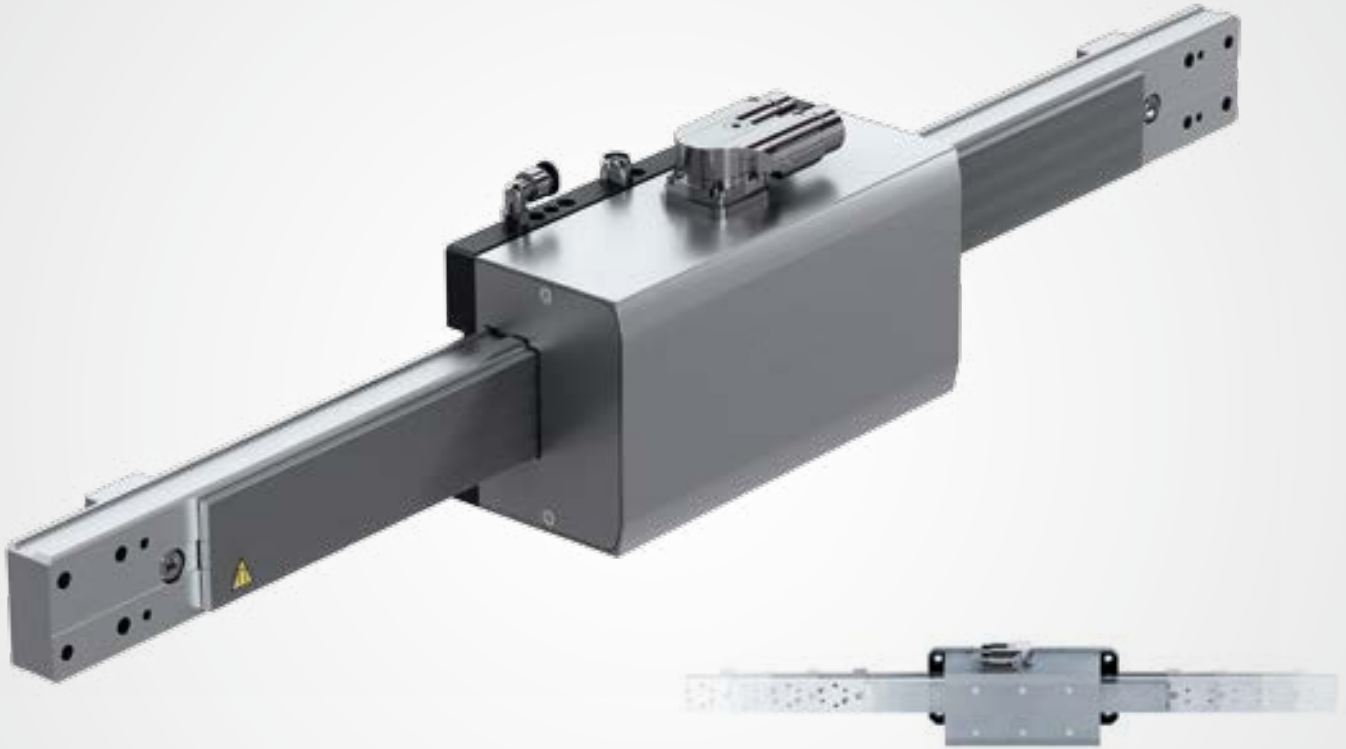


HL

LINEAR MOTOR AXES | HL LINEAR AXIS



Various strokes up to 450 mm

THE HIGHLY DYNAMIC LINEAR MOTOR AXIS HL

OPTIONS AVAILABLE

- Tool connector; electrical and pneumatic supply is accessible
- Automatic grease pump for applications without maintenance

