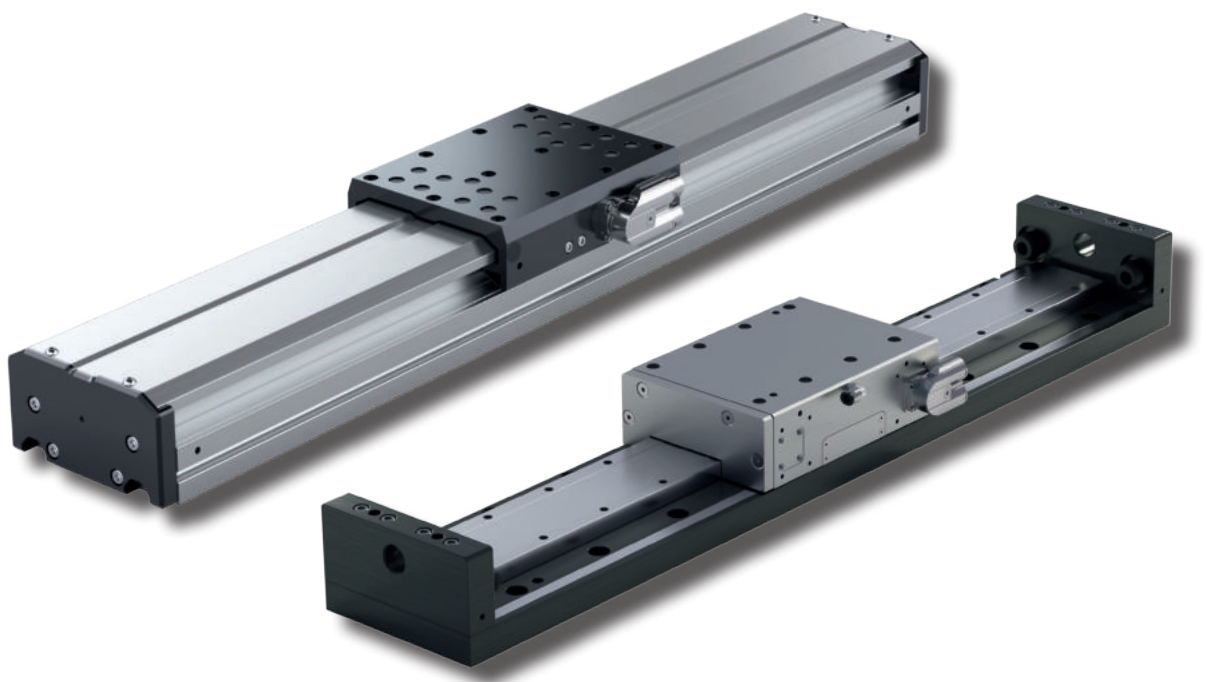


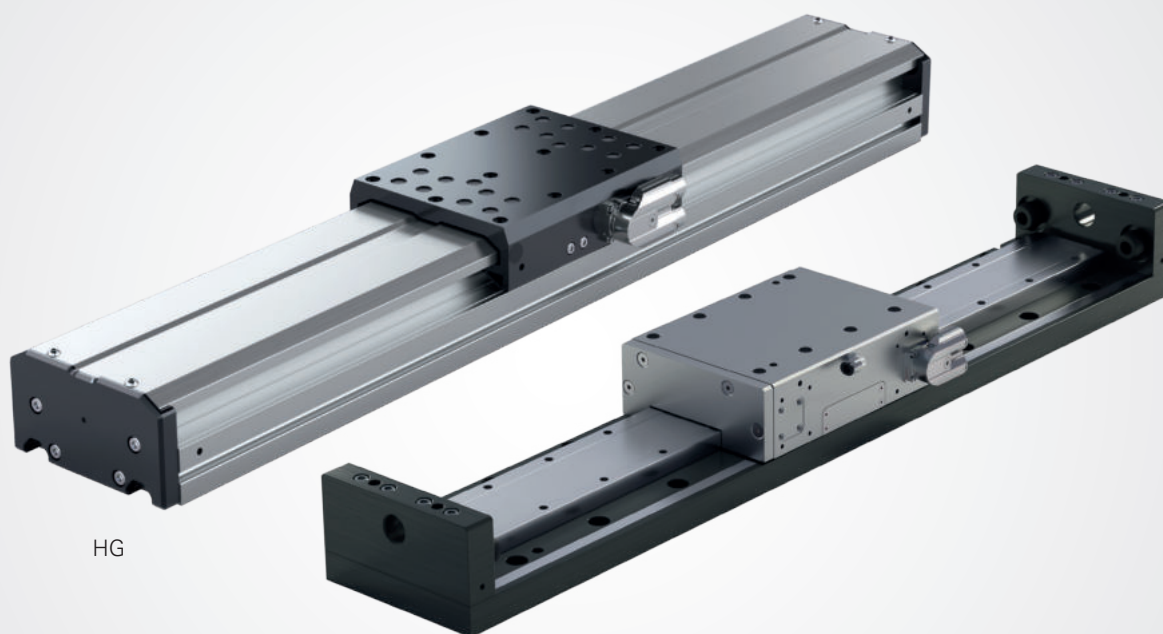


LINEAR AXIS HN & HG



HG/HN

LINEAR MOTOR AXES | HG/HN LINEAR AXIS



HG

HN

HG/HN LINEAR MOTOR AXES

CERTIFICATION AS UL RECOGNIZED COMPONENT

The WEISS linear motor axes are optionally available in the "UL Recognized" version.

