

# Platinum temperature sensor Type M (Medium)

Temperature range  $-70\text{ }^{\circ}\text{C}$  to  $+500\text{ }^{\circ}\text{C}$ ,  
for a short time to  $+550\text{ }^{\circ}\text{C}$

## Applications

Automotive, white goods, HVAC, energy management, medical and industrial equipment

## Insulation resistance

$> 100\text{ M}\Omega$  at  $20\text{ }^{\circ}\text{C}$ ;  
 $> 2\text{ M}\Omega$  at  $500\text{ }^{\circ}\text{C}$

## Status

04/2010



## Specification

DIN EN 60751

## Measuring current

at  $1000\ \Omega$ :  
 $0.1$  to  $0.3\text{ mA}$

## Tolerance classes

Class B resp. F 0.3

## Environmental conditions

Use unprotected only in dry environments

## Nominal resistances

$1000\ \Omega$ , at  $0\text{ }^{\circ}\text{C}$

## Temperature coefficient

$3850\text{ ppm/K}$

## Soldering connection

Pt coated Ni wire

## Connection Technology

Recommended connection technology welding, hard soldering and crimping

## Long-term stability

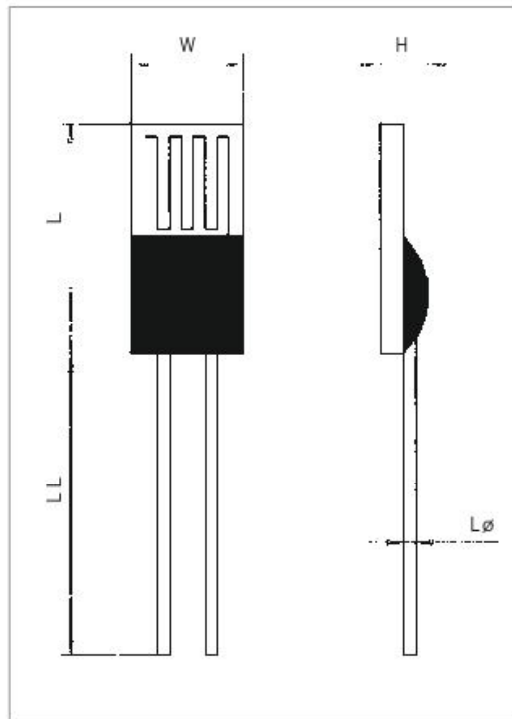
Typical  $R_0$ -drift  $0.04\%$  after  $1000\text{ h}$  at  $500\text{ }^{\circ}\text{C}$

## Vibration resistance

At least  $40\text{ g}$  acceleration at  $10$  to  $2000\text{ Hz}$ , depending on mounting method

## Shock resistance

At least  $100\text{ g}$  acceleration with  $8\text{ ms}$  half sine wave, depending on mounting method



Tolerance class B resp. F 0.3 temperature range from  $-70\text{ }^{\circ}\text{C}$  to  $+500\text{ }^{\circ}\text{C}$

TK 3850

Name			Order number		Dimensions in mm					Self-heating	Response time in seconds			
Type	Design	Nominal resistance	Blister reel	Plastic bag	L	W	H	LL	Lø	Ice water $0\text{ }^{\circ}\text{C}$ in K/mW	Water: $v = 0.4\text{ m/s}$		Air: $v = 2\text{ m/s}$	
											$t_{0.5}$	$t_{0.9}$	$t_{0.5}$	$t_{0.9}$
M	222	Pt 1000		32208571	2.3	2.1	0.9	10	0.2	0.4	0.05	0.15	3.0	10

## Tolerances in mm:

L:  $\pm 0.15$  (M 213 L:  $\pm 0.25$ ) • W:  $\pm 0.15$  (at X 22: W:  $\pm 0.2$ ) • H:  $+ 0.3/-0.2$  • LL:  $\pm 1.0$  • Lø:  $\pm 0.02$