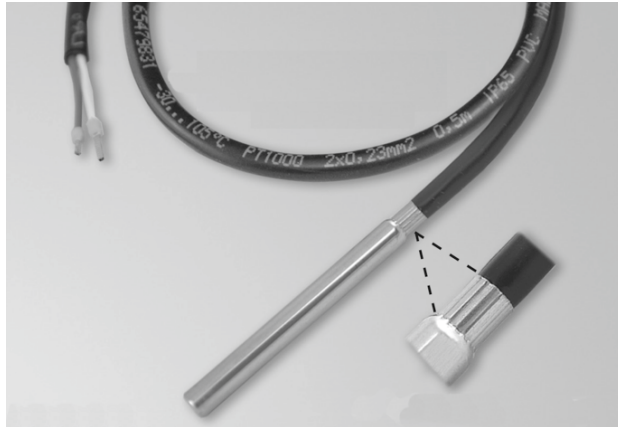


KTF00-65-2M, KTF10-65-2M, KTF20-65-2M, and KTF20-65-5M

CABLE-TYPE BULB TEMPERATURE SENSORS

PRODUCT DATA



GENERAL

The KTF00-65-2M, KTF10-65-2M, KTF20-65-2M, and KTF20-65-5M Cable-type Bulb Temperature Sensors can be used as

- immersion sensors
- duct air sensors

The sensors can be employed for hot and cold water installations in the following control systems:

- EAGLE
- LION
- TIGER
- PANTHER
- Excel 5000, Excel 500, and Excel 800
- Excel Web and Excel Web II
- Honeywell I/O modules
- LYNX, SERVAL, Excel 10, and Excel 12

or other systems using Pt 1000, NTC 10k, or NTC 20k temperature sensing elements.

FEATURES

- Pt 1000, 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	Pt 1000	2-meter cable	-30...+105 °C (-22...+221 °F)
KTF20-65-2M	NTC 20k	2-meter cable	
KTF10-65-2M	NTC 10k	2-meter cable	
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	Pt 1000	2-meter cable	-20...+260 °C (-4...+500 °F)

SPECIFICATION

Nominal value

Pt 1000	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

Pt 1000 (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

Pt 1000	≈ 3.85 Ω / K
NTC 10k	-440 Ω / K at 25 °C (non-linear)
NTC 20k	≈ -934.5 Ω / K at 25 °C (non-linear)

Time constant

Immersion well application	< 30 sec
Air duct application	< 1 min at air velocity of 3 m/s

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 mm²

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

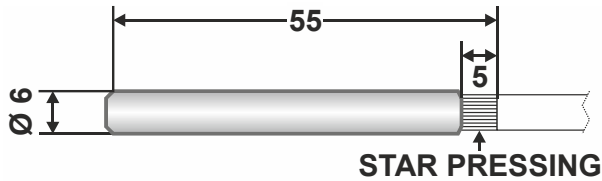


Fig. 1. Dimensions of the cable-type bulb sensor in mm

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 (Pt 1000):

type of wire	temperature offset Pt 1000
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

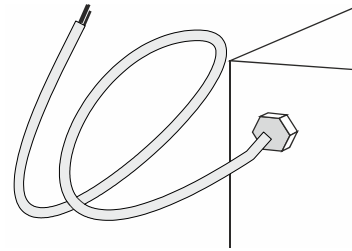


Fig. 2. Mounting into the immersion well

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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