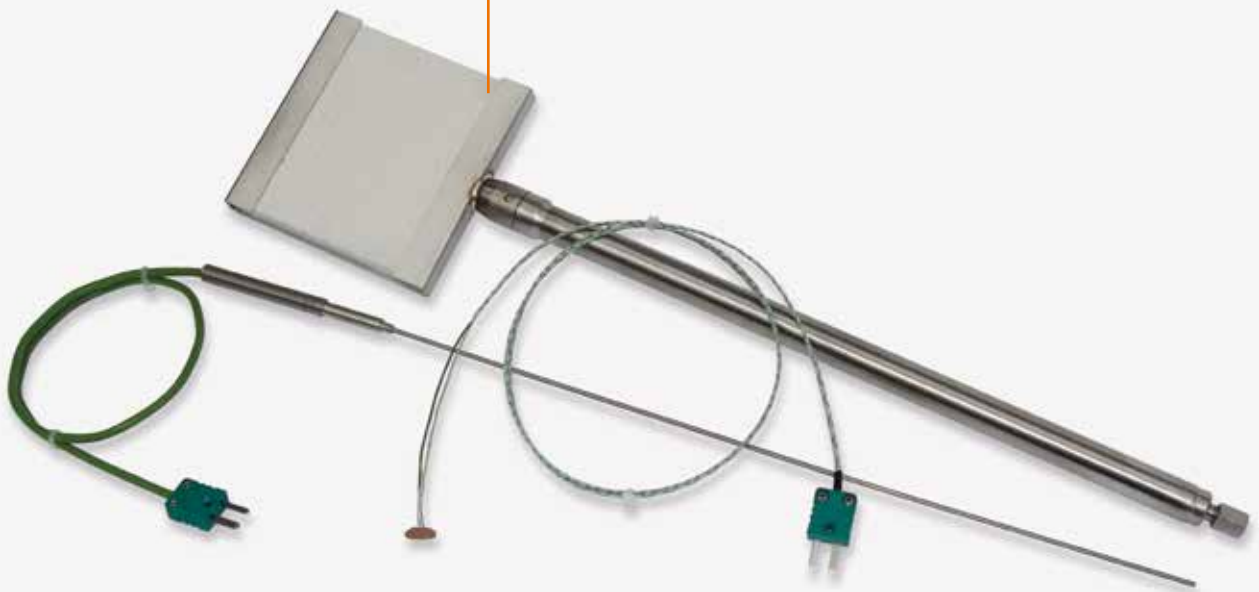


Data sheet



Product group FT-FireTECH

Thermocouples and accessories

Product group **FT-FireTECH** Thermocouples and accessories

The temperature sensors of the FT-FireTECH series are designed for temperature measurements in and on fire test furnaces.

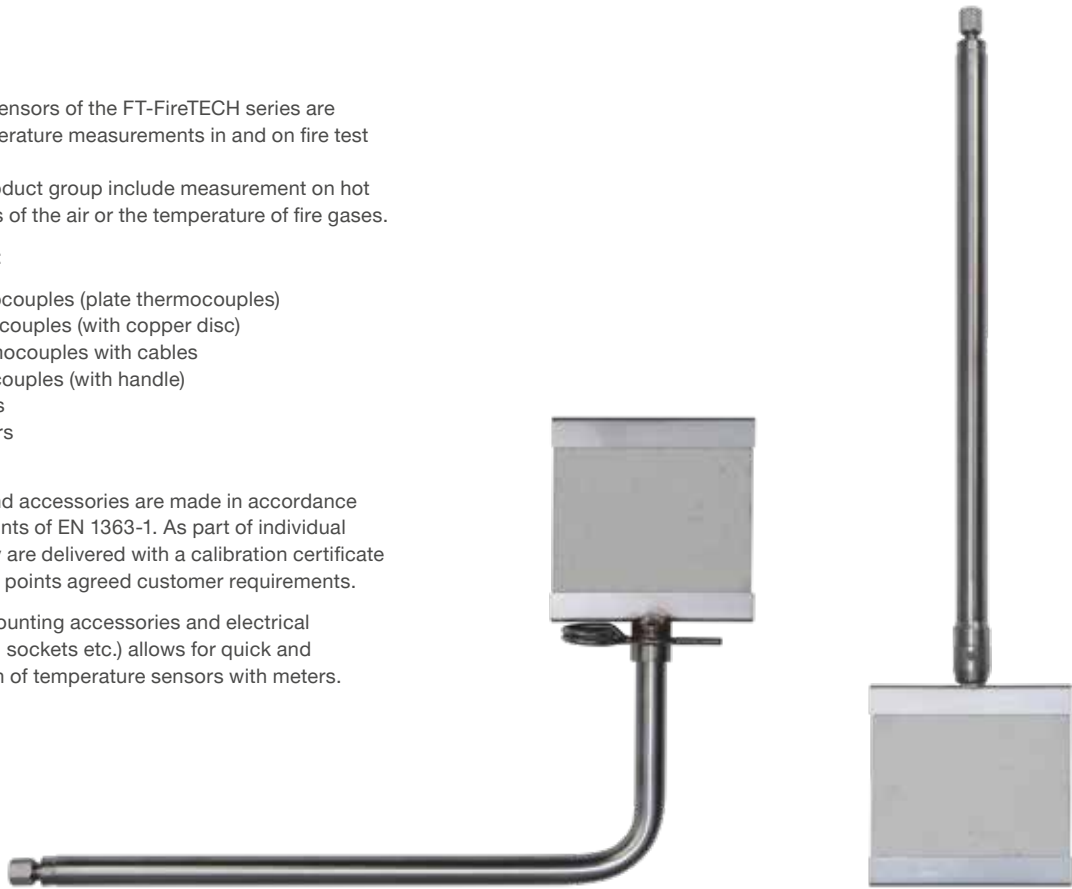
Sensors in this product group include measurement on hot surfaces as well as of the air or the temperature of fire gases.

