SEW EURODRIVE

SLC Synchronous Linear Motor

For Sorting Plants and Long Travel Distances – Substantial Energy Savings, High Availability, No Maintenance Required

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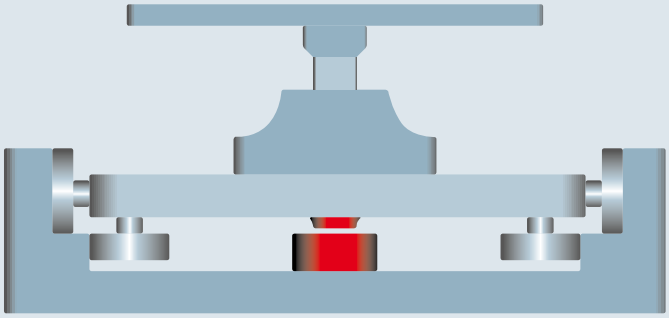
For sorting plants and long travel distances

The basic requirements of single-item distribution systems are high availability, energy efficiency, and no maintenance. Linear motors are an excellent alternative to conventional drives for these types of application. The synchronous linear motor SLC from SEW-EURODRIVE is not only suitable for long travel distances, but also reduces the energy consumption in S1 continuous operation drastically: often by more than 60%. At the same time, especially manufacturers of sorting plants benefit from the new drive concept of SEW-EURODRIVE, which allows them to use a simple and modular plant design. The linear motor is the key to this flexible plant design: the limitations of rotating drives for the overall construction do not apply.

Overview of advantages:

- Cost-effective realization of longer distances thanks to ferrite magnets
- Simplified steel construction with a nominal air gap of 4.5 mm
- Higher efficiency level than asynchronous linear motors or mechanical drive solutions with chains or friction wheels
- Up to 4 primaries can be operated with one inverter
- A special Hall sensor allows for omitting up to 2 magnets in the coupling area
- Ferrite magnets are rust-proof and must not be encapsulated



Technical data of the SLC linear motor

Primary

Motortype[1]	Force			Speed		Current		Cable cross section	Phase inductance	Resistance
	F_{peak} [N]	$F_{nominal}$ [N]	F_D [N]	v_1 [m/s]	v_L [m/s]	I_{peak} [A]	$I_{nominal}$ [A]	[mm]	[mH]	[Ω]
SLC-050M	400	200	480	2.5	5.0	4.7	2.35	3 x 1.5	162	13

Secondaries are available in lengths of 200, 250, 300, and 400 mm.

[1] All values are string values (50% of the value measured between 2 phases)

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