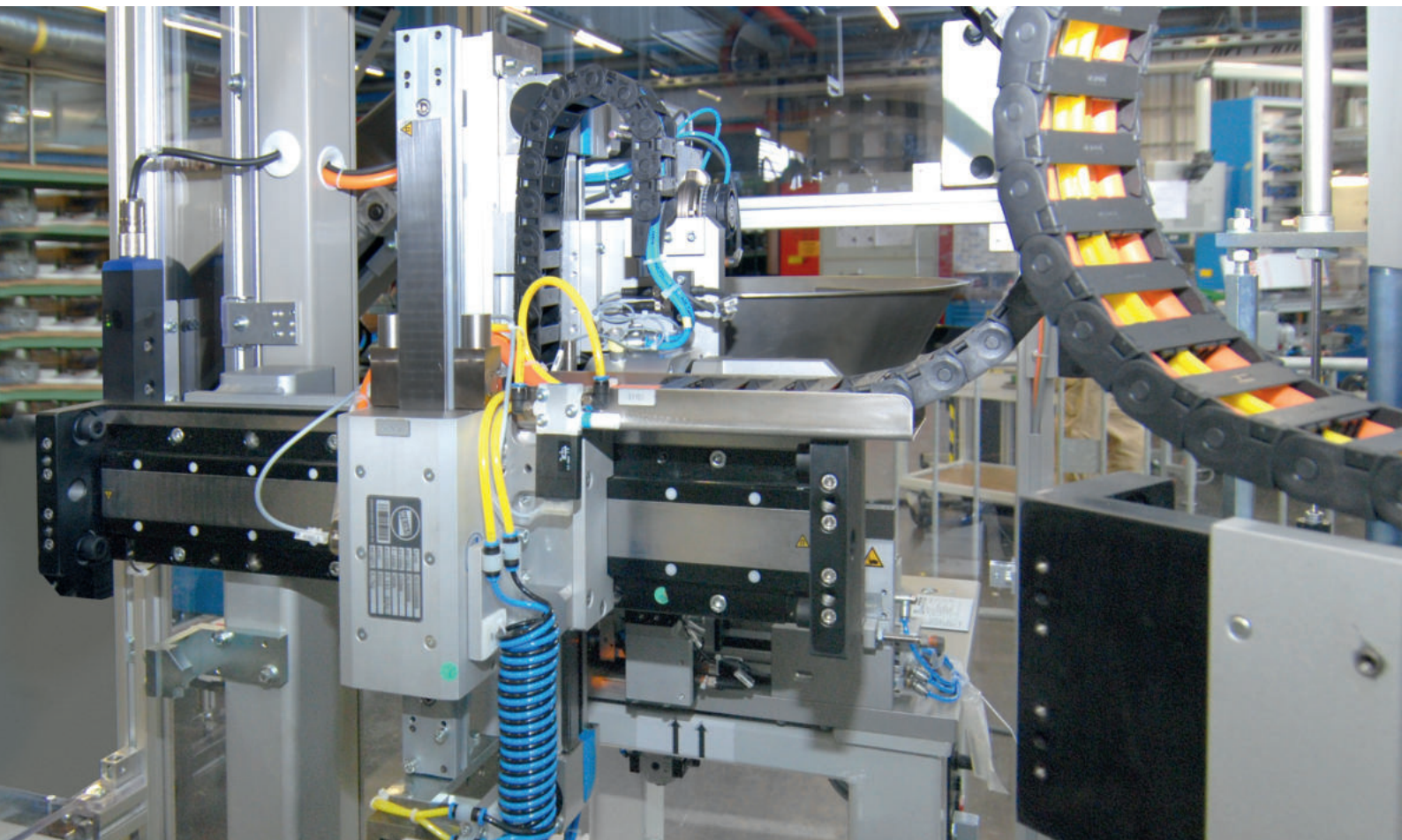


FREELY AND INTUITIVELY PROGRAMMABLE

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 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 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.