The series include:

- Furnace thermocouples (plate thermocouples)
- Surface thermocouples (with copper disc)
- Sheathed thermocouples with cables
- Roving thermocouples (with handle)
- Protective pipes
- Plates, insulators
- Accessories

Thermocouples and accessories are made in accordance with the requirements of EN 1363-1. As part of individual requirements, they are delivered with a calibration certificate at the temperature points agreed customer requirements.

A wide range of mounting accessories and electrical connectors (plugs, sockets etc.) allows for quick and reliable connection of temperature sensors with meters.



Product group **FT-FireTECH** Thermocouples and accessories

Furnace thermocouples with plate and isolation

The measuring element here is a class 1 thermocouple type K. The measuring point is placed on a plate and protected by an insulating insert from direct contact with fire.

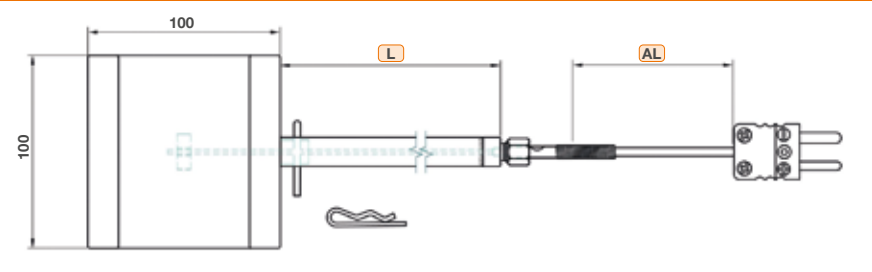
The construction of the thermocouple is resistant to vibrations and the special protective tube material ensures a long service life with consistent measuring characteristics.

Versions with straight or bent protective pipe are available. The connection between the plate and pipe is usually realized by a specially designed swivel connector or by a cotter pin.

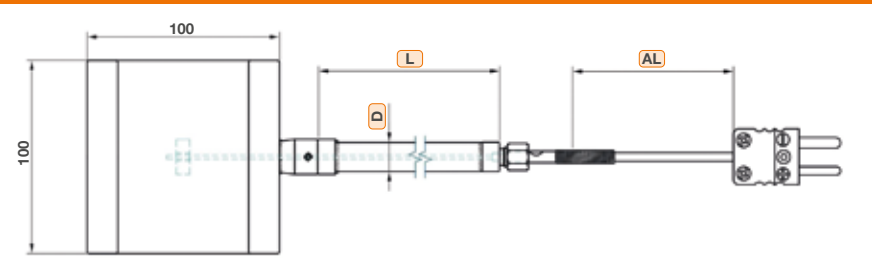
Both solutions allow the plate to be repositioned relative to the measurement location.



