Run LED1
Error LED1
+R1
RL1
-R1
Shield

Shield

25 g

Top view   **Contact assembly**
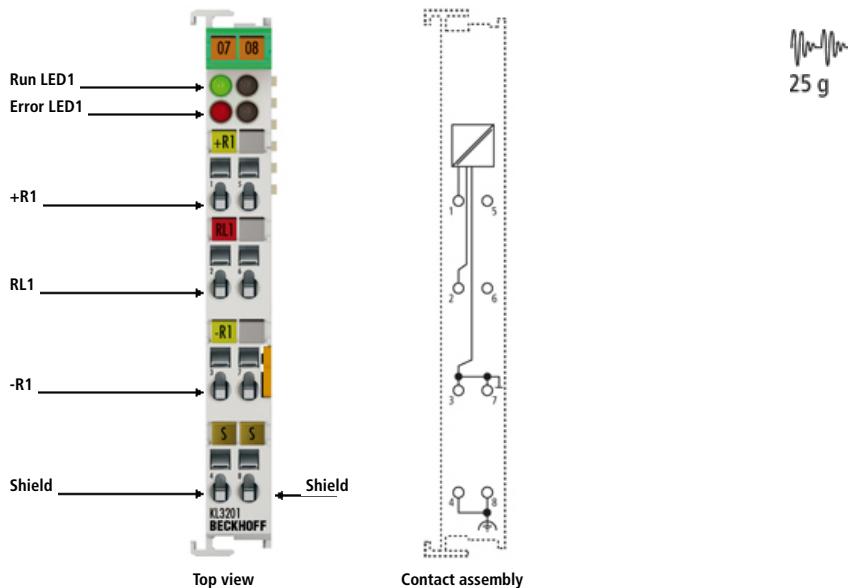
KL3201 | 1-channel input terminal PT100 (RTD)

The KL3201 analog input terminal allows resistance sensors to be connected directly. The Bus Terminal's circuitry can operate the sensors using 2-wire or 3-wire connection techniques. Linearisation over the full temperature range is realised with the aid of a microprocessor. The temperature range can be selected freely. The Bus Terminal's standard setting is: resolution 0.1 °C in the temperature range of PT100 sensors in 3-wire connection. The run LEDs give an indication of the data exchange with the Bus Coupler. The error LEDs indicate sensor faults (e.g. a broken wire).

Technical data	KL3201 | KS3201
Number of inputs	1
Power supply	via the K-bus
Technology	2-/3-wire
Sensor types	PT100, PT200, PT500, PT1000, Ni100, Ni120, Ni1000 resistance measurement (e.g. potentiometer, 10 Ω…1.2/5 kΩ)
Connection method	2- or 3-wire (default: 3-wire)
Measuring range	-200…+850 °C (PT sensors); -60…+250 °C (Ni sensors)
Conversion time	~ 200 ms
Measuring current	typ. 0.5 mA
Resolution	0.1 °C per digit
Measuring error	< ±1 °C
Electrical isolation	500 V (K-bus/signal voltage)
Current consumption power contacts	– (no power contacts)
Current consumption K-bus	typ. 60 mA
Bit width in the process image	input: 1 x 16 bit data (1 x 8 bit control/status optional)
Configuration	no address setting, configuration via Bus Coupler or controller
Special features	open-circuit recognition
Weight	approx. 70 g
Operating/storage temperature	0…+55 °C/-25…+85 °C
Relative humidity	95 %, no condensation
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. class/installation pos.	IP 20/variable
Pluggable wiring	for all KSxxxx Bus Terminals
Approvals	CE, UL, Ex, GL