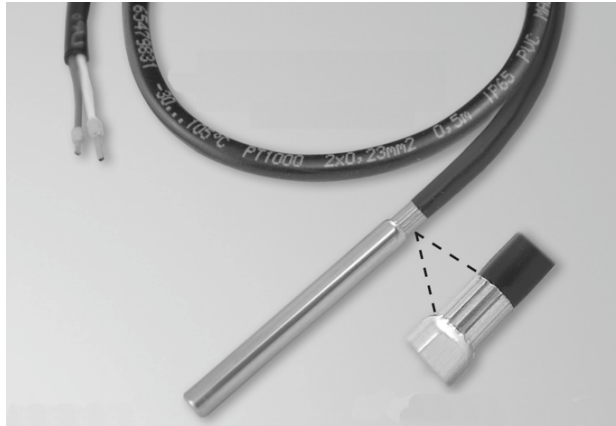


KTFxx

CABLE-TYPE BULB TEMPERATURE SENSORS

PRODUCT DATA



GENERAL

The KTFxx cable-type bulb temperature sensors can be used as strap-on sensors or immersion sensors.

The sensors can be employed for hot and cold water installations in systems using Pt1000, NTC 10k, or NTC 20k temperature sensing elements.

NOTE: Immersion well not included. For information on immersion well options, see VF Immersion Temperature Sensors – Product Data (Product Literature No.: EN0B-0724GE51).

FEATURES

- Pt1000, NTC 10k, or NTC 20k temperature sensing element
- Stainless steel probes, IP65 rating
- High accuracy

Models

OS no.	sensor type	description	temperature range
KTF00-65-2M	Pt1000	2-meter cable	-30...+105 °C (-22...+221 °F)
KTF10-65-2M	NTC 10k	2-meter cable	
KTF20-65-2M	NTC 20k	2-meter cable	
KTF10-65-2M-B	NTC 10k	2-meter cable, pack of 50	
KTF20-65-2M-B	NTC 20k	pack of 50 KTF20-65-2M	
KTF20-65-5M-B	NTC 20k	5-meter cable, pack of 50	-20...+260 °C (-4...+500 °F)
KTF00-65-2M-300	Pt1000	2-meter cable	

Accessory

When securing new sensors into old-style VFxx immersion wells, order the accessory VF-SPRING.

SPECIFICATION

Nominal value

Pt1000	1000 Ω at 0 °C (32 °F)
NTC 10k	10 k Ω at 25 °C (77 °F)
NTC 20k	20 k Ω at 25 °C (77 °F)

Accuracy

Pt1000 (IEC751 Class B)	± 0.3 °C at 0 °C (32 °F)
NTC 10k	± 0.2 °C at 25 °C (77 °F)
NTC 20k	± 0.2 °C at 25 °C (77 °F)

Sensitivity

Pt1000	≈ 3.85 Ω / K
NTC 10k	-440 Ω / K at 25 °C (non-linear)
NTC 20k	≈ -934.5 Ω / K at 25 °C (non-lin.)

Time constant

Immersion well appl.	< 30 sec
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Sensor sleeve material	stainless steel (1.4571)
Cable sheath material	PVC (excepting the KTF00-65-2M-300, which has PTFE)
Electrical connection	2-m or 5-m cable, 2x0.22 mm ²
Ambient Limits (wiring box)	
Storage temperature	-30...+70 °C (-22...+158 °F)
Humidity	5...95% rh, non-condensing
Safety	IP65 as per EN 60529
Dimensions	see Fig. 1 on page 2

DIMENSIONS

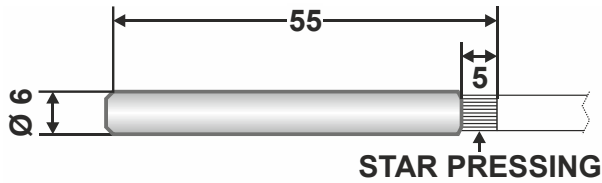


Fig. 1. Dimensions of the cable-type bulb sensor in mm

WIRING

wiring run	max. length
sensor to controller	200 m (660 ft)

Offset due to wire resistance per 10 m of distance from sensor to controller, when using the KTF00-65-2M (Pt1000):

type of wire	temperature offset Pt1000
0.5 mm ² (AWG20)	0.18 °C (0.324 °F)
1.0 mm ² (AWG17)	0.09 °C (0.162 °F)
1.5 mm ² (AWG15)	0.06 °C (0.108 °F)

INSTALLATION

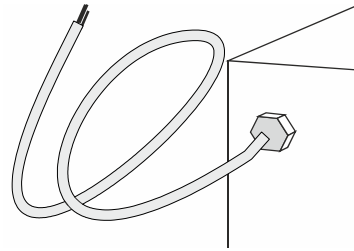


Fig. 2. Mounting into the immersion well

NOTE: Use shielded wiring in areas with high EMI. Keep 15 cm (5.9") minimum distance between sensor lines and 230 Vac power lines.

Honeywell

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