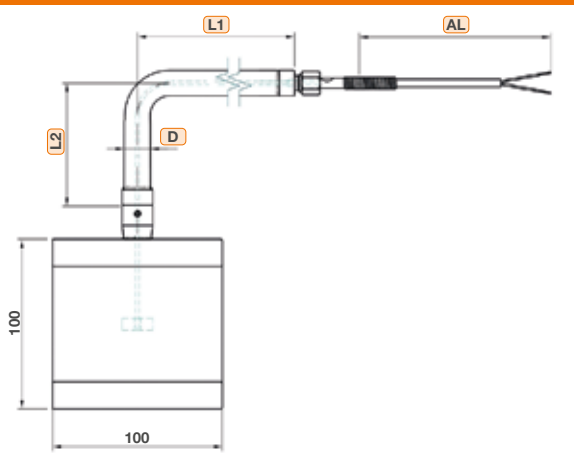
Construction with straight protective tube, plate mounted on a cotter pin. Example with mini plug



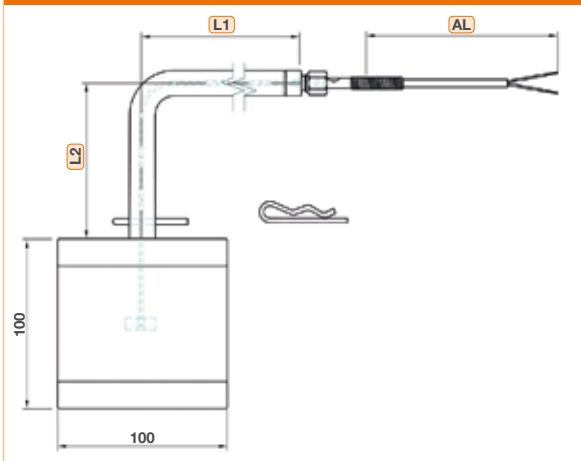
Construction with straight protective tube, plate mounted on swivel connection. Example with mini plug



Construction with a bent protective tube, plate mounted on swivel connection. Exemplary with cable with free ends



Construction with a bent protective tube, plate mounted on cotter pin. Exemplary with cable with free ends



Product group FT-FireTECH

Thermocouples and accessories

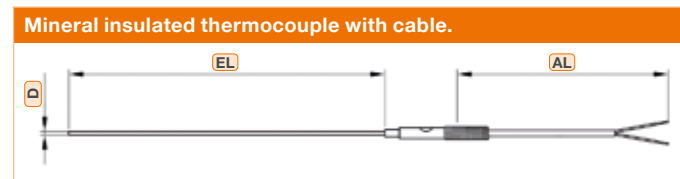
Furnace thermocouples with plate and isolation – Article number key

Product group	F	T	-	1	1	1	2	0	6	0	1	-	0	2	0	0	.	1	0	0	0	.	S	1	1	0
Construction																										
Thermocouple with straight pipe, swivel connection plate, insulator				1																						
Thermocouple with bent pipe, swivel connection plate, insulator				2																						
Thermocouple with straight pipe, plate, insulator, cotter pin				3																						
Thermocouple with bent pipe, plate, insulator, cotter pin				4																						
Others				9																						
Protection pipe diameter (D)																										
15mm, Material 1.4841				1																						
22mm, Material 1.4841				2																						
Others				9																						
Thermocouple type																										
Sheathed thermocouple NiCr-Ni / Type K						1																				
Thermocouple diameter																										
Specified in mm with 1 decimal place e.g.: 2.0mm							2	0																		
Cable ends																										
Free ends																										
Ceramic standard plug																										
Ferrules																										
Standard plug																										
Mini plug																										
Standard HT plug																										
Mini HT plug																										
Others																										
Length of the thermocouple exit from the protection tube																										
Thermocouple length fit the pipe length																										
100mm																										
200mm																										
300mm																										
Others																										
Version number																										
Standard version																										
Modified version (number is given by producer)																										
Cable length (AL)																										
Specified in meter with 2 decimal places e.g.: 2.0m → 0200																										
Pipe length (L - straight pipe or L1 bent pipe)																										
Specified in mm e.g. 1000mm																										
Cable isolation																										
Silicone / Silicone (T _{max} +180°C)																										
Others on request																										
Pipe length L2 (only for bent pipe)																										
Specified in mm (standard L2: 110mm)																										

Product group **FT-FireTECH** Thermocouples and accessories

Sheathed thermocouple with cable

Sheathed thermocouples are made with a connection cable ended with free ends or with an electrical connector, e.g. a socket or plug.