ADVANTAGES

- Freely positionable
- Extremely high dynamic performance thanks to direct drive
- Low maintenance costs
- 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

GENERAL INFORMATION

- The HG model range comes with lifetime lubrication, making maintenance intervals a thing of the past.
- All motors are equipped with overtemperature protection (PTC)
- The installation location of the linear axes can be freely chosen
- Standard with safe encoder mounting (functional safety)

OPTIONS

- The HN linear axes can be equipped with manual or automatic lubrication
- Multiple carriages on a single axis
- Absolute measuring systems
- Optionally as "UL Recognized" version

HG 12A

TECHNICAL DATA

| | | |
|----------------------------|---|-----------------------------|
| U | Voltage range: | 200-480 V _{AC rms} |
| a_{Max} | Max. acceleration: | 40 m/s ² |
| v_{Max} | Max. speed: | 4 m/s |
| F_{N mot} | Nominal force: | 33 N |
| F_{P mot} | Peak force: | 102 N |
| I_P | Peak current: | 2 A |
| | Temperature monitoring: | PTC |
| s_{Max} | Max. stroke: | bis 1000 mm in 100 mm |
| | Repeat accuracy: | 0.005 mm* |
| m_{rec} | Max. recommended load: | 5 kg |
| m_{gui 0} | Mass of the guide rail with 0 mm stroke: | 1.44 kg |
| m_{gui 100} | Mass of the guide rail per 100 mm stroke: | 0.72 kg |
| m_{carr} | Mass of the carriage with motor: | 1.45 kg |

* Depends on the application and environmental conditions.

LOAD DATA (static)

| | | |
|---------------------------|--------------------------------------|--------|
| M_{X stat} | Max. static moment about the X-axis: | 150 Nm |
| M_{Y stat} | Max. static moment about the Y-axis: | 40 Nm |
| M_{Z stat} | Max. static moment about the Z-axis: | 150 Nm |
| F_{X stat} | Max. static force in the X-axis: | 150 N |
| F_{Z stat} | Max. static force in the Z-axis: | 300 N |

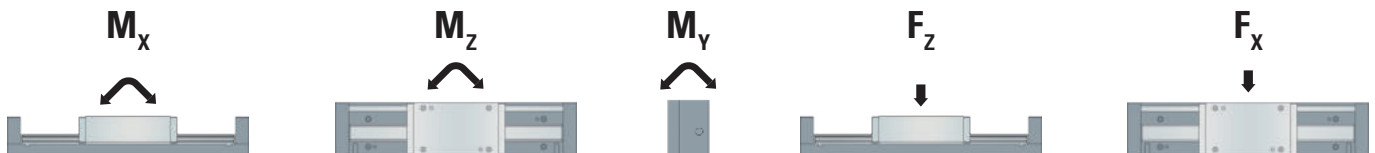
LOAD DATA (dynamic)

| | | |
|--------------------------|---------------------------------------|-------|
| M_{X dyn} | Max. dynamic moment about the X-axis: | 20 Nm |
| M_{Y dyn} | Max. dynamic moment about the Y-axis: | 8 Nm |
| M_{Z dyn} | Max. dynamic moment about the Z-axis: | 20 Nm |
| F_{X dyn} | Max. dynamic force in the X-axis: | 100 N |
| F_{Z dyn} | Max. dynamic force in the Z-axis: | 150 N |

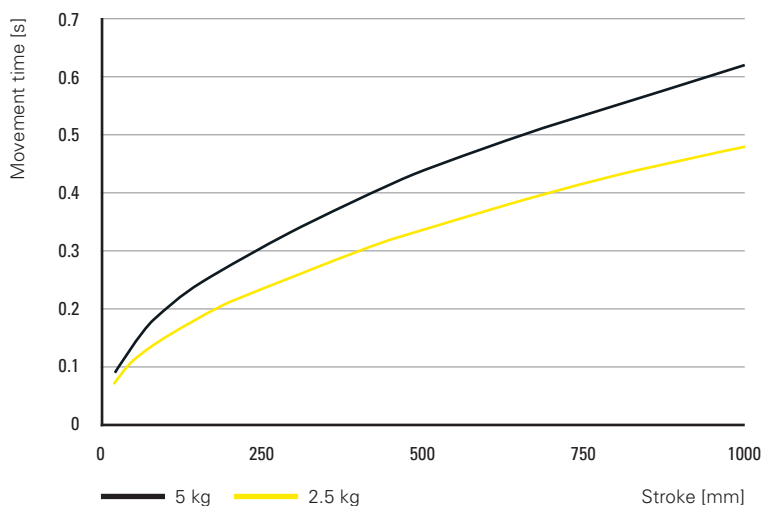
ENCODER

| | |
|---------|---------|
| Balluff | sin/cos |
| Balluff | BISS |
| Balluff | SSI |

