



KL3011 | 1-channel analog input terminal 0...20 mA

The KL3011 analog input terminal handles signals in the range from 0 to 20 mA. The current is digitised to a resolution of 12 bits and is transmitted, in an electrically isolated form, to the higher-level automation device. The input channels of the Bus Terminal have differential inputs and possess a common, internal ground potential. The KL3011 is characterised by its fine granularity and electrical isolation. An open lead or overload condition are detected, and the terminal status is relayed to the controller via the K-bus. The run LEDs give an indication of the data exchange with the Bus Coupler. The error LEDs indicate an overload condition and a broken wire.

Technical data	KL3011 KS3011
Number of inputs	1
Power supply	via the K-bus
Signal current	0...20 mA
Technology	differential input
Internal resistance	80 Ω + 0.7 V
Common-mode voltage U_{CM}	35 V max.
Conversion time	~ 1 ms
Resolution	12 bit
Measuring error	< ± 0.3 % (relative to full scale value)
Surge voltage resistance	35 V DC
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)
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