



KL1501 | Up/down counter 24 V DC, 100 kHz

The KL1501 Bus Terminal is an up/down counter. It transmits the counter state to the higher-level automation device in an electrically isolated manner. When it is used as a single-channel up/down counter (32 bit), the pulse is set via the clock input, while the count direction is set via the up/down input. The input can also be used as a gate input for triggering the counter. In two-counter mode, two separate counters (Clock and Clock1 inputs) with each 16 bit are available, which can be parameterised as up or down counters. The signal state of the inputs and outputs is indicated by light emitting diodes. Both outputs are switched according to the counter state, so that they can be used as fast control signals for field devices.

Technical data	KL1501 KS1501
Connection technology	1 x up/down counter, 2 x up or down counter
Specification	EN 61131-2, type 1, "0": < 5 V DC, "1": > 15 V DC, typ. 5 mA
Number of counters	1 or 2
Nominal voltage	24 V DC (-15 %/+20 %)
"0" signal voltage	-3...+5 V (EN 61131-2, type 1)
"1" signal voltage	15...30 V (EN 61131-2, type 1)
Counting frequency	max. 100 kHz (2 kHz for switching between up and down)
Counter depth	32 bit
Input current	typ. 5 mA (EN 61131-2, type 1)
Max. output current	24 V/0.5 A (short-circuit proof) per channel
Current consumption K-bus	typ. 50 mA
Current consumption power contacts	load only
Electrical isolation	500 V (K-bus/field potential)
Bit width in the process image	40 inputs/outputs: 32 bit data, 8 bit control/status
Configuration	no address setting, configuration via Bus Coupler or controller
Special features	set counters, switch outputs
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, IECEx

Special terminals	
KL1501-0010	gate-counter with auto-reset and setting A0
KL1501-0011	up/down counter with 5 V inputs, 24 V DC outputs