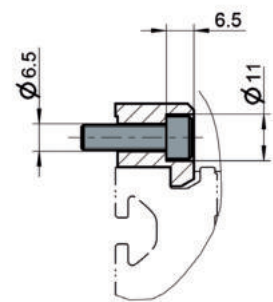
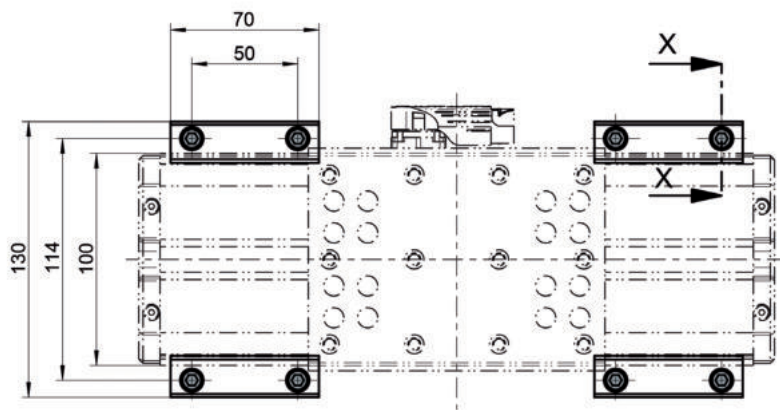
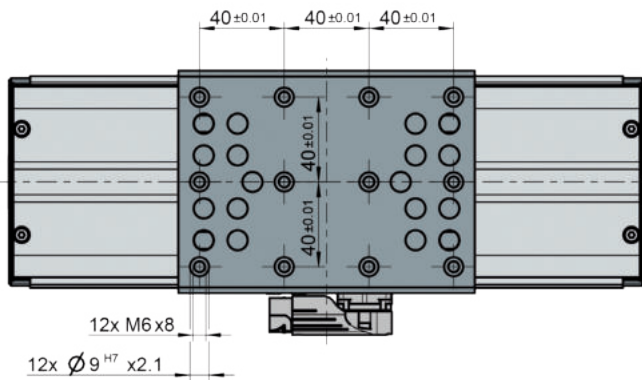
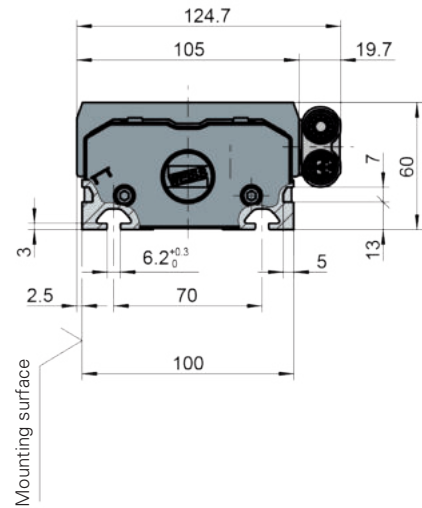
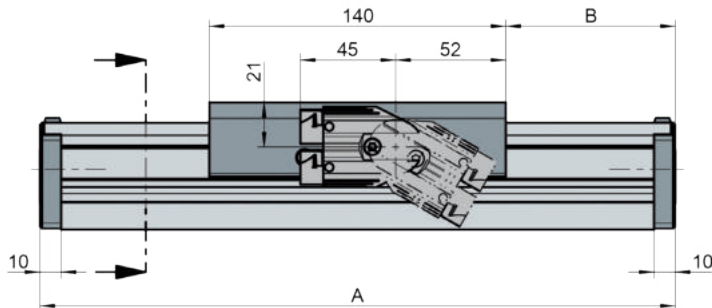
LOAD DATA



TIMING DIAGRAM



DIMENSIONS



X-X (1:1)

| Standardhöhe | A |
|--------------|-------------|
| 100 | 300 |
| 200 | 400 |
| 300 | 500 |
| 400 | 600 |
| 500 | 700 |
| 600 | 800 |
| 700 | 900 |
| 800 | 1000 |
| 900 | 1100 |
| 1000 | 1200 |

Attention: Rubber buffers (30mm) are installed on both sides. However, the useful stroke remains unchanged.

