Platinum Temperature Sensor **Pt100 FMC 0,8x5 axial**

Technical Data

Resistance at 0 °C	100 Ω
Temperature coefficient (0 °C up to +100 °C)	3.85 · 10^{-3} K^{-1}
Tolerance classes according to DIN EN 60751	• F 0,1 (0 °C - +150 °C) • F 0,15 (-30 °C - +300 °C) • F 0,3 (-50 °C - +500 °C)
Operating temperature range depending on lead material:	
AgPd5	-50 °C up to +400 °C
Pt-coated Ni-wire	-50 °C up to +500 °C (short-time up to +550 °C)
Pt	-50 °C up to +600 °C
Measurement current (DC) at 25 °C	1 mA
Maximal permissible peak current (DC) at 25 °C	3 mA
Insulation resistance	> 10 MΩ
Self-heating at 0 °C	< 0.5 K / mW
Thermal response time	
Flowing water (v = 0.2 m/s)	$T_{0.5}$ = 0.05 s, $T_{0.9}$ = 0.2 s
Flowing air (v = 1 m/s)	$T_{0.5}$ = 4 s, $T_{0.9}$ = 10 s

Resistance value [Ω] at

Temperature	Tolerance class		
	F 0,1 [Ω]	F 0,15 [Ω]	F 0,3 [Ω]
0 °C	100 ± 0.04	100 ± 0.06	100 ± 0.12
+100 °C	138.51 ± 0.1	138.51±0.13	138.51 ± 0.3

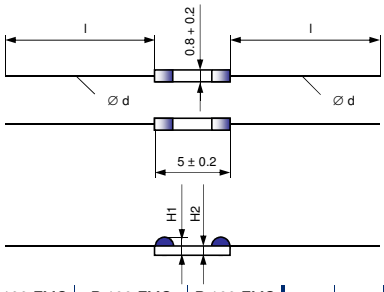
R_t measuring point	2 mm from wire end
Maximal Resistance Change at UCT 250 h	< 0.1 %
Specification	DIN EN 60751
Type	Film sensor

Technology: Advanced thin-film-technology (ceramic carrier with a structured platinum layer, covered with a passivating layer)

Operating conditions: Unprotected application only in dry environments without any contamination

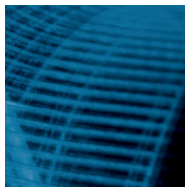
Conformity: 2002/95/EC Restriction of the use of Hazardous Substances Directive (RoHS)

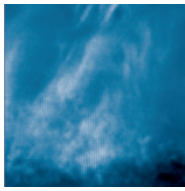
Dimensions [mm]



	Pt100 FMC 0.8x5x0.7 axial	Pt100 FMC 0.8x5x1 axial	Pt100 FMC 0.8x5x1.3 axial	Leads	AgPd5	NiPt 1)	Pt
H1 [mm]	0.7± 0.2	1± 0.2	1.3 ± 0.2	l [mm]	15 ± 1	10 ± 1	7 ± 1
H2 [mm]	0.27	0.4	0.65	d [mm]	0,15	0,15	0,15

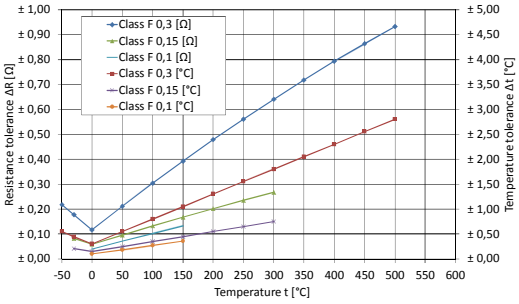
1) not available with H1 = 0.7 mm and H2= 0.27 mm





Functional performance

according to DIN EN 60751



Picture 1: Resistance and temperature tolerances of Pt100 (Please note - the operating temperature range depends on lead material!)

