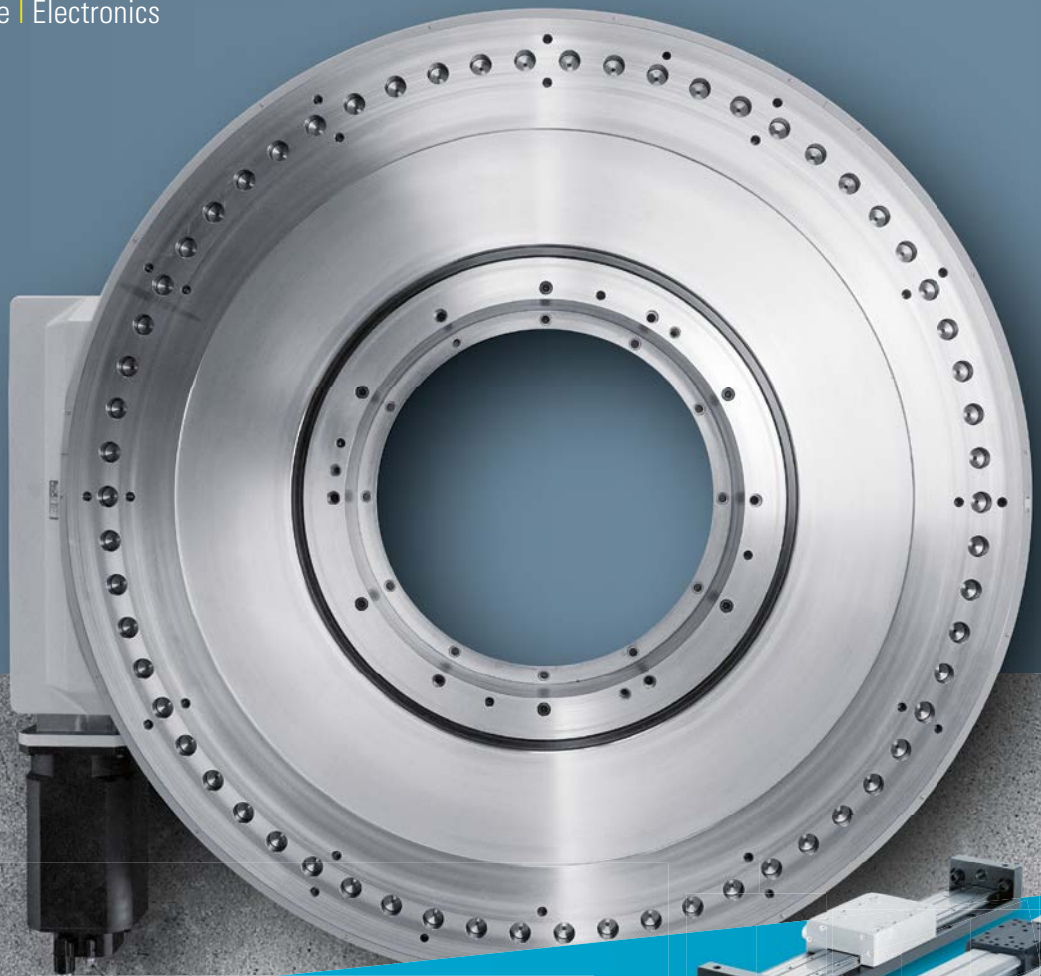


Technology that inspires



PRODUCT RANGE

Mechanics | Software | Electronics



Excerpt of the WEISS Product Range
LINEAR AXIS HG/HN

4

I would like to commission my installation quickly and efficiently



3

I require machine frames, mounting bases or custom equipment



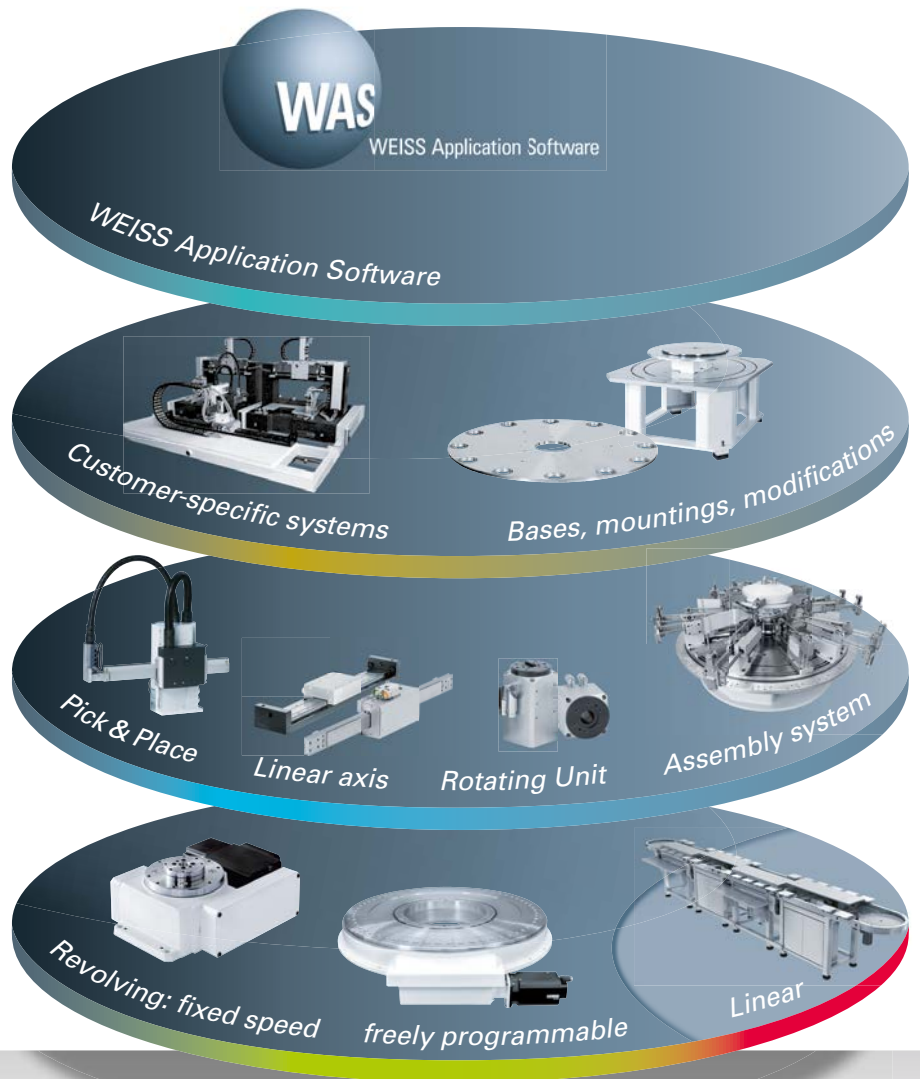
2

I require handling components



1

My transport is...



