height	15 mm
Depth	130 mm
Net weight	50 g
Mounting type	2 x M6 screws

Product properties, functions, components / general	
Product property	
<ul style="list-style-type: none"> silicon-free 	Yes
<ul style="list-style-type: none"> printable 	No

Standards, specifications, approvals	
Certificate of suitability	II 2G Ex ib IIB T6 to T2 Gb, II 2D Ex ib IIIB T135 °C Db
MTBF	1940 y

Further Information / Internet Links	
Internet-Link	
<ul style="list-style-type: none"> to website: Selector SIMATIC NET SELECTION TOOL 	http://www.siemens.com/snst
<ul style="list-style-type: none"> to website: Industrial communication 	http://www.siemens.com/simatic-net
<ul style="list-style-type: none"> to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> to website: Information and Download Center 	http://www.siemens.com/automation/net/catalog
<ul style="list-style-type: none"> to website: Image database 	http://automation.siemens.com/bilddb

- to website: CAx Download Manager
- to website: Industry Online Support

<http://www.siemens.com/cax>

<https://support.industry.siemens.com>

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