



KL3001 | 1-channel analog input terminal -10...+10 V

The KL3001 analog input terminal handles signals in the range from -10 to +10 V. The voltage is digitised to a resolution of 12 bits and is transmitted, electrically isolated, to the higher-level automation device. The input channels of the Bus Terminal have differential inputs and possess a common, internal ground potential. The KL3001 is characterised by its fine granularity and electrical isolation. The light emitting diodes give an indication of the data exchange with the Bus Coupler.

Technical data	KL3001 KS3001
Number of inputs	1
Power supply	via the K-bus
Signal voltage	-10...+10 V
Technology	differential input
Internal resistance	> 200 k Ω
Common-mode voltage U_{cm}	35 V max.
Conversion time	~ 1 ms
Resolution	12 bit (for 0...10 V range: resolution 11 bit)
Measuring error	< ± 0.3 % (relative to full scale value)
Electrical isolation	500 V (K-bus/signal voltage)
Current consumption power contacts	– (no power contacts)
Current consumption K-bus	typ. 65 mA
Bit width in the process image	input: 1 x 16 bit data (1 x 8 bit control/status optional)
Configuration	no address or configuration setting
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