Four steps to perfect automation



TC



TR

Fixed position rotary indexing tables

TC rotary indexing table
TR rotary indexing ring



NC



NR



CR



TO



TW

User-programmable rotary indexing tables

NC rotary indexing table NR rotary indexing ring
CR/TH heavy duty ring TO torque rotary indexing table
TW rotary indexing table



LS

Linear assembly system

LS 280



HP

HL



HG/HN



ST/SW



SH

PM



Handling module

HP Pick&Place HL Linear axis
HG/HN Linear axes ST/SW rotary unit
SH Lifting-rotating unit PM Pick-o-Mat



Plate



SK

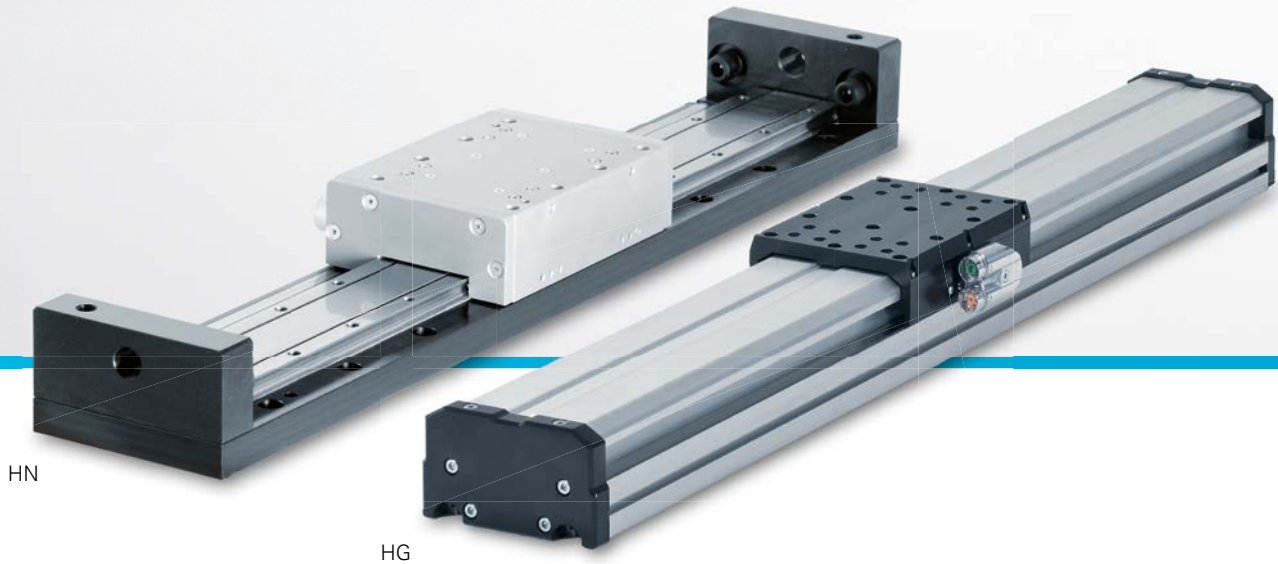
Customer specific solutions

SR/SK indexing machine bases
Additional indexing plate



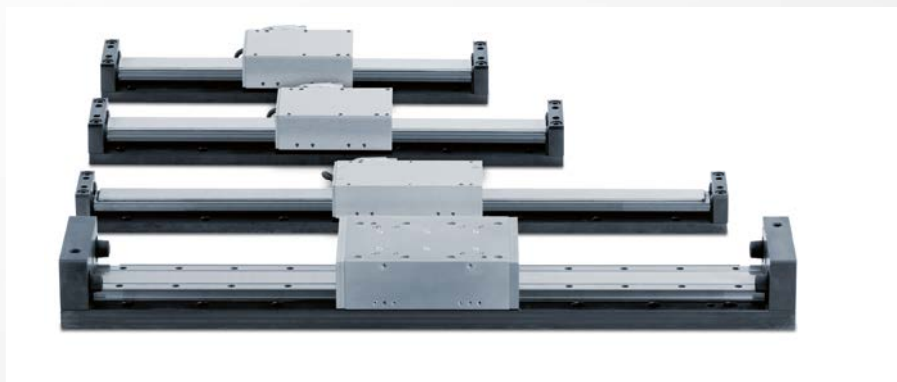
WAS-Software

WEISS Application Software (WAS)



HG/HN linear motor axes

The latest in uncompromising, highly dynamic drive technology for your basic axis. Highly integrated and ready for installation. Compact and precise ball-type linear guides and an absolute measuring system are just as much a part of the concept as the automatic lubrication. The HN version is available in many different sizes – with a robust steel body or lightweight aluminium body. The aluminium profile-based HG axes can also be used in areas in which cost factors have typically made conventional drives the standard choice in the past: the most advanced linear technology at extremely attractive conditions. Both versions impress with their smooth movements and maximum dynamics.



All design sizes in different strokes



The two sizes of the HG axis: HG 25 with peak force of 180 N, and HG 12 with peak force of 110 N



Fast, easy and secure setting through its unique user software

The key advantages at a glance

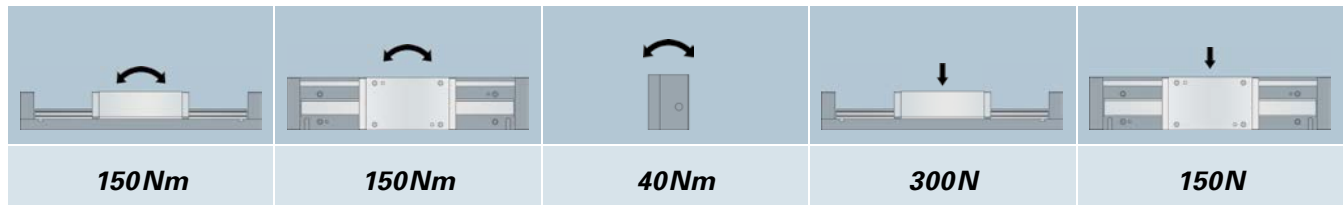
- *Freely positionable*
- *Extremely dynamic*
- *Monitored movement*
- *No maintenance costs, no wearing parts*
- *Hygienic linear drive/no pneumatics, no oil, no gearbox*
- *Low energy costs*
- *Compact design*
- *Convincing price-quality ratio (particularly in the case of HG axes)*
- *HN axes with high power density available in many different sizes*
- *HG axes with covered guide profile with standard attachment options*
- *Absolute measuring system (up to 1,000 mm)*

