

KL3102 | Bus Terminal, 2-channel analog input, voltage, ± 10 V, 16 bit, differential

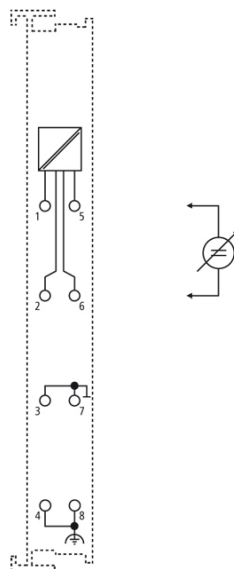
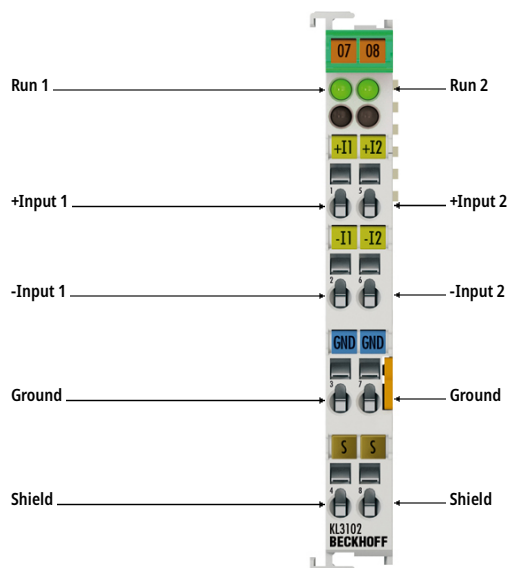


Image similar, may contain optional accessories

i **Product status:** regular delivery

The KL3102 analog input terminal handles signals in the range from -10 to +10 V. The voltage is digitized to a resolution of 16 bits and is transmitted, electrically isolated, to the higher-level automation device. The input channels of one Bus Terminal have differential inputs and possess a common, internal ground potential. The KL3102 combines two channels in one housing. The two light emitting diodes give an indication of the data exchange with the Bus Coupler.

Product information

Technical data

Technical data	KL3102
Number of inputs	2
Power supply	via the K-bus
Signal voltage	-10...+10 V
Technology	differential input
Internal resistance	> 200 k Ω
Common mode voltage U_{CM}	max. 35 V
Conversion time	140 ms, configurable to 2 ms
Filter	50 Hz, configurable

Resolution	16 bit (for 0...10 V range: resolution 15 bit)
Measurement error/uncertainty	< ±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: 2 x 16 bit data (2 x 8 bit control/status optional)
Configuration	no address or configuration setting
Weight	approx. 70 g
Operating temperature	0...55°C
Storage temperature	-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. rating/installation pos.	IP20/variable
Approvals/markings	CE, CCC, UL, ATEX, IECEx
Plug-in wiring level	for all KSxxx Bus Terminals
Ex marking	ATEX: II 3 G Ex ec IIC T4 Gc IECEx: Ex ec IIC T4 Gc

Housing data	KL-12-8pin	KS-12-8pin
Design form	compact terminal housing with signal LEDs	terminal housing with pluggable wiring level
Material	polycarbonate	
Installation	on 35 mm DIN rail, conforming to EN 60715 with lock	
Side by side mounting by means of	double slot and key connection	
Marking	labeling of the BZxxx series	
Wiring	solid conductor (s), flexible conductor (st) and ferrule (f): spring actuation by screwdriver	
Connection cross-section	s*: 0.08...2.5 mm ² , st*: 0.08...2.5 mm ² , f*: 0.14...1.5 mm ²	s*: 0.08...1.5 mm ² , st*: 0.08...1.5 mm ² , f*: 0.14...1.5 mm ²
Connection cross-section AWG	s*: AWG28...14, st*: AWG28...14, f*: AWG26...16	s*: AWG28...16, st*: AWG28...16, f*: AWG26...16
Stripping length	8...9 mm	9...10 mm
Current load power contacts	I _{max} : 10 A	
Dimensions (W x H x D)	12 mm x 100 mm x 68 mm	

*s: solid wire; st: stranded wire; f: with ferrule

Ordering information

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KL3102	Bus Terminal, 2-channel analog input, voltage, ± 10 V, 16 bit, differential
KS3102	Bus Terminal, 2-channel analog input, voltage, ± 10 V, 16 bit, differential, pluggable wiring level
KL3102-0050	Bus Terminal, 2-channel analog input, voltage, ± 10 V, 16 bit, differential, Siemens S7 format