



## KL5151 | 1-channel incremental encoder interface

The KL5151 Bus Terminal is an interface with 24 V inputs for the direct connection of incremental encoders. A 32 bit counter with a quadrature decoder and a 32 bit latch for the zero pulse can be read, set or enabled. The KL5151 inputs can optionally be used as single or two-counter inputs. The signal inputs use 0 V as the reference potential and are electrically isolated from the K-bus.

Technical data	KL5151   KS5151
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, gate/latch, 24 V
Sensor inputs	1
Encoder operating voltage	24 V DC
Encoder output current	–
Counter	32 bit, binary
Limit frequency	400,000 increments/s (with 4-fold evaluation)
Quadrature decoder	4-fold evaluation
Zero-pulse latch	32 bit
Commands	read, set, enable
Power supply	24 V DC (-15 %/+20 %)
Supply voltage	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 32 bit data, 2 x 8 bit control/status
Weight	approx. 50 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

Special terminals	
KL5151-0021	incremental encoder 1 x 32 bit A, B, capture input and 1 driver output 24 V, 0.5 A
KL5151-0050	incremental encoder 2 x 32 bit A, B-track