HG 12

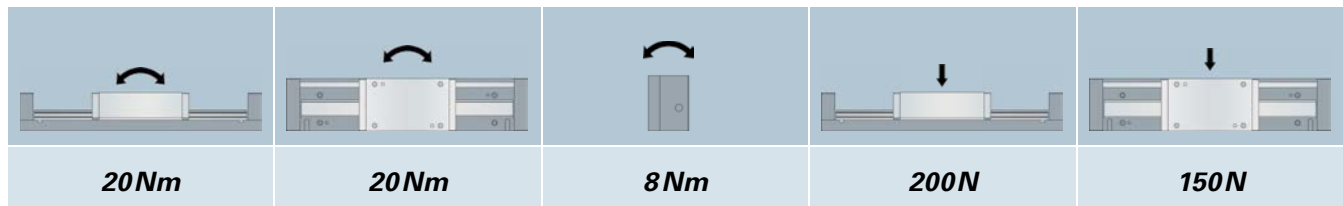
Technical data

Cont. force (N)	33
Peak force(N)	102
Max. speed (m/s)	4
Max. acceleration (m/s²)	40
Max. load capacity (kg)	5
Max. DC-Voltage (VDC)	800
Cont. current (Arms)	0.6
Peak current (Arms)	2
System-accuracy (µm/m)	10 incremental (Sin/Cos 1Vss)
System-accuracy (µm/m)	5 absolute (BISS/C, SSI) up to 1 m
Repeatability (µm)	5 incremental (Sin/Cos 1Vss)
Repeatability (µm)	2 absolute (BISS/C, SSI) up to 1 m
Available stroke (mm)	up to 1000
Thermal sensor	PTC
Weight of rail, 0 stroke (kg)	1.44
Weight of rail/100mm (kg)	0.72
Weight of carriage (kg)	1.45

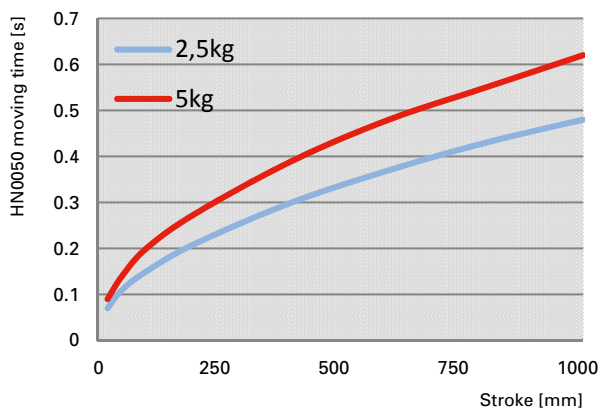
Static load



Dynamic load



Timing diagram

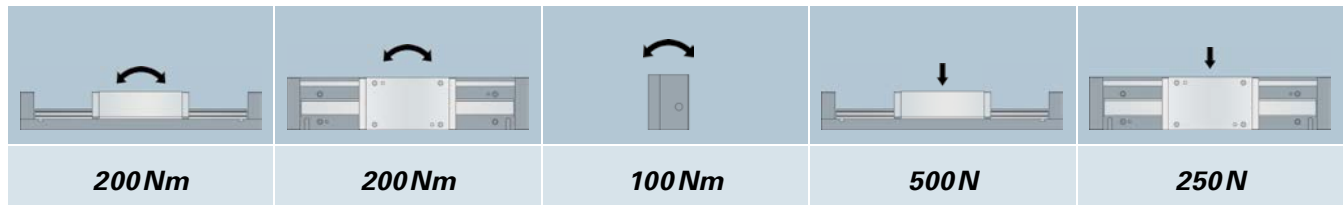


HG 25

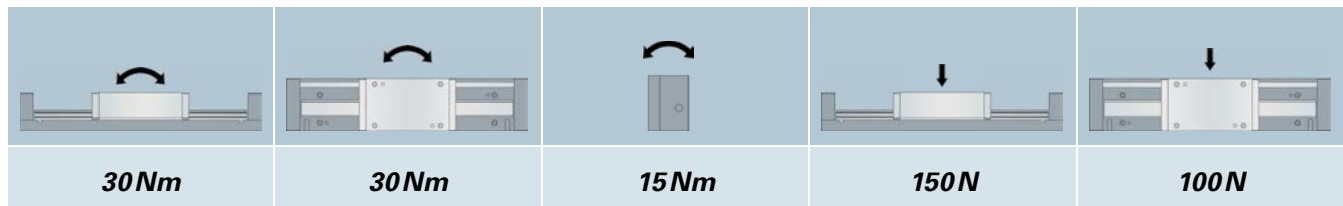
Technical data

Cont. force (N)	65
Peak force(N)	200
Max. speed (m/s)	4
Max. acceleration (m/s²)	40
Max. load capacity (kg)	10
Max. DC-Voltage (VDC)	800
Cont. current (Arms)	2.4
Peak current (Arms)	6
System-accuracy (µm/m)	10 incremental (Sin/Cos 1Vss)
System-accuracy (µm/m)	5 absolute (BISS/C, SSI) up to 1 m
Repeatability (µm)	5 incremental (Sin/Cos 1Vss)
Repeatability (µm)	2 absolute (BISS/C, SSI) up to 1 m
Available stroke (mm)	up to 2000
Thermal sensor	PTC
Weight of rail, 0 stroke (kg)	2.24
Weight of rail/100mm (kg)	1.00
Weight of carriage (kg)	2.05