Product group **FT-FireTECH** Thermocouples and accessories

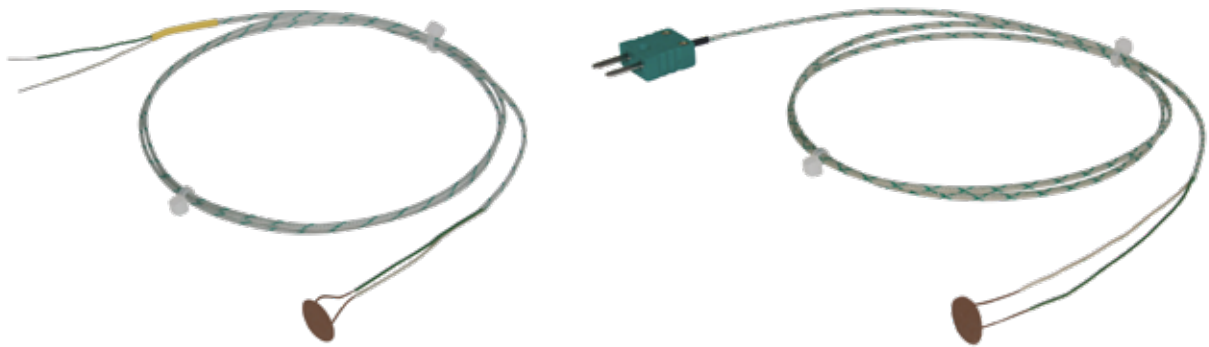
Sheathed thermocouple with cable – Article number key

Product group	F	T	-	7	1	1	0	6	0	0	1	-	0	2	0	0	.	1	0	0	0	.	S	0	0		
Construction Sheathed thermocouple Type K, Material Inconel				7	1																						
Thermocouple diameter (D)																											
1.0mm					1	0																					
1.5mm					1	5																					
2.0mm					2	0																					
3.0mm					3	0																					
Others on request																											
Cable ends																											
Free ends																								1			
Ceramic standard plug																								2			
Ferrules																								4			
Standard plug																								5			
Mini plug																								6			
Standard HT plug																								7			
Mini HT plug																								8			
Others																								9			
Calibration certificate																											
Without																								0			
Included, please specify the number of calibration points, e.g.: 3																								3			
Version number																											
Standard version																								0	1		
Modified version (number is given by producer)																											
Cable length (AL)																											
Specified in meter with 2 decimal places e.g.: 2.0m → 0200														0	2	0	0										
Thermouple length (EL)																											
Specified in mm, e.g. 1000mm																								1	0	0	0
Cable isolation																											
Silicone / Silicone (T _{max} +180°C)																								S			
Others on request																											
Following number (in case of calibration)																											
Without calibration																								0	0		
Specified by producer																								0	1		

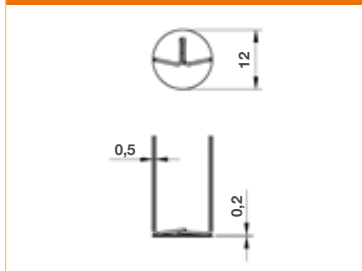
Product group **FT-FireTECH** Thermocouples and accessories

Surface thermocouple with a copper disc

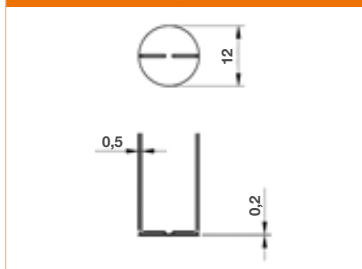
Surface thermocouples with a copper disc are made of a cable with a mini, standard plug or free ends. The shape and method of connecting the measurement joint is made in accordance with the requirements of the standard.



**Thermocouple hot junction
Version A (twisted)**



**Thermocouple hot junction
Version B (through the disc)**



Product group **FT-FireTECH** Thermocouples and accessories

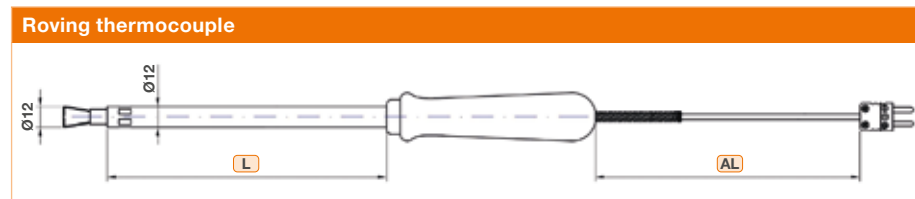
Surface thermocouple with a copper disc – Article number key

