

# THERMOCOUPLES

## TC-X

- Explosion-proof version (EEx d IIC T6)
- Made in Israel



### Available thermocouple types

Thermocouple type	Temperature range	Wire materials	Accuracy (special only)
K	200...1260°C	Chromel (90% Nickel + 10% Chromium)	1.1°C/0.4%
		Alumel (95% Nickel + 2% Manganese + 2% Aluminum + 1% Silicon)	
J	0...760°C	Iron	1.1°C/0.4%
		Constantan (55% Copper + 45% Nickel)	
T	-200...370°C	Copper	0.5°C/0.4%
		Constantan (55% Copper + 45% Nickel)	
N	270...1300°C	Nicrosil (84.1% Nickel + 14.4% Chromium + 1.4% Silicon + 0.1% Manganese)	1.1°C/0.4%
		Nisil (95.6% Nickel + 4.4% Silicon)	
E	0...900°C	90% Nickel + 10% Chromium	0.25%
		95% Nickel + 2% Aluminum + 2% Manganese + 1% Silicon	
B	870...1700°C	70% Platinum + 30% Rhodium	0.25%
		94% Platinum + 6% Rhodium	
R	0...1480°C	100% Platinum	0.6°C/0.1%
		87% Platinum + 13% Rhodium	
S	0...1480°C	100% Platinum	0.6°C/0.1%
		90% Platinum + 10% Rhodium	

### Available tubes and wires

Tube type	Max. temp.	Notes
SS 316	300/600°C	SS OB wire inside
SS 316 mineral	900°C	For TC J
Inconel mineral	1145°C	
Ceramic - Pythagoras	1400°C	
Ceramic - Alsint	1700°C	Higher durability

Cable type	Max. temp.	Notes
PVC	80°C	
SS Overbraided	300/600°C	For dry areas
Teflon	200/250°C	Waterproof and highly durable
Silicon rubber	200°C	Waterproof
Fiberglass	500/1200°C	

## Thermocouple order code

CT-TC			
Type			
J	J		
K	K		
T	T		
N	N		
E	E		
R	R		
S	S		
B	B		
Isolation			
Not isolated (standard)		0	
Isolated thermocouple		1	
Tube			
SS316		A	
SS316 mineral ins.		B	
Inconel mineral ins.		C	
SS316 insert tube		1	
Ceramic - Pythagoras		D	
Ceramic - Alsint		E	
No tube		X	X
Cable type			
PVC		F	
SS Overbraided		G	
Teflon		H	
Silicon rubber		I	
Fiberglass		J	
No cable		X	X
Sensor head			
Standard head Epoxy coated Aluminum		K	
Small head Epoxy coated Aluminum		L	
Plastic		M	
EX industrial		N	
No sensor head		X	
Tube connection			
Standard 1/2 BSP / required specifications		##	-
Double TC			
Double thermocouple		V	
Single (standard)		X	
Dimensions in mm			
Tube length		##	-
Tube diameter		##	-
Cable length		##	-

|| \*\*for ceramic thermocouples only

|| \*\*\* Dimensions required

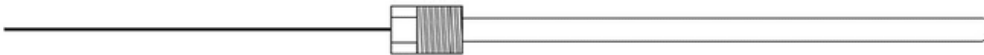
|| Some combinations are not feasible.

## Common thermocouple schematics

**Chart 1: Industrial thermocouple with either ceramic or SS 316 tube**



**Chart 2: A tube thermocouple with a cable**



**Chart 2: Thermocouple wire with a male connection**

