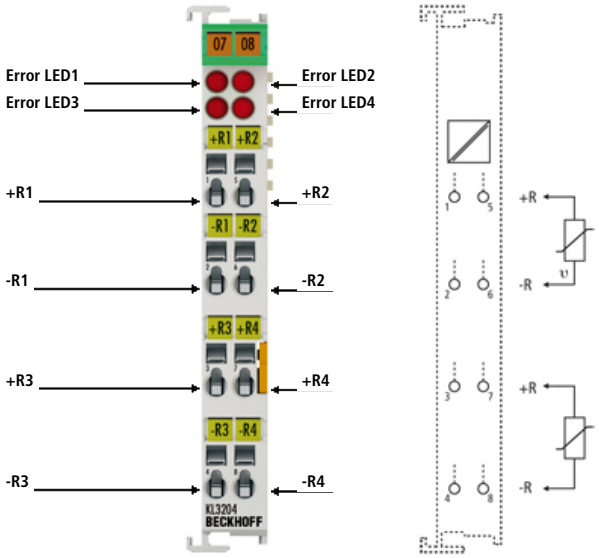

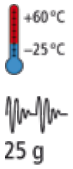

KL3204 | 4-channel input terminal PT100 (RTD)

The KL3204 analog input terminal allows resistance sensors to be connected directly. The Bus Terminal's circuitry can operate the sensors using 2-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 Terminals standard settings are: resolution 0.1 °C in the temperature range of PT100 sensors. The error LEDs indicate sensor faults (e.g. a broken wire). The KL3204 version combines four channels in one housing.

Technical data	KL3204 | KS3204
Number of inputs	4
Power supply	via the K-bus
Technology	2-wire
Sensor types	PT100, PT200, PT500, PT1000, Ni100, Ni120, Ni1000 resistance measurement (e.g. potentiometer, 10 Ω…1.2/5 kΩ)
Connection method	2-wire
Measuring range	-200…+850 °C (PT sensors); -60…+250 °C (Ni sensors)
Resolution	0.1 °C per digit
Conversion time	~ 250 ms
Measuring current	typ. 0.5 mA
Measuring error	< ±1 °C
Electrical isolation	500 V (K-bus/signal voltage)
Current consumption power contacts	– (no power contacts)
Current consumpt. K-bus	typ. 60 mA
Bit width in the process image	input: 4 x 16 bit data (4 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	-25…+60 °C/-40…+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

Special terminals	
KL3204-0014	PT1000
KL3204-0021	PT100 in Siemens S5 format
KL3204-0025	Ni1000, 4-channel
KL3204-0029	Ni1000 per Landis&Staefa characteristic curve (Siemens, 100° corresponds to 1,500 Ω)
KL3204-0030	4-channel input terminal NTC (10 kΩ) for resistance sensors, 16 bit, 2-wire system