Temperature range from -50 °C up to 0 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2 + C \cdot (t - 100\ °C) \cdot t^3)$

Temperature range from 0 °C up to +600 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2)$

Tolerance classes according to DIN EN 60751:

Class F 0,1 (0 °C - +150 °C): $\Delta t = \pm (0.1 + 0.0017 \cdot |t|)$

Class F 0,15 (-30 °C - +300 °C): $\Delta t = \pm (0.15 + 0.002 \cdot |t|)$

Class F 0,3 (-50 °C - +500 °C): $\Delta t = \pm (0.3 + 0.005 \cdot |t|)$

Whereby:

R_t … Resistance [Ω] at temperature t

R_o … Resistance [Ω] at 0 °C

t … Temperature [°C]

Δt …Permissible temperature deviation at t [°C]

A = 3.9083 · 10^{-3} $°C^{-1}$

B = - 5.775 · 10^{-7} $°C^{-2}$

C = - 4.183 · 10^{-12} $°C^{-4}$

Fields of application

- Industrial electronics
- Building automation
- Automotive electronics
- Energy and environmental engineering
- Safety and medical engineering

Ordering examples

Construction	Class of accuracy	Leads (ø d x l [mm] lead material)	Operating temperature range [°C]
Pt100 FMC 0.8x5x1 axial	**F 0,15**	**0.15x15 AgPd5**	**- 50/+400**
Pt100 FMC 0.8x5x1.3 axial	**F 0,3**	**0.15x10 NiPt**	**- 50/+500**

Other classes of accuracy and wire lengths are available on request.

UST Umweltsensortechnik GmbH is certified according to

TÜV NORD ISO/TS 16949

TÜV NORD ISO 14001

Ex

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Made in Germany

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UST UMWELT SENSOR TECHNIK

Platinum Temperature Sensor **Pt100 FMC 0,8x5**

Technical Data

Resistance at 0 °C	100 Ω
Temperature coefficient (0 °C up to +100 °C)	$3.85 \cdot 10^{-3}\ K^{-1}$
Tolerance classes according to DIN EN 60751	• F 0,1 (0 °C - +150 °C) • F 0,15 (-30 °C - +300 °C) • F 0,3 (-50 °C - +500 °C)
Operating temperature range depending on lead material:	
AgPd5	-50 °C up to +400 °C
Pt-coated Ni-wire	-50 °C up to +500 °C (short-time up to +550 °C)
Pt	-50 °C up to +600 °C
Measurement current (DC) at 25 °C	1.0 mA
Maximal permissible peak current (DC) at 25 °C	3.0 mA
Insulation resistance	> 10 MΩ
Self-heating at 0 °C	< 0.5 K / mW
Thermal response time	
Flowing water (v = 0.2 m/s)	$T_{0.5}$ = 0.05 s, $T_{0.9}$ = 0.2 s
Flowing air (v = 1 m/s)	$T_{0.5}$ = 4 s, $T_{0.9}$ = 10 s

Resistance value [Ω] at

Temperature	Tolerance class		
	F 0,1 [Ω]	F 0,15 [Ω]	F 0,3 [Ω]
0 °C	100 ± 0.04	100 ± 0.06	100 ± 0.12
+100 °C	138.51± 0.1	138.51± 0.13	138.51± 0.3

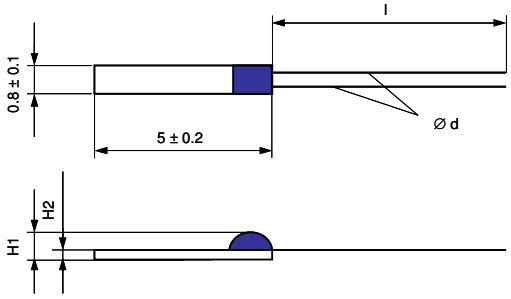
R_t measuring point	2 mm from wire end
Maximal Resistance Change at UCT 250 h	< 0.1 %
Specification	DIN EN 60751
Type	Film sensor

Technology: Advanced thin-film-technology (ceramic carrier with a structured platinum layer, covered with a passivating layer)

Operating conditions: Unprotected application only in dry environments without any contamination

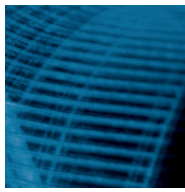
Conformity: 2002/95/EC Restriction of the use of Hazardous Substances Directive (RoHS)

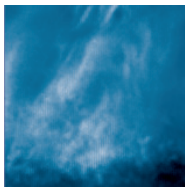
Dimensions [mm]



