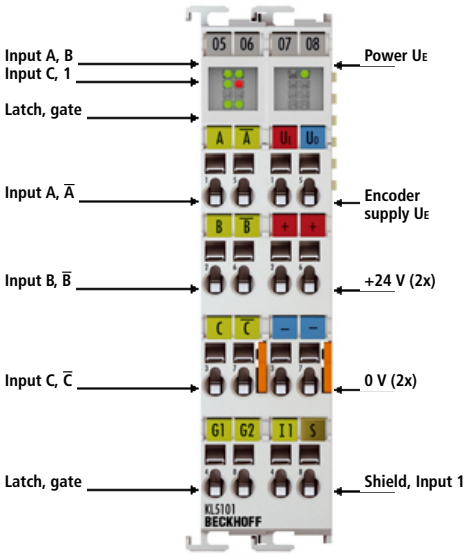
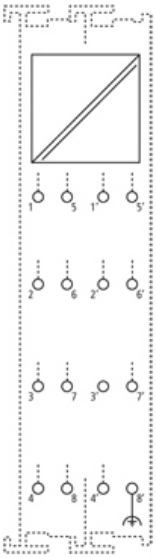
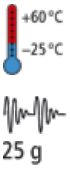


Top view



Contact assembly



KL5101 | Incremental encoder interface

The KL5101 terminal is an interface for the direct connection of incremental encoders with difference signal (RS422) or with single inputs. A 16 bit counter with a quadrature decoder and a 16 bit latch for the zero pulse can be read, set or enabled. Incremental encoders with alarm outputs can be connected at the interface's status input. Interval measurement with a resolution of 200 ns is possible. The G2 input allows the counter to be halted (high = stop). The value is read with a rising edge at G1.

Technical data	KL5101 | KS5101
Technology	incremental encoder interface (RS422)
Number of channels	1 incremental encoder + 1 input
Encoder connection	A, A (inv), B, B (inv), C,C (inv), differential inputs (RS422); status input 5 V DC; gate/latch input 24 V DC
Encoder operating voltage	5 V DC
Encoder output current	0.5 A
Counter	16 bit, binary
Limit frequency	4 million increments/s (with 4-fold evaluation)
Quadrature decoder	1-, 2-, or 4-fold evaluation
Zero-pulse latch	16 bit
Commands	read, set, enable
Power supply	24 V DC (-15 %/+20 %)
Supply voltage	24 V DC (-15 %/+20 %)
Current consumption power contacts	– (no power contacts)
Current consumption K-bus	typ. 60 mA
Bit width in the process image	input: 1 x 16 bit data, 1 x 8 bit control/status
Weight	approx. 85 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