



## KL3201, KL3202 | 1-, 2-channel input terminals PT100 (RTD)

The KL3201 and KL3202 analog input terminals allow 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 Terminals standard settings are: 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	KL3202   KS3202
Number of inputs	1	2
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)	
Resolution	0.1 °C per digit	
Conversion time	~ 200 ms	~ 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: 1 x 16 bit data (1 x 8 bit control/status optional)	input: 2 x 16 bit data (2 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	-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	
KL3202-0010	PT200
KL3202-0011	PT200 in Siemens S5 format
KL3202-0012	PT500
KL3202-0013	PT500 in Siemens S5 format
KL3202-0014	PT1000
KL3202-0015	PT1000 in Siemens S5 format
KL3202-0016	Ni100
KL3202-0017	Ni100 in Siemens S5 format
KL3202-0020	resistance measurement 0...1.2 k $\Omega$
KL3202-0021	PT100 in Siemens S5 format
KL3202-0023	Ni120
KL3202-0024	Ni120 in Siemens S5 format
KL3202-0025	Ni1000
KL3202-0026	Ni1000 in Siemens S5 format
KL3202-0027	resistance measurement 10...10 k $\Omega$
KL3202-0028	Resolution increased to 0.01 °C; the measurement range is reduced to -40 °C to +128 °C. The absolute accuracy is 0.3 °C, differential error is 0.1 °C.
KL3202-0029	Ni1000 per Landis&Staefa characteristic curve (Siemens, 100° corresponds to 1,500 $\Omega$ )