Platinum Resistance Temperature Detector HD 421

HD 421 Pt 100-type platinum temperature sensors are characterized by long-term stability, precision over a broad temperature range and compatibility. Main application area is the process technology.

Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Box
100 Ohm at 0°C	Class B (to +650°C) Class 2B (to+850°C)	F 0.3 (to +650°C) F 0.6 (to +850°C)	32 208 228

The measuring point for the nominal resistance is defined at 4mm from the end of the sensor body.

Specification DIN EN 60751

Temperature range -70°C up to +850°C
Tolerance Class B: -70°C up to +650°C
Tolerance Class 2B: -70°C up to +850°C

Temperature coefficient TCR= 3850 ppm/K

Leads Pt- wire

Lead length (L) 6mm ±1mm

Long-term tests 1000h at 850°C (energized, open) smaller then the allowed deviation according to DIN B. 1000 h at 650°C (under current as clean MI-type) smaller then the allowed deviation according to DIN B

Vibration resistance at least 40g acceleration with 8ms half sine wave signal, depends on the installation

Shock resistance at least 100g acceleration at frequencies from 10Hz up to 2000Hz, depends on the installation

Environmental conditions Unhoused for dry environment only, Up to 650°C in housings also as clean MI-type possible, above 650°C no reducing atmosphere, free air admission necessary

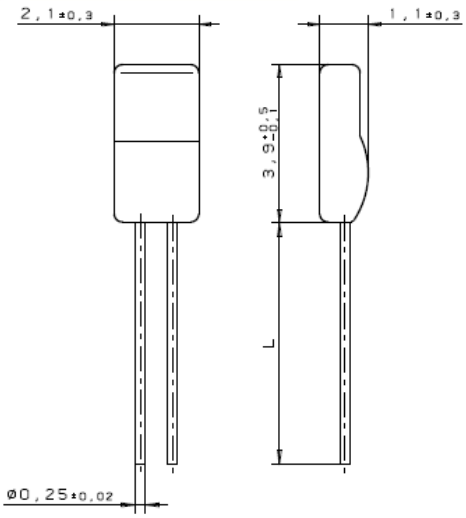
Insulation resistance >100 MΩ at 20°C; >2 MΩ at 650°C

Self heating 0.2 K/mW

Response time
Water current (v= 0.4m/s): $t_{0.5}$ = 0.05s, $t_{0.9}$ = 0.17s
Air stream (v= 2m/s): $t_{0.5}$ = 3.3s, $t_{0.9}$ = 13.0s

Measuring current 20°C max**.** 5mA; 850°C max. 2.8mA (self heating has to be considered)

Note Other tolerances, values of resistance and wire lengths are available on request.



RoHS conform

We reserve the right to make alterations and technical data printed. All technical data serves as a guideline and does not guarantee particular properties to any products.

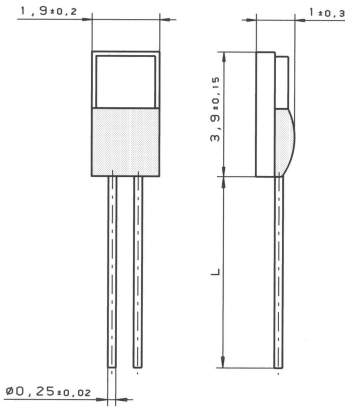
Phone: 0523 - 88155558 | Mobile: 13701245182 | E-mail:micsensor@yeah.net | Web: www.mic-sensor.com

Platinum Resistance Temperature Detector HDA 420

HDA 420 platinum temperature sensors are characterized by long-term stability, precision over a broad temperature range and compatibility. Main application areas are applications within the automotive industry. For measuring high temperatures you should use a sensor, which reliably works in rough environments, has a long expectancy of life and ideally comes up with the space-saving concepts of the automotive industry.

Nominal Resistance R_0	HST-Tolerance	Order No. Blister box
200 Ohm at 0°C	±4.5 K at 0°C ±7.5 K at 500°C ±12.7 K at 850°C	32 208 771

The measuring point for the nominal resistance is defined at 2mm from the end of the lead.



