# SIEMENS

## Silicon Spreading Resistance Temperature Sensor in Miniature Metal Housing

**KTY 16-6** 

### Features

- Temperature dependent Resistor with Positive Temperature Coefficient
- · Small metal housing with insulated leadwires
- Fast response
- High reliability due to multilayer gold contacts
- n-conducting silicon crystal
- Polarity independent due to symmetrical construction
- Selected at 25 °C;  $R_{25} = 2000 \ \Omega \pm 1\%$

Test voltage:	200 V ~
Isolation voltage:	20 V ~
Test duration:	1 s

Туре	Marking	Ordering Code	Pin Configuration		Package	
			1	2		
KTY 16-6	-	Q62705-K128	electrical contact, black	electrical contact, red	Ni-Plated brass tube housing: potential free	

#### **Absolute Maximum Ratings**

Parameter	Symbol	Limit Values	Unit	
Maximum operating voltage <sup>1)</sup> $T_A \le 25 \text{ °C}, t \le 10 \text{ ms}$	V <sub>opmax</sub>	25	V	
Maximum operating current	I <sub>opmax</sub>	5	mA	
Peak operating current $T_A \le 25 \text{ °C}, t \le 10 \text{ ms}$	I <sub>opp</sub>	7	mA	
Operating temperature range	T <sub>op</sub>	- 50 + 150	°C	
Storage temperature range	T <sub>stg</sub>	- 50 + 150	°C	

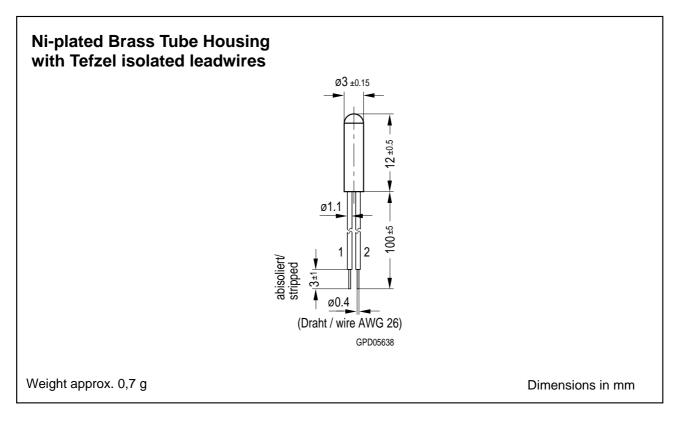
<sup>1)</sup> ESD Class 1. When the temperature sensor is operated with long supply leads, it should be protected through the parallel connection of a > 10 nF capacitor to prevent damage to the sensor through induced voltage peaks.

#### **Electrical Characteristics**

at  $T_A = 25$  °C unless otherwise specified

Parameter	Symbol	Limit Values			Unit
		min.	typ.	max.	_
Temperature sensor resistance $I_{\rm B}$ = 1 mA	R <sub>25</sub>	1980	_	2020	Ω
Thermal time constant (63% of $\Delta T_A$ ) in still air in still oil (Freon FC40/PP7)	τ <sub>air</sub> τ <sub>oil</sub>		40 4		S

#### **Package Outline**



#### **Exterior Packaging**

I.e. tubes, trays, boxes are shown in our Data Book "Package Information".