

## Integrated RTD

### Description

Integrated RTD are especially suited for applications where the metal sensor tip is fitted directly into drilled holes, e.g. in machine parts, in turbine thrust bearing, or directly into the process, i.e. for all applications without chemically-aggressive media and without abrasion. For end face RTD mounting into a drilled holes, a spring-loaded compression fitting is provided since only this can press the sensor tip to the bottom of the drilled holes. Fastening elements such as threads, union nuts, flange.



### Special Features

- Application ranges from -200 °C to +600 °C
- For insertion, screw-in with optional process connection
- Cable material Teflon, silicon, or fibreglass

### Technical Data

Sensor method of connection

- 2-wire The lead resistance compounds the error.
- 3-wire With a cable length of approx. 30 m or longer measuring deviations can occur.
- 4-wire The inner lead resistance of the connecting wires is negligible.

Sensor limiting error

- Class B per DIN EN 60 751
- Class A per DIN EN 60 751

It makes no sense to combine 2-wire connection with Class A, since the lead resistance of the cable overrides the higher sensor accuracy.



Class	Limiting error in °C
A	$0.15 + 0.002 \cdot  t $ <sup>1)</sup>
B	$0.3 + 0.005 \cdot  t $

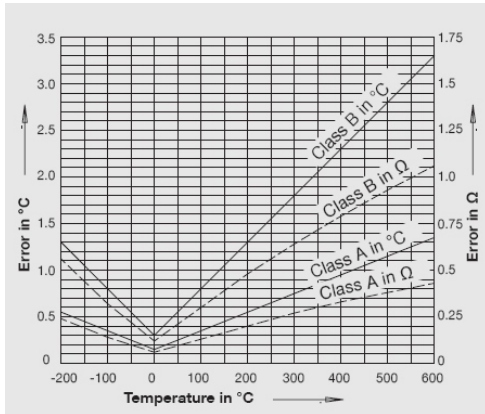
1) |t| is the value of the temperature in °C without consideration of the sign

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## Technical Data

Sensor limiting error



Temperature (ITS 90) °C	Basic value Ω	Limiting error DIN EN 60 751			
		Class A		Class B	
°C	Ω	°C	Ω	°C	Ω
-50	80.31	± 0.25	± 0.10	± 0.55	± 0.22
0	100.00	± 0.15	± 0.06	± 0.30	± 0.12
50	119.40	± 0.25	± 0.10	± 0.55	± 0.21
100	138.51	± 0.35	± 0.13	± 0.80	± 0.30
150	157.33	± 0.45	± 0.17	± 1.05	± 0.39
200	175.86	± 0.55	± 0.20	± 1.30	± 0.48
250	194.10	± 0.65	± 0.24	± 1.55	± 0.56



Squarelock Armour Protection

## Physical Dimension

According to customer demand completeness.



MI Cable Extension



End Face RTD