	Pt100 FMC 0.8x5x0.7	Pt100 FMC 0.8x5x1	Leads	AgPd5	NiPt 1)	Pt
H1 [mm]	0.7± 0.2	1± 0.2	l [mm]	15 ± 1	10 ± 1	7 ± 1
H2 [mm]	0.27	0.4	d [mm]	0,15	0,15	0,15

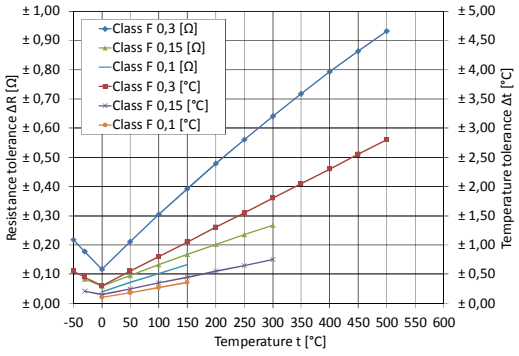
1) available only with H1 = 1 mm and H2= 0.4 mm





Functional performance

according to DIN EN 60751



Picture 1: Resistance and temperature tolerances of Pt100 (Please note - the operating temperature range depends on lead material!)

Temperature range from -50 °C up to 0 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2 + C \cdot (t - 100\ °C) \cdot t^3)$

Temperature range from 0 °C up to +600 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2)$

Tolerance classes according to DIN EN 60751:

Class F 0,1 (0 °C - +150 °C): $\Delta t = \pm (0.1 + 0.0017 \cdot |t|)$

Class F 0,15 (-30 °C - +300 °C): $\Delta t = \pm (0.15 + 0.002 \cdot |t|)$

Class F 0,3 (-50 °C - +500 °C): $\Delta t = \pm (0.3 + 0.005 \cdot |t|)$

Whereby:

R_t … Resistance [Ω] at temperature t

R_o … Resistance [Ω] at 0 °C

t … Temperature [°C]

Δt …Permissible temperature deviation at t [°C]

A = $3.9083 \cdot 10^{-3}\ °C^{-1}$

B = $-5.775 \cdot 10^{-7}\ °C^{-2}$

C = $-4.183 \cdot 10^{-12}\ °C^{-4}$

Fields of application

- Industrial electronics
- Building automation
- Automotive electronics
- Energy and environmental engineering
- Safety and medical engineering

Ordering examples

Construction	Class of accuracy	Leads (ø d x l [mm] lead material)	Operating temperature range [°C]
Pt100 FMC 0.8x5x0.7	**F 0,15**	**0.15x15 AgPd5**	**- 50/+400**
Pt100 FMC 0.8x5x1	**F 0,3**	**0.15x10 NiPt**	**- 50/+500**

Other classes of accuracy and wire lengths are available on request.

UST Umweltsensortechnik GmbH is certified according to

TÜV NORD ISO/TS 16949

TÜV NORD ISO 14001

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UST UMWELT SENSOR TECHNIK

Platinum Temperature Sensor **Pt100 FMC 2x4x1,3**

Technical Data

Resistance at 0 °C	100 Ω
Temperature coefficient (0 °C up to +100 °C)	3.85 · 10^{-3} K^{-1}
Tolerance classes according to DIN EN 60751	• F 0,1 (0 °C - +150 °C) • F 0,15 (-30 °C - +300 °C) • F 0,3 (-50 °C - +500 °C)
Operating temperature range depending on lead material:	
AgPd5, Au-coated Ni-wire	-50 °C up to +400 °C
Pt-coated Ni-wire	-50 °C up to +500 °C (short-time up to +550 °C)
Pt	-50 °C up to +600 °C
Measurement current (DC) at 25 °C	1.0 mA
Maximal permissible peak current (DC) at 25 °C	3.0 mA
Insulation resistance	> 10 MΩ
Self-heating at 0 °C	< 0.5 K / mW
Thermal response time	
Flowing water (v = 0.2 m/s)	$T_{0.5}$ = 0.07s, $T_{0.9}$ = 0.3s
Flowing air (v = 1 m/s)	$T_{0.5}$ = 6 s, $T_{0.9}$ = 20 s

Resistance value [Ω] at

Temperature	Tolerance class		
	F 0,1 [Ω]	F 0,15 [Ω]	F 0,3 [Ω]
0 °C	100 ± 0.04	100 ± 0.06	100 ± 0.12
+100 °C	138.51± 0.1	138.51± 0.13	138.51± 0.3

