



## EL6851 | DMX master/slave

### DMX

The EL6851 EtherCAT Terminal is a DMX master terminal and enables connection of up to 32 devices without repeater. The DMX master terminal can send up to 512 bytes of data (this can be set via the terminal). At 250 kbit/s a maximum data rate of 44 kHz is therefore possible. The RS485 interface in the EL6851 is electrically isolated and guarantees high interference immunity.

In addition, the RDM (Remote Device Management) protocol can be run via the EL6851. RDM is an extension of the DMX protocol and enables addressing and parameterisation of devices. TwinCAT offers associated libraries.

The EL6851-0010 EtherCAT Terminal is a DMX slave terminal. The DMX slave terminal can receive up to 512 bytes of data. The start address and the data length can be set via the CoE (CAN application protocol over EtherCAT) objects. The RS485 interface in the EL6851-0010 is electrically isolated and guarantees high interference immunity.

The DMX slave receives data from a DMX master and transmits them to the application via EtherCAT. In this way, non-DMX-capable devices, like DALI lamps or dimmer terminals, can also be addressed.

DMX is based on RS485 physics. An integrated termination resistor can be connected through two-wire jumpers in the terminal.

Technical data	EL6851	EL6851-0010
Technology	DMX master terminal	DMX slave terminal
Data transfer channels	RS485 physics/half duplex	
Data transfer rates	250 kbit, one start bit, two stop bits	
Interfaces	RS485, termination resistor can be switched, half duplex	
Bus device	max. 32 without repeater	–
Line impedance	120 Ω	
Power supply	via the E-bus	
Distributed clocks	–	
Electrical isolation	500 V (E-bus/signal voltage)	
Protocol	DMX512	
Bit width in the process image	variable	
Configuration	no address setting, configuration via PLC	
Current consumption power contacts	–	
Current consumption E-bus	typ. 130 mA	
Special features	supports RDM protocol, library available; electrically isolated	start address and data length can be set
Weight	approx. 55 g	
Operating/storage temperature	0...+55 °C/-25...+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	

System	
subsystem	For further subsystem products please see the <a href="#">system overview</a> .