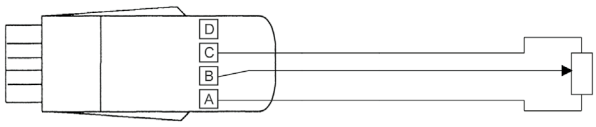
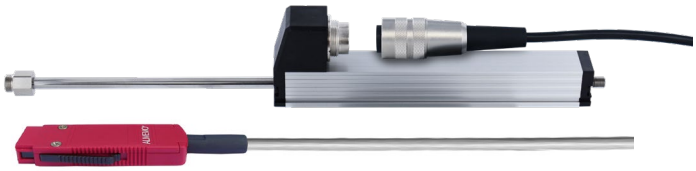
Input connectors for potentiometer

Digital ALMEMO® D7 measuring connector for potentiometric sensors (displacement transducers, etc.)

For displacement transducers and other potentiometric sensors.
High resolution up to 200 000 digits
or fast conversion rate, resolution up to 10 000 digits.
Only for the latest ALMEMO® V7 measuring instruments, ALMEMO® 202-S, 204, 104, 710, 510, 809.





This new, innovative ALMEMO® D7 measuring connector enables high precision or fast conversion rate. The user can set the preferred configuration quickly and easily on the ALMEMO® V7 measuring instrument itself.

Technical data and functions

- The ALMEMO® D7 digital measuring connector operates with its own integrated A/D converter. Overall measuring accuracy is unaffected by the presence of an ALMEMO® V7 display device / data logger. The whole measuring chain, comprising e.g. a displacement transducer and the connected ALMEMO® D7 measuring connector, can be adjusted end-to-end.
- The measuring rate is determined exclusively by the integrated A/D converter. On the ALMEMO® V7 measuring instrument all D7 measuring connectors operate in parallel - each at its own measuring rate. The measuring instrument‘s very short scan cycle is determined by the measuring rates of the D7 measuring connectors - more or less irrespective of their number.
- For high resolutions and stable values, e.g. for precision displacement transducers, the ALMEMO® D7 measuring plug works with a reduced conversion rate. For fast processes, measurements can be taken at a higher conversion rate. The ALMEMO® V7 measuring device stores the measured values and the WinControl measuring software displays them graphically.
- The voltage drop is measured at the potentiometer. The 2-volt reference voltage is supplied via the ALMEMO® D7 plug.
- The sensor is scaled to the physical quantity (e.g. displacement in mm); this is performed via the ALMEMO® V7 device (on the device itself or using ALMEMO® Connect software) - with zero-point adjustment and final value adjustment. The measured value‘s assigned units can be up to 6 characters in length. Sensor identification can be programmed with a comments text up to 20 characters in length.

Technical data

Sensor type	Potentiometer
Measuring input	Electrically connected to the power supply (ALMEMO® device ground)
Input range	-2 to +2 V
Display range, conversion rate	see variants
Reference voltage	2 V

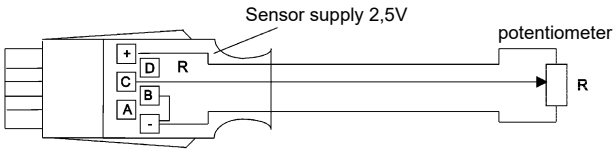
System accuracy	0.02 % ±2 digits
Nominal temperature	22 °C ±2 K
Temperature drift	0.003 % / K (30 ppm)
Supply voltage	from 6 V up, via the ALMEMO® device itself (sensor supply)
Current consumption	approx. 8 mA (without sensor)
Environmental conditions	see general technical specifications

Types:

Range	Display range	Resolution	Conversion rate	Order no.
U24 *	0...100 %	0.01 %	100 measurements/s	
or				
U25	0...200 000 digit	1 digit	10 measurements/s	**ZWD700FS**

*Delivery state. The desired measuring range can be programmed on the ALMEMO® V7 device.

ALMEMO® Connector for Potentiometer pickoffs



Technical Data

Sensor supply:	2.5 V
Temperature coefficient:	< 50 ppm/K

Types:

Model	Meas. Range	Resolution	Order no.
2.6 V DC Differenz	–2.6 to +2.6 *	0.1 mV	**ZA9025FS3**

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

11/2025 • We reserve the right to make technical changes.