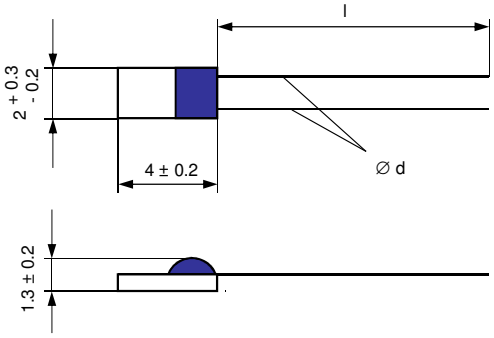
R_t measuring point	2 mm from wire end
Maximal Resistance Change at UCT 250 h	< 0.1 %
Specification	DIN EN 60751
Type	Film sensor

Technology: Advanced thin-film-technology (ceramic carrier with a structured platinum layer, covered with a passivating layer)

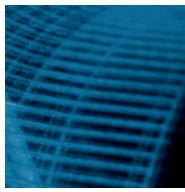
Operating conditions: Unprotected application only in dry environments without any contamination

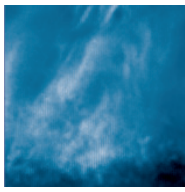
Conformity: 2002/95/EC Restriction of the use of Hazardous Substances Directive (RoHS)

Dimensions [mm]



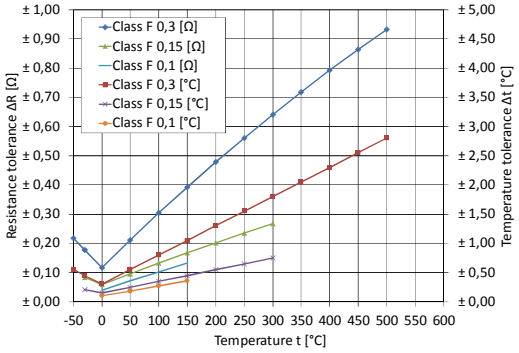
Leads	AgPd5	NiAu	NiPt	Pt
l [mm]	15 ± 1	10 ± 1	10 ± 1	7 ± 1
d [mm]	0,25	0,2	0,2	0,2





Functional performance

according to DIN EN 60751



Picture 1: Resistance and temperature tolerances of Pt100 (Please note - the operating temperature range depends on lead material!)

Temperature range from -50 °C up to 0 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2 + C \cdot (t - 100\ °C) \cdot t^3)$

Temperature range from 0 °C up to +600 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2)$

Tolerance classes according to DIN EN 60751:

Class F 0,1 (0 °C - +150 °C): $\Delta t = \pm (0.1 + 0.0017 \cdot |t|)$

Class F 0,15 (-30 °C - +300 °C): $\Delta t = \pm (0.15 + 0.002 \cdot |t|)$

Class F 0,3 (-50 °C - +500 °C): $\Delta t = \pm (0.3 + 0.005 \cdot |t|)$

Whereby:

R_t … Resistance [Ω] at temperature t

R_o … Resistance [Ω] at 0 °C

t … Temperature [°C]

Δt …Permissible temperature deviation at t [°C]

A = 3.9083 · 10^{-3} $°C^{-1}$

B = - 5.775 · 10^{-7} $°C^{-2}$

C = - 4.183 · 10^{-12} $°C^{-4}$

Fields of application

- Industrial electronics
- Building automation
- Automotive electronics
- Energy and environmental engineering
- Safety and medical engineering

Ordering examples

Construction	Class of accuracy	Leads (ø d x l [mm] lead material)	Operating temperature range [°C]
Pt100 FMC 2x4x1.3	**F 0,15**	**0.25x15 AgPd5**	**- 50/+400**
Pt100 FMC 2x4x1.3	**F 0,3**	**0.2x10 NiPt**	**- 50/+500**

Other classes of accuracy and wire lengths are available on request.

