

Contact temperature sensors
AF25/AF50... PR25... VFG54...

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Mounting Advcie

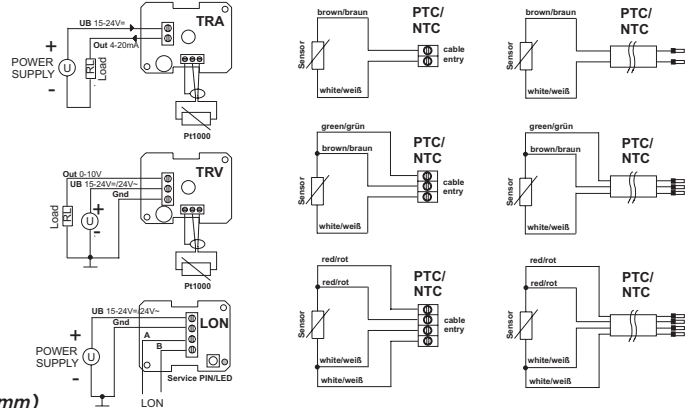
Fixing by tightening strap. Use contact fluid for better heat transfer between sensor and measuring medium. For avoiding condensate logging, mount sensor on top surface of the tube, if possible. *Please also note the general remarks in our INFOBLATT THK.*

Optional Accessories

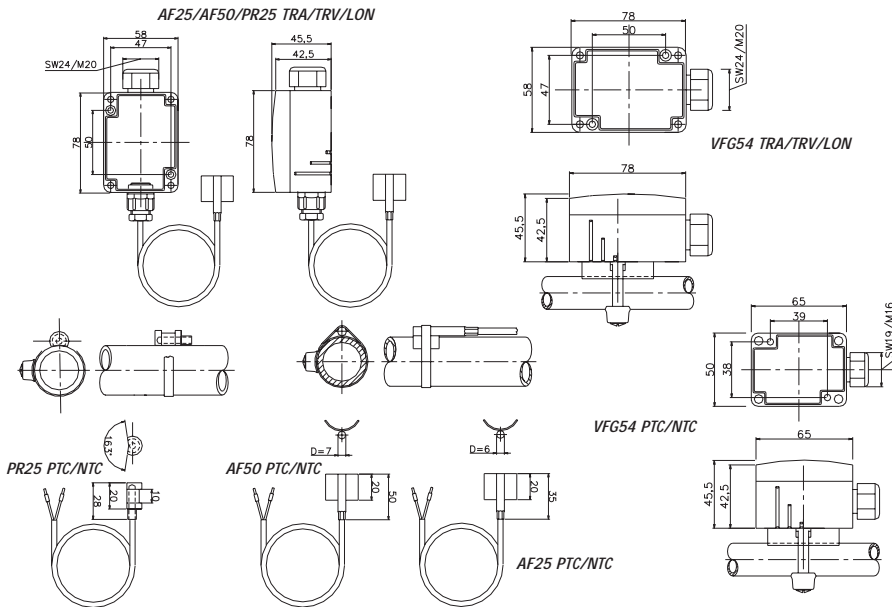
(SB2") Tightening strap for 2" pipes and syringe with contact fluid approx. 0,5cm³
 (SB900) Tightening strap L=900mm and syringe with contact fluid approx. 0,5cm³

Terminal Connection Plan

Attention: With digital sensors such as **AD592, SMT160, LM235, DS1820** the following applies: brown= plus (+), white= minus (-), green=out



Dimensions (mm)



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12100... 12300...



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Application

For measuring temperature on pipes and arched surfaces. Designed for locking on control and display systems. Contact temperature sensor VFG54 includes connection housing and clamp.