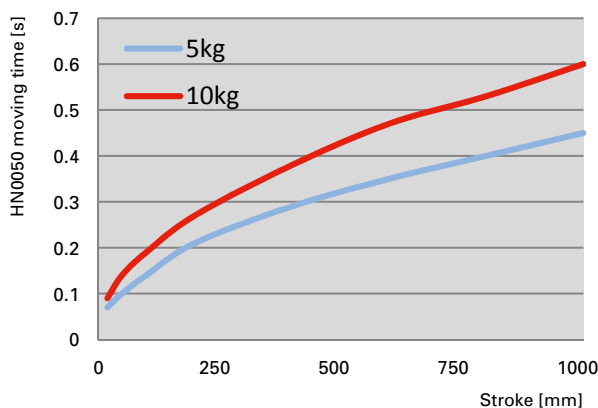
Static load



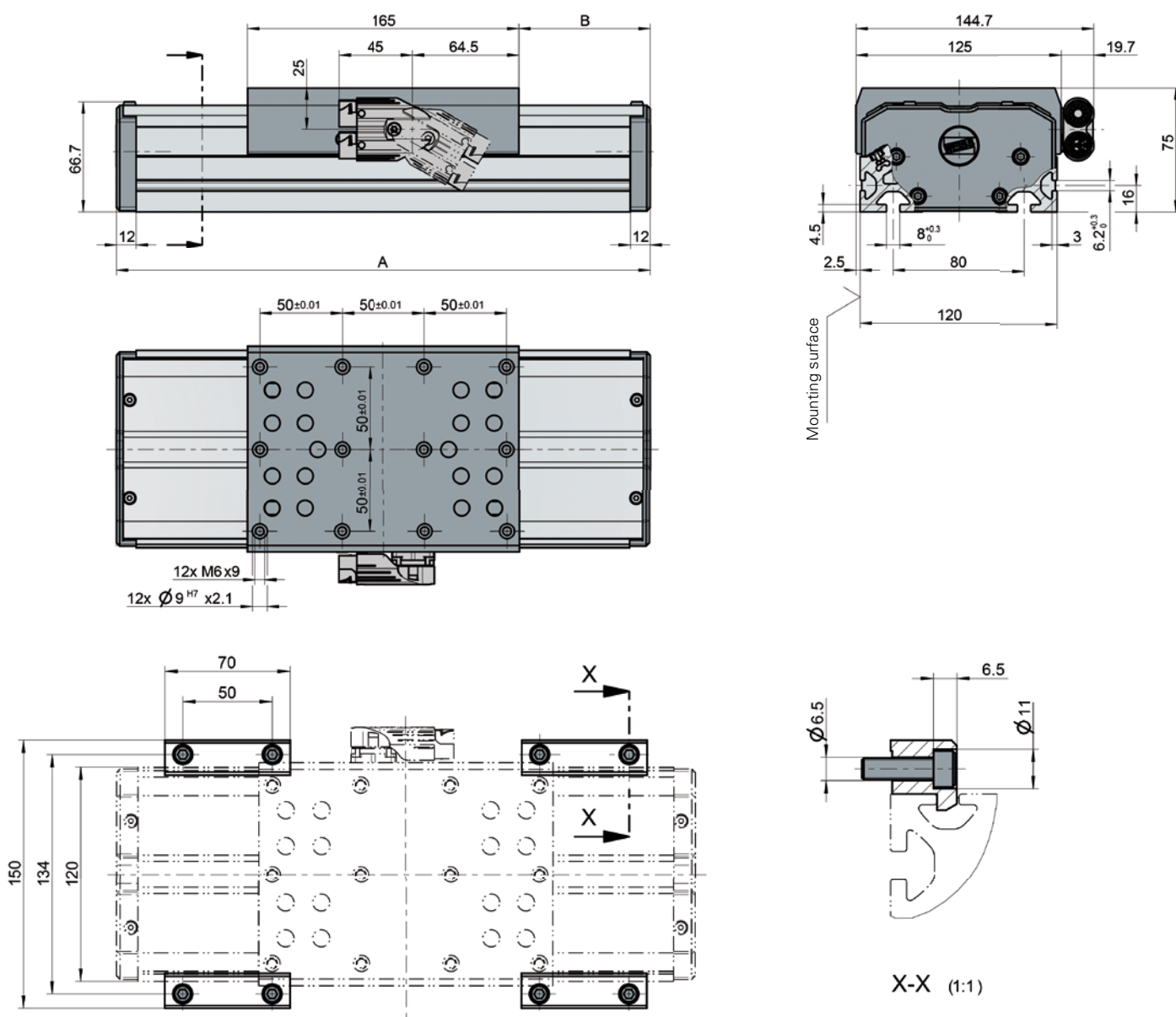
Dynamic load



Timing diagram



Dimensions HG 25



Standard-Strokes	A	B
100	324	79,5
200	424	129,5
300	524	179,5
400	624	229,5
500	724	279,5
600	824	329,5
700	924	379,5
800	1024	429,5
900	1124	479,5
1000	1224	529,5

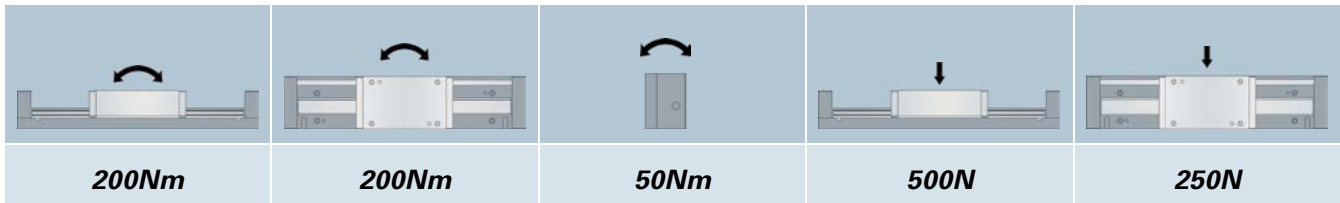
HN 50

Technical data

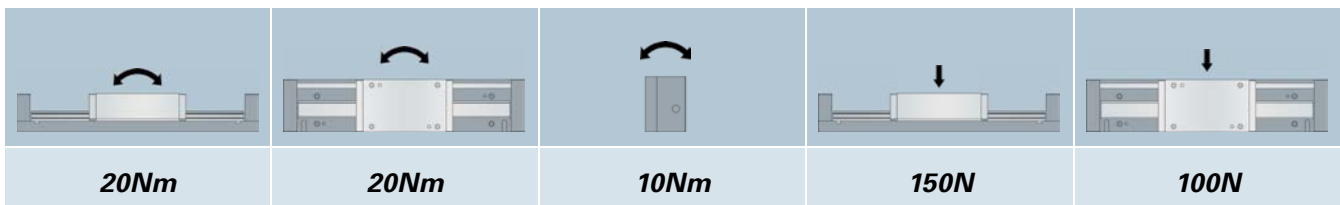


Cont. force (N)	65	
Peak force(N)	180	
Max. speed (m/s)	4	
Max. acceleration (m/s²)	40	
Max. load capacity (kg)	15	
Max. DC-Voltage (VDC)	800	
Cont. current (Arms)	2.4	
Peak current (Arms)	6	
System-accuracy (µm/m)	10	incremental (Sin/Cos 1Vss)
System-accuracy (µm/m)	5	absolute (BISS/C, SSI) up to 1 m
Repeatability (µm)	5	incremental (Sin/Cos 1Vss)
Repeatability (µm)	2	absolute (BISS/C, SSI) up to 1 m
Available stroke (mm)	bis zu 2000	
Thermal sensor	PTC	
Weight	Steel base	Alu base
Weight of rail, 0 stroke (kg)	6.00	2.51
Weight of rail/100mm (kg)	1.82	0.83
Weight of carriage (kg)	2.20	2.20