UST Umweltsensortechnik GmbH is certified according to

TÜV NORD ISO/TS 16949

TÜV NORD ISO 14001

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Made in Germany

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UST UMWELT SENSOR TECHNIK

Platinum Temperature Sensor **Pt1000 FMC 0,8x5 axial**

Technical Data

Resistance at 0 °C	1000 Ω
Temperature coefficient (0 °C up to +100 °C)	3.85 · 10^{-3} K^{-1}
Tolerance classes according to DIN EN 60751	• F 0,1 (0 °C - +150 °C) • F 0,15 (-30 °C - +300 °C) • F 0,3 (-50 °C - +500 °C)
Operating temperature range depending on lead material:	
AgPd5	-50 °C up to +400 °C
Pt-coated Ni-wire	-50 °C up to +500 °C (short-time up to +550 °C)
Pt	-50 °C up to +600 °C
Measurement current (DC) at 25 °C	0.1 mA
Maximal permissible peak current (DC) at 25 °C	0.3 mA
Insulation resistance	> 10 MΩ
Self-heating at 0 °C	< 0.5 K / mW
Thermal response time	
Flowing water (v = 0.2 m/s)	$T_{0.5}$ = 0.05 s, $T_{0.9}$ = 0.2 s
Flowing air (v = 1 m/s)	$T_{0.5}$ = 4 s, $T_{0.9}$ = 10 s

Resistance value [Ω] at

Temperature	Tolerance class		
	F 0,1 [Ω]	F 0,15 [Ω]	F 0,3 [Ω]
0 °C	1000 ± 0.4	1000 ± 0.6	1000 ± 1.2
+100 °C	1385.1 ± 1	1385.1±1.3	1385.1 ± 3

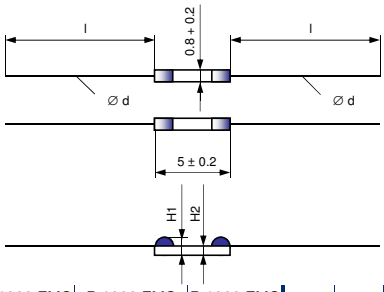
R_t measuring point	2 mm from wire end
Maximal Resistance Change at UCT 250 h	< 0.1 %
Specification	DIN EN 60751
Type	Film sensor

Technology: Advanced thin-film-technology (ceramic carrier with a structured platinum layer, covered with a passivating layer)

Operating conditions: Unprotected application only in dry environments without any contamination

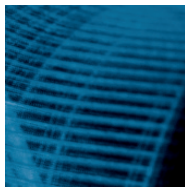
Conformity: 2002/95/EC Restriction of the use of Hazardous Substances Directive (RoHS)

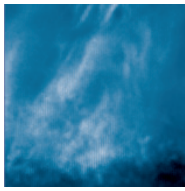
Dimensions [mm]



	Pt1000 FMC 0.8x5x0.7 axial	Pt1000 FMC 0.8x5x1 axial	Pt1000 FMC 0.8x5x1.3 axial	Leads	AgPd5	NiPt 1)	Pt
H1 [mm]	0.7± 0.2	1± 0.2	1.3 ± 0.2	l [mm]	15 ± 1	10 ± 1	7 ± 1
H2 [mm]	0.27	0.4	0.65	d [mm]	0,15	0,15	0,15

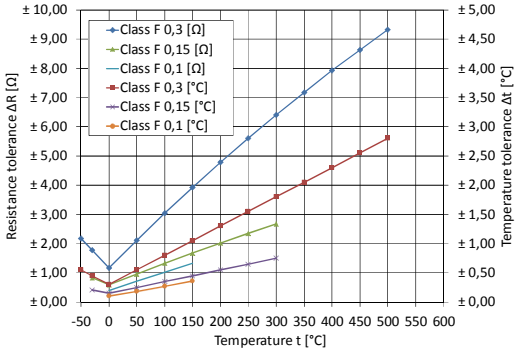
1) not available with H1 = 0.7 mm and H2= 0.27 mm





Functional performance

according to DIN EN 60751



Picture 1: Resistance and temperature tolerances of Pt1000 (Please note - the operating temperature range depends on lead material!)