HG 25A

TECHNICAL DATA

| | | |
|----------------------------|---|-----------------------------|
| U | Voltage range: | 200-480 V _{AC rms} |
| 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_P | Peak current: | 6 A |
| | Temperature monitoring: | PTC |
| s_{Max} | Max. stroke: | bis 1000 mm in 100 mm |
| | Repeat accuracy: | 0.005 mm* |
| m_{rec} | Max. recommended load: | 10 kg |
| m_{gui 0} | Mass of the guide rail with 0 mm stroke: | 2.24 kg |
| m_{gui 100} | Mass of the guide rail per 100 mm stroke: | 1 kg |
| m_{carr} | Mass of the carriage with motor: | 2.05 kg |

* Depends on the application and environmental conditions.

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: | 100 Nm |
| M_{Z stat} | Max. static moment about the Z-axis: | 200 Nm |
| F_{X stat} | Max. static force in the X-axis: | 250 N |
| F_{Z stat} | Max. static force in the Z-axis: | 500 N |

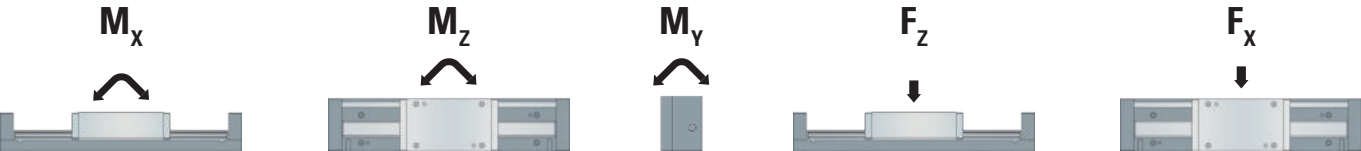
LOAD DATA (dynamic)

| | | |
|--------------------------|---------------------------------------|-------|
| M_{X dyn} | Max. dynamic moment about the X-axis: | 30 Nm |
| M_{Y dyn} | Max. dynamic moment about the Y-axis: | 15 Nm |
| M_{Z dyn} | Max. dynamic moment about the Z-axis: | 30 Nm |
| F_{X dyn} | Max. dynamic force in the X-axis: | 150 N |
| F_{Z dyn} | Max. dynamic force in the Z-axis: | 200 N |

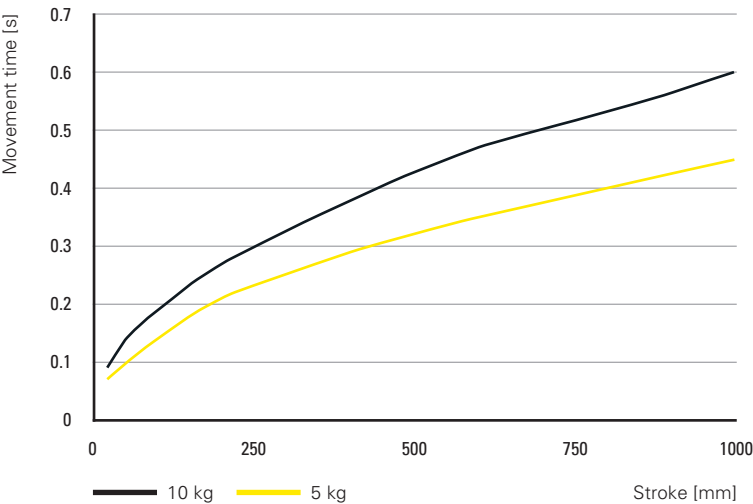
ENCODER

| | |
|---------|---------|
| Balluff | sin/cos |
| Balluff | BISS |
| Balluff | SSI |