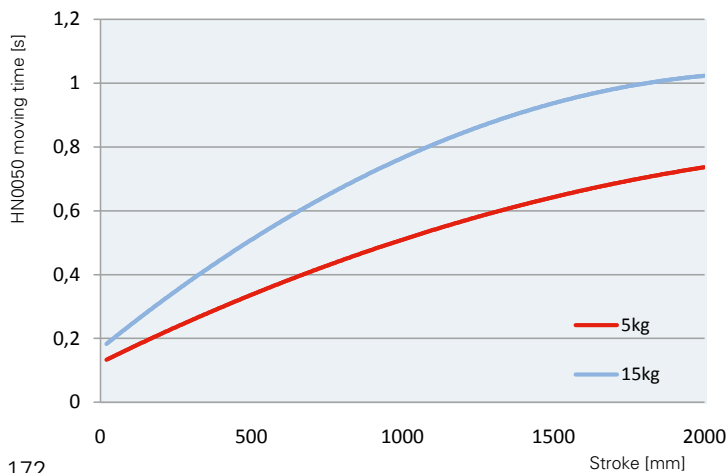
Static load



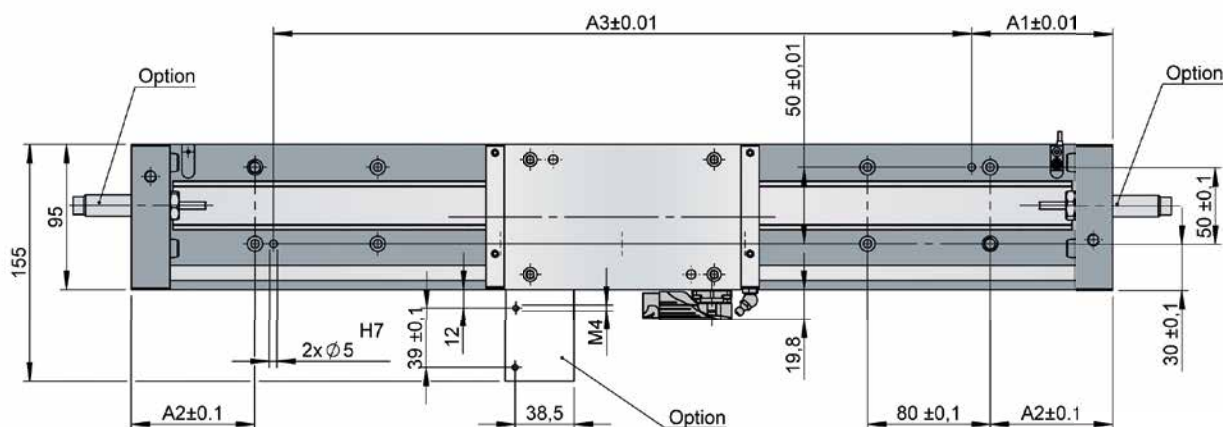
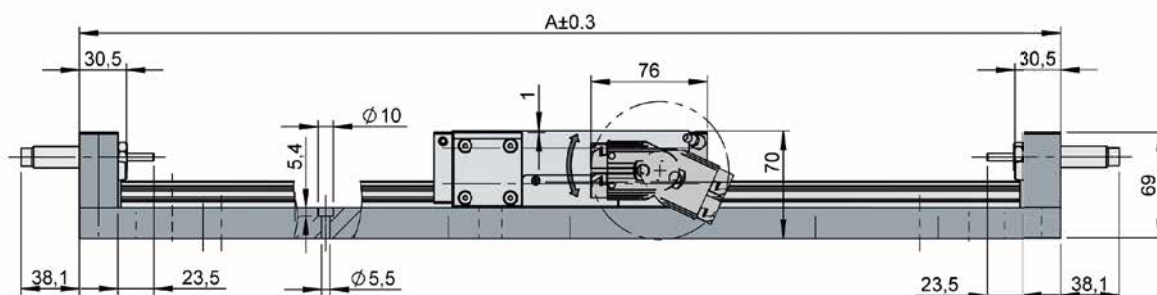
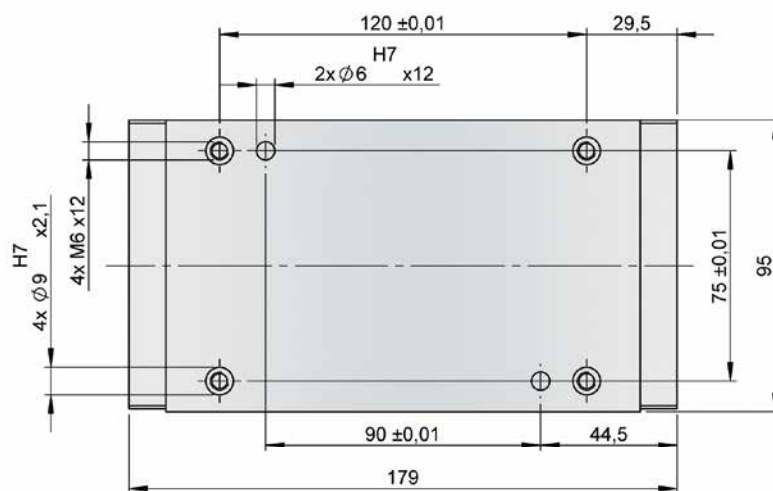
Dynamic load



Timing diagram



Dimensions HN 50



Standard-Stroke	A	A1	A2	A3
300	541	122.5	110.5	296
500	741	62.5	50.5	616
1000	1241	72.5	60.5	1096

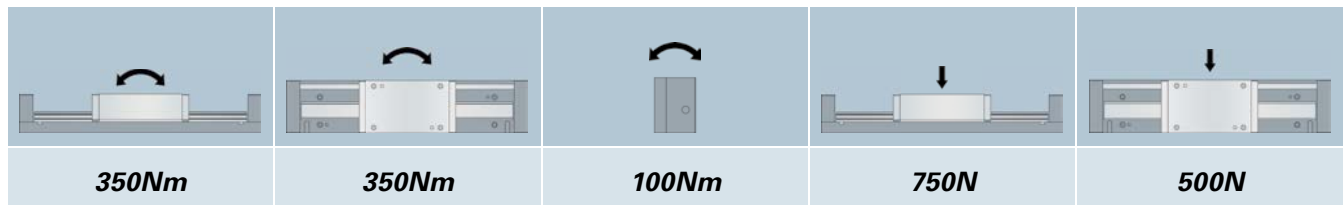
Intermediate strokes available in 100mm steps on request

HN 100

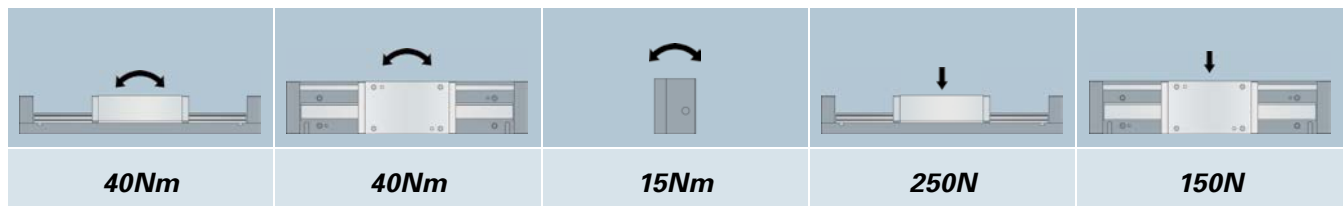
Technical data

Cont. force (N)	150	
Peak force(N)	380	
Max. speed (m/s)	4	
Max. acceleration (m/s²)	40	
Max. load capacity (kg)	25	
Max. DC-Voltage (VDC)	800	
Cont. current (Arms)	3.6	
Peak current (Arms)	9.5	
System-accuracy (µm/m)	10	incremental (Sin/Cos 1Vpp)
System-accuracy (µm/m)	5	absolute (BISS/C, SSI) up to 1 m
Repeatability (µm)	5	incremental (Sin/Cos 1Vpp)
Repeatability (µm)	2	absolute (BISS/C, SSI) up to 1 m
Available stroke (mm)	up to 4000	
Thermal sensor	PTC	
Weight	Steel base	Alu base
Weight of rail, 0 stroke (kg)	11.50	5.59
Weight of rail/100mm (kg)	2.99	1.61
Weight of carriage (kg)	4.70	4.70

