

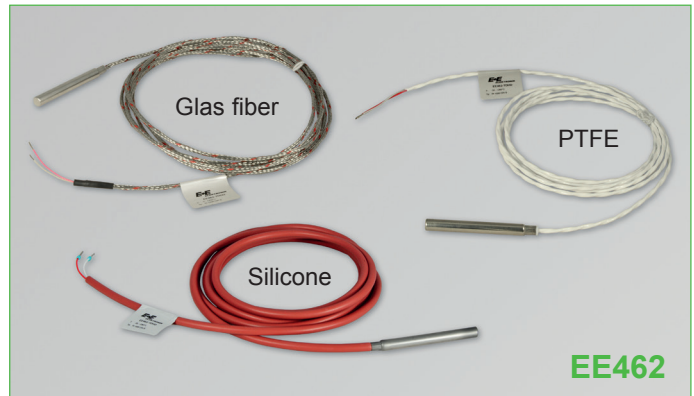
EE462

High-Temperature Cable Sensor

Cable sensors for passive measurement of high temperature in air and technical gases are used in process control.

For temperature measurement in liquids, the EE462 is mounted with an immersion well. Several types of sensing elements are available, such as Pt100, Pt1000, NTC or Ni1000.

The operation temperature of EE462 depends on the choice of the cable material. The IP67 protection class is made possible by the innovative star pressing of the sensor sleeve.



EE462

Typical Applications

Exhaust gas
 Process control

Features

Protection class IP67
 High chemical and mechanical resistance

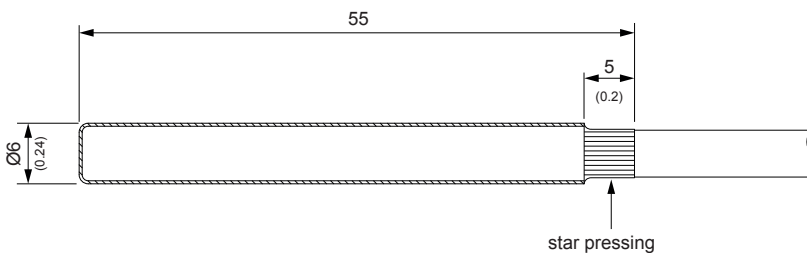
Technical Data

Operating temperature / Cable material	0...+350 °C (32...+662 °F)	Glass fiber
	-20...+260 °C (-4...+500 °F)	PTFE
	-60...+180 °C (-76...+356 °F)	Silicone

T-Sensors	Sensor Type	Nominal Resistance	Sensitivity	Standard	T _{max} [°C]
	Pt100 DIN B	R ₀ : 100 Ω	TC: 3.850 x 10 ⁻³ /°C	DIN EN 60751	400
	Pt1000 DIN B	R ₀ : 1000 Ω	TC: 3.850 x 10 ⁻³ /°C	DIN EN 60751	400
	NTC1.8k	R ₂₅ : 1.8 kΩ	B _{25/85} : 3500 K ± 1.0 %	-	125
	NTC2.2k	R ₂₅ : 2.252 kΩ ± 1 %	B _{25/85} : 3977 K ± 0.3 %	-	125
	NTC10k B3950	R ₂₅ : 10 kΩ ± 0.5 %	B _{25/85} : 3989 K (B _{25/50} : 3950 K ± 1.0 %)	-	110
	Ni1000 TK6180 DIN B	R ₀ : 1000 Ω	TC: 6180 ppm/K	DIN 43760	200
	Ni1000 TK5000 DIN B	R ₀ : 1000 Ω	TC: 5000 ppm/K	DIN 43760	200

Measurement current	typ. < 1 mA
T-Sensor connection	2-wire, 2x 0.22 mm ² , wire resistance 0.172 Ω/m (0.052 Ω/ft)
Insulation resistance	typ. > 100 MΩ at 20 °C (68 °F)
Response time τ ₆₃	< 1 min, at 3 m/s (590 ft/min) air velocity < 30 s, with immersion well in liquid water bath
Sensor sleeve material	stainless steel (1.4571 / 316Ti)
Protection class	IP67
Storage temperature	-30...+70 °C (-22...+158 °F) (packaging)
Working and storage humidity range	5...95 % rh, no condensation

Dimensions in mm (inch)



Ordering Guide

T-SENSOR ¹⁾	CABLE MATERIAL	CABLE LENGTH
Pt100 DIN B (TP2)	Glass fibre ²⁾ (KM2)	2 m (6.6 ft) (K2)
Pt1000 DIN B (TP4)	PTFE ²⁾ (KM4)	3 m (9.8 ft) (K3)
NTC1,8k (TP7)	Silicone (KM3)	
NTC2,2k (TP21)		
NTC10k B3950 (TP11)		
Ni1000 TK6180 DIN B (TP9)		
Ni1000 TK5000 DIN B (TP19)		
EE462-		

1) T-Sensor details see www.epluse.com/R-T_Characteristics

2) Only with T-sensor PT100 DIN B and Pt1000 DIN B

Order Example

EE462-TP4KM4K2

T-Sensor: Pt1000 DIN B
 Cable material: PTFE
 Cable length: 2 m

Mounting Accessories

Immersion well - Thread: R ½" ISO

Length	50 mm (1.97")	100 mm (3.94")	135 mm (5.31")	285 mm (11.22")
brass	HA400101	HA400104	HA400102	HA400103
stainless steel	HA400201	HA400204	HA400202	HA400203

Immersion well - Thread: ½" NPT

Length	50 mm (1.97")	100 mm (3.94")	135 mm (5.31")	285 mm (11.22")
brass	HA400111	HA400114	HA400112	HA400113
stainless steel	HA400211	HA400214	HA400212	HA400213

For further information please see datasheet EE431.

Mounting with immersion well:



1. The spring inside the well must be removed and replaced by a standard M12x1.5 cable gland (not included in the scope of supply).
2. Insert the cable sensor and fix it by fastening the cable gland.

Please observe the operating temperature range of the cable gland!

Cable gland (M12x1.5, -40...+100 °C / -40...+212 °F, UL94-V0) **HA403101**

Hose clamp (for pipe mounting) **HA402101**

For further information please see datasheet EE441.