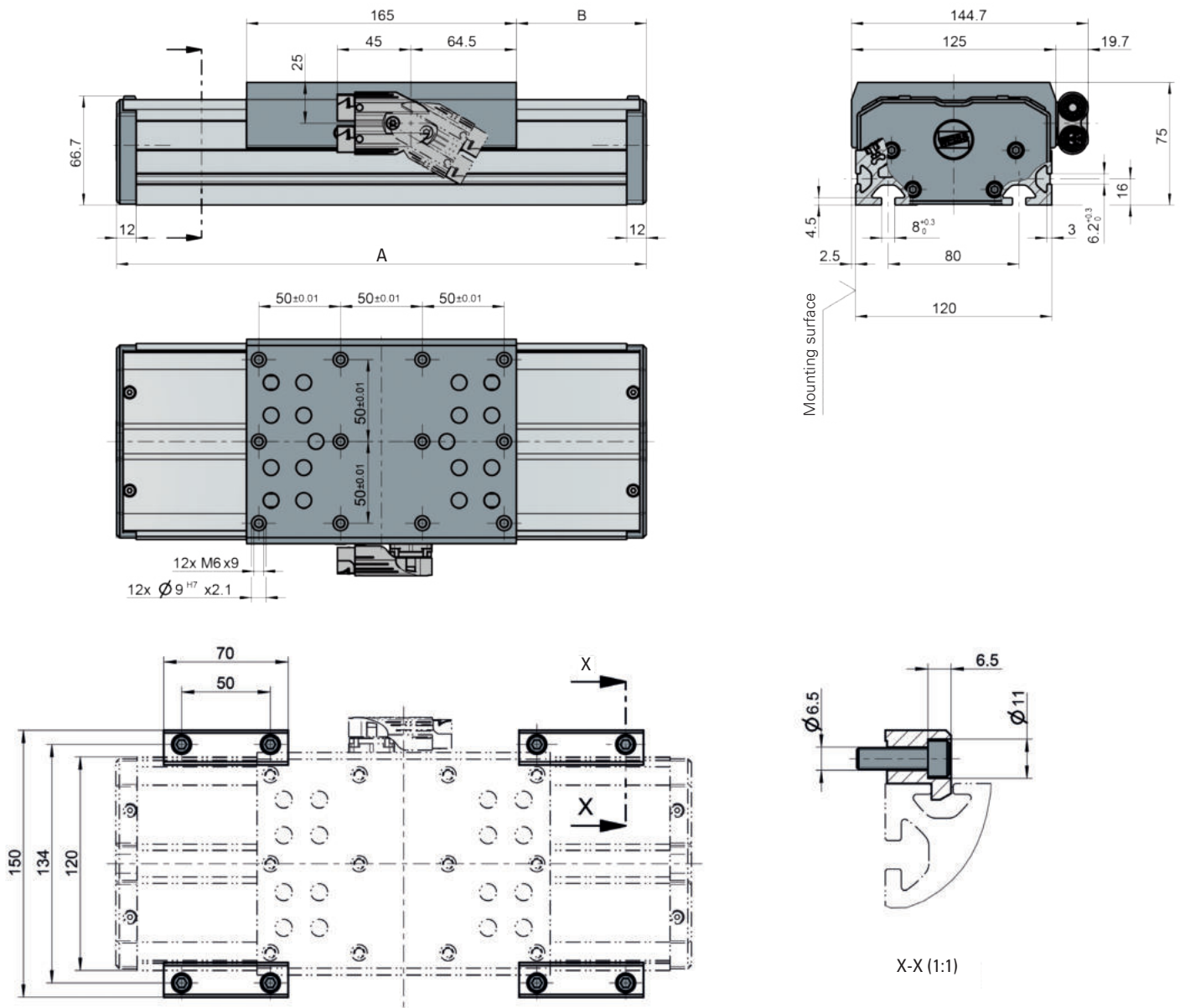
LOAD DATA



TIMING DIAGRAM



DIMENSIONS



| Standardhübe | A |
|--------------|-------------|
| 100 | 324 |
| 200 | 424 |
| 300 | 524 |
| 400 | 624 |
| 500 | 724 |
| 600 | 824 |
| 700 | 924 |
| 800 | 1024 |
| 900 | 1124 |
| 1000 | 1224 |

Attention: Rubber buffers (30mm) are installed on both sides. However, the useful stroke remains unchanged.

STANDARD FEATURES: COVER, SAFE ENCODER MOUNTING, LIFETIME LUBRICATION, BASE PLATE ALUMINIUM NATURAL AMODIZED, SINGLE SLIDE BLACK ANODIZED, CENTERING SLEEVES INCLUDED, MOUNTING MATERIAL MUST BE ORDERED SEPARATELY

| | | | | |
|------------------|---|------|-----|--------|
| Attribute | Value | HG25 | 300 | BISS20 |
| Type | HG12 HG25 | | | |
| Stroke in mm | 100 bis 1000 in 100mm Schritten | | | |
| Measuring system | SIC01 = magnetic, incremental SSI20B = magnetic, absolute SSI 20Bit (Bosch) SSI20S = magnetic, absolute SSI 20Bit (Siemens) BISS20 = magnetic, absolute BiSS 20Bit (B&R) | | | |

HN 100

TECHNICAL DATA

| | | |
|----------------------------|---|---|
| U | Voltage range: | 200-480 V _{AC rms} |
| 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_P | Peak current: | 9.5 A |
| s_{Max} | Max. stroke: | bis 1000 mm in 100 mm; > 1000 mm auf Anfrage |
| | Repeat accuracy: | 0.005 mm** |
| m_{rec} | Max. recommended load: | 25 kg |
| m_{gui 0} | Mass of the guide rail with 0 mm stroke: | 5.59 kg (Alu) |
| m_{gui 100} | Mass of the guide rail per 100 mm stroke: | 1.61 kg (Alu) |
| m_{carr} | Mass of the carriage with motor: | 4.7 kg (Alu) |

*In combination with W.A.S. 2 compact the maximum speed is 3 m/s.
** Depends on the application and environmental conditions.