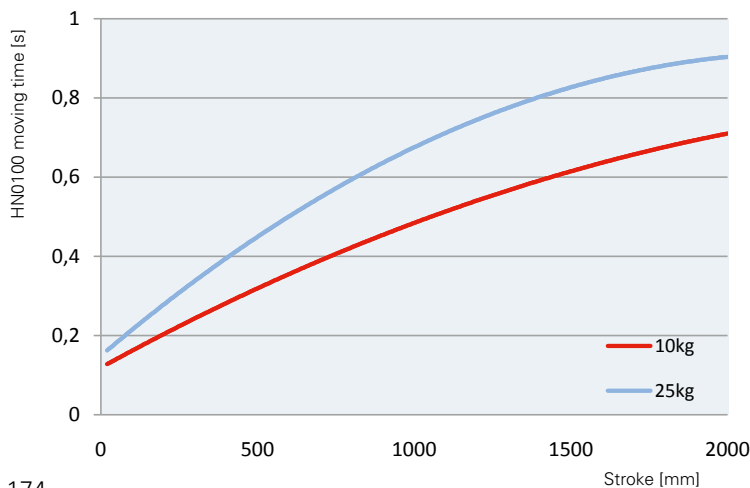
Static load



Dynamic load



Timing diagram

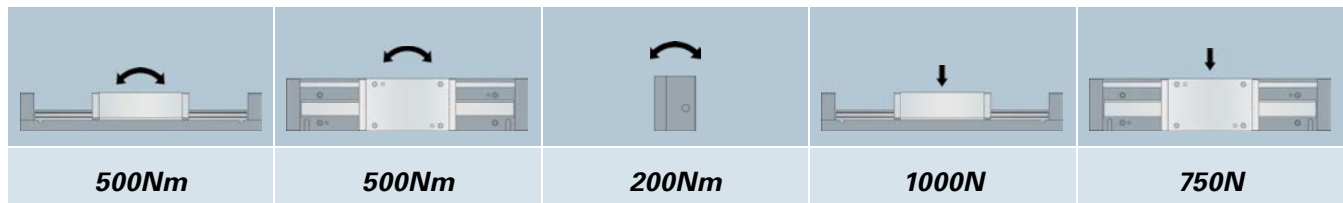


HN 200

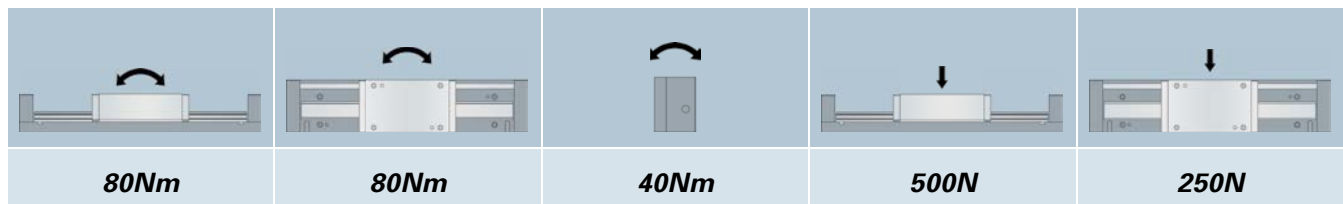
Technical data

Cont. force (N)	250	
Peak force(N)	700	
Max. speed (m/s)	4	
Max. acceleration (m/s²)	40	
Max. load capacity (kg)	50	
Max. DC-Voltage (VDC)	800	
Cont. current (Arms)	4.5	
Peak curren (Arms)	11.2	
System-accuracy (µm/m)	10	incremental (Sin/Cos 1Vpp)
System-accuracy (µm/m)	5	absolute (BISS/C, SSI) up to 1 m
Repeatability (µm)	5	incremental (Sin/Cos 1Vpp)
Repeatability (µm)	2	absolute (BISS/C, SSI) up to 1 m
Available stroke (mm)	up to 4000	
Thermal sensor	PTC	
Weight	Steel base	Alu base
Weight of rail, 0 stroke (kg)	20.42	9.59
Weight of rail/100mm (kg)	4.33	2.22
Weight of carriage (kg)	8.10	8.10