Product group	F	T	-	5	0	5	0	1	1	0	1	-	0	2	0	0	.	1	2	.	Z	0	4	0	
Construction Surface thermocouple with copper disc				5																					
Wire diameter (D) 0.5mm 0.8mm Others					0	5																			
Cable ends Free ends Ferrules Standard plug Mini plug Standard HT plug Mini HT plug Ceramic standard plug Others								0	1																
Version of Hot-junction Version A (twisted) Version B (through the disc) Others on request										1															
Version number Standard version Modified version (number given by producer)											0	1													
Cable length (AL) Specified in meter with 2 decimal places e.g.: 2.0m → 0200														0	2	0	0								
Disc diameter 12mm																					1	2			
Cable isolation Fiberglass / Fiberglass / Metal braid (T _{max} +400 °C) Others on request																						Z			
Length of leads to the hot-junction Specified in mm, e.g.: 50mm																							0	5	0

Product group **FT-FireTECH** Thermocouples and accessories

Roving thermocouple with handle

Roving thermocouples, dedicated for instantaneous measurements are made of thermocouple wire with a diameter of 1.0mm. They have a protection tube, a cable and a thermally insulating profiled handle. The contact element is a copper plate with a diameter of 12mm and a thickness of 0.5mm. Whole construction is made in accordance with the guidelines included in the standard EN1363.



Product group **FT-FireTECH** Thermocouples and accessories

Roving thermocouple with handle – Article number key

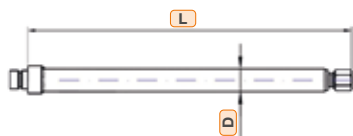
Product group	F	T	-	6	1	1	1	6	0	0	1	-	0	2	0	0	.	0	5	0	0	.	S	0	0
Construction Roving thermocouple				6	1																				
Handle Profiled wooden handle						1																			
Lead-out of the measuring tip Ceramic insulator, Ø 8mm							1																		
Cable ends Free ends																									1
Ferrules																									4
Standard plug																									5
Mini plug																									6
Calibration certificate None, without																									0
Included, please specify the number of calibration points, e.g.: 3																									3
Version number Standard version																									0
Modified version (number given by producer)																									1
Cable length (AL) Specified in meter with 2 decimal places e.g.: 2.0m → 0200																									0
																									2
																									0
																									0
Immersion length (L) Specified in mm, e.g.: 500 mm																									0
																									5
																									0
																									0
Cable isolation Silicone / Silicone (T _{max} +180°C) Others on request																									S
Following number (in case of calibration) Without calibration																									0
Specified by producer																									0
																									1

Product group **FT-FireTECH**
Thermocouples and accessories

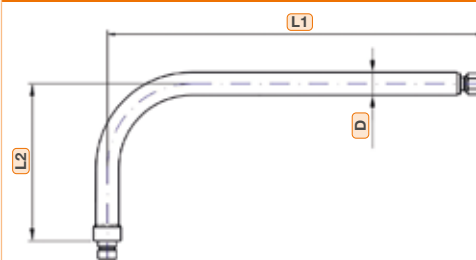
Protective pipes



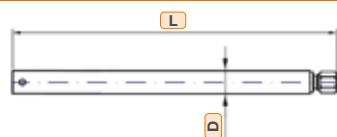
Straight pipe
End 1: swivel connection to the plate
End 2: compression fitting



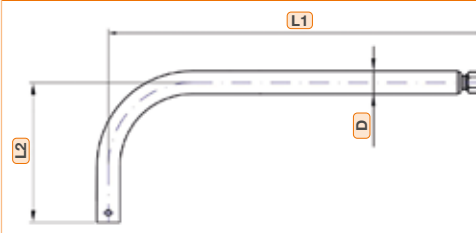
Bent pipe
End 1: swivel connection to the plate
End 2: compression fitting



