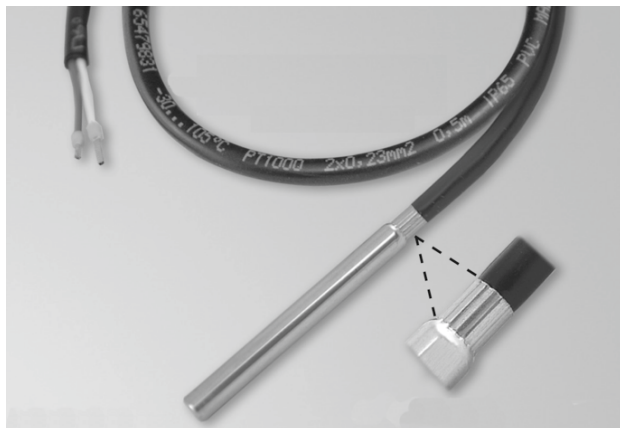


KTFxx CABLE-TYPE BULB TEMPERATURE SENSORS

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	
KTF00-65-2M-300	Pt1000	2-meter cable	-20...+260 °C (-4...+500 °F)

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 kΩ at 25 °C (77 °F)
NTC 20k	20 kΩ 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

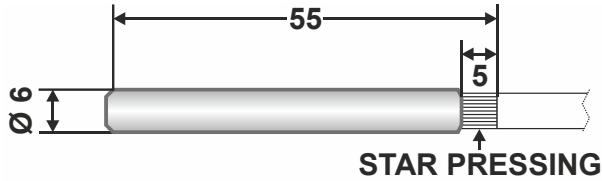


Fig. 1. Dimensions of the cable-type bulb sensor in mm

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

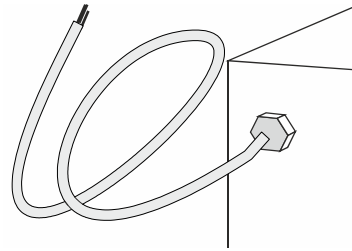


Fig. 2. Mounting into the immersion well

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

Manufactured for and on behalf of the Connected Building Division of Honeywell Technologies Sàrl, Rolle, Z.A. La Pièce 16, Switzerland by its Authorized Representative:

Home and Building Technologies

Honeywell GmbH
 Böblinger Strasse 17
 71101 Schönaich, Germany
 Phone +49 (0) 7031 637 01
 Fax +49 (0) 7031 637 740
<http://ecc.emea.honeywell.com>