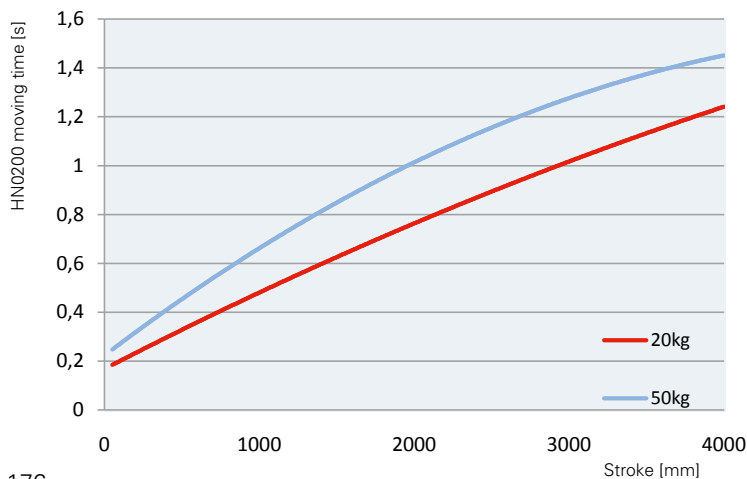
Static load



Dynamic load



Timing diagram

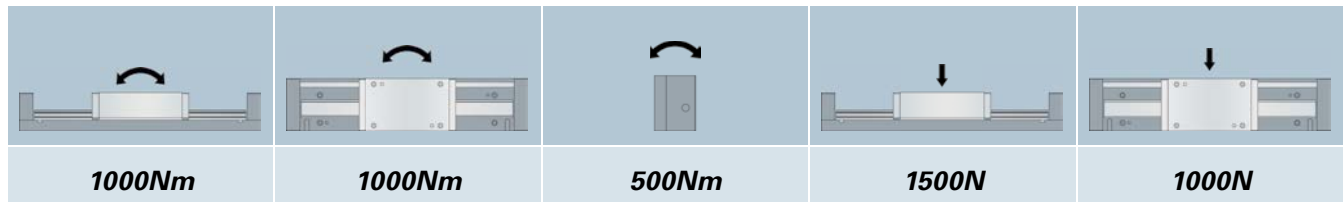


HN 400

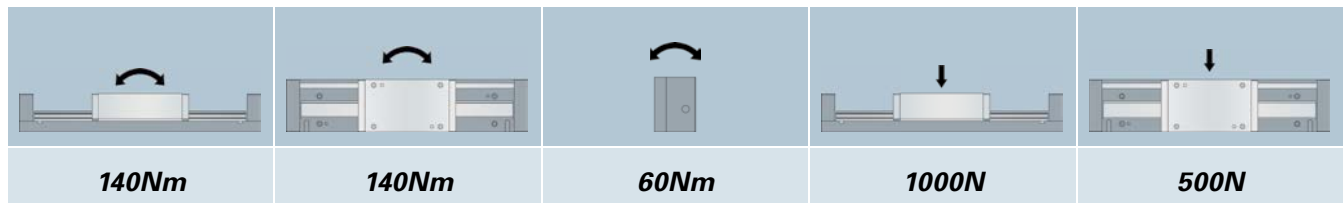
Technical data

Cont. force (N)	500	
Peak force(N)	1400	
Max. speed (m/s)	4	
Max. acceleration (m/s²)	40	
Max. load capacity (kg)	100	
Max. DC-Voltage (VDC)	800	
Cont. current (Arms)	7	
Peak curren (Arms)	18	
System-accuracy (µm/m)	10	incremental (Sin/Cos 1Vpp)
System-accuracy (µm/m)	5	absolute (BISS/C, SSI) up to 1 m
Repeatability (µm)	5	incremental (Sin/Cos 1Vpp)
Repeatability (µm)	2	absolute (BISS/C, SSI) up to 1 m
Available stroke (mm)	up to 4000	
Thermal sensor	PTC	
Weight	Steel base	Alu base
Weight of rail, 0 stroke (kg)	31.36	15.11
Weight of rail/100mm (kg)	5.52	2.90
Weight of carriage (kg)	13.40	13.40

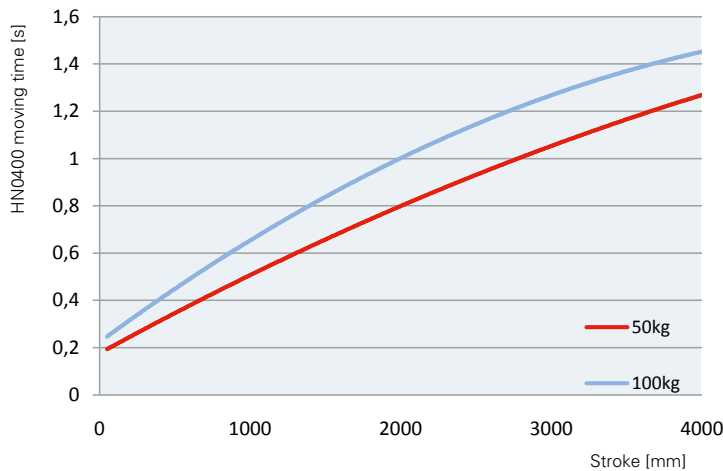
Static load



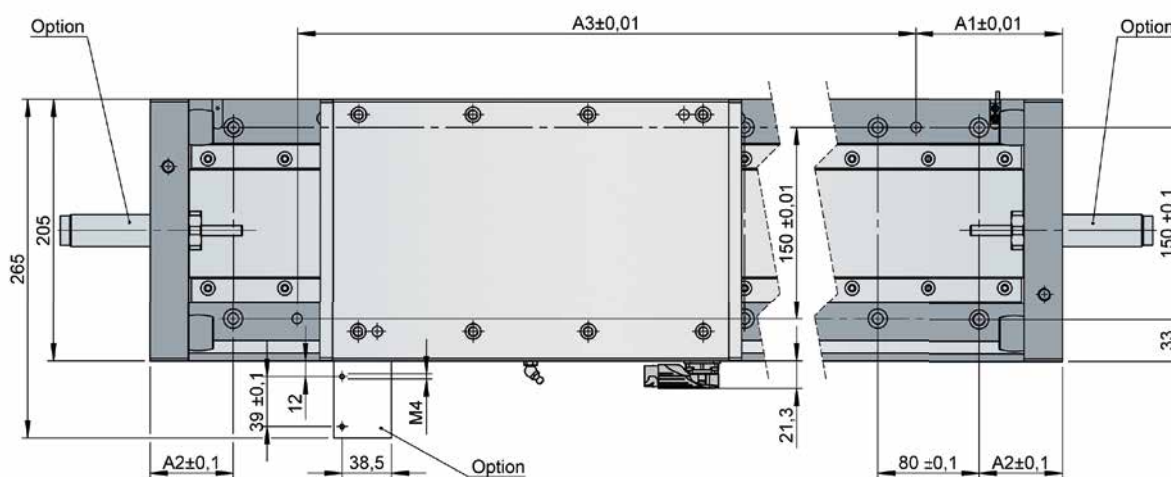
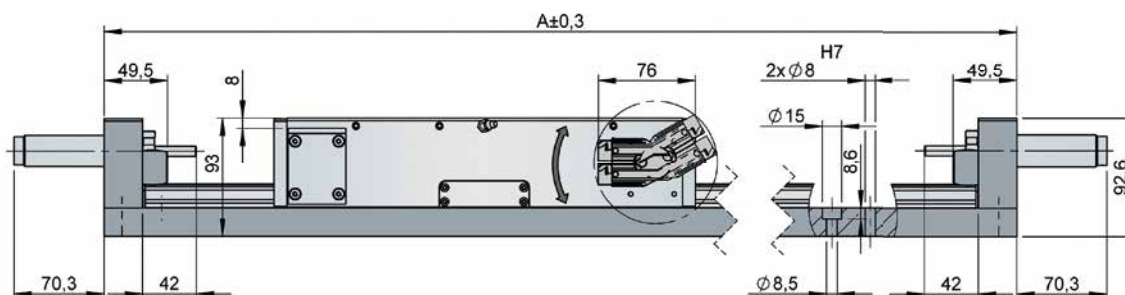
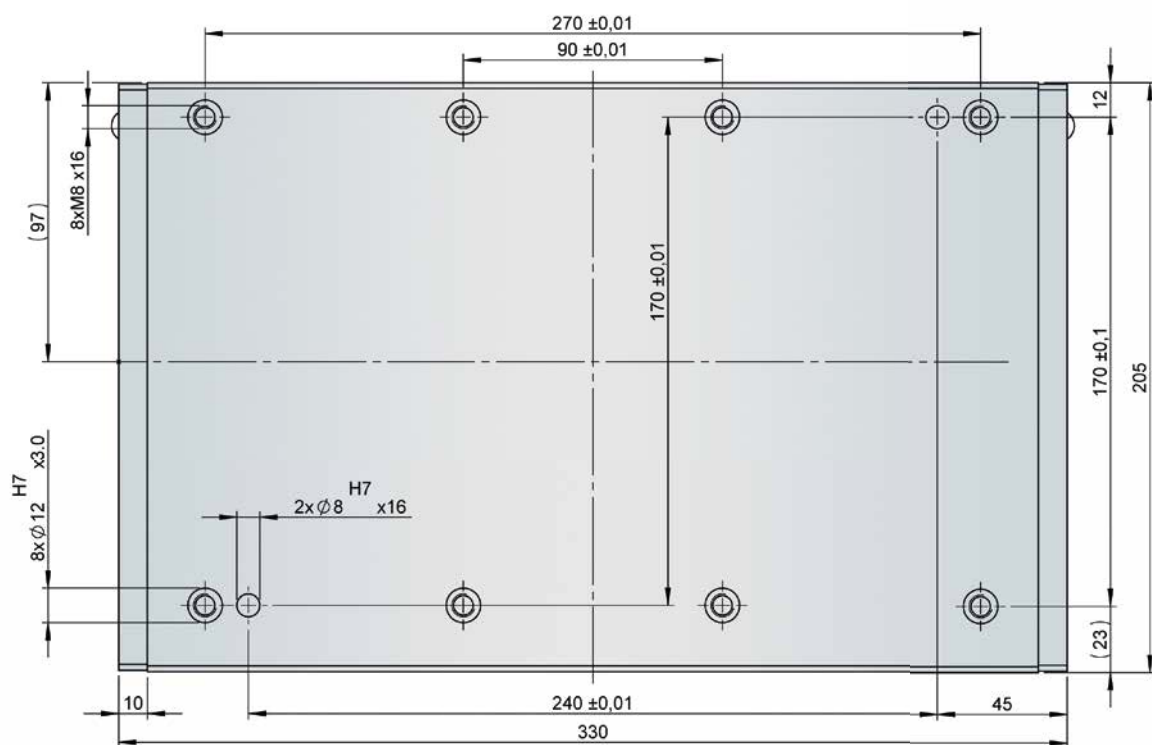
Dynamic load



