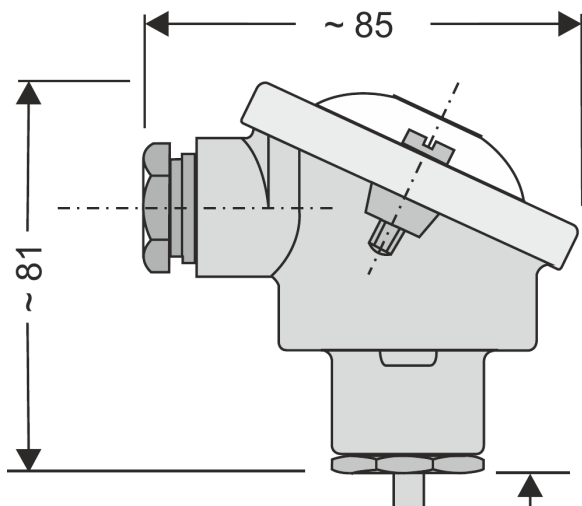


RESISTANCE THERMOMETER, HEAD B



- PT100 AND PT1000
- -200 ... +450 °C
- CLASS A TO B1/10DIN
- 2-, 3-, 4-WIRE
- UP TO 2000 MM LENGTH



KEY DATA

Property	Value	Property	Value
Sensing element	Pt100 or Pt1000, 1x or 2x	Operating range	-200 ... +450 °C
Circuit	2-, 3- or 4-wire	Sheath	1.4571 or 2.4816
Accuracy	class A · B · B1/2 · B1/3 · B1/10 DIN	Ø sheath	3 ... 15 mm
Form	screw-in (ES) or dip-in (ET)	Fitting, nominal length	50 ... 2000 mm
Terminal head	head B, aluminium, IP 54	Product code	KD

Resistance thermometer with terminal head B for temperature measurement in pipes, vessels and plant. One head, two forms, eleven sheath diameters and five accuracy classes; the sensing element is either Pt100 or Pt1000, single or double, in 2-, 3- or 4-wire circuit.



TECHNICAL DATA

SENSING ELEMENT

Sensor element	Pt100 · Pt1000 · 2× Pt100 · 2× Pt1000
Circuit	2-wire · 3-wire · 4-wire
Accuracy	class A · class B · B1/2DIN · B1/3DIN · B1/10DIN
Type	standard element (S) · M.I. element (M)
Form	screw-in sensor (ES) · dip-in sensor (ET)
Insulator	metal oxide
Operating range	-200 ... +450 °C

SHEATH AND LENGTH

Material	1.4571 (316Ti) for standard element 2.4816 (Inconel 600) for M.I. element
Ø standard element	3 · 4 · 5 · 6 · 7 · 8 · 9 · 10 · 11 · 15 mm
Ø M.I. element	3 · 4.5 · 6 mm
Fitting, nominal length	50 · 100 · 160 · 200 · 250 · 400 · 600 · 1000 mm · option on request
Maximum length	2000 mm
Process connection	1/4" · 3/8" · 1/2" · 1" · 1/4NPT · 3/8NPT · 1/2NPT
Bend radius	min. 5 × Ø sheath (M.I. element)

TERMINAL HEAD

Material	aluminium
Process connection	M24x1.5
Cable connection	M20x1.5
Connection	ceramic block with terminal posts
Protection	IP 54
Insulation resistance	test voltage 500 VDC

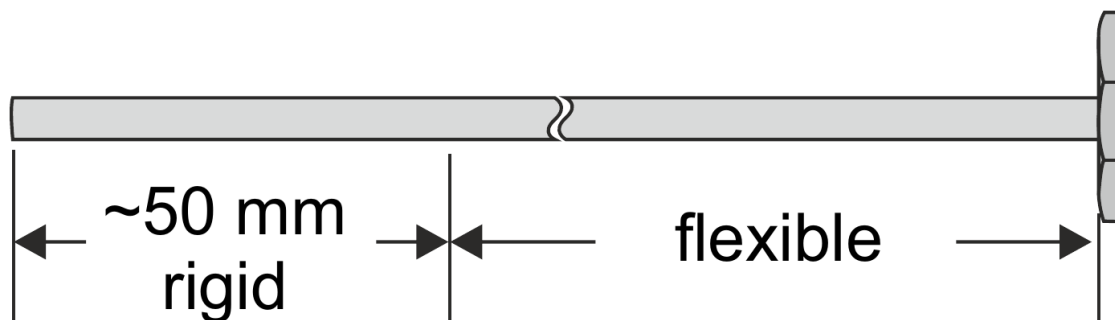
TEMPERATURE AND RESPONSE

Sensor	-200 ... +450 °C
Sheath 1.4571	up to 600 °C
Sheath 2.4816	up to 600 °C
Terminal head	up to 480 °C (1)
Response 6x0.5 mm	t90 30.9 s · t50 12 s
Response 6x1 mm	t90 22.1 s · t50 7.6 s
Accessories	connection cable · transmitter · compression fitting

(1) The terminal head limits the application: 480 °C at its own surroundings, not at the medium. The sheath withstands more than the element.