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: | 350 Nm |
| F_{X stat} | Max. static force in the X-axis: | 500 N |
| F_{Z stat} | Max. static force in the Z-axis: | 750 N |

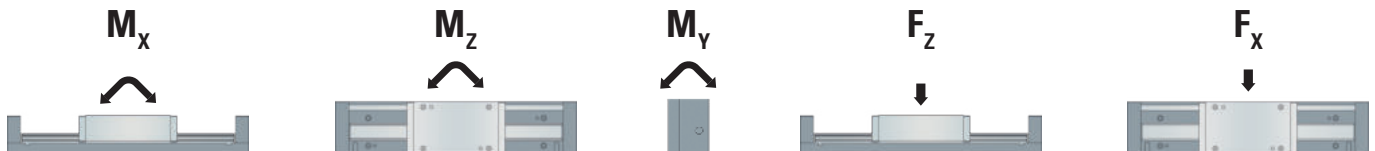
LOAD DATA (dynamic)

| | | |
|--------------------------|---------------------------------------|-------|
| M_{X dyn} | Max. dynamic moment about the X-axis: | 40 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: | 150 N |

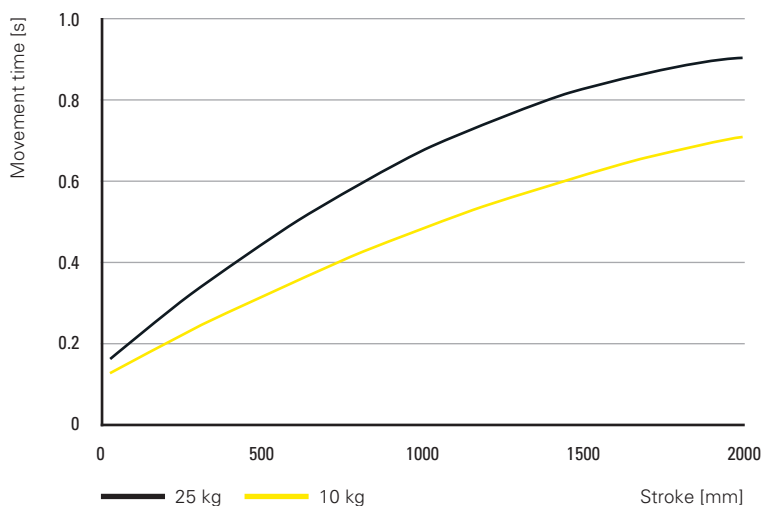
ENCODER

| | |
|---------|---------|
| Balluff | sin/cos |
| Balluff | BISS |
| Balluff | SSI |

