



## ELX5151 | 1-channel incremental encoder interface NAMUR, 32 bit, Ex i



The ELX5151 EtherCAT Terminal allows the direct connection of an intrinsically safe incremental encoder from Zone 0/20 and 1/21 hazardous areas. The terminal supplies the encoder with 8.2 V DC and evaluates a diagnostic-capable NAMUR signal according to IEC 60947-5-6. In this way, a wire breakage or short circuit can be detected in addition to the switching state. The ELX5151 can also be used as an up/down counter and allows switching between 16- and 32-bit counting.

Technical data	ELX5151
Technology	incremental encoder interface NAMUR
Specification	NAMUR DC switching amplifier (IEC 60947-5-6)
Number of channels	1
Sensor inputs	1
Encoder connection	A, B
Encoder operating voltage	8.2 V DC
Open circuit voltage	typ. 8.2 V DC
"0" signal current	≤ 1.2 mA
"1" signal current	≥ 2.1 mA
Switching hysteresis	0.2 mA
Short circuit current	typ. 9 mA
Fault detection	I ≤ 200 μA (cable break), I ≥ 6.0 mA (short circuit)
Supply voltage electronics	24 V DC (via power contacts), ELX9560 power supply
Current consumption power contacts	typ. 15 mA + load
Current consumption E-bus	typ. 80 mA
Distributed clocks	yes
Special features	up/down counters
Weight	approx. 60 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/see documentation
Approvals	CE, Ex, IECEx