Specification	HST (**H**eraeus **S**ensor **T**echnology)	
Temperature Range	-70°C up to +850°C (short time to 900°C)	
Temperature coefficient	TC = 3770 ppm/K	
Leads	Pt- wire	
Lead lengths (L)	4mm ±0,5 mm	
Long-term tests	50h at 900°C 2mA 1000h at 850°C 2V	
Vibration resistance	at least 40g acceleration at 10 to 2000 Hz, depends on installation	
Shock resistance	at least 100g acceleration with 8ms half sine wave, depends on installation	
Environmental conditions	Unhoused for dry environment only, Up to 650°C in housings also as MI-typossible, above 650°C no reducing atmosphere, free air admission necessary	
Insulation resistance	>100 MΩ at 20°C	
Self heating	0.2 K/mW at 0°C	
Response time	Water current (v= 0.4m/s):	$t_{0.5}$ < 0.05s $t_{0.9}$ < 0.17s
	Air stream (v= 3):	$t_{0.5}$ < 3s $t_{0.9}$ < 11s
Measuring current	20°C max. 5mA; 850°C max. 2.8mA (self heating has to be considered)	
Note	Other tolerances, values of resistance and wire lengths are available on request.	

RoHS conform

铂基传感

Phone: 0523 - 88155558 | Mobile: 13701245182 | E-mail:micsensor@yeah.net | Web: www.mic-sensor.com

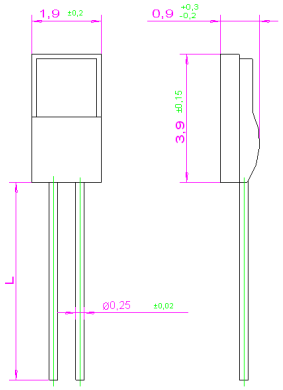
Platinum Resistance Temperature Detector HDA 420 Pt 200

HDA 421 platinum temperature sensors are characterized by long-term stability, precision over a broad temperature range and compatibility. Main application areas are applications within the automotive industry. For measuring high temperatures you should use a sensor, which reliably works in rough environments, has a long expectancy of life and ideally comes up with the space-saving concepts of the automotive industry.

Nominal Resistance R_0	Tolerance	Order No. Blister box
200 Ohm at 0℃	HST – Tolerance 0℃: +-4.5 K; 500℃: +-7.5 K; 850℃: +-12.7 K	32 208 771

The measuring point for the nominal resistance is defined at 3 mm from the end of the sensor body.

Specification	HST (**H**eraeus **S**ensor **T**echnology)
Temperature Range	-70℃ up to +850℃ (short time to 900℃)
Temperature coefficient	TC = 3770 ppm/K
Leads	Pt
Lead length (L)	4 mm +- 1mm
Long-term tests	50 h at 900℃ 2mA 1000h at 850℃ 2V
Vibration resistance	at least 40 g acceleration at 10 to 2000 Hz, depends on installation
Shock resistance	at least 100 g acceleration with 8ms half sine wave, depends on installation
Environmental conditions	Unhoused for dry environment only, Up to 650℃ in housings also as MI-typossible, above 650℃ no reducing atmosphere, free air admission necessary
Insulation resistance	>100 MOhm at 20℃
Self heating	0.2 K/mW at 0 ℃
Response time	Water current (v = 0.4 m/s): $t_{0.5}$ < 0.05 s; $t_{0.9}$ < 0.17 s Air stream (v = 3): $t_{0.5}$ < 3s; $t_{0.9}$ +< 11 sec
Measuring current	20℃: 5 mA ; 850℃: max. 2.8 mA (self heating has to be considered)
Note	Other tolerances, values of resistance and wire lengths are available on request.



We reserve the right to make alterations and technical data printed. All technical data serves as a guideline and does not guarantee particular properties to any products.