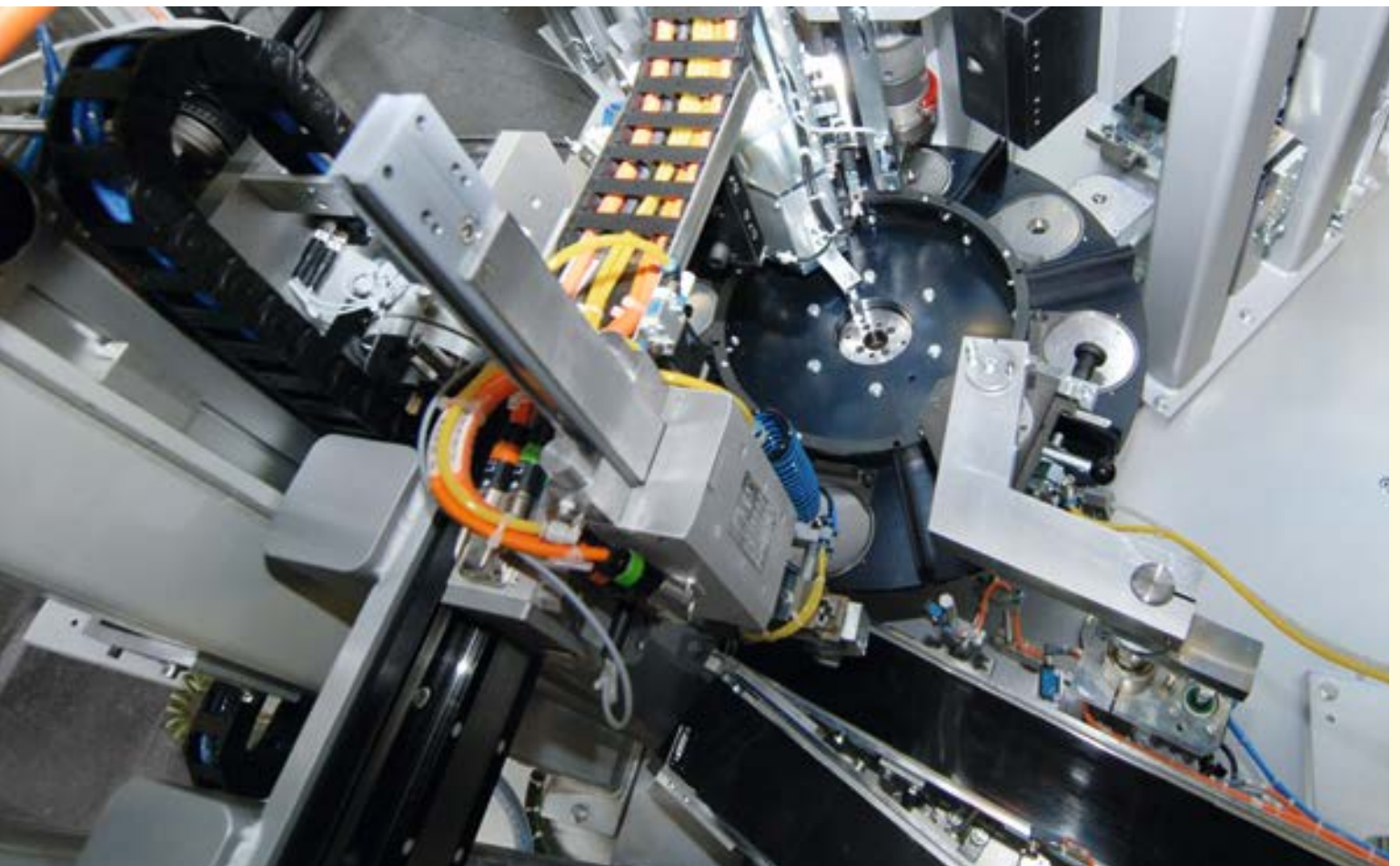


FREELY AND INTUITIVELY PROGRAMMABLE

W.A.S. 2 – WEISS Application Software: secure and fast commissioning with free-of-charge user software.



OKU relies on the perfect combination of HN and HL axes for its ball bearing assembly cell. User-programmable linear motor axes are the ideal choice for extremely fast process movements and strict requirements in terms of both dynamic performance and precision.



The linear motor axis HL provides, without any doubt, the most modern drive technology which is highly integrated and ready to mount. Tight and precise recirculating ball bearings and an absolute measurement system as well as the automatic lubrication are all included in this product. The result: Rapid and harmonic movements, horizontal or vertical mounting and loading on the right or left side is possible.

