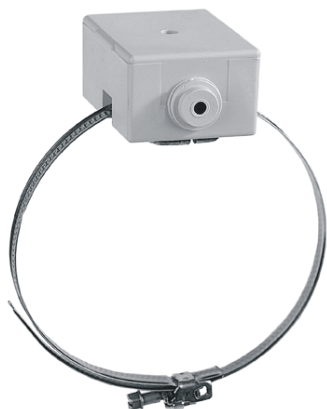


T7414A / VF20A / VF10A / WPF20A STRAP-ON TEMPERATURE SENSORS

PRODUCT DATA



GENERAL

The T7414A/VF20A/VF10A/WPF20A Strap-on Temperature Sensors are used for temperature measurement on warm/hot water pipes or solar collectors.

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

- Excel 5000
- MicroniK 200
- MicroniK 100
- Excel Classic
- Excel Plus
- High Performance Excel Plus
- Excel EMC

or other systems using PT1000, NTC 20k Ω or NTC 10k Ω temperature sensing elements.

FEATURES

- **PT1000, NTC 20k Ω or NTC 10k Ω temperature sensing element**
- **Wide sensing range**
- **High accuracy**

SPECIFICATION

Nominal value

PT1000	1000 Ω at 0 °C
NTC20k Ω	20 k Ω at 25 °C
NTC10k Ω	10 k Ω at 25 °C

Accuracy

PT1000	IEC751 Class B 0.3 K +0.5% • t (t in °C)
NTC	0.3 K at 25 °C

Sensitivity

PT1000	$\approx 3.85 \Omega / K$
NTC	non-linear

Response time

$\tau_{0.5} \approx 1$ minute

Electrical connection

T7414/VF20A/VF10A	terminals for 2 x 1.5 mm ² cable
WPF20A	terminals for 4 x 1.5 mm ² cable

Ambient Limits (wiring box)

Transport and storage temperature	-35...+70 °C (-31...+158 °F)
Humidity	5...95% r.h., non-condensing

Safety (terminal box)

Protection standard	IP54 (T7414, VF10A) IP30 (VF20, WPF20)
Flame retardant	V1 as per UL94, Plastic (PC)

Housing

Dimensions	See Fig. 1 on page 2
Weight	100 g

Models

OS no.	description	sensing range
T7414A1008	Strap-on PT1000 Temperature Sensor	0...+110 °C (+32...+230 °F)
VF20A	Strap-on NTC20k Ω Temperature Sensor	0...+110 °C (+32...+230 °F)
VF10A	Strap-on NTC10k Ω Temperature Sensor	0...+110 °C (+32...+230 °F)
WPF20A	Two strap-on NTC20k Ω Temperature Sensors	0...+110 °C (+32...+230 °F)

DIMENSIONS

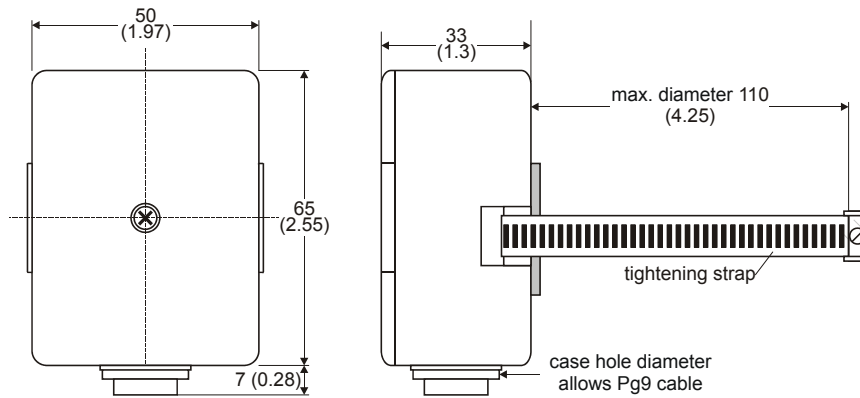


Fig. 1. Dimensions of T7414A / VF20A / WPF20A in mm (inches)

INSTALLATION

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

Offset (at PT1000 sensors, only) due to wire resistance per 10 m of distance from sensor to controller:

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)

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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