

## INSTALLATION INSTRUCTIONS

# CASM electric cylinders

### 1. Intendend use

The adapter kit allows an axial motor mounting of the specified servo motor – linear unit combinations in **chapter 2**.

### 2. Recommended motors

In principle, beside the recommended motors, also 3rd party motors may be fitted. It is important that torque and speed specifications of the motor do not exceed the permitted values of the linear unit. Detailed information may be found in the technical notes relating to the electrical cylinders. Ewellix recommends the following brushless DC motors (↳ **table 1**).



Table 1

Possible electric cylinder/SIEMENS motor combinations

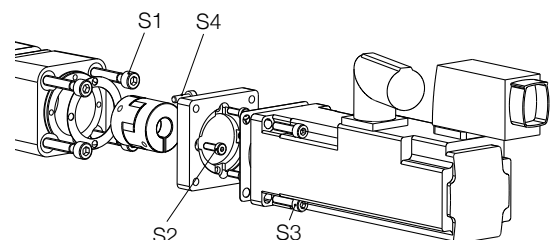
Linear unit	CASM-32			CASM-40			CASM-63		
<b>Screw</b>	Lead screw 9x1,5	Ball screw 10x3	Ball screw 10x10	Lead screw 12,5x2.5	Ball screw 12x5	Ball screw 12,7x12,7	Lead screw 20x4	Ball screw 20x10	Ball screw 20x20
<b>Motor</b>	1FK7015 0,35 Nm 6 000 rpm			1FK7034 1,60 Nm 6 000 rpm			1FK7034 4,00 Nm 4 500 rpm		

### 3. Screws and tightening torques $M_A$

Table 2

	S1 (Clutch housing)		S2 (Motor adapter)		S4 (Clutch)		S3 (Motor)	
	Screw	Torque $M_A$	Screw	Torque $M_A$	Screw	Torque $M_A$	Screw	Torque $M_A$
<b>CASM-32 1FK7015</b>	M6x20	4,0 Nm ± 0,5 Nm	M3x12	1,3 Nm ± 0,2 Nm	M2x6	0,6 Nm ± 0,2 Nm	M4x16	3,0 Nm ± 0,3 Nm
<b>CASM-32 -1FK7022</b>	M6x30	4,0 Nm ± 0,5 Nm	M4x12	3,0 Nm ± 0,5 Nm	M4x12	4,0 Nm ± 0,5 Nm	M5x20	5,9 Nm ± 0,8 Nm
<b>CASM-40 -1FK7022</b>	M6x30	4,0 Nm ± 0,5 Nm	M4x12	3,0 Nm ± 0,5 Nm	M4x12	4,0 Nm ± 0,5 Nm	M5x20	5,9 Nm ± 0,8 Nm
<b>CASM-40 -1FK7034</b>	M6x30	4,0 Nm ± 0,5 Nm	M4x12	3,0 Nm ± 0,5 Nm	M4x12	4,0 Nm ± 0,5 Nm	M6x20	10,1 Nm ± 0,8 Nm
<b>CASM-63 -1FK7034</b>	M8x30	8,0 Nm ± 0,8 Nm	M6x16	10,1 Nm ± 0,8 Nm	M5x18	8,0 Nm ± 0,8 Nm	M6x20	10,1 Nm ± 0,8 Nm
<b>CASM-63 -1FK7044</b>	M8x30	8,0 Nm ± 0,8 Nm	M6x25	10,1 Nm ± 0,8 Nm	M5x18	8,0 Nm ± 0,8 Nm	M6x25	10,1 Nm ± 0,8 Nm

Fig. 1



## 4. Coupling installation

### Step 1

Separate the two coupling halves  
(→ fig. 2)

### Step 2

Align the coupling halves to the motor and linear unit shafts, following the specifications of table 3 or 4.

Tighten the screws (S4) according the specified torques in table 2.

**Note:** Do not tighten the screws yet.

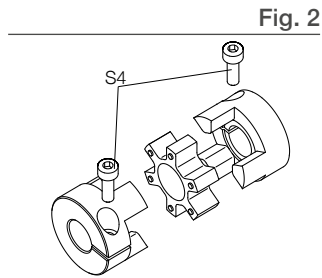
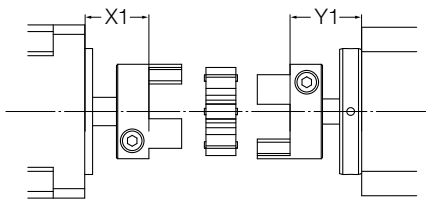


Table 3

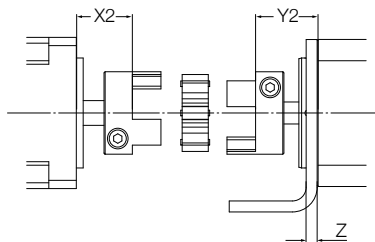
Positioning dimensions for coupling



	Standard Motor X1 mm	Linear unit Y1
CASM-32-1FK7015	18,5	16,2
CASM-32-1FK7022	20	18,3
CASM-40-1FK7022	20,2	18,2
CASM-40-1FK7034	26,5	14,7
CASM-63-1FK7034	23,8	23,5
CASM-63-1FK7044	32,2	23,5

Table 4

Positioning dimensions for coupling with foot mounting



	Standard Motor X2 mm	Linear unit Y2	Z
CASM-32-1FK7015	20,9	18,1	4
CASM-32-1FK7022	23,7	18,9	4
CASM-40-1FK7022	22,5	20,2	4
CASM-40-1FK7034	30,8	14,7	4
CASM-63-1FK7034	29,1	23,5	5
CASM-63-1FK7044	37,5	23,5	5

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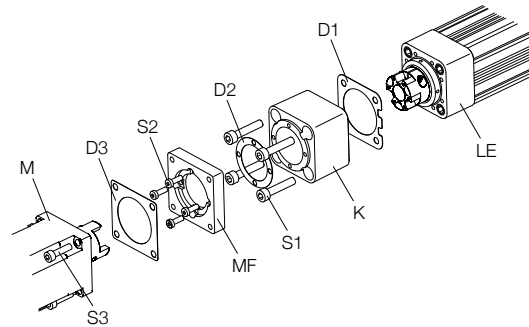
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## 5. Adapter kit installation

**Note:** The relevant seal must always be fitted between all components to ensure the requisite degree of IP protection

Fig. 3



**Note:** For the following steps, tighten the screws according to table 2. If you are using the foot mounting option, please go to section 5.1.

### Step 1

Mount the coupling housing (K) to the linear unit (LE), by inserting the square seal with the cut-out (D1) between the two components and tightening the housing using four Allen screws (S1).

**Foot mounting option** – see below: Section 5.1

### Step 2

Mount the motor flange (MF) to the coupling housing (K) by inserting the circular seal (D2) in between them. Make sure that the coupling is positioned according to table 4 for the configuration without the foot mounting kit or table 5 when using the foot mounting kit. Tighten the screws (S2) according to table 2.

### Step 3

Mount the motor flange (MF) to the motor (M) by inserting the seal (D3) in between and using the four screws (S3) (→ fig. 3) to finish the installation.

## 5.1 Foot mounting option

### Fitting the foot mounting

First fit the foot mounting (FB) to the linear unit (LE) and then the coupling housing (K). Insert one square seal with cut-out (D1) between each of the components, and secure the coupling housing (K) using four Allen screws (S1) to the linear unit (LE) (→ fig. 4).

Continue with Step 2 as described as described in chapter 5.

Fig. 4

