Technical Data

Resistance at 0 °C	100 Ω
Temperature coefficient (0 °C up to 100 °C)	3.85 · 10^{-3} K^{-1}
Tolerance classes to DIN EN 60751:	⅓ DIN B (0 °C - +150 °C), A, B
Operating temperature range (lead material AgPd5):	-50 °C up to +400 °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) Flowing air (v = 1 m/s)	 $T_{0.5}$ = 0.07s, $T_{0.9}$ = 0.2s $T_{0.5}$ = 4 s, $T_{0.9}$ = 10 s

Resistance value [Ω] at

Temperature	Tolerance class		
	⅓ DIN B [Ω]	A [Ω]	B [Ω]
0 °C	100 ± 0.04	100 ± 0.06	100 ± 0.12
+100 °C	138.51 ± 0.10	138.51± 0.13	138.51 ± 0.30

Maximal Resistance Change at UCT 250 h	< 0.1 %
Specification	DIN EN 60751

Operating conditions

Unprotected application only in dry environments without any contamination

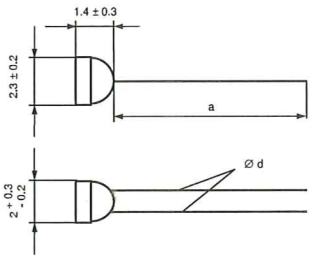
Technology

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

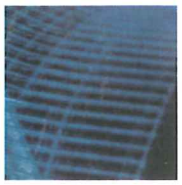
Conformity

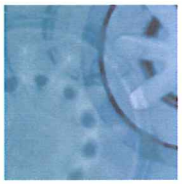
2002/95/EC Restriction of the use of Hazardous Substances Directive (RoHS)

Dimensions [mm]



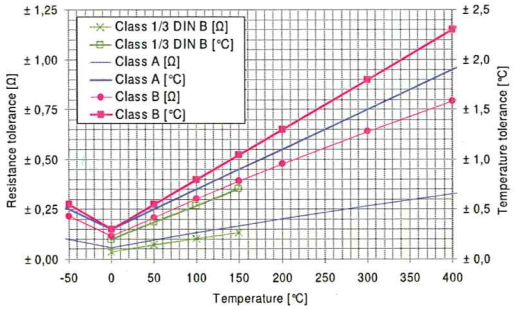
Leads	AgPd5
a [mm]	15 ± 1
d [mm]	0.25





Functional performance

according to DIN EN 60751



Picture 1: Resistance and temperature tolerances of FMA 2105 (AgPd5-Leads)

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 to DIN EN 60751:

Class ⅓ DIN B (0 °C - +150 °C): $\Delta T = \pm (0.1 + 0.0017 \cdot |T|)$

Class A: $\Delta T = \pm (0.15 + 0.002 \cdot |T|)$

Class B: $\Delta T = \pm (0.3 + 0.005 \cdot |T|)$

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	Lead material	Temperature range [°C]
Code	**FMA**	**2105**	**⅓ DIN B**	**AgPd5**	**- 50/400**
Code	**FMA**	**2105**	**A**	**AgPd5**	**- 50/400**

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