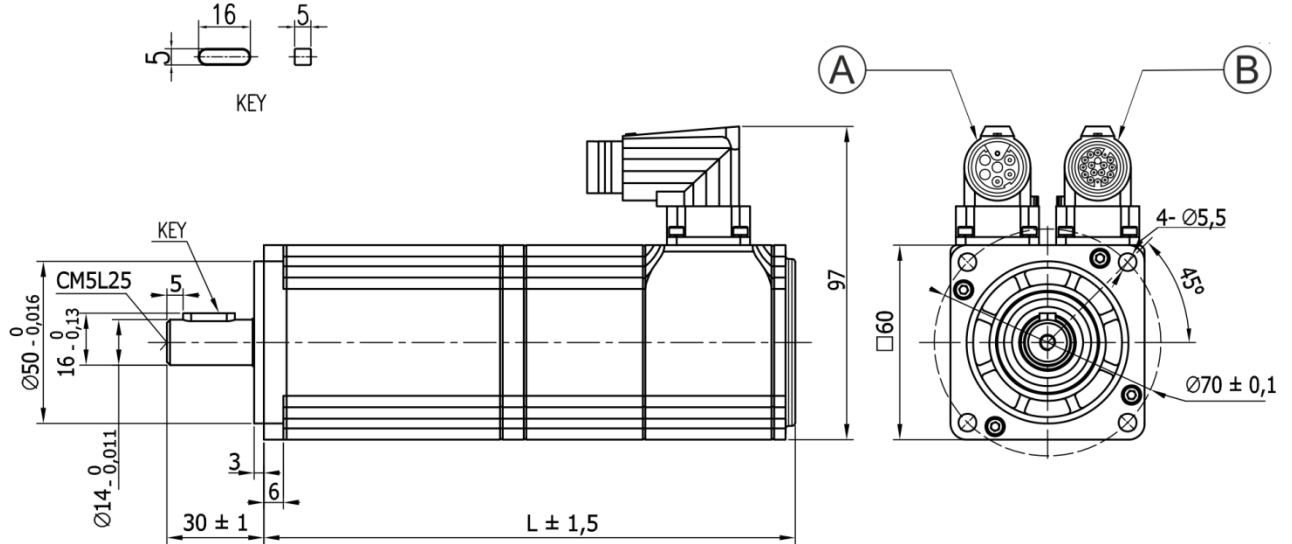




## E°MOTORS – E°SC3-030...

### Dimensions



All dimensions indicated in mm

A: Power connection  
B: Encoder connection

Type of motor	Length (L) without brake	Length (L) with brake
E°SC3-030-D7-30-21...	120 mm	164 mm
E°SC3-030-E4-30-21...	150 mm	194 mm
E°SC3-030-E4-30-22...	157 mm	Not specified



## Technical Data

Type of motor	E°SC3-030-D7-30...	E°SC3-030-E4-30...
Recommended servo drive	E°Darc K04	E°Darc K04

### Motor

$M_0$	Stall torque	N m	0.7	1.4
$M_{max}$	Peak torque	N m	1.92	3.81
$M_N$	Rated torque	N m	0.64	1.27
$n_N$	Rated speed	rpm	3000	3000
$M_k$	Cutoff torque (at operating temperature)	N m	0.64	1.27
$n_k$	Cutoff speed (at operating temperature)	rpm	3000	3000
$J$	Rotor moment of inertia	kgcm <sup>2</sup>	0.375	0.51
$F_r$	Maximum radial force	N	180	180
$F_a$	Maximum axial force	N	90	90
$m$	Weight (without brake)	kg	1.3	1.8
$p$	Number of pole pairs		3	3
$k_T$	Torque constant	N m/A <sub>RMS</sub>	0.48	0.48
$k_E$	Voltage constant	V/krpm	29	29
$I_0$	Stall current	A <sub>RMS</sub>	1.79	3.41
$I_N$	Rated current	A <sub>RMS</sub>	1.6	3.1
$P_N$	Rated power	kW	0.2	0.4
RW	Phase resistance	Ohm	4,01	3,52
LW	Phase inductance	mH	8,15	3,9
U	Supply voltage	V DC	300	300

### Brake

M	Holding torque at 100 °C	N m	1.3	1.3
J	Moment of inertia	kgcm <sup>2</sup>	0.004	0.004
m	Weight	kg	0.5	0.5
U	Voltage DC +/- 10 %	V DC	24	24
$I_b$	Power consumption	A DC	0.3	0.3
R	Resistance	Ohm	80	80

### Cable

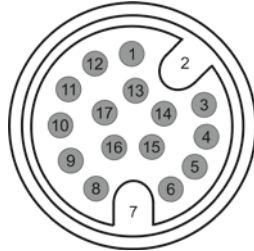
Q	Cross section (at < 50 m length)	mm <sup>2</sup>	1	1
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## Encoder connection

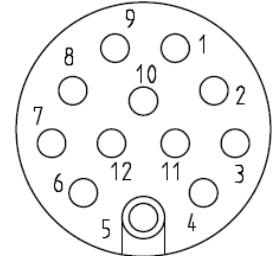
### Incremental encoder

Pin	Assignment
1	DC + 5 V
2	GND
3	A
4	/A
5	B
6	/B
7	KTY +
8	KTY -
9	U
10	/U
11	V
12	/V
13	NC
14	Z
15	/Z
16	W
17	/W



### Absolute encoder

Pin	Assignment
1	DC + 5 V
2	GND_5V
3	SD
4	/SD
5	NC
6	NC
7	KTY +
8	KTY -
9	V_batt
10	GND_batt
11	NC
12	NC



## Power connection

Pin	Assignment
1	Phase U
2	Phase V
3	Phase W
4	Brake (+)
5	Brake (-)
6	NC
	Motor PE





## Speed/torque curves

E°SC3-030-E4-30-21-BKO:

