

Platinum temperature sensor Type L (Low)

Temperature range -50 °C to +400 °C

Applications

HVAC, process industry and all applications, where soft solderability is required

Specification

DIN EN 60751

Tolerance classes

Class 1/3 B resp. F 0.1
Class A resp. F 0.15
Class B resp. F 0.3

Nominal resistances

100 Ω, 500 Ω and 1000 Ω at 0 °C

Temperature coefficient

3850 ppm/K

Soldering connection

AgPd leads

Connection Technology

Recommended connection technology soft soldering. Note the application temperature of the solder.

Long-term stability

Typical R₀-drift 0.04% after 1000 h at 400 °C

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

Insulation resistance

> 100 MΩ at 20 °C;
> 2 MΩ at 400 °C

Measuring current

at 100 Ω:
0.3 to 1.0 mA

at 500 Ω:
0.1 to 0.7 mA

at 1000 Ω:
0.1 to 0.3 mA
(self-heating has to be considered)

Environmental conditions

Use unprotected only in dry environments

Packaging

Plastic box, plastic bag

Status

04/2010



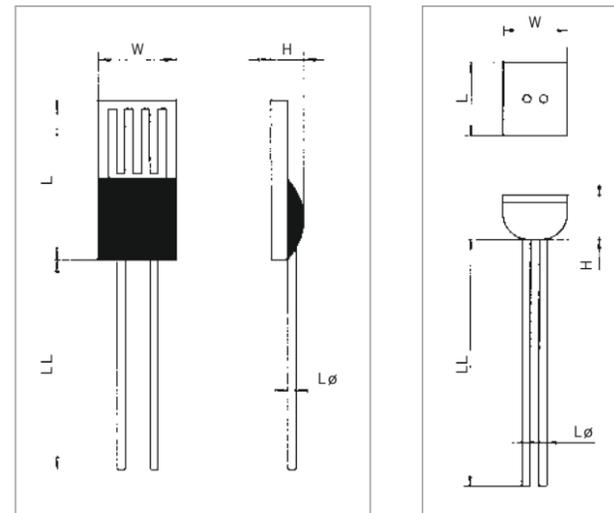
Supply range

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.



Picture applies to sensor:
L 220 P Pt 100

Type L (Low)

Tolerance class B resp. F 0.3 temperature range -50 °C to +400 °C

Name		Order number		Dimensions in mm					Self-heating	Response time in seconds				
Type	Design	Nominal resistance	Plastic box	Plastic bag	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}
L	1020	Pt 100		32207708	9.5	1.9	1.0	10	0.25	0.2	0.12	0.30	6.0	20
L	1020	Pt 1000		32207710	9.5	1.9	1.0	10	0.25	0.2	0.12	0.30	6.0	20
L	420	Pt 100		32207702	3.9	1.9	1.0	10	0.25	0.3	0.08	0.25	3.5	15
L	420	Pt 500		32207703	3.9	1.9	1.0	10	0.25	0.3	0.08	0.25	3.5	15
L	420	Pt 1000		32207704	3.9	1.9	1.0	10	0.25	0.3	0.08	0.25	3.5	15
L	416	Pt 100		32207440	3.9	1.5	1.0	10	0.25	0.4	0.07	0.25	3.2	14
L	220	Pt 100		32207400	2.3	1.9	1.0	10	0.25	0.4	0.06	0.20	3.0	13
L	220 P	Pt 100	32207302	32207608	2.3	1.9	0.9	10	0.25	0.4	0.20	0.30	3.0	9

Tolerance class A resp. F 0.15 temperature range -50 °C to +300 °C

Name		Order number		Dimensions in mm					Self-heating	Response time in seconds				
Type	Design	Nominal resistance	Plastic box	Plastic bag	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}
L	1020	Pt 100		32207579	9.5	1.9	1.0	10	0.25	0.2	0.12	0.30	6.0	20
L	1020	Pt 1000		32207581	9.5	1.9	1.0	10	0.25	0.2	0.12	0.30	6.0	20
L	420	Pt 1000		32207582	3.9	1.9	1.0	10	0.25	0.3	0.08	0.25	3.5	15
L	416	Pt 100		32207583	3.9	1.5	1.0	10	0.25	0.4	0.07	0.25	3.2	14
L	220	Pt 100		32207584	2.3	1.9	1.0	10	0.25	0.4	0.06	0.20	3.0	13

Tolerance class 1/3 B resp. F 0.1 temperature range 0 °C to +150 °C

Name		Order number		Dimensions in mm					Self-heating	Response time in seconds				
Type	Design	Nominal resistance	Plastic box	Plastic bag	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}
L	1020	Pt 100		32207585	9.5	1.9	1.0	10	0.25	0.2	0.12	0.30	6.0	20
L	1020	Pt 1000		32207586	9.5	1.9	1.0	10	0.25	0.2	0.12	0.30	6.0	20
L	420	Pt 1000		32207587	3.9	1.9	1.0	10	0.25	0.3	0.08	0.25	3.5	15
L	220	Pt 100		32207588	2.3	1.9	1.0	10	0.25	0.4	0.06	0.20	3.0	13

Tolerances in mm:

L: ± 0.15 • W: ± 0.2 • H: +0.3/-0.2 • LL: ± 1.0 • LØ: ± 0.02