Phone: 0523 - 88155558 | Mobile: 13701245182 | E-mail:micsensor@yeah.net | Web: www.mic-sensor.com

Platinum Resistance Temperature Detector HEA 420

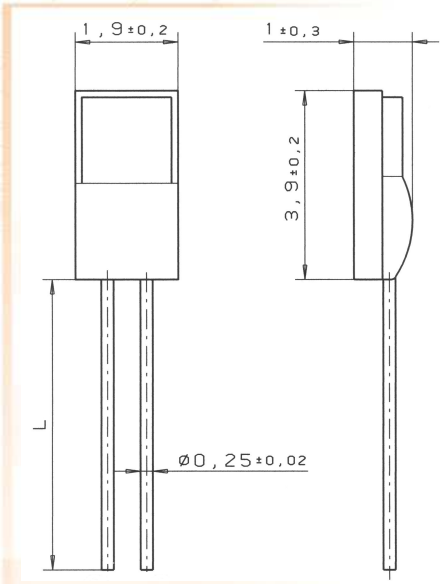
HEA 420 platinum temperature sensors are characterized by long-term stability, precision over a broad temperature range and compatibility. Main application areas are within the automotive industry. For measuring high temperatures you should use a sensor, which reliably works in rough environments, has a long expectancy of life and ideally comes up with the space-saving concepts of the automotive industry.

Nominal Resistance R_0	HST-Tolerance	Order No. Blister box
200 Ohm at 0℃	±4.5 K at 0℃ ±7.5 K at 500℃ ±15 K at 1000℃	32 208 674

The measuring point for the nominal resistance is defined at 6 mm from the end of the sensor body.

Preliminary

Specification	HST (**H**eraeus **S**ensor **T**echnology)
Temperature Range	-70℃ up to +1000℃
Temperature coefficient	TC = 3770 ppm/K
Leads	Pt- wire
Lead lengths (L)	3,8mm ±0,5mm
Long-term tests	500h at 1000℃ 2mA, ΔRO typical < 3K
Vibration resistance	at least 40g acceleration at 10 to 2000 Hz, depends on installation
Shock resistance	at least 100g acceleration with 8ms half sine wave, depends on installation
Environmental conditions	Unhoused for dry environment only, Up to 650℃ in housings also as MI-type possible, above 650℃ no reducing atmosphere, free air admission necessary
Insulation resistance	>100 MΩ at 20℃
Self heating	0.2 K/mW at 0℃
Response time	Water current (v= 0.4m/s): $t_{0.5}$ = 0.05s, $t_{0.9}$ = 0.17s Air stream (v= 2m/s): $t_{0.5}$ = 3.3s, $t_{0.9}$ = 13.0
Measuring current	20℃ max. 5mA; 1000℃ max. 2.7mA (self heating has to be considered)
Note	Other tolerances, values of resistance and wire lengths are available on request.
Status	**Prototypes for testing purposes only**



RoHS conform

We reserve the right to make alterations and technical data printed. All technical data serves as a guideline and does not guarantee particular properties to any products.

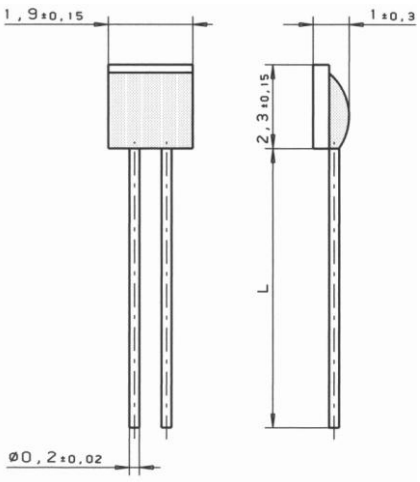
铂基传感
Phone: 0523 - 88155558 | Mobile: 13701245182 | E-mail:micsensor@yeah.net | Web: www.mic-sensor.com

Platinum Resistance Temperature Detector HL 220

HL 220 type platinum sensors are characterised by long-term stability, precision over a broad temperature range and compatibility. The main feature is the small design. They are used in particular for applications with high consumption volumes, e.g. white goods and heating power.

Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Box
1000 Ohm at 0°C	Class 2B	F 0.6	32 208 779

The measuring point fort he nominal resistance is defined at 6mm from the end oft he sensor body.



