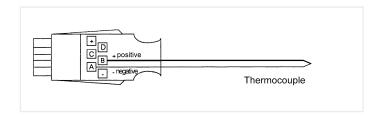
# Input connectors and adapter cables

# ALMEMO® Connector for Thermocouple Types K, N, J, T



Variants (with thermal material)			Order no.
Model	Meas. Range	Resolution	
NiCr-Ni (K)	-200.0 to $+1370.0$ °C.	0.1 K	<b>ZA9020FS</b>
NiCroSil-NiSil (N)	-200.0 to $+1300.0$ °C.	0.1 K	ZA9021FSN
Fe-CuNi (J)	-200.0 to $+1000$ °C.	0.1 K	ZA9021FSJ
Cu-CuNi (T)	-200.0 to $+400$ °C.	0.1 K	ZA9021FST

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



- 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® plug

#### **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 $\pm 0.05 \text{ K} \pm 0.05 \%$ of measured value			
Precision class C (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	
Current consumption Connecting cable	approx. 30 mA  1.5 meters with ALMEMO® plug	
	11	

# Types:

ALMEMO® measuring module for NiCr-Ni (K), including 1.5 meters ALMEMO® connecting cable ALMEMO® measuring module for Fe-CuNi (J) including 1.5 meters ALMEMO® connecting cable ALMEMO® measuring module for Cu-CuNi (T) including 1.5 meters ALMEMO® connecting cable Please note: thermocouple must be ordered extra; e.g. thermo-wires see Chapter Temperature

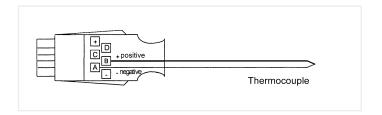
Order no. ZAD950ABK ZAD950ABJ

ZAD950ABT

DAkkS- or Factory calibration KE90xx, electrically, for digital measuring module, see Chapter Calibration. DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.

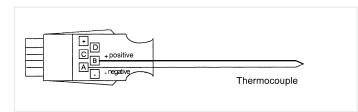
# Input connectors and adapter cables

# ALMEMO® Connector for Thermocouple Types U, L, S, R, B, AuFe-Cr



Types			Order no.
Model	Meas. Range	Resolution	
Cu-CuNi (U)	−200.0 to +600.0°C	0.1 K	ZA9000FSU
Fe-CuNi (L)	-200.0 to $+900$ °C.	0.1 K	ZA9000FSL
PtRh10-Pt (S)	0.0 to +1760.0°C	0.1 K	ZA9000FSS
PtRh13-Pt (R)	0.0 to +1760.0°C	0.1 K	ZA9000FSR
PtRh30-PtRh6 (B)	+400.0 to +1800.0°C	0.1 K	ZA9000FSB
AuFe-Cr (A)	-270.0 to $+60.0$ °C	0.1 K	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)

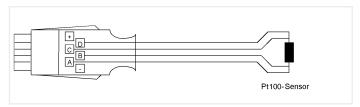
#### **Programming:**

1st channel, NTC, integrated cold junction sensor, resolution 0.01 K

2nd channel, thermocouple, resolution 0.1 K; please specify type!

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

#### ALMEMO® Connector for Pt100 Sensors/Pt1000 Sensors



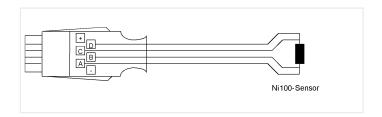
New: Digital ALMEMO® D7 measurement plug, see page 02.06

- Applicable for Pt100 sensors.
- High resolution of 0.01 K up to 850 °C.
- Linearization with accurate calculation method.
- Calibrated sensor independent from the measuring instrument.
- Increased accuracy due to multi-point adjustment.

Types:			Order no.
Model	Meas. Range	Resolution	
Pt100 4-conductor	−200.0 to +850.0°C	0.1 K	ZA9030FS1
Pt100 4-conductor	−200.0 to +400.0°C *	0.01 K	ZA9030FS2
Pt1000 4-conductor	−200.0 to +850.0°C *	0.1 K	ZA9030FS4
			* Data may vary depending on device; (see data sheet per device)

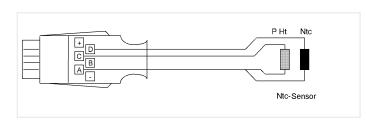
# Input connectors and adapter cables

## ALMEMO® Connector for Ni100 Sensors/Ni1000 Sensors



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

## **ALMEMO® Connector for Ntc Sensors**

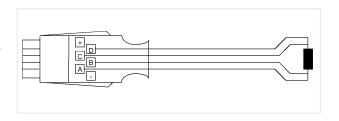


*New:* Digital ALMEMO® D6 measurement plug, see page 02.07

- Applicable for NTC sensors.
- High resolution of up to 0.001 K (-20 to 65 °C).
- Linearization with accurate calculation method.
- Calibrated sensor independent from the measuring instrument
- Increased accuracy due to multi-point adjustment.

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

## **ALMEMO® Connector for Resistance**



#### Technical Data ZA9003SS4:

Connection	2-wire
Linearization accuracy:	$\pm 0.2 \% \pm 0.02 \text{ kOhm}$
	Linearization is saved in the
	ALMEMO® connector; (this is not
	available with ALMEMO® 2450, 8390)

Types:			Order no.
Model	Meas. Range	Resolution	
Ohm	0.00 to 500.00	0.01 Ω*	ZA9003FS
Ohm	0.0 to 5000.0*	0.1 Ω*	ZA9003FS2
kOhm	0 to 110.00 kOhm	0.01 kOhm	ZA9003SS4
			* Data may vary depending on device; (see data sheet per device)

10/2016 • We reserve the right to make technical changes.