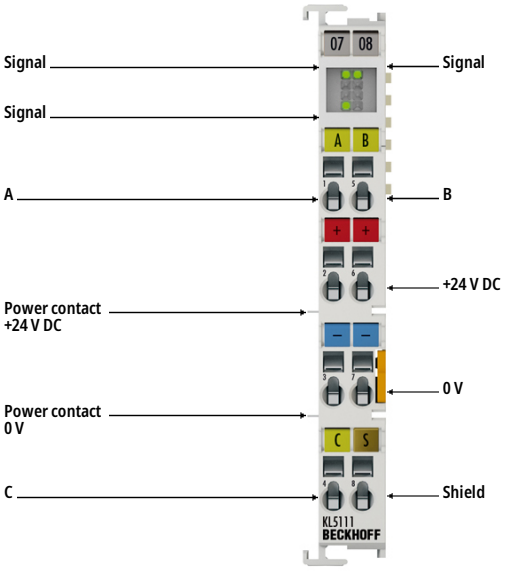
KL5111 | Bus Terminal, 1-channel encoder interface, incremental, 24 V DC HTL, 250 kHz



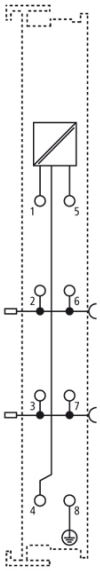


Image similar, may contain optional accessories

Product status: regular delivery

The KL5111 Bus Terminal is an interface for the direct connection of 24 V incremental encoders. A 16 bit counter with a quadrature decoder and a 16 bit latch for the zero pulse can be read, set or enabled. The state of the counter is transmitted quickly and securely to the PC, PLC or CNC over the fieldbus. Interval measurement with a resolution of 200 ns is possible. Up to 64 incremental encoders can be connected to a Bus Coupler.

Product information

Technical data

Technical data	KL5111
Technology	incremental encoder interface 24 V DC, EN 61131-2, type 1, “0”: < 5 V DC, “1”: > 15 V DC, typ. 5 mA
Number of channels	1 incremental encoder
Encoder connection	A, B, C, 24 V
Encoder operating voltage	24 V DC
Encoder output current	–
Counter	16 bit, binary
Limit frequency	1 million increments/s (with 4-fold evaluation)

Quadrature decoder	4-fold evaluation
Zero-pulse latch	16 bit
Commands	read, set, enable
Power supply	24 V DC (-15%/+20%)
Current consumption power contacts	–
Current consumption K-bus	typ. 40 mA
Bit width in the process image	input/output: 2 x 16 bit data, 2 x 8 bit control/status
Weight	approx. 60 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
Plug-in wiring level	for all KSxxxx Bus Terminals
Approvals/markings	CE, CCC, UL, ATEX, IECEx
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

Ordering information	
KL5111	Bus Terminal, 1-channel encoder interface, incremental, 24 V DC HTL, 250 kHz
KS5111	Bus Terminal, 1-channel encoder interface, incremental, 24 V DC HTL, 250 kHz, pluggable wiring level
KL5111-0010	Bus Terminal, 1-channel encoder interface, incremental, 5 V DC HTL, 250 kHz
KL5111-0011	Bus Terminal, 1-channel encoder interface, incremental, 24 V DC HTL, 250 kHz, latch reset
KL5111-0012	Bus Terminal, 1-channel encoder interface, incremental, 24 V DC HTL, 250 kHz, latch pos./neg. edge
KL5111-0013	Bus Terminal, 1-channel encoder interface, incremental, 5 V DC HTL, 250 kHz, latch pos./neg. edge
KL5111-0015	Bus Terminal, 1-channel encoder interface, incremental, 24 V DC HTL, 250 kHz, frequency measurement over a selectable time window
KL5111-0016	Bus Terminal, 1-channel encoder interface, incremental, 5 V DC HTL, 250 kHz, frequency measurement over a selectable time window
KL5111-0020	Bus Terminal, 1-channel encoder interface, incremental, 12 V DC HTL, 250 kHz