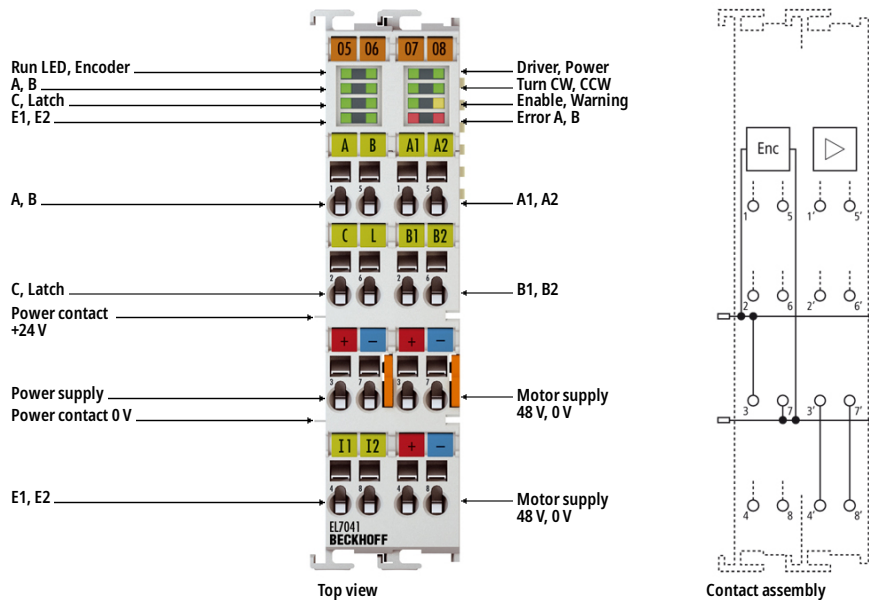
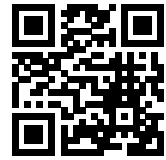


EL7041 | EtherCAT Terminal, 1-channel motion interface, stepper motor, 48 V DC, 5 A, with incremental encoder



i Product status: Regular delivery

The EL7041 EtherCAT Terminal is intended for the direct connection of stepper Motors in the mid power range up to 5 A an a voltage range from 8...48 V. The compact stepper motor output stage is accommodated in the EtherCAT Terminal together with two digital inputs for limit switches an one encoder interface. Through parameterization, the EL7041 can be adjusted to the motor and the application requirements. 64-fold micro-stepping ensures particularly quiet and precise motor operation.

In combination with a corresponding stepper motor, the EL7041 represents a cost-effective compact drive solution.

Product information

Technical data

Technical data	EL7041, ES7041	EL7041-1000
Technology	compact drive technology	
Connection method	direct motor connection + feedback	
Number of inputs	2 x end position, 1 x encoder	
Load type	2-phase stepper motor (uni-/bipolar)	
Number of channels	1	
Number of outputs	1 x stepper motor	
Supply voltage electronics	24 V DC (via power contacts)	
Supply voltage power	8...48 V DC (external)	

Output current	max. 5.0 A	
Step frequency	configurable up to 8000 full steps/s	
Step pattern	64-fold micro stepping	
Current controller frequency	approx. 30 kHz	
Resolution	approx. 5000 positions in typ. applications (per revolution)	
Encoder input signal	5...24 V DC, typ. 5 mA, single-ended	
Encoder connection	A, B, C, gate/latch	
Input frequency	max. 400,000 increments/s (with 4-fold evaluation)	
Current consumption power contacts	typ. 50 mA	
Current consumption E-bus	typ. 140 mA	
Distributed clocks	yes	
Special features	travel distance control, encoder input	for resonance-critical applications, encoder input
Electrical isolation	500 V (E-bus/field potential)	
Relative humidity	95 %, no condensation	
Weight	approx. 90 g	
Operating/storage temperature	0...+55 °C/-25...+85 °C	
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4	
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27	
Protect. rating/installation pos.	IP20/see documentation	
Pluggable wiring	for all ESxxx terminals	
Approvals/markings	CE, UL	

Housing data	EL-24-2x8pin	ES-24-2x8pin
Design form	compact terminal housing with signal LEDs	terminal housing with pluggable wiring level
Material	polycarbonate	
Dimensions (W x H x D)	24 mm x 100 mm x 68 mm	
Installation	on 35 mm DIN rail, conforming to EN 60715 with lock	
Side by side mounting by means of	double slot and key connection	
Marking	labeling of the BZxxx series	
Wiring	solid conductor (e), flexible conductor (f) and ferrule (a): spring actuation by screwdriver	
Connection cross-section	s*: 0.08...2.5 mm ² , st*: 0.08...2.5 mm ² , f*: 0.14...1.5 mm ²	s*: 0.08...1.5 mm ² , st*: 0.08...1.5 mm ² , f*: 0.14...1.5 mm ²
Connection cross-section AWG	s*: AWG 28...14, st*: AWG 28...14, f*: AWG 26...16	s*: AWG 28...16, st*: AWG 28...16, f*: AWG 26...16
Stripping length	8...9 mm	9...10 mm

Current load power contacts I_{max} : 10 A

*s: solid wire; st: stranded wire; f: with ferrule

Ordering information

Special terminals

EL7041

EtherCAT Terminal, 1-channel motion interface, stepper motor, 48 V DC, 5 A, with incremental encoder

ES7041

EtherCAT Terminal, 1-channel motion interface, stepper motor, 48 V DC, 5 A, with incremental encoder, pluggable wiring