



EL7201-9014 | Servomotor terminal with OCT and STO, 50 V DC, 2.8 A (I_{rms})

The EL7201-9014 servomotor EtherCAT Terminal with integrated absolute value interface offers high servo performance in a very compact design. The fast control technology, based on field-oriented current and PI speed control, supports fast and highly dynamic positioning tasks. The monitoring of numerous parameters, such as overvoltage and undervoltage, overcurrent, terminal temperature or motor load via the calculation of a I^2T model, offers maximum operational reliability. EtherCAT, as a high-performance system communication, and CAN-over-EtherCAT (CoE), as the application layer, enable ideal interfacing with PC-based control technology. The latest power semiconductors guarantee minimum power loss and enable feedback into the DC-Link when braking. 16 LEDs indicate status, warning and error messages as well as possibly active limitations.

With the One Cable Technology (OCT) the encoder cable is omitted by transmitting the signals of the encoder digitally via the existing motor cable. The option to read the electronic identification plates of suitable motors from the AM81xx series enables a plug-and-play solution for maximum convenience during commissioning.

The EL7201-9014 enables the user to implement the safety function STO (Safe Torque Off) that corresponds to a Cat 3, PL d safety level according to DIN EN ISO 13849-1:2015.

Technical data	EL7201-9014
Technology	Compact Drive Technology
Load type	permanent magnet-excited three-phase synchronous motor
Number of channels	1
Number of outputs	1 x servo motor, 1 x motor brake
Number of inputs	2 x end position, 1 feedback, 1 x STO
Connection method	direct motor connection with OCT
Supply voltage electronics	24 V DC (via power contacts)
Supply voltage power	8...50 V DC (external)
Output current (rms)	2.8 A
Peak current (rms)	max. 5.7 A for 1 s
Performance increase	Yes, through ZB8610 fan cartridge
Output current with ZB8610 (rms)	max. 4.5 A
Peak current with ZB8610 (rms)	max. 9.0 A for 1 s
Frequency range	0...599 Hz
PWM clock frequency	16 kHz
Current controller frequency	32 kHz
Rated speed controller frequency	16 kHz
Output voltage motor brake	24 V DC
Output current motor brake	max. 0.5 A
Current consumption power contacts	typ. 100 mA + holding current motor brake
Current consumption E-bus	120 mA
Distributed clocks	yes
Special features	compact (only 12 mm wide), system-integrated, absolute feedback, One Cable Technology (OCT), plug-and-play, STO (Safe Torque Off)
Electrical isolation	500 V (E-bus/field potential)
Weight	approx. 60 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/see documentation
Pluggable wiring	–
Approvals	CE, UL, TÜV SÜD

Accessories	
EL1904	4-channel digital input terminal, TwinSAFE, 24 V DC
EL2904	4-channel digital output terminal, TwinSAFE, 24 V DC, 0.5 A
EL6910	TwinSAFE Logic
EL9576	brake chopper terminal, 72 V, 155 µF
ZB8610	fan cartridge for EtherCAT and Bus Terminals
AM811x	Servomotor 0.20...0.52 Nm for servo I/Os (EL72xx, EP72xx)
AM812x	Servomotor 0.50...0.80 Nm for servo I/Os (EL72xx, EP72xx)
AM813x	Servomotor 1.35...2.35 Nm for servo I/Os (EL72xx, EP72xx)
ZK47x4-04xx, ZK4000-xxxx	Supply cables for Compact Drive Technology
ZB85xx	Shield busbar with mounting rail holder, shield busbar clamps

Related products	
EL7211-9014	servomotor EtherCAT Terminal for OCT, with STO input, 50 V DC, $I_{rms} = 4.5$ A
EP7211-9034	EtherCAT Box, industrial housing, Servomotor modul with OCT and STO, 50 V DC, 4.5 A (I_{rms})