

Platinum thin-film sensor Type H (High)

Temperature range -70 °C to +600 °C (HM),
-70 °C to +750 °C (HL), -70 °C to +850 °C (HD),

Applications

Applications with high consumer volumes, e.g. white goods, heating power and process technology

Specification

DIN EN 60751 (HM, HL, HD)

Tolerance classes

Class B, class 2B, tolerance defined by HST

Nominal resistances

100 Ω and 1000 Ω

Temperature coefficient

3850 ppm/K (HM, HL, HD)

Soldering connection

PtPd, PtNiCr, Pt leads

Long-term stability

HM: 1000 h at 600 °C (energized) according to DIN B

HL: 1000 h at 750 °C (energized) according to DIN B

HD: 1000 h at 850 °C (energized, open) smaller according to DIN B.
1000 h at 650 °C (under current as clean MI-type) according to DIN B

Vibration resistance

At least 40 g acceleration at 10 to 2000 Hz, depending on mounting method

Shock resistance

At least 100 g acceleration with 8 ms half sine wave, depending on mounting method

Environmental conditions

HM version
Unprotected only for use in dry ambients.

HL version: Unprotected only for use in dry ambients. Up to 600 °C, fitting in cleaner MI version is also possible, above 600 °C no reducing atmospheres, air access must be ensured.

HD version: Unprotected only for use in dry ambients. Up to 650 °C, fitting in cleaner MI version is also possible, above 650 °C no reducing atmospheres, air access must be ensured.

Insulation resistance

> 10 MΩ at 20 °C;
> 1 MΩ at 650 °C

Measuring current

100 Ω 0.3 to max 1 mA
1000 Ω 0.1 to max 0.3 mA

Packaging

Plastic bag

Status

04/2008

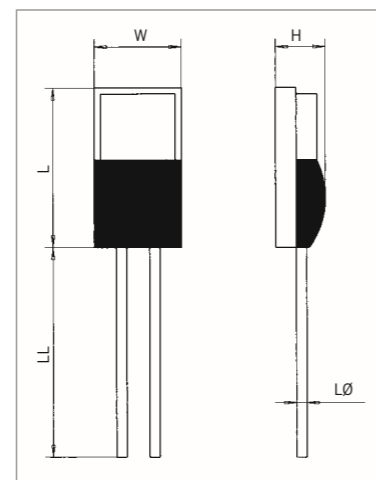
Supply range

The standard types are listed in the catalog with their various features. These are the most frequently used versions, and can be obtained at short notice and at reasonable prices.

For special applications, non-standard versions are available. The following alternatives are possible:

- Different dimensions
- Different nominal resistances
- Different temperature coefficients
- Different lengths of leads
- Different tolerances
- Different packages

Please contact us.



Type H (High)

Tolerance class B from -70 °C to +600 °C, TK = 3850 ppm/K

| Name | | Order number | | Dimensions in mm | | | | | Self-heating | Response time in seconds | | | | |
|------|--------|--------------------|------------|------------------|-----|-----|-----|----|--------------|--------------------------|-------------------|------------------|------------------|------------------|
| Type | Design | Nominal resistance | Please ask | Leads material | L | W | H | LL | LØ | Ice water 0 °C in K/mW | Water: v = 0.4m/s | | Air: v = 2m/s | |
| | | | | | | | | | | | t _{0.5} | t _{0.9} | t _{0.5} | t _{0.9} |
| HM | 220 | Pt 100 | 32208787 | PtPd | 2.3 | 1.9 | 0.9 | 8 | 0.2 | 0.4 | 0.05 | 0.15 | 3.0 | 10 |

L: ± 0.15 • W: ± 0.15 • H: ± 0.3 • LL: ± 1.0 • LØ: ± 0.04

Tolerance class 2B from -70 °C to +750 °C, TK = 3850 ppm/K

| Name | | Order number | | Dimensions in mm | | | | | Self-heating | Response time in seconds | | | | |
|------|--------|--------------------|------------|------------------|-----|-----|-----|----|--------------|--------------------------|-------------------|------------------|------------------|------------------|
| Type | Design | Nominal resistance | Please ask | Leads material | L | W | H | LL | LØ | Ice water 0 °C in K/mW | Water: v = 0.4m/s | | Air: v = 2m/s | |
| | | | | | | | | | | | t _{0.5} | t _{0.9} | t _{0.5} | t _{0.9} |
| HL | 220 | Pt 1000 | 32208779 | PtNiCr | 2.3 | 1.9 | 1.0 | 8 | 0.2 | 0.2 | ≤ 0.05 | ≤ 0.14 | ≤ 3 | ≤ 10 |

L: ± 0.15 • W: ± 0.15 • H: ± 0.3 • LL: ± 1.0 • LØ: ± 0.04

Tolerance class B from -70 °C to +650 °C; TK = 3850 ppm/K and Tolerance class 2B to +850 °C; TK = 3850 ppm/K

| Name | | Order number | | Dimensions in mm | | | | | Self-heating | Response time in seconds | | | | |
|------|--------|--------------------|------------|------------------|-----|-----|-----|----|--------------|--------------------------|-------------------|------------------|------------------|------------------|
| Type | Design | Nominal resistance | Please ask | Leads material | L | W | H | LL | LØ | Ice water 0 °C in K/mW | Water: v = 0.4m/s | | Air: v = 2m/s | |
| | | | | | | | | | | | t _{0.5} | t _{0.9} | t _{0.5} | t _{0.9} |
| HD | 421 | Pt 100 | 32208228 | Pt | 4.1 | 2.2 | 1.2 | 6 | 0.25 | 0.2 | 0.05 | 0.17 | 3.3 | 13 |

L: ± 0.3 • W: ± 0.3/-0.2 • H: + 0.3/-0.3 • LL: ± 1.0 • LØ: ± 0.04

HST sensors up to +1000 °C

Please ask for projects for sensors up to + 1000 °C

Heraeus Sensor Technology USA

1901 Route 130
North Brunswick, NJ 08902
Phone 732-940-4400 Fax 732-940-4445
Email info.hst-us@heraeus.com
www.hst-us.com