Types Available

Model	Type	Method of measurement (Output)
AF25/AF50	PTC/NTC	passive, resistance
	TRA	active, 4...20mA
	TRV	active, 0...10V
PR25	PTC/NTC	passive, resistance
	TRA	active, 4...20mA
	TRV	active, 0...10V
VFG54	PTC/NTC	passive, resistance
	TRA	active, 4...20mA
	TRV	active, 0...10V
	LON	active, FT10

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Norms and Standards

Product safety:	EN60730-1 Automatic electr. control devices for domestic use and similar applications
EMV:	EN60730-1 (2000) Interference resistance EN60730-1 (2000) Emitted interference
CE-Conformity:	89/336/EWG Electromagnetic compatibility EMV

Technical Data

Type PTC/NTC:

Measuring elements:	Sensor according to customer's request, e.g. PTC, NTC...
Measuring range:	Depending on sensor used
Accuracy :	Depending on sensor used, e.g. DIN KL.B+ and sensor wire
Measuring current:	Typ. <1mA
Sensor wire L:	1m/2m/4m/6m, other lengths on request Cable ends with conductor sleeves as standard Conductor cross-section AF25/PR25: 0,25mm ² , AF50: 0,50mm ² max. operative temperature: PVC: 100°C Silicone: 180°C
Sensor bushing:	AF25/AF50: Mat. brass, max. operative temperature 150°C PR25: Aluminium, max. operative temperature 180°C VFG54: Brass
Clamps:	VFG54: 2pole (two-wire) 3pole (three-wire) 4pole (four-wire) Terminal screw max 1,5mm ²
Housing:	VFG54: (65mm) Polyamide, Colour white
Temperature max²⁾:	<90°C
Protection:	VFG54: IP65
Cable entry:	VFG54: Single M16 for wire conductor with max. D=8mm

Type TRA:

Measuring element:	PT1000
Measuring range:	TRA1: -50°C...+50°C TRA2: -10°C...+120°C TRA3: 0°C...+50°C TRA4: 0°C...+160°C
Accuracy¹⁾:	Typ. +/-1% of measuring range with sensor wire of max. 2m
Measuring current:	<1mA
Operating voltage:	15-24V=
Power consumption:	max. 20mA
Load:	<500 Ohm
Sensor wire L:	AF25/AF50/PR25: 1m/2m/4m/6m, other lengths on request, max. Operative temperature: PVC: 100°C Silicone: 180°C
Sensor bushing:	AF25/AF50: Brass, max. operative temperature 150°C PR25: Aluminium, max. operative temperature 180°C VFG54: Brass
Clamps:	2pole (two-wire) Terminal screw max 1,5mm ²
Housing:	(78mm) Polyamide, Colour white
Temperature max²⁾:	<70°C
Protection:	IP65
Cable entry:	Single M20 for wire conductor wire with max. D=8mm

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Type TRV:

Measuring element:	PT1000
Measuring range:	TRV1: -50°C...+50°C TRV2: -10°C...+120°C TRV3: 0°C...+50°C TRV4: 0°C...+160°C
Accuracy¹⁾:	Typ. +/-1% of measuring range with sensor wire of max. 2m
Measuring current:	<1mA
Operating voltage:	15-24V= /24V-
Power consumption:	max. 12mA/24V=
Load:	min. 5kOhm
Sensor wire L:	AF25/AF50/PR25: 1m/2m/4m/6m, other lengths on request max. operative temperature: PVC: 100°C Silicone: 180°C
Sensor bushing:	AF25/AF50: Brass, max. operative temperature 150°C PR25: Aluminium, max. operative temperature 180°C VFG54: Brass
Clamps:	3pole (three-wire) Terminal screw max 1,5mm ²
Housing:	(78mm) Polyamide, Colour white
Temperature max²⁾:	<70°C
Protection:	IP65
Cable entry:	Single entry, M20 for wire conductor with max. D=8mm

Type LON:

Measuring element:	Digital sensor
Measuring range:	-45°C...+130°C
Accuracy¹⁾:	Typ. +/-1% of measuring range
Operating voltage:	15-24V= /24V-
Power consumption:	max. 20mA/24V=
Sensor bushing:	Brass
Clamps:	4pole (four-wire) Terminal screw max 1,5mm ²
Housing :	(78mm) Polyamide, Colour white
Temperature max²⁾:	<70°C
Protection:	IP65
Cable entry:	Single entry, M20 for wire conductor with max. D=8mm Double entry, M20 for 2-wire conductor with max. D=7mm

¹⁾ Operating voltage 24V= and 21°C (+/-5K) ambient temperature. Please take care that the transducer should generally be operated in the measuring range centre, as increased deviations could occur on the measuring range end points.

²⁾ Maximum permissible ambient temperature housing, humidity (without dew permeation) <80%r.F.