

T7414A / VF20A / WPF20A STRAP-ON TEMPERATURE SENSORS

PRODUCT DATA



GENERAL

The T7414A/VF20A/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 or NTC 20k Ω temperature sensing elements.

FEATURES

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

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)
WPF20A	Two strap-on NTC20k Ω Temperature Sensors	0...+110 °C (+32...+230 °F)

SPECIFICATION

Nominal value

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

Accuracy

PT1000	IEC751 Class B 0.3 K +0.5% • t (t in °C)
NTC20k Ω	0.3 K +1% • t - 25 °C (t in °C)

Sensitivity

PT1000	\approx 3.85 Ω / K
NTC20k Ω	\approx -934.5 Ω / K at 25 °C (non-linear)

Response time

$\tau_{0.5} \approx$ 1 minute

Electrical connection

T7414A/VF20A	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)

Safety (terminal box)

Protection standard IP54 as per EN60529 (T7414)
IP30 (VF20, WPF20)

Flame retardant V1 as per UL94, Plastic (PC)

Housing

Dimensions See Fig. 1 on page 2
Weight 100 g

DIMENSIONS

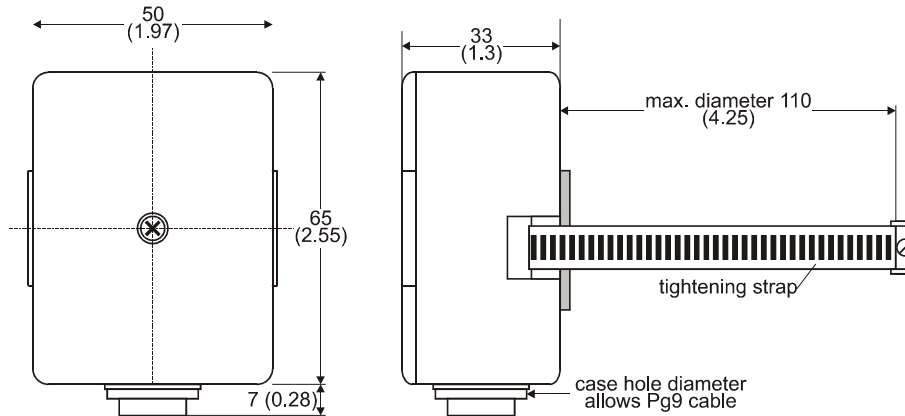


Fig. 1. Dimensions of T7414A / VF20A / WPF20A in mm (inches)

INSTALLATION

Wiring run	Maximum 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

Control Products

Honeywell AG
Böblinger Straße 17
D-71101 Schönaich
Phone: (49) 7031 63701
Fax: (49) 7031 637493
<http://europe.hbc.honeywell.com>

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