

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 at 25 °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)
Humidity	5...95% r.h., non-condensing

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

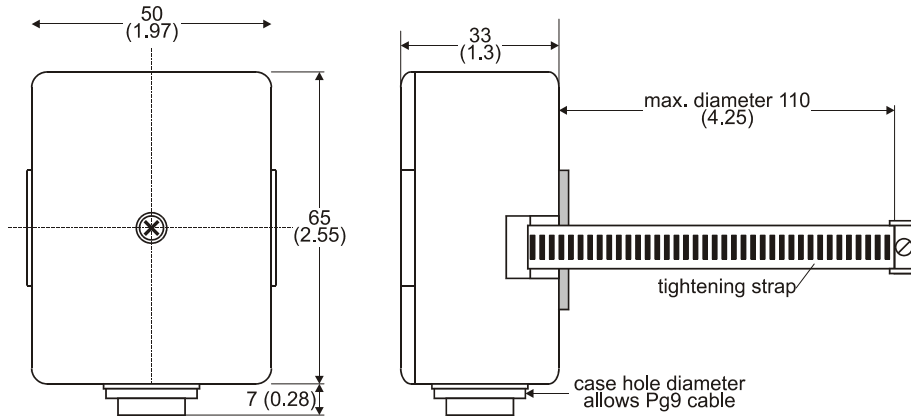


Fig. 1. Dimensions of T7414A / VF20A / WPF20A in mm (inches)

INSTALLATION

wiring run	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

Manufactured for and on behalf of the Environmental and Combustion Controls Division of Honeywell Technologies Sàrl, Ecublens, Route du Bois 37, Switzerland by its Authorized Representative:

Automation and Control Solutions

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

Subject to change without notice. Printed in Germany

EN0B-0364GE51 R0907