



# CONNECTORS FOR THERMOCOUPLES

W.W.Fischer SA manufactures connectors specifically designed for thermocouple applications in several body styles and series. Most of them are also available in environmentally sealed versions, with either the «A» or «Z» contact arrangement:

- «M» version for semi-rigid cables in stainless steel tubes (Thermocoax ®)
- «P» version for flexible compensation cables
- with gold-plated copper alloy contacts
- with contacts made of different thermocouple materials.

The selection of the correct contact materials is important to minimize measurement errors.

## Version «M»

This version is designed to accept semi-rigid cables in stainless steel tubes (Thermocoax ®). To facilitate assembly, these connectors are equipped with a metal sleeve to which the thermocouple tubing is soldered.

**Attention,** Standard Thermocoax ® cables up to 1 mm diameter are now delivered with a 3 mm diameter crimp ferrule with reinforced wires, which provide easier assembly. This type of Thermocoax ® requires the use of the version «P» connectors.

When ordering for Thermocoax cables without crimp ferrule termination, please indicate the tubing diameter. Refer to our guide on page A1 for ordering information.

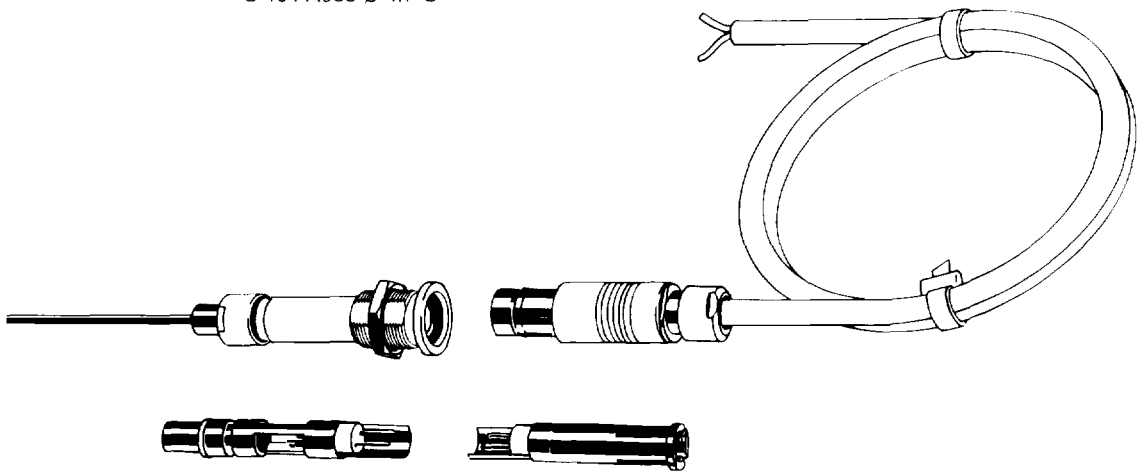
**Example:** Cable receptacle with flange, 2 pole; 1 x NiCr, 1 x Ni, PTFE insulator, for thermocouple tube diameter of 1.5 mm:  
 Part Number is DK 102 A005-M / 1.5 or  
 DK 102 A005-M Ø 1.5

## Version «P»

The P version is furnished with a long collet, designed to clamp on flexible thermocouple cables typically used for compensation or extension or Thermocoax ® cables with crimp ferrule termination.

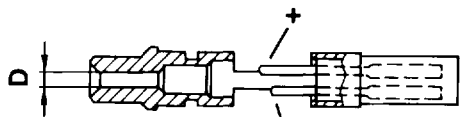
When ordering, please select the properly sized collet from the tables in section H. Refer to page A1 for additional ordering information.

**Example:** Straight plug, 4 way; 2 x Fe, 2 x CuNi, PTFE insulator, for flexible cable with a diameter of 4.5 mm:  
 Part Number is S 104 A035 / 4.7-U or  
 S 104 A035 Ø 4.7-U

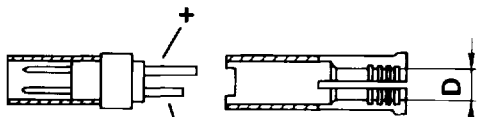


**Version «M»**  
for THERMOCOAX ®

**Version «P»** for compensation cables  
and THERMOCOAX ® < 1 mm diameter



D = Cable diameter max. 3.2 mm



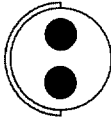
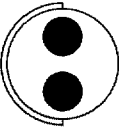
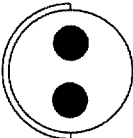
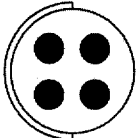
D = Cable diameter according to  
tables of section H

**In all versions, the longer contact termination is the electrically positive material.**

**Additionally to the plug «S» and the receptacle «D», other body styles like «SE, WS, WSE, DEE» etc. are available on request, also as type «Z».**



CONNECTORS FOR THERMOCOUPLES

SERIES	Number of Contacts	Contact Diameter [mm]	Designation and Contact Material			Insulator Material	Reference Number
			ANSI	IEC	+ Designation -		
	2	0.9	K ①	NiCr - Ni NiCr - NiAl	chromel - nickel chromel - alumel	PTFE	102 A005
						ceramic	102 A006
	2	0.9	-	+ CuZn Ni/Au	copper alloy nickel/gold plated	PTFE	102 A007
						ceramic	102 A008
	2	0.9	J	Fe - CuNi	iron - constantan	PTFE	102 A009
	2	0.9	T	Cu - CuNi	copper - constantan	PTFE	102 A016
	2	1.3	J	Fe - CuNi	iron - constantan	PTFE	102 A009
						PTFE	102 A016
	2	1.3	K ①	NiCr - Ni NiCr - NiAl	chromel - nickel chromel - alumel	PTFE	103 A011
						PTFE	103 A025
	2	1.3	T	Cu - CuNi	copper - constantan	PTFE	103 A030
	2	1.6	J	Fe - CuNi	iron - constantan	PTFE	104 A057
						PTFE	104 A057
	2	1.6	K ①	NiCr - Ni NiCr - NiAl	chromel - nickel chromel - alumel	PTFE	104 A061
						PTFE	104 A061
	4	1.3	J	Fe - CuNi	iron - constantan	PTFE	103 A035
	4	1.3	K ①	NiCr - Ni NiCr - NiAl	chromel - nickel chromel - alumel	PTFE	104 A036

① The «K» designation is applicable for both NiCr - Ni and for NiCr - NiAl  
Alumel corresponds to nickel per DIN 43 710  
THERMOCOAX ® is a registered trade name of PHILIPS

Additionally to the plug «S» and the receptacle «D», other body styles like «SE, WS, WSE, DEE» etc. are available on request, also as type «Z».