



## KL3051, KL3052 | 1-, 2-channel loop-powered input terminals 4...20 mA

The job of the KL3051 and KL3052 analog input terminals is to supply power to measuring transducers located in the field and to transmit analog measurement signals with electrical isolation to the automation device. The voltage for the sensors is supplied to the terminals via the power contacts. The power contacts can optionally be supplied with operating voltage in the standard way or via a power feed terminal (KL9xxx) with electrical isolation. The input electronics is independent of the supply voltage of the power contacts. The 0 V rail is the reference potential for the inputs. 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	KL3051   KS3051	KL3052   KS3052
Number of inputs	1	2
Power supply	24 V DC via power contacts	
Signal current	4...20 mA	
Technology	single-ended	
Internal resistance	80 Ω + 0.7 V	
Common-mode voltage U <sub>CM</sub>	-	
Resolution	12 bit	
Conversion time	~ 1 ms	~ 2 ms
Measuring error	< ±0.3 % (relative to full scale value)	
Surge voltage resistance	35 V max.	
Electrical isolation	500 V (K-bus/signal voltage)	
Current consumption power contacts	only load	
Current consumpt. K-bus	typ. 65 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 or configuration setting	
Special features	with sensor supply	
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	
KL3052-0010	Siemens S5 format
KL3052-0011	fast µP, scan time approx. 0.5 ms
KL3052-0012	changed diagnostic level (<3.5 mA or >21.5 mA)
KL3052-0050	Siemens S7 format