CONNECTION AND SHEATH

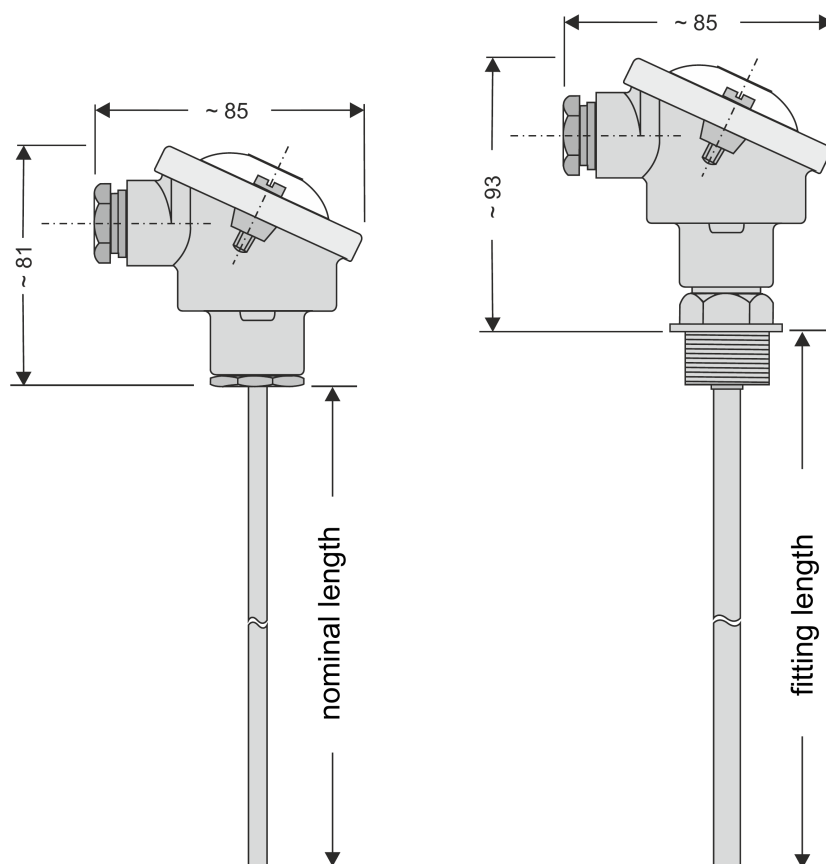
Terminal head B holds a ceramic block with terminal posts; the cable enters through the M20x1.5 gland.



Sheath of the mineral insulated element: the first approx. 50 mm from the terminal head are rigid, the rest is flexible. The bend radius is limited to at least five times the sheath diameter.



DIMENSIONS



Dip-in version (ET) — no process thread of its own; it is fixed with an accessory. The dimension shown is the nominal length.
Screw-in version (ES) — with a process thread on the sheath. The dimension shown is the fitting length.



CONFORMITY

Accuracy classes	Class A to B1/10DIN
Type approval	None. The GL type approval TAA00002H5 applies to the version TKMD
Protection	IP 54 at the terminal head

ORDER INFORMATION

Accessories

• Connection cable · transmitter · compression fitting.

ORDER KEY

Field	Value	Meaning
Product code	KD	stands at the beginning of every order code
Sensor element	0 ... 3	1× Pt100 · 1× Pt1000 · 2× Pt100 · 2× Pt1000
Type of sensor	0 ... 2	2-wire · 3-wire · 4-wire
Accuracy	0 ... 4	class A · class B · B1/2DIN · B1/3DIN · B1/10DIN
Type	0 · 1	standard element (S) · M.I. element (M)
Form	0 · 1	screw-in sensor · dip-in sensor
Sheath material	0 · 1	1.4571 (316Ti) for S · 2.4816 (Inconel 600) for M
Ø sheath	1 ... B	1 = 3 mm (S, M) up to B = 15 mm (S) · 3 = 4.5 mm (M)
Fitting, nominal length	0 ... 8	50 to 1000 mm · 8 = other length
Process connection	0 ... 6	1/4" · 3/8" · 1/2" · 1" · 1/4NPT · 3/8NPT · 1/2NPT
Special version	0	customer-specific, please state
Used temperature range	—	to be stated by the purchaser, in °C

The order code is formed from the product code and the fields of the key.

