



## THERMOCOUPLE WITH PROCESS CONNECTION FITTING (J, K, N) with additional outer protection tube Type TER-PKG-78

Thermocouple type TER-PKG-78 is used for temperature measurement of process gases and liquids in cases with high pressure, temperature fluctuation and harmful medium appears.

Thermocouple consists of replaceable sensor insert type WP-OP-02-PS with 1 or 2 converters in head connection. Flanged, welded and screwed thermowell models are available.

Type	Execution
TER-PKG-78-PS	with replaceable insert
TER-PKG-78-PS/Exi	Intrinsic safe with replaceable insert

### THERMOCOUPLE SPECIFICATION

Sheathed sensor insert		Temp. range - Class 1
1xFe-CuNi (J), 2xFe-CuNi (J) 1xNiCr-NiAl (K), 2xNiCr-NiAl (K) 1xNiCrSi-NiSiMg(N), 2xNiCrSi-NiSiMg (N)	Ø3 Ø4,5	-40°C..+500°C -40°C..+700°C 0°C..+1100°C ( - 270°C..+1300°C**)
1xFe-CuNi (J), 2xFe-CuNi (J) 1xNiCr-NiAl (K), 2xNiCr-NiAl (K) 1xNiCrSi-NiSiMg(N), 2xNiCrSi-NiSiMg (N)	Ø6 Ø8	-40°C..+600°C -40°C..+800 (+1100*)°C 0°C..+1100°C ( - 270°C..+1300°C**)

Characteristic
acc. PN-EN 60584-1

\* Upper temperature limits depend on process condition and protection tube material \*\* short term

#### Sheathed insert

Type	Sheath material	Diameter d [mm]	Length L [mm]
WP-TE-02-PS	inconel	Ø3, Ø4,5, Ø6, Ø8	as per client request

Process connection fitting D
M27x2 M24x1,5 M20x1,5 G1/2" G3/4" G1" 1/2"NPT 3/4"NPT 1"NPT

#### Distance protection tube

Diameter	Material
Ø12	1.4571

Additional outer protection tube
on request

Transmitter
on request

#### Connection head

Type	Max. operating temp.	Material	Protection
B	+100°C	Al	IP 54
NA (with silicone seal)	+150°C		IP 65
DAN-W			

**NOTE: Non-standard models available**

## Ordering Information

TER-PKG-78 - A - B - C - D - E - F - G - H

A. Execution		A
	with replaceable insert	PS
	Intrinsic safe with replaceable insert	PS/Exi
B. Type of thermocouple		B
	1xFe-CuNi	1xJ
	2xFe-CuNi	2xJ
	1xNiCr-NiAl	1xK
	2xNiCr-NiAl	2xK
	1xNiCrSi-NiSiMg	1xN
	2xNiCrSi-NiSiMg	2xN
C. Sheathed insert diameter d		C
	Ø 3 mm	3
	Ø 4,5 mm	4,5
	Ø 6 mm	6
	Ø 8 mm	8
D. Process connection fitting D		D
	M20x1,5	M20x1,5
	M24x1,5	M24x1,5
	M27x2	M27x2
	G 1/2"	G 1/2
	G 3/4"	G 3/4
	G 1"	G 1
	1/2" NPT	1/2 NPT
	3/4" NPT	3/4 NPT
	1" NPT	1 NPT
E. Insert length		E
	L	specify in mm
F. Connection head		F
	B	B
	NA (up to 100 °C)	N1
	NA (up to 150 °C)	N2
	DAN-W (up to 100 °C)	DAN-W1
	DAN-W (up to 150 °C)	DAN-W2
G. Transmitter		G
		specify type and range in °C
H. Additional outer protection tube		H
		specify requirements and dimensions

## Ordering Example

**TER-PKG-78-1xK-PS/Exi-6-M20x1,5-250-N1**

stands for: **Thermocouple, intrinsic safe with replaceable insert, 1x NiCr-NiAl sensor, diameter  $\phi$ 6, process connection M20x1,5, length L=250 mm, connection head type NA for ambient temperature up to 100°C, w/o transmitter, w/o additional protection tube.**