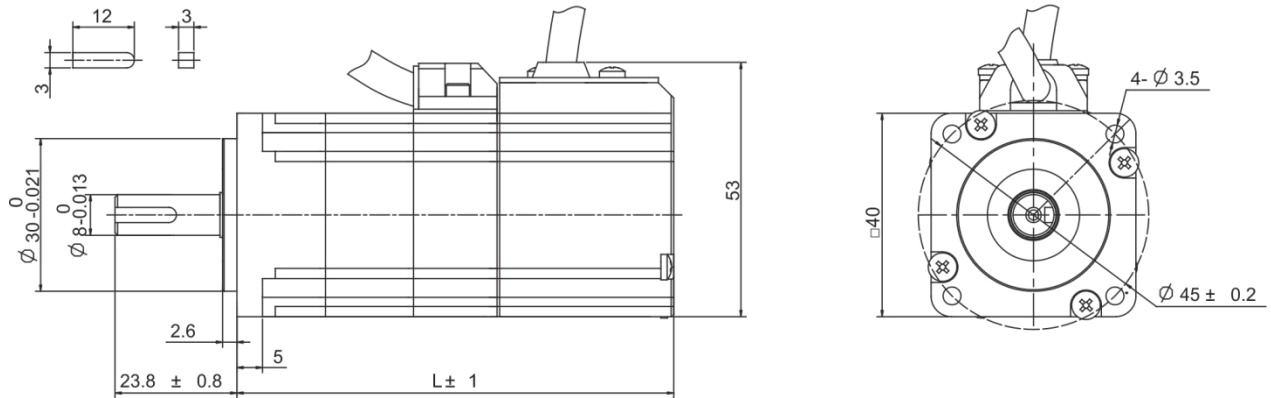




E°MOTORS – E°SC3-020...

Dimensions



All dimensions indicated in mm

Type of motor	Length without brake	Length with brake
E°SC3-020-D2-30...	85.3 mm	117.8 mm
E°SC3-020-D4-30...	110.8 mm	143.8 mm

Connections

Version E°SC3-020-XX-XX-XX-XX3X:

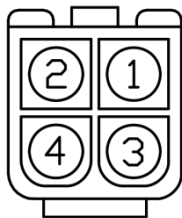


Hinweis

The highest degree of protection that you can achieve with the enclosed connectors is IP20.

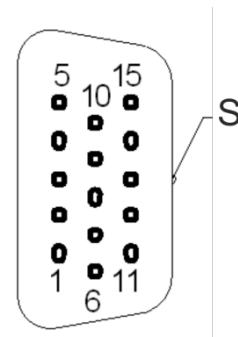
Power connector

Pin	Function
1	U
2	V
3	W
4	PE



Feedback connector

Pin	Function	Pin	Function
1	DC + 5 V	9	W
2	GND	10	V
3	NC	11	/Z
4	U	12	/B
5	/U	13	/A
6	Z	14	/W
7	B	15	/V
8	A	S	Schirm



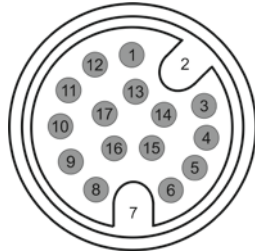


Version E°SC3-020-XX-XX-XX-XX4X:

Feedback connection

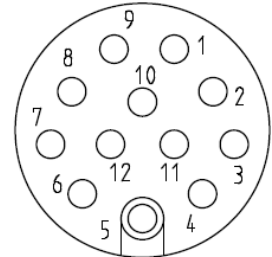
Incremental encoder

Pin	Function
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



Multiturn encoder

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



Eckelmann Group – Source of inspiration



Technical data

Type of motor	E°SC3-020-D2-30-21...	E°SC3-020-D4-30-21...
Recommended servo drive	E°Darc K04	E°Darc K04

Motor

M_0	Standstill torque	Nm	0.176	0.352
M_{max}	Peak torque	Nm	0.48	0.96
M_N	Rated torque	Nm	0.16	0.32
n_N	Rated speed	rpm	3000	3000
M_k	Cutoff torque (at operating temperature)	Nm	0.16	0.32
n_k	Cutoff speed (at operating temperature)	rpm	3000	3000
J	Rotor moment of inertia	kgcm ²	0.031	0.059
F_r	Maximum radial force	N	120	120
F_a	Maximum axial force	N	60	60
m	Weight (without brake)	kg	0.5	0.73
p	Number of pole pairs	/	4	4
k_T	Torque constant	Nm/A _{RMS}	0.265	0.265
k_E	Voltage constant	V/1000 rpm	16	16
I_0	Stall current	A _{RMS}	0.77	1.32
I_N	Rated current	A _{RMS}	0.7	1.2
P_N	Rated power	W	50	100
RW	Phase resistance	Ohm	8.3	2.8
LW	Phase inductance	mH	7	3
U	DC link voltage g	V DC	300	300

Kabel

Q	Cross section (at < 20 m length)	mm ²	0.75	0.75
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