Specification DIN EN 60751

Temperature range -70°C up to +750°C
Tolerance Class 2B: -70°C up to +750°C

Temperature coefficient TC = 3850 ppm/K

Leads Pt coated NiCr- wire

Lead lengths (L) 8mm ±1mm

Long-term tests R_0- Drift after 1000h at 750°C (energized) < 0,24%
(Unhoused chip in standard atmosphere.)

Environmental conditions Unhoused for dry environmental only, above 500°C no reducing atmosphere, free air admission is necessary.
Assembly can influence the long term stability!

Vibration resistance at least 40g acceleration at 10 to 2000 Hz, depends on installation

Shock resistance at least 100g acceleration with 8ms half sine wave, depends on installation

Insulation resistance > 100 MΩ at 20 °C; > 1 MΩ at 650 °C

Self heating 0.2 K/mW

Response time

Water current (v= 0.4m/s):	$t_{0.5}$ = 0.05s
	$t_{0.9}$ = 0.14s
Air stream (v= 2m/s):	$t_{0.5}$ = 3.0s
	$t_{0.9}$ = 10s

RoHS conform

Measuring current 0.1 to 1mA
(self heating has to be considered)

Note Other tolerances, values of resistance and wire lengths are available on request.

铂基传感 BOJI SENSING

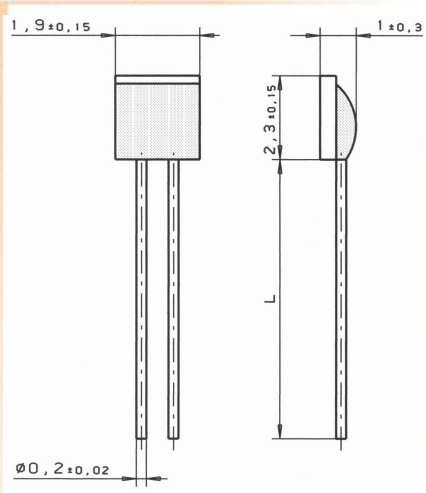
Phone: 0523 - 88155558 | Mobile: 13701245182 | E-mail:micsensor@yeah.net | Web: www.mic-sensor.com

Platinum Resistance Temperature Detector HM 220

HM 220 type platinum sensors are characterised by long-term stability, precision over a broad temperature range and compatibility. The main feature is the small design. They are used in particular for applications with high consumption volumes, e.g. white goods and heating power.

Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plasticbag
100 Ohm at 0 °C	Class B Class A	F 0.3 F 0.15	32 208 787 32 208 788

The measuring point for the nominal resistance is defined at 6mm from the end of the sensor body.



Specification	DIN EN 60751
Temperature range	-70°C up to +600°C Tolerance Class B: -70°C up to 600°C Tolerance Class A: -50°C up to 300°C
Temperature coefficient	TCR = 3850 ppm/K
Leads	Pd alloy with Pt coating wire
Lead lengths (L)	8mm ±1mm
Long-term tests	R_0- Drift after 1000h at 600°C (energized) < 0,24% (Unhoused chip in standard atmosphere.)
Environmental conditions	Unhoused for dry environmental only
Vibration resistance	at least 40g acceleration at 10 to 2000 Hz, depends on installation
Shock resistance	at least 100g acceleration with 8ms half sine wave, depends on installation
Insulation resistance	> 100 MΩ at 20°C; > 1 MΩ at 600°C
Self heating	0.2 K/mW
Response time	Water current (v= 0.4m/s): $t_{0.5}$ = 0.05s, $t_{0.9}$ = 0.14s Air stream (v=2 m/s): $t_{0.5}$ = 3.0s, $t_{0.9}$ = 10s
Measuring current	0.1 to 1mA (self heating has to be considered)
Note	Other tolerances, values of resistance and wire lengths are available on request.

RoHS conform

Phone: 0523 - 88155558 | Mobile: 13701245182 | E-mail:micsensor@yeah.net | Web: www.mic-sensor.com