

KL3152 | Bus Terminal, 2-channel analog input, current, 4...20 mA, 16 bit, differential, high-precision

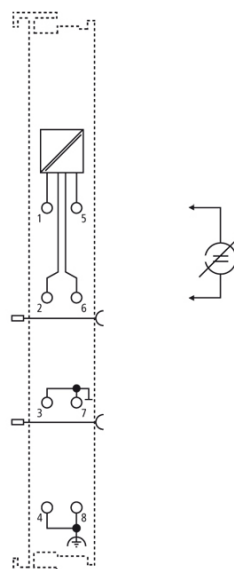
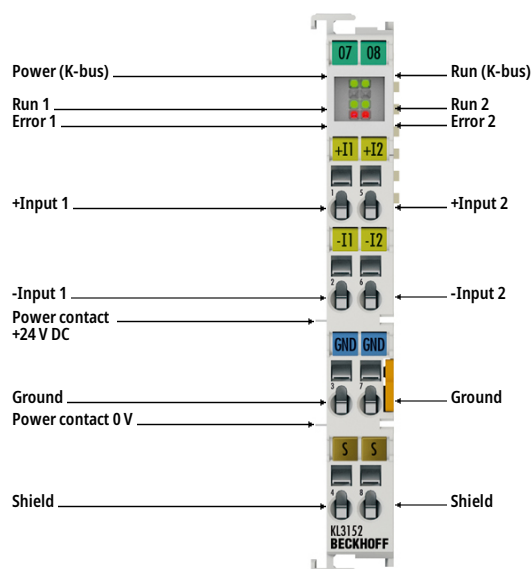


Image similar, may contain optional accessories

i Product status: regular delivery

The KL3152 analog input terminal handles signals in the range between 4 and 20 mA. The current is digitized to a resolution of 16 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 a common, internal ground potential. With its high measurement accuracy of $\pm 0.05\%$ (relative to full scale value), the terminal is optimized for high-precision control processes, such as dosing, filling, or quality assurance. The KL3152 combines two channels in a single housing. An open lead or overload condition are detected, and the terminal status is relayed to the controller via the K-bus. The run LEDs indicate data exchange with the Bus Coupler, the error LEDs indicate overload.

Product information

Technical data

Technical data	KL3152
Number of inputs	2
Power supply	via the K-bus
Signal current	4...20 mA
Technology	differential input
Internal resistance	typ. 100 Ω shunt

Common-mode voltage U_{CM}	max. ± 10 V
Conversion time	140 ms, configurable
Filter	50 Hz, configurable
Resolution	16 bit
Measurement error/uncertainty	$< \pm 0.05\%$ (relative to full scale value)
Surge voltage resistance	35 V DC
Electrical isolation	500 V (K-bus/signal voltage)
Current consumption power contacts	–
Current consumption K-bus	typ. 85 mA
Bit width in the process image	input: 2 x 16 bit data (2 x 8 bit control/status optional)
Special features	increased measuring accuracy
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
Pluggable wiring	for all KSxxxx 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 BZxxxx 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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KL3152	Bus Terminal, 2-channel analog input, current, 4...20 mA, 16 bit, differential, high-precision
KS3152	Bus Terminal, 2-channel analog input, current, 4...20 mA, 16 bit, differential, high-precision, pluggable wiring