KL3204 | Bus Terminal, 4-channel analog input, temperature, RTD (Pt100), 16 bit
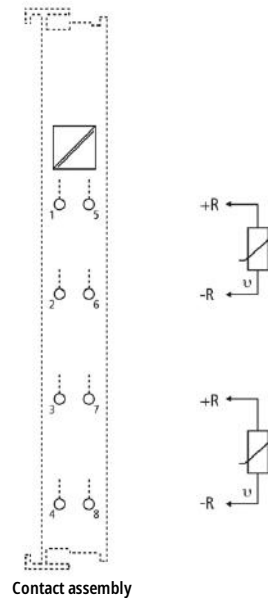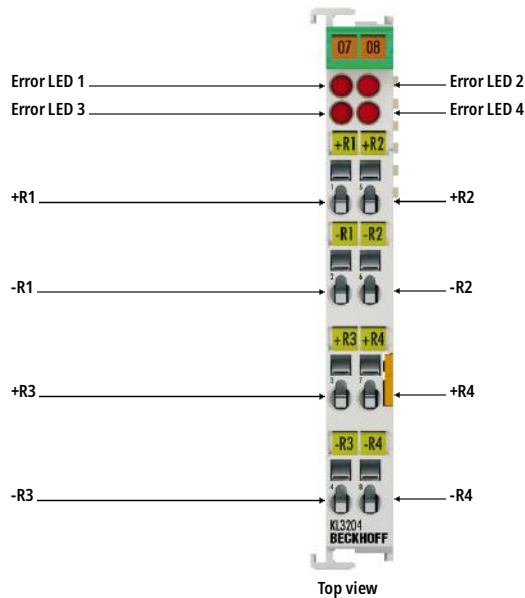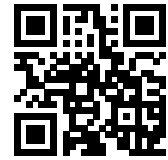

Top view

Contact assembly

ⓘ Image similar, may contain optional accessories

ℹ **Product status:** regular delivery

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. Linearization over the full temperature range is realized 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.

Product information

Technical data

Technical data	KL3204
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)
Measuring range	-200...+850°C (Pt sensors); -60...+250°C (Ni sensors)
Connection method	2-wire

BECKHOFF New Automation Technology

Conversion time	~ 250 ms
Measuring current	typ. 0.5 mA
Resolution	0.1°C per digit
Measurement error/uncertainty	< ±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: 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. rating/installation pos.	IP20/variable
Approvals/markings	CE, UL, ATEX, IECEx, DNV GL
Pluggable wiring	for all KSxxxx Bus Terminals
Ex marking	ATEX: II 3 G Ex ec IIC T4 Gc IECEx: Ex ec IIC T4 Gc

Housing data	KL-12-8pin	KS-12-8pin
Design form	compact terminal housing with signal LEDs	terminal housing with pluggable wiring level
Material	polycarbonate	
Dimensions (W x H x D)	12 mm x 100 mm x 68 mm	
Installation	on 35 mm DIN rail, conforming to EN 60715 with lock	
Side by side mounting by means of	double slot and key connection	
Marking	labeling of the BZxxx series	
Wiring	solid conductor (s), flexible conductor (st) and ferrule (f): spring actuation by screwdriver	
Connection cross-section	s*: 0.08...2.5 mm², st*: 0.08...2.5 mm², f*: 0.14...1.5 mm²	s*: 0.08...1.5 mm², st*: 0.08...1.5 mm², f*: 0.14...1.5 mm²

BECKHOFF New Automation Technology

Connection cross-section AWG	s*: AWG28…14, st*: AWG28…14, f*: AWG26…16	s*: AWG28…16, st*: AWG28…16, f*: AWG26…16
Stripping length	8…9 mm	9…10 mm
Current load power contacts	I$_{max}$: 10 A	

*s: solid wire; st: stranded wire; f: with ferrule

Ordering information

Ordering information	
KL3204	Bus Terminal, 4-channel analog input, temperature, RTD (Pt100), 16 bit
KS3204	Bus Terminal, 4-channel analog input, temperature, RTD (Pt100), 16 bit, pluggable wiring
KL3204-0014	Bus Terminal, 4-channel analog input, temperature, RTD (Pt1000), 16 bit
KL3204-0020	Bus Terminal, 4-channel analog input, temperature, RTD (0…1.2 kΩ), 16 bit
KL3204-0021	Bus Terminal, 4-channel analog input, temperature, RTD (Pt100), 16 bit, Siemens S5 format
KL3204-0025	Bus Terminal, 4-channel analog input, temperature, RTD (Ni1000), 16 bit
KL3204-0029	Bus Terminal, 4-channel analog input, temperature, RTD (Ni1000), per Landis&Staefa, 16 bit
KL3204-0030	Bus Terminal, 4-channel analog input, temperature, NTC (10 kΩ), 16 bit

BECKHOFF New Automation Technology