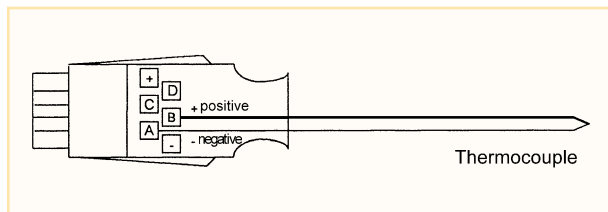


INPUT CONNECTORS

ALMEMO® Connectors for Thermocouple Types K, N, L, J, T



Variants (with thermal material)

Model	Meas. Range	Resolution
NiCr-Ni (K)	-200.0 to +1370.0°C	0.1K
NiCrSi-NiSi (N)	-200.0 to +1300.0°C	0.1K
Fe-CuNi (L)	-200.0 to +900 °C,	0.1 K
Fe-CuNi (J)	-200.0 to +1000 °C,	0.1 K
Cu-CuNi (T)	-200.0 to +400 °C,	0.1 K

Order no. ZA9020FS
Order no. ZA9021FSN
Order no. ZA9021FSL
Order no. ZA9021FSJ
Order no. ZA9021FST

ALMEMO®-D measuring module for thermocouples, types K, J, T, electrically isolated, up to 1000 V Type ZAD 950 AB

new!



- ▶ Electrically isolated measurement of thermocouples (in particular bare thermo-wire types) on live parts
- ▶ Digital transfer of measured values to the ALMEMO® measuring instrument
- ▶ Connecting cable, fitted with ALMEMO® D plug
- ▶ **New** A wide variety of connection options (see page 09.06)
 1. Direct connection to the input of an ALMEMO® measuring instrument optional ALMEMO® D extension cable, RS422, up to 100 meters - or over 100 meters using the customer's own cable
 2. For connection to a PC ALMEMO® USB data cable, with power supply
 3. For connection to an RS422 network ALMEMO® coupling with RS422 driver
- ▶ Sensor connection via 4-mm safety plug (with screw terminals)

Technical data:

Sensor	Thermocouple
Measuring range	
ZAD950ABK	NiCr-Ni (K) -200 to 1370 °C
ZAD950ABJ	Fe-CuNi (J) -200 to 1000 °C
ZAD950ABT	Cu-CuNi (T) -200 to 400 °C
Resolution	0.1 K
Linearization accuracy	±0.5 K ±0.05 % of measured value
A/D converter	delta-sigma, 15-bit resolution For technical data see page 01.05.
Electrical isolation	1 kV DC/AC permanent, 4 kV for 1s
Sensor connection	4-mm safety sockets and safety plugs (with screw terminals)
Power supply	6 to 13 VDC via ALMEMO® device
Current consumption	approx. 30 mA
Connecting cable	1.5 meters with ALMEMO® D plug
Housing	Dimensions (LxWxH) 127x83x38mm, ABS (acrylonitrile butadiene styrene)

Types :

ALMEMO® D measuring module for NiCr-Ni (K), including 1.5 meters ALMEMO® D connecting cable
ALMEMO® D measuring module for Fe-CuNi (J) including 1.5 meters ALMEMO® D connecting cable
ALMEMO® D measuring module for Cu-CuNi (T) including 1.5 meters ALMEMO® D connecting cable

Please note : thermocouple must be ordered extra; e.g. thermo-wires see Chapter 08

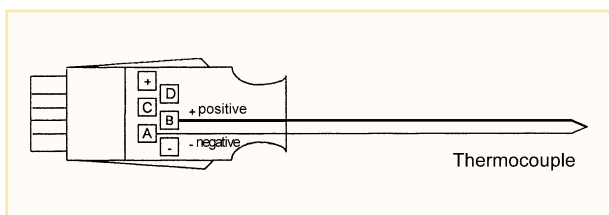
Order no. ZAD950ABK
Order no. ZAD950ABJ
Order no. ZAD950ABT

INPUT CONNECTORS

03

ALMEMO® Connectors for Thermocouple Types U, S, R, B, AuFe-Cr

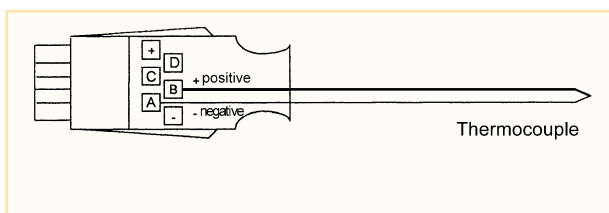
01/2011 We reserve the right to make technical changes.



