

THERMOCOUPLES

TC-X

- TESTED AND VALIDATED THERMOCOUPLE WIRE
- 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 ins.	900°C	For TC J
Inconel mineral ins.	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	Water proof and highly durable
Silicon rubber	200°C	Water proof
Fiber glass	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	
Fiber glass		J	
No cable		X	X
Sensor head			
Aluminium*		K	
Small aluminium*		L	
Plastic		M	
EX industrial		N	
No sensor head		X	
Tube connection			
1/8" BSP			1
1/4" BSP			2
1/2" BSP			3
3/4" BSP			4
1/8" NPT			5
1/4" NPT			6
1/2" NPT			7
3/4" NPT			8
Bayonet mount**			9
Protection spring			A
Special thread**			S
No thread			X
Thermocouple connection			
Standard plug			Q
Standard socket			R
Mini plug			S
Mini socket			T
Cable spade			1
No connection			X
Flexible SS tube			
7mm chain			U
No cable protection			X
Double TC			
Double thermocouple			V
Single (standard)			X
Other options			
Grip handle			W
No handle			X
Dimensions in mm			
Tube length			## -
Tube diameter			## -
90° angle after X mm			## -
Cable length			## -
Insert/Ceramic lead length			## -
Insert/Ceramic lead diameter			## -

*Epoxy coated | **for ceramic thermocouples only | *** Dimensions required | **Some combinations are not feasible.**

Common thermocouple schematics

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

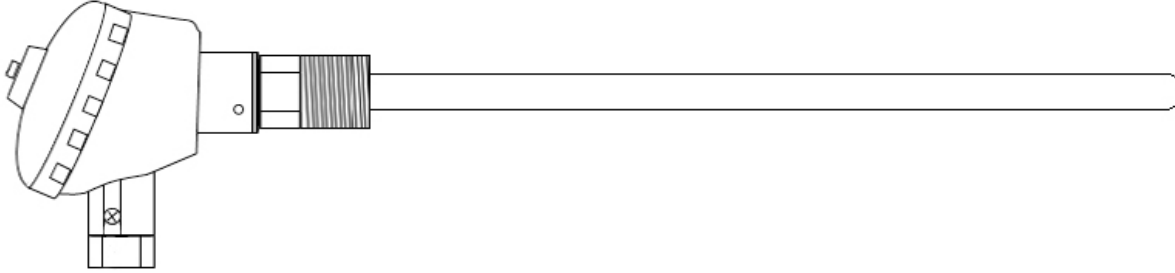


Chart 2: A tube thermocouple with a cable



Chart 2: Thermocouple wire with a male connection

