

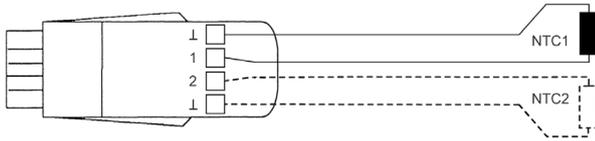
Digital ALMEMO® D6 measuring connector for temperature sensors NTC

High levels of precision and resolution 0.001 K across measuring range -20 to +65 °C

Linearization of the NTC characteristic - calculated using Galway Steinhart coefficients

Increased measured value accuracy - thanks to multi-point adjustment of the NTC sensor during calibration

For all ALMEMO® V6 and V7 measuring instruments, including ALMEMO® 2490 and ALMEMO® 202-S.



Technical data and functions

- The digital ALMEMO® D6 measuring connector uses its own integrated A/D converter. Linearization of the NTC characteristic is calculated using the Galway Steinhart coefficients (not an approximation). Across measuring range -20 to +65 °C this produces the very high resolution of 0.001 K.
- The digital temperature sensor reaches this high level of precision irrespective of any extension cables used and of any processing in the ALMEMO® display device / data logger. Overall accuracy is determined exclusively by the NTC sensor and the ALMEMO® D6 measuring connector. This increased measured value accuracy is achieved by subjecting the NTC sensor to multi-point adjustment during calibration.

With the ALMEMO® D6 measuring plug, customer-specific NTC sensors can be connected to the Almemo® system after the corresponding Steinhart-Hart coefficients have been configured via the sensor menu.

When using own sensors no additional adjustment of the connector is necessary.

Technical data

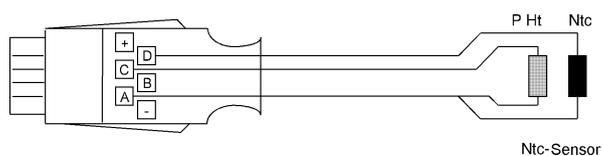
Sensor type	NTC type N	
Measuring input	Electrically interconnected with the power supply (ALMEMO® device ground)	Accuracy Range DNtc / DNt2 ±0.05 K at -50 to +100 °C Range DNtc3 ±0.02 K at -20 to +65 °C
Measuring ranges	see variants	Nominal temperature 23 °C ±2 K
Resolution	see variants	Temperature drift 0.004 % / K (40 ppm)
Refresh rate	0.3 seconds for up to two channels	Supply voltage from 6 V up, from ALMEMO® device (sensor supply voltage)
Linearization	Calculated (not an approximation)	Current consumption approx. 4 mA
		Environmental conditions see page 16 onwards

Types:

Type / input	Measuring range	Range	Resolution	Order no.
NTC, 1 input	-50...+125 °C	DNtc	0.01 K	ZAD040FS
NTC, 2 inputs	-50...+125 °C	DNtc/DNt2	0.01 K	ZAD040FS2
NTC, 1 input	-20...+65 °C	DNt3	0.001 K	ZAD040FS3

Input connectors for NTC

ALMEMO® Connector for Ntc Sensors



Types:

Model	Meas. Range	Resolution	Order no.
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