Temperature range from -50 °C up to 0 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2 + C \cdot (t - 100\ °C) \cdot t^3)$

Temperature range from 0 °C up to +600 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2)$

Tolerance classes according to DIN EN 60751:

Class F 0,1 (0 °C - +150 °C): $\Delta t = \pm (0.1 + 0.0017 \cdot |t|)$

Class F 0,15 (-30 °C - +300 °C): $\Delta t = \pm (0.15 + 0.002 \cdot |t|)$

Class F 0,3 (-50 °C - +500 °C): $\Delta t = \pm (0.3 + 0.005 \cdot |t|)$

Whereby:

R_t … Resistance [Ω] at temperature t

R_o … Resistance [Ω] at 0 °C

t … Temperature [°C]

Δt …Permissible temperature deviation at t [°C]

A = 3.9083 · 10^{-3} $°C^{-1}$

B = - 5.775 · 10^{-7} $°C^{-2}$

C = - 4.183 · 10^{-12} $°C^{-4}$

Fields of application

- Industrial electronics
- Building automation
- Automotive electronics
- Energy and environmental engineering
- Safety and medical engineering

Ordering examples

Construction	Class of accuracy	Leads (ø d x l [mm] lead material)	Operating temperature range [°C]
Pt1000 FMC 0.8x5x1 axial	**F 0,15**	**0.15x15 AgPd5**	**- 50/+400**
Pt1000 FMC 0.8x5x1.3 axial	**F 0,3**	**0.15x10 NiPt**	**- 50/+500**

Other classes of accuracy and wire lengths are available on request.

UST Umweltsensortechnik GmbH is certified according to

TÜV NORD ISO/TS 16949

TÜV NORD ISO 14001

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Mobile: 13701245182
micsensor@yeah.net
www.mic-sensor.com

UST UMWELT SENSOR TECHNIK

Platinum Temperature Sensor **Pt2000 FMC 1,5x3,5**

Technical Data

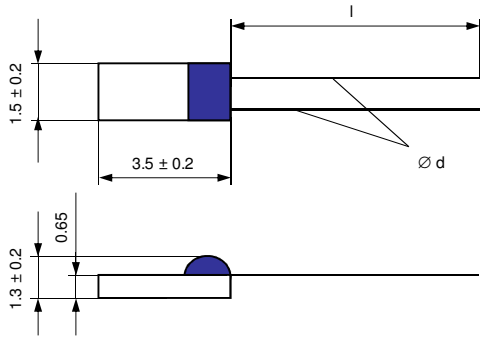
Resistance at 0 °C (R_0)	2000 Ω
Temperature coefficient (0 °C up to +100 °C)	3.85 · 10^{-3} K^{-1}
Tolerance classes according to DIN EN 60751	• F 0,1 (0 °C - +150 °C) • F 0,15 (-30 °C - +300 °C) • F 0,3 (-50 °C - +500 °C)
Operating temperature range depending on lead material:	
AgPd5, Au-coated Ni-wire	-50 °C up to +400 °C
Pt-coated Ni-wire	-50 °C up to +500 °C (short-time up to +550 °C)
Pt	-50 °C up to +600 °C
Measurement current (DC) at 25 °C	0.1 mA
Maximal permissible peak current (DC) at 25 °C	0.3 mA
Insulation resistance	> 10 MΩ
Self-heating at 0 °C	< 0.5 K / mW
Thermal response time	
Flowing water (v = 0.2 m/s)	$T_{0.5}$ = 0.07 s, $T_{0.9}$ = 0.2 s
Flowing air (v = 1 m/s)	$T_{0.5}$ = 4 s, $T_{0.9}$ = 10 s

Resistance value [Ω] at

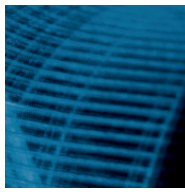
Temperature	Tolerance class		
	F 0,1 [Ω]	F 0,15 [Ω]	F 0,3 [Ω]
0 °C	2000 ± 0.8	2000 ± 1.2	2000 ± 2.4
+100 °C	2770.1 ± 2	2770.1 ± 2.7	2770.1 ± 6.1

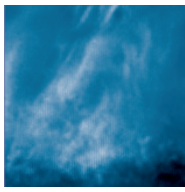
R_t measuring point	2 mm from wire end
Maximal Resistance Change at UCT 250 h	< 0.1 %
Specification	DIN EN 60751
Type	Film sensor
Technology: Advanced thin-film-technology (ceramic carrier with a structured platinum layer, covered with a passivating layer)	
Operating conditions: Unprotected application only in dry environments without any contamination	
Conformity: 2002/95/EC Restriction of the use of Hazardous Substances Directive (RoHS)	

