Signal LED

Out LED1

V/R Clock1 Gate

Power contact
+24 V

Power contact 0 V

Output 1

Clock LED

Out LED 2

Clock

+24 V

0 V

Output 2

Top view   Contact assembly

Clock
Gate

Out

+60 °C
−25 °C

25 g

EL1502 | Up/down counter 24 V DC, 100 kHz

The EL1502 EtherCAT 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) 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. The EL1502 device supports the distributed clocks function. This means the counter can be read at constant intervals (DC precision << 1 μs).

Technical data	EL1502	ES1502
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)
Input current	typ. 5 mA (EN 61131-2, type 1)
Counting frequency	max. 100 kHz
Distributed clocks	yes
Max. output current	24 V/0.5 A (short-circuit proof) per channel
Current consumption power contacts	typ. 14 mA + load
Current consumption E-bus	typ. 130 mA
Counter depth	32 bit
Electrical isolation	500 V (E-bus/field potential)
Configuration	no address setting, configuration via the EtherCAT master
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 ESxxxx terminals
Approvals	CE, UL, Ex