ADVANTAGES

- User programmable
- Extremely high dynamic performance thanks to direct drive
- Long lifetime
- Low maintenance costs
- Low energy costs
- Compact design – low weight
- Stiff mechanical assembling
- Very good repeat accuracy

GENERAL INFORMATION

- In the HL model range, as little mass as possible is moved due to the moving guide rail. The axes then meet the requirements of vertical applications very efficiently
- All motors are equipped with overtemperature protection (PTC)
- The installation location of the HL axes can be freely chosen

OPTIONS

- Absolute measuring systems
- Holding brake
- The linear axes can be equipped with manual or automatic lubrication
- Functional safety (secure encoder attachment)

HL 50A

TECHNICAL DATA

U	Voltage range:	200-600 V _{AC} Effektiv
U_{Prüf}	Test bench:	800 V _{AC}
a_{Max}	Max. acceleration:	40 m/s ²
v_{Max}	Max. speed:	4 m/s
F_{N mot}	Nominal force:	65 N
F_{P mot}	Peak force:	180 N
I_N	Nominal current:	2.4 A
I_P	Peak current:	6 A
s_{Max}	Max. stroke:	150-400 mm
s_{red}	Reduced stroke with brake:	49 mm
	Repeat accuracy:	0.005 mm
m_{rec}	Max. recommended load:	4 kg
m_{gui 0}	Mass of the guide rail with 0 mm stroke:	0.7 kg
m_{gui 100}	Mass of the guide rail per 100 mm stroke:	0.3 kg
m_{carr}	Mass of the carriage with motor:	2.1 kg
m_{carr FI}	Mass of the carriage with motor and flange:	2.2 kg
m_{br}	Mass of the brake:	0.4 kg
F_{Br}	Brake force:	145/250 N
p_{Br}	Opening pressure:	4/6 bar

LOAD DATA (static)

M_{X stat}	Max. static moment about the X-axis:	200 Nm
M_{Y stat}	Max. static moment about the Y-axis:	50 Nm
M_{Z stat}	Max. static moment about the Z-axis:	300 N
F_{X stat}	Max. static force in the Y-axis:	500 N
F_{Z stat}	Max. static force in the Z-axis:	200 N

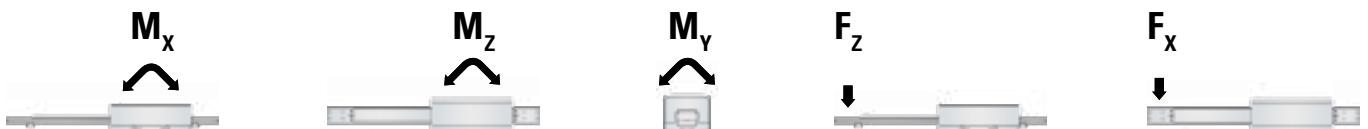
LOAD DATA (dynamic)

M_{X dyn}	Max. dynamic moment about the X-axis:	20 Nm
M_{Y dyn}	Max. dynamic moment about the Y-axis:	10 Nm
M_{Z dyn}	Max. dynamic moment about the Z-axis:	30 Nm
F_{X dyn}	Max. dynamic force in the X-axis:	90 N
F_{Z dyn}	Max. dynamic force in the Z-axis:	60 N

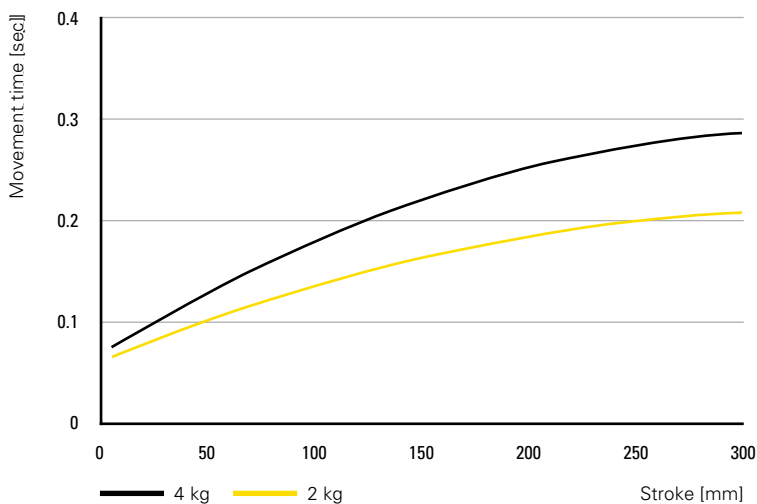
ENCODER

Balluff	sin/cos
Balluff	BISS
Balluff	SSI

LOAD DATA



TIMING DIAGRAM



Stroke without brake in mm	Stroke with 1 brake in mm	Dimension L in mm	Dimension A in mm
150 *	100	312	420
200	150	361	469
250	200	410	518
300 *	250	462	570

