



CU1521 | EtherCAT media converter fibre optic

The EtherCAT-capable CU1521 for Industrial Fast Ethernet/100 Mbaud serves as media converter from optical fibre to copper and vice versa. The CU1521 is suitable for multimode, the CU1521-0010 for singlemode optical fibre and therefore significantly longer transmission links. The CU1521 always operates bidirectionally and collision-free with constant delay. It can be diagnosed as a separate EtherCAT device. In this way, unlike standard media converters, the CU1521 enables fast link control and the safe closing of the EtherCAT strand even in the event of a fault. Since the transfer direction (copper to optical fibre | optical fibre to copper) is relevant for the bus, the device can be configured via a switch. Via this switch "Link Loss Forwarding" for normal Ethernet operation can also be selected.

The CU1521 is useful in applications where EtherCAT transfers over large distances are required or where higher EMC loads on the bus line are to be expected.

Technical data	CU1521-0000	CU1521-0010
Task within EtherCAT system	media transition from RJ45 copper physics to multimode fibre optic and back	media transition from RJ45 copper physics to singlemode fibre optic and back
Data transfer medium	multimode glass fibre 50/125 µm (MM); Ethernet/EtherCAT cable (min. Cat.5), shielded	singlemode glass fibre 9/125 µm (SM); Ethernet/EtherCAT cable (min. Cat.5), shielded
Bus interface	1 x SC Duplex; 1 x RJ45	
Distance between stations	max. 2000 m (100BASE-FX); max. 100 m (100BASE-TX)	max. 20,000 m (100BASE-FX); max. 100 m (100BASE-TX)
Protocol	EtherCAT	
Delay	approx. 1 µs	
Data transfer rates	100 Mbaud	
Configuration	per rotary switch	
Power supply	24 (18...30) V DC, 3-pin connection (+, -, PE)	
Dimensions (W x H x D)	34 x 98 x 77 (in mm)	
Operating/storage temperature	-25...+60 °C/-40...+85 °C	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	
Approvals	CE, UL	

Further fibre optic products	
EK1501	EtherCAT Coupler with ID switch, multimode fibre optic for E-bus terminals (ELxxxx)
EK1501-0010	EtherCAT Coupler with ID switch, singlemode fibre optic for E-bus terminals (ELxxxx), distance between stations up to 20 km
EP9521	EtherCAT/Industrial Ethernet module EP9521 for Industrial Fast Ethernet/100 Mbaud

Accessories	
EtherCAT POF	POF cordsets and connectors for EtherCAT