Straight pipe
End 1: connection on cotter pin
End 2: compression fitting



Bent pipe
End 1: connection on cotter pin
End 2: compression fitting



Product group **FT-FireTECH** Thermocouples and accessories

Protective pipes – Article number key

Product group	F	T	-	8	3	1	5	1	5	0	1	-	2	0	0	0	.	0	1	1	0
Protective pipe																					
Straight pipe, swivel connector				8	0																
Bent pipe, swivel connector				8	1																
Straight pipe, connection on cotter pin				8	2																
Bent pipe, connection on cotter pin				8	3																
Pipe diameter (D)																					
15mm						1	5														
22mm						2	2														
Material																					
Steel 1.4841								1													
Pipe end																					
Open, no additives																					0
Compression fitting for thermocouples Ø 1mm																					1
Compression fitting for thermocouples Ø 2mm																					2
Compression fitting for thermocouples Ø 3mm																					3
Compression fitting for thermocouples Ø 1.5mm																					4
Compression fitting for transition sleeve (Ø 5mm)																					5
Version number																					
Standard version																					0
Modified version (number given by producer)																					1
Pipe length (L - straight pipe / L1 - bent pipe)																					
Specified in mm e.g.: 2000mm																					2
Pipe length L2 (only bent version)																					
Standard 110mm																					0
Others (specified in mm)																					1
																					1
																					0

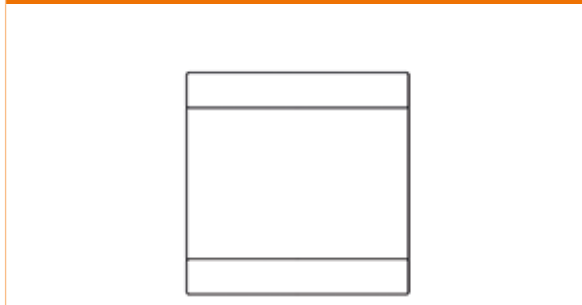
Product group **FT-FireTECH** Thermocouples and accessories

Exposition plates and isolation inserts

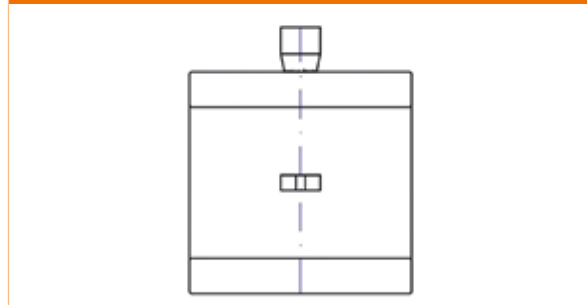
Exposition plate has a connection for mounting the tube.
The connector can be placed on either side of the plate.
The replaceable insulating insert is adjusted to the size of the plate.



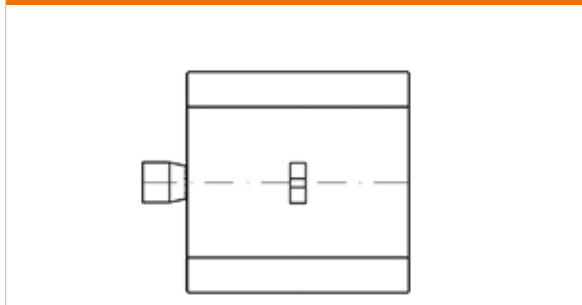
Version without connector



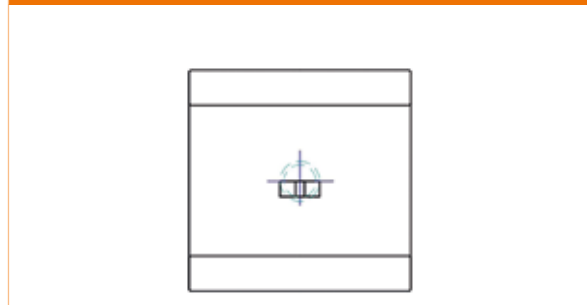
Version with standard connection



Version with side connection



Version with connection on the back



Product group **FT-FireTECH** Thermocouples and accessories

Exposition plates and isolation inserts – Article number key

Product group	F	T	-	0	1	2	0	1	1	0	1	-	0	0	0	0	
Construction																	
Plate without insulator				0	0												
Plate with insulator				0	1												
Thermocouple mounting																	
None, without						0	0										
For thermocouple diameter 1mm - 1.5mm						1	0										
For thermocouple diameter 2mm						2	0										
For thermocouple diameter 3mm						3	0										
Plate dimensions																	
100mm x 100mm								1									
Connector to protective pipe																	
None, without									0								
Standard connection									1								
Side connection									2								
Back connection									3								
Others on request									9								
Version number																	
Standard version, annealed plate										0	1						
Standard version, non-annealed plate										0	2						
Other modified version, no. given by manufacturer																	
Type of connection to the pipe																	
None, without													0	0	0	0	
Swivel connector													0	1	0	0	
Connector on the cotter pin													0	2	0	0	
Thread e.g. 1/4NPT external thread													N	0	1	4	



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