Timing diagram



Dimensions HN 400



Standard-stroke	A	A1	A2	A3
500	930	115	65	700
1000	1430	115	75	1200
1500	1930	115	85	1700
2000	2430	115	95	2200

Intermediate strokes available in 100mm steps on request

WAS – WEISS Application Software

In addition to the basic functions of the start up, WAS – WEISS Application Software also gives you easy access to the teaching of positions and programming of motion-sequences. Your Windows-PC will be connected through RS232 or Ethernet with our drive.

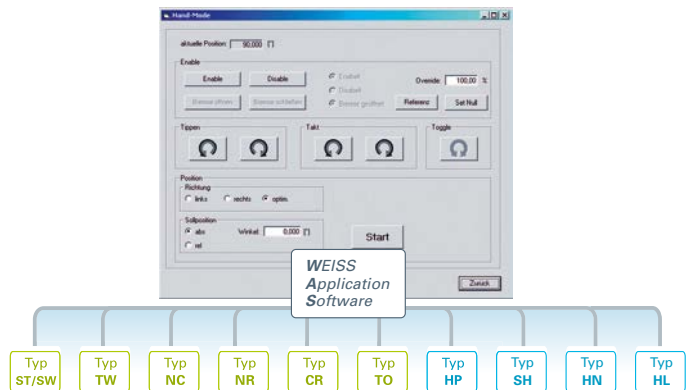
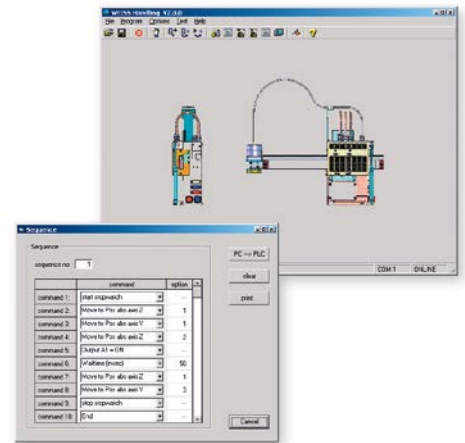


Communication

- Profibus-DP
- Digital I/O
- Free ASCII protocol
- Ethernet
- DeviceNet-CAN
- EtherNet/IP
- Modbus TCP
- CAN

Software

- All positions and speeds are user programmable
- Up to 128 teaching positions
- Up to 32 programs can be stored
- Ability to force inputs and outputs (e.g. for initial start-up)
- Software cam-functions can be defined



Machine Layout linear axis HG/HN

Enquiry Enclosure with order

Dear customer,

Thank you for your interest in our handling units. To ensure optimum design of the system for your specific requirements, please answer the following questions:

Single axis

Number of HN axes: _____



Stroke: _____ mm

Number of HG axes: _____



Stroke: _____ mm

Number of HL axes: _____



Stroke: _____ mm

- Without brake (hor.)
 brake (vertical)
 2 brakes (vertical)

Axis system

No. of HP handling units: _____



Y stroke: _____ mm

Z stroke: _____ mm

No. of linear gantries: _____



X stroke: _____ mm

Z stroke: _____ mm

No. of cross-tables: _____



X stroke: _____ mm

Y stroke: _____ mm

No. of 3-axis handling units: _____



X stroke: _____ mm

Y stroke: _____ mm

Z stroke: _____ mm

No. of gantry handling units: _____



X stroke: _____ mm

Y stroke: _____ mm

Z stroke: _____ mm

No. of 3-axis handling units: _____



X stroke: _____ mm

Y stroke: _____ mm

Z stroke: _____ mm

Cycle calculation

Payload: _____ kg

	Axis				Stroke	Time
	X	Y	U	A		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Accessories

Measuring system incremental absolute (up to 1000mm stroke)

Lubrication automatic manual

Accessories for the HP

1 pneumatic valve 2 pneumatic valves

Tool Connector with brake (HP70)

For technical enquiries

Company: _____

Name: _____

Country: _____

Desired delivery date: _____

Phone: _____ Fax: _____

email: _____

Electrical components

WEISS control package

Amplifier, WAS software

Cable lengths: 5m 10m 15m 20m 25m

Interface to customer PLC

Ethernet

Profibus-DP*

digital I/O

CAN bus

free ASCII protocol

DeviceNet-CAN (Rockwell)

EtherNet/IP (Rockwell)

Modbus TCP (Telemecanique)

Supply voltage

1 or 3 x 208 ... 230V ~ 50/60Hz

3 x 400 to 480 V ~ 50/60 Hz (larger installation dimensions)

Disclaimer

The WEISS product catalogue has been compiled with the greatest of care. Nonetheless, the details given are only for non-binding general information and do not replace in-depth individual consulting for a purchase decision. WEISS GmbH assumes no liability for the correctness, completeness, quality of the information provided nor that it is up to date. Liability for material defects and deficiencies in title pertaining to the information, in particular for its correctness, freedom from third-party intellectual property rights, completeness and usability is excluded – except in cases of intent or fraud. WEISS GmbH shall be freed from all other liability, unless it is mandatorily liable pursuant to the German Product Liability Law for intentional or fraudulent action or for a breach of significant contractual duties. Liability due to a breach of significant contractual duties is restricted to typical, foreseeable damages – except in cases of intent or gross negligence.

Copyright

© WEISS GmbH, Buchen, Germany. All rights reserved. All content such as texts, images and graphics, as well as arrangements thereof, are subject to protection by copyright and other laws on the protection of intellectual property. Content of this catalogue may not be copied, distributed or changed for commercial purposes. Some content is further subject to third-party copyright. The intellectual property is protected by various laws such as the industrial property rights, trademark rights, and copyright of WEISS GmbH.

📍 Headquarter ● Subsidiaries ● Representatives