Dimensions [mm]



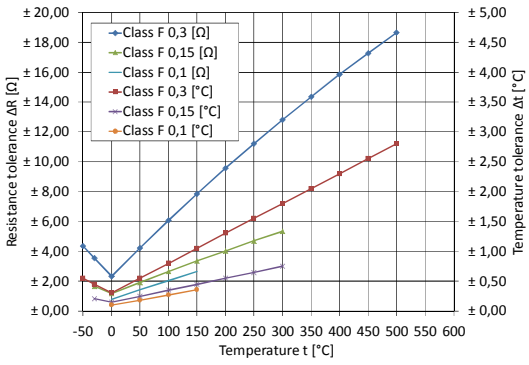
Leads	AgPd5	Ni	NiAu	NiPt	Pt
l [mm]	15 ± 1	10 ± 1	10 ± 1	10 ± 1	7 ± 1
d [mm]	0.25	0.2	0.2	0.2	0.2





Functional performance

according to DIN EN 60751



Picture 1: Resistance and temperature tolerances of Pt2000 (Please note - the operating temperature range depends on lead material!)

Temperature range from -50 °C up to 0 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2 + C \cdot (t - 100\ °C) \cdot t^3)$

Temperature range from 0 °C up to +600 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2)$

Tolerance classes according to DIN EN 60751:

Class F 0,1 (0 °C - +150 °C): $\Delta t = \pm (0.1 + 0.0017 \cdot |t|)$

Class F 0,15 (-30 °C - +300 °C): $\Delta t = \pm (0.15 + 0.002 \cdot |t|)$

Class F 0,3 (-50 °C - +500 °C): $\Delta t = \pm (0.3 + 0.005 \cdot |t|)$

Whereby:

R_t … Resistance [Ω] at temperature t

R_o … Resistance [Ω] at 0 °C

t … Temperature [°C]

Δt … Permissible temperature deviation at t [°C]

A = 3.9083 · 10^{-3} $°C^{-1}$

B = - 5.775 · 10^{-7} $°C^{-2}$

C = - 4.183 · 10^{-12} $°C^{-4}$

Fields of application

- Industrial electronics
- Building automation
- Automotive electronics
- Energy and environmental engineering
- Safety and medical engineering

Ordering examples

Construction	Class of accuracy	Leads (ø d x l [mm] lead material)	Operating temperature range [°C]
Pt2000 FMC 1,5x3,5	**F 0,15**	**0.25x15 AgPd5**	**-50/+400**
Pt2000 FMC 1,5x3,5	**F 0,3**	**0.2x10 NiPt**	**-50/+500**

Other classes of accuracy and wire lengths are available on request.

UST Umweltsensortechnik GmbH is certified according to

TÜV NORD ISO/TS 16949

TÜV NORD ISO 14001

BOJI SENSING

Made in Germany

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UST UMWELT SENSOR TECHNIK

Platinum Temperature Sensor Pt10000 FMC 2x2,3

Technical Data

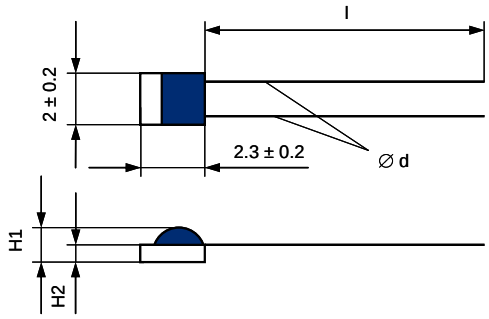
Resistance at 0°C (R_0)	10000 Ω
Temperature coefficient (0°C up to +100°C)	3.85 · 10^{-3} K^{-1}
Tolerance classes according to DIN EN 60751	• F 0,1 (0°C - +150°C) • F 0,15 (-30°C - +300°C) • F 0,3 (-50°C - +500°C)
Operating temperature range depending on lead material:	
AgPd5, Au-coated Ni-wire	-50 °C up to +400 °C
Pt-coated Ni-wire	-50 °C up to +500 °C (short-time up to +550 °C)
Pt	-50 °C up to +600 °C
Measurement current (DC) at 25 °C	0.01 mA
Maximal permissible peak current (DC) at 25 °C	0.03 mA
Insulation resistance	> 10 MΩ
Self-heating at 0 °C	< 0.5 K / mW
Thermal response time	
Flowing water (v = 0.2 m/s)	$T_{0.5}$ = 0.07 s, $T_{0.9}$ = 0.2 s
Flowing air (v = 1 m/s)	$T_{0.5}$ = 4 s, $T_{0.9}$ = 10 s

