



KL3012 | 2-channel analog input terminal 0...20 mA

The KL3012 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. 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	KL3012 KS3012
Number of inputs	2
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.
Resolution	12 bit
Conversion time	~ 2 ms
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: 2 x 16 bit data (2 x 8 bit control/status optional)
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, IECEx

Special terminals	
KL3012-0010	Siemens S5 format
KL3012-0011	altered range: 0...21.5 mA, maximum value corresponds to 21.5 mA instead of 20 mA
KL3012-0012	fast μP , scan time approx. 0.5 ms
KL3012-0050	Siemens S7 format