Types:

Model	Meas. Range	Resolution	
Cu-CuNi (U)	-200.0 to +600.0°C	0.1K	Order no. ZA9000FSU
PtRh10-Pt (S)	0.0 to +1760.0°C	0.1K	Order no. ZA9000FSS
PtRh13-Pt (R)	0.0 to +1760.0°C	0.1K	Order no. ZA9000FSR
PtRh30-PtRh6 (B)	+400.0 to +1800.0°C	0.1K	Order no. ZA9000FSB
AuFe-Cr (A)	-270.0 to +60.0°C	0.1K	Order no. ZA9000FSA

ALMEMO® connector with integrated cold junction sensor for all thermocouples



For especially exacting applications demanding the highest possible level of precision or performed under unfavorable conditions (e.g. subject to thermal irradiation)

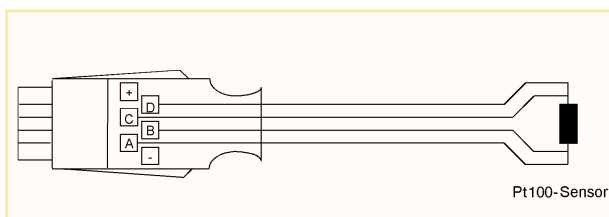
Programming:

1st channel, NTC, integrated cold junction sensor, resolution 0.01 K
2nd channel, thermocouple, resolution 0.1 K; please specify type !

Types:

Model	Meas. Range	Resolution	
NiCr-Ni (K)	-200.0 to +1370.0°C	0.1 K	Order no. ZA9400FSK
NiCroSil-NiSil (N)	-200.0 to +1300.0°C	0.1 K	Order no. ZA9400FSN
Fe-CuNi (L)	-200.0 to +900°C	0.1 K	Order no. ZA9400FSL
Fe-CuNi (J)	-200.0 to +1000°C	0.1 K	Order no. ZA9400FSJ
Cu-CuNi (T)	-200.0 to +400°C	0.1 K	Order no. ZA9400FST
Cu-CuNi (U)	-200.0 to +600.0°C	0.1 K	Order no. ZA9400FSU
PtRh10-Pt (S)	0.0 to +1760.0°C	0.1 K	Order no. ZA9400FSS

ALMEMO® Connectors for Pt100 Sensors/Pt1000 Sensors



Types:

Model	Meas. Range	Resolution	
Pt100 4-conductors	-200.0 to +850.0°C	0.1K	Order no. ZA9030FS1
Pt100 4-conductors	-200.0 to +400.0°C*	0.01K	Order no. ZA9030FS2
Pt1000 4-conductors	-200.0 to +850.0°C*	0.1K	Order no. ZA9030FS4
Pt1000 4-conductors	-200.0 to +400.0°C*	0.01K	Order no. ZA9030FS5
Pt100 4-conductors	-8 to +65.000°C	0.001K (for ALMEMO® up to 2690-8)	Order no. ZA9030FS7

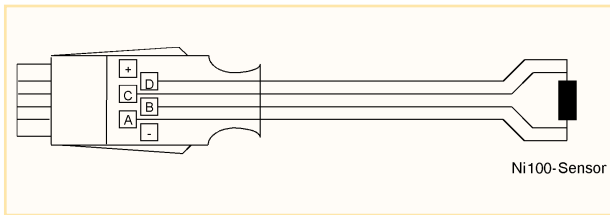
*Data may vary depending on device; (see data sheet per device).

AHLBORN
www.ahlborn.com

supplyLAB
www.supplylab.pt

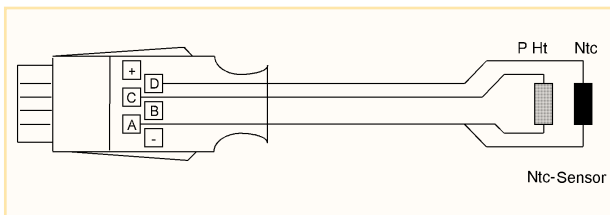
INPUT CONNECTORS

ALMEMO® Connectors for Ni100 Sensors/Ni1000 Sensors



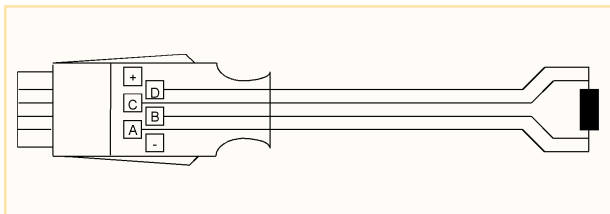
Types:			
Model	Meas. Range	Resolution	
Ni100	-60.0 to +240.0°C	0.1K	Order no. ZA9030FS3
Ni1000	-60.0 to +240.0°C	0.1K	Order no. ZA9030FS6

ALMEMO® Connectors for Ntc Sensors



Types:			
Model	Meas. Range	Resolution	
Ntc type N	-50.0 to +125.0°C	0.01K	Order no. ZA9040FS
2xNtc type N	-50.0 to +125.0°C	0.01 K no electrical isolation	Order no. ZA9040FS2

ALMEMO® Connectors for Resistance



Technical data ZA 9003 SS4:

Connection	2-wire
Linearization accuracy:	±0,2 % ± 0,02 kOhm Linearization is saved in the ALMEMO® connector; (this is not available with ALMEMO® 2450, 8390)

Types:			
Model	Meas. Range	Resolution	
Ohm	0.00 to 500.00	0.01Ω *	Order no. ZA9003FS
Ohm	0.0 to 5000.0	0.1Ω *	Order no. ZA9003FS2
kOhm	0 to 110.00 kOhm	0.01kΩ	Order no. ZA9003SS4

new!

*Data may vary depending on device; (see data sheet per device)