Resistance value [Ω] at

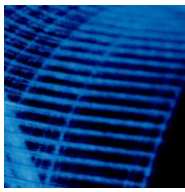
Temperature	Tolerance class		
	F 0,1 [Ω]	F 0,15 [Ω]	F 0,3 [Ω]
0 °C	10000 ± 4	10000 ± 6	10000 ± 12
+100 °C	13851 ± 10	13851±13	13851 ± 30

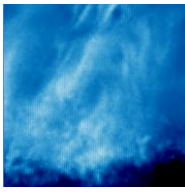
R_t measuring point	2 mm from wire end
Maximal Resistance Change at UCT 250 h	< 0.1 %
Specification	DIN EN 60751
Type	Film sensor
Technology: Advanced thin-film-technology (ceramic carrier with a structured platinum layer, covered with a passivating layer)	
Operating conditions: Unprotected application only in dry environments without any contamination	
Conformity: 2002/95/EC Restriction of the use of Hazardous Substances Directive (RoHS)	

Dimensions [mm]



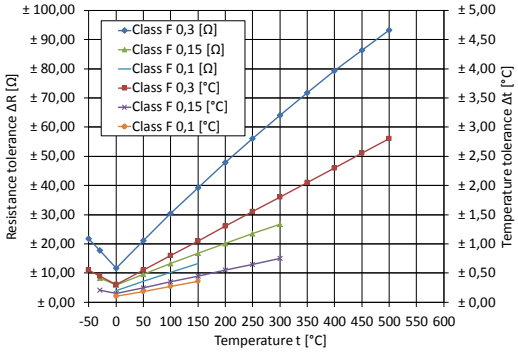
	Pt10000 FMC 2x2.3x1.3	Pt10000 FMC 2x2.3x1.0	Leads	AgPd5	NiAu	NiPt	Pt
H1 [mm]	1.3 ± 0.2	1± 0.2	l [mm]	15 ± 1	10 ± 1	10 ± 1	7 ± 1
H2 [mm]	0.65	0.4	d [mm]	0,25	0,2	0,2	0,2





Functional performance

according to DIN EN 60751



Picture 1: Resistance and temperature tolerances of Pt10000 (Please note - the operating temperature range depends on lead material!)

Temperature range from -50 °C up to 0 °C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2 + C \cdot (t - 100\ °C) \cdot t^3)$

Temperature range from 0°C up to +600°C:

$R_t = R_o \cdot (1 + A \cdot t + B \cdot t^2)$

Tolerance classes according to DIN EN 60751:

Class F 0,1 (0°C - +150°C): $\Delta t = \pm (0.1 + 0.0017 \cdot |t|)$

Class F 0,15 (-30°C - +300°C): $\Delta t = \pm (0.15 + 0.002 \cdot |t|)$

Class F 0,3 (-50°C - +500°C): $\Delta t = \pm (0.3 + 0.005 \cdot |t|)$

Whereby:

R_t … Resistance [Ω] at temperature t

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t … Temperature [°C]

Δt … Permissible temperature deviation at t [°C]

A = 3.9083 · 10^{-3} $°C^{-1}$

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C = - 4.183 · 10^{-12} $°C^{-4}$

Fields of application

- Industrial electronics
- Building automation
- Automotive electronics
- Energy and environmental engineering
- Safety and medical engineering

Ordering examples

Construction	Class of accuracy	Leads (ø d x l [mm] lead material)	Operating temperature range [°C]
Pt10000 FMC 2x2,3x1,0	**F 0,15**	**0.25x15 AgPd5**	**-50/+400**
Pt10000 FMC 2x2,3x1,3	**F 0,3**	**0.2x10 NiPt**	**-50/+500**

Other classes of accuracy and wire lengths are available on request.

UST Umweltsensortechnik GmbH is certified according to

TÜV NORD ISO/TS 16949

TÜV NORD ISO 14001

铂基传感 BOJISENSING

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