* Standard stroke

HL 100A

TECHNICAL DATA

U	Voltage range:	200-600 V _{AC} Effektiv
U_{Prüf}	Test bench:	800 V _{AC}
a_{Max}	Max. acceleration:	40 m/s ²
v_{Max}	Max. speed:	4 m/s
F_{N mot}	Nominal force:	150 N
F_{P mot}	Peak force:	380 N
I_N	Nominal current:	3.6 A
I_p	Peak current:	9.5 A
s_{Max}	Max. stroke:	150-530 mm
s_{red}	Reduced stroke with brake:	40 mm
	Repeat accuracy:	0.005 mm
m_{rec}	Max. recommended load:	8 kg
m_{gui 0}	Mass of the guide rail with 0 mm stroke:	1.8 kg
m_{gui 100}	Mass of the guide rail per 100 mm stroke:	0.6 kg
m_{carr}	Mass of the carriage with motor:	3.6 kg
m_{carr Fl}	Mass of the carriage with motor and flange:	4 kg
m_{br}	Mass of the brake:	0.5 kg
F_{Br}	Brake force:	350 N
p_{Br}	Opening pressure:	6 bar

LOAD DATA (static)

M_{X stat}	Max. static moment about the X-axis:	350 Nm
M_{Y stat}	Max. static moment about the Y-axis:	100 Nm
M_{Z stat}	Max. static moment about the Z-axis:	500 Nm
F_{X stat}	Max. static force in the Y-axis:	800 N
F_{Z stat}	Max. static force in the Z-axis:	400 N

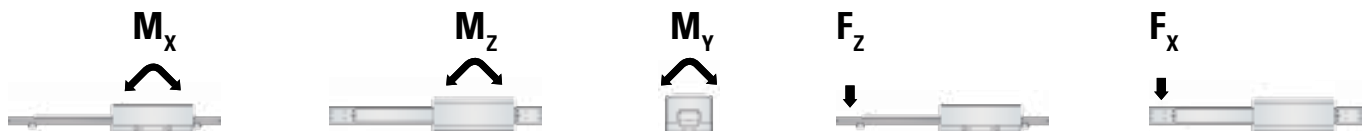
LOAD DATA (dynamic)

M_{X dyn}	Max. dynamic moment about the X-axis:	35 Nm
M_{Y dyn}	Max. dynamic moment about the Y-axis:	15 Nm
M_{Z dyn}	Max. dynamic moment about the Z-axis:	40 Nm
F_{X dyn}	Max. dynamic force in the X-axis:	150 N
F_{Z dyn}	Max. dynamic force in the Z-axis:	100 N

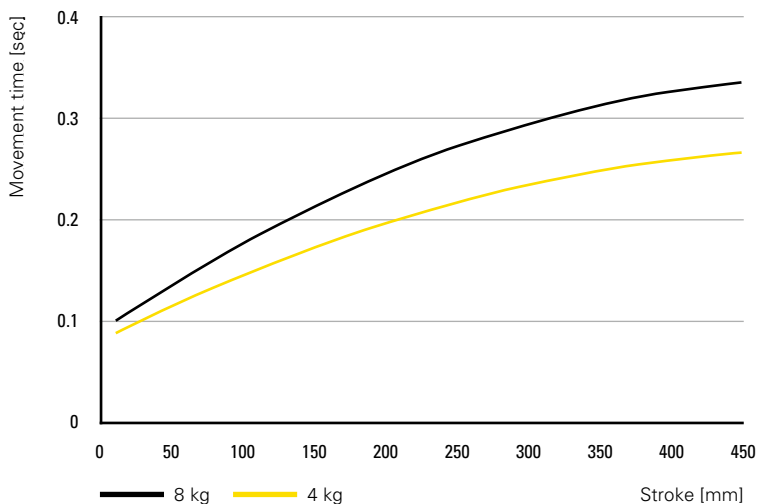
ENCODER

Balluff	sin/cos
Balluff	BISS
Balluff	SSI

LOAD DATA



TIMING DIAGRAM



Stroke without brake in mm	Stroke with 1 brake in mm	Dimension L in mm	Dimension A in mm
150 *	110	326	453
190	150	365.5	492.5
230	190	405	532
300 *	260	476	603
340	300	515.5	642.5
380	340	555	682
450 *	410	626	753

* Standard stroke

