

ROOM RESISTANCE THERMOMETER



- FOUR HOUSINGS
- PT100 · PT1000 · TYPE K
- TRANSMITTER OPTION
- SCREW TERMINALS 2.5 MM²
- IP 66



KEY DATA

Property	Value	Property	Value
Input	Pt100 · Pt1000 · 3x Pt100 · type K	Range	-50 ... +100 °C
Output	resistance · 4...20 mA · 2...10 V (2)	Ambient aluminium	-50 ... +100 °C (1)
Accuracy	class A · B · AA (B1/3 DIN)	Ambient plastic	-50 ... +85 °C (1)
Housing	cast alu AK082 · AK081 · AK061 · ABS 1503	with transmitter	-40 ... +85 °C
Connection	screw terminals up to 2.5 mm ²	Product code	RW

A room sensor in a cast or plastic housing with screw terminals — for air conditioning and cold storage. The transmitter is an option ordered as a type of its own; two of the four housings do not take it.

TECHNICAL DATA

INPUT AND OUTPUT

Sensor	1x/2x Pt100 · 1x/2x Pt1000 · 3x Pt100
Thermocouple	1x type K · 1x other type
Connection	2-, 3- or 4-wire
Classes	A · B · AA (B1/3 DIN)
Range	-50 ... +100 °C
Standard output	resistance thermometer on terminals
Output with transmitter	4 ... 20 mA · 2 ... 10 V (2)
Transmitter TH-RTD HART	0.3 % of span, 12 ... 40 VDC
Transmitter TP-RTD · TP-TC	±0.1 % of full scale or 0.2 °C, 6 ... 32 VDC
Transmitter DTW · DTW Ex	±0.1 % of full scale or 0.2 °C, 8 ... 35 / 8 ... 30 VDC

PERFORMANCE

Housing AK082	80 × 125 × 57 mm, cast alu, approx. 500 g
Housing AK081	75 × 80 × 57 mm, cast alu, approx. 400 g
Housing AK061	64 × 58 × 36 mm, cast alu, approx. 225 g
Housing 1503	120 × 80 × 58 mm, ABS, approx. 275 g
Colour aluminium	grey RAL 7032
Colour plastic	base black, cover light grey
Transmitter possible	in AK082 and 1503 only (3)
Cable gland	M12 · M16 · M20x1.5 as specified
Gland position	side A to F, as specified
Protection	at least IP 66

SUPPLY AND ENVIRONMENT

Supply	none without a transmitter
Supply with transmitter	6 ... 40 VDC, depending on the type (2)
Ambient cast aluminium	-50 ... +100 °C (1)
Ambient plastic	-50 ... +85 °C (1)
Ambient with transmitter	-40 ... +85 °C
Storage cast aluminium	-50 ... +100 °C
Storage plastic	-50 ... +85 °C
Protection	at least IP 66

MECHANICS

Housing	cast aluminium alloy or ABS plastic
Probe material	stainless steel 1.4571 or Delrin POM
Electrical connection	screw terminals up to 2.5 mm ²
Cable entry	gland as specified by the customer
Probe position	side A to F, as specified
Mounting position	any
Protection	at least IP 66

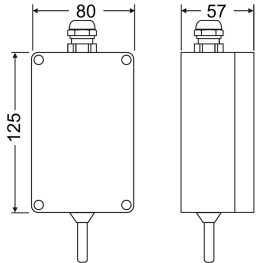
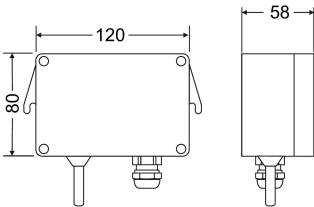
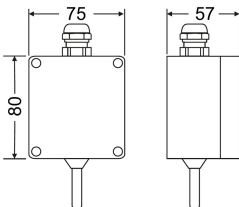
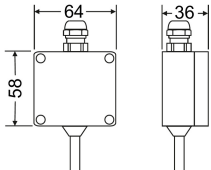
- (1) The permitted ambient temperature depends on the housing and on the transmitter: cast aluminium -50...+100 °C, plastic -50...+85 °C, with a transmitter only -40...+85 °C in both cases.
- (2) The transmitter is a product of its own with a data sheet of its own. TP-RTD, DTW, TH-RTD and DTW Ex work with resistance thermometers only, TP-TC with thermocouples only.
- (3) The housings AK061 and AK081 are not intended for operation with transmitters.

ELECTRICAL CONNECTION

No connector but terminals: screw terminals up to 2.5 mm² inside the housing. The cable gland is fitted as the customer specifies — size M12, M16 or M20x1.5 and position on one of the housing sides A to F. On the AK082 and the 1503 it can also be mounted inside the base. The position of gland and probe belongs in the order — it has a position of its own in the key.



DIMENSIONS

Aluminium AK082 	Synthetic 1503 	Aluminium AK081 
Aluminium AK061 		

Dimensions in mm.



CONFORMITY

Explosion protection	The DTW Ex transmitter carries II 1G Ex ia IIC T6...T4
Protection	at least IP 66
Material to the medium	stainless steel 1.4571 or Delrin POM

ORDER INFORMATION

Accessories

- No separate accessories. The cable gland is not ordered separately but stated by size and position in the second-to-last position of the key. The transmitters have data sheets of their own.

ORDER KEY

Field	Value	Meaning
Product code	RW	stands at the beginning of every order code
Sensor	0 ... 7	1x Pt100 · 1x Pt1000 · 2x Pt100 · 2x Pt1000 · 3x Pt100 = 5 · type K = 6 · other type = 7
Version	0 · 1 · 2	2-wire · 3-wire · 4-wire
Probe	0 · 1	stainless steel 1.4571 · Delrin POM
Accuracy	0 · 5 · 2	class B = 0 · class A = 5 · class AA = 2
Housing	0 ... 3	cast alu 80x125x57 · 64x58x36 · ABS 120x80x58 · cast alu 75x80x57
Transmitter	0 · 9 · A ... E	none · TLKML 0...10 V · TP-RTD · DTW · TP-TC · TH-RTD HART · DTW Ex (2) (3)
Transmitter range	X	please state, e.g. 20...80 °C
Gland, probe	X	please state: size and position of the gland, position of the probe
Other	0	special model

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