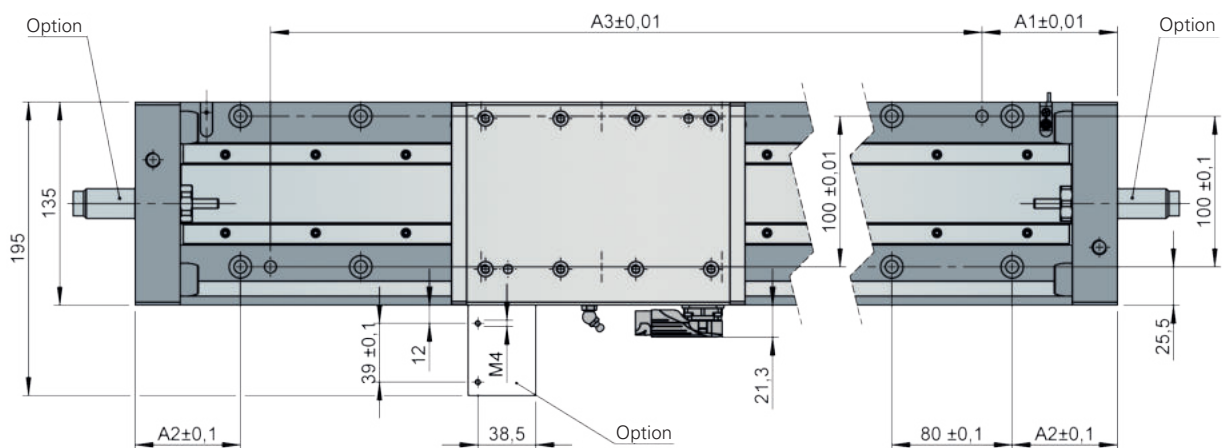
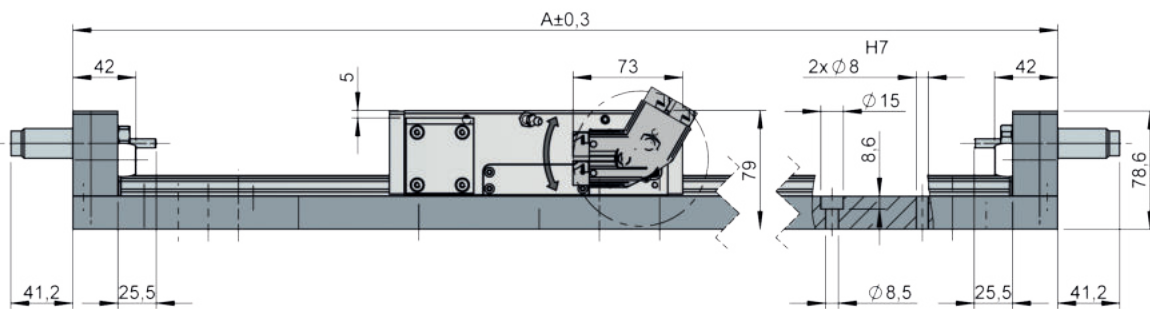
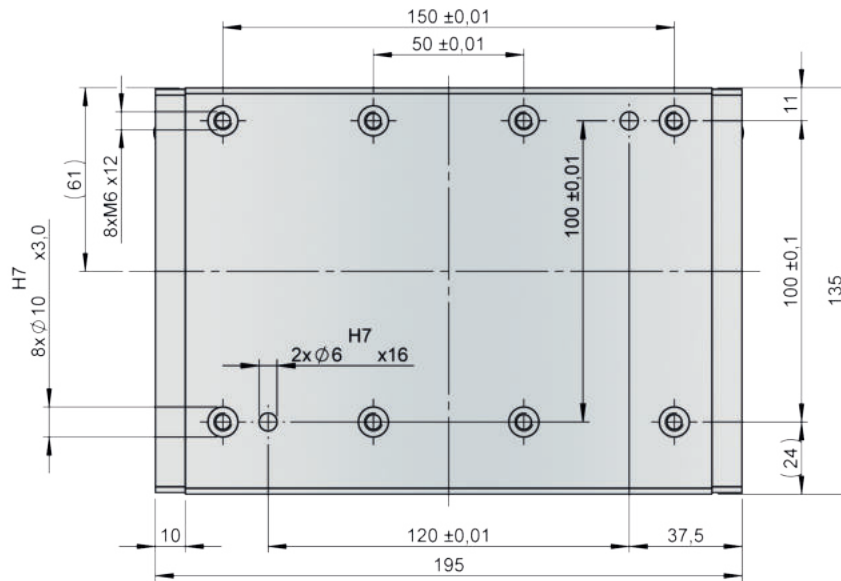
LOAD DATA



TIMING DIAGRAM



DIMENSIONS



| Standard strokes (Examples) | A | A1 | A2 | A3 |
|-----------------------------|------|-----|----|------|
| 500 | 780 | 90 | 70 | 600 |
| 1000 | 1280 | 140 | 80 | 1000 |

Strokes larger than 1000 mm and intermediate strokes in 100 mm increments available on request

HN 200

TECHNICAL DATA

| | | |
|----------------------------|---|---|
| U | Voltage range: | 200-480 V _{AC rms} |
| a_{Max} | Max. acceleration: | 40 m/s ² |
| v_{Max} | Max. speed: | 4 m/s |
| F_{N mot} | Nominal force: | 250 N |
| F_{P mot} | Peak force: | 700 N |
| I_P | Peak current: | 11.2 A |
| s_{Max} | Max. stroke: | bis 1000 mm in 100 mm; > 1000 mm auf Anfrage |
| | Repeat accuracy: | 0.005 mm |
| m_{rec} | Max. recommended load: | 50 kg |
| m_{gui 0} | Mass of the guide rail with 0 mm stroke: | 9.59 kg (Alu) |
| m_{gui 100} | Mass of the guide rail per 100 mm stroke: | 2.22 kg (Alu) |
| m_{carr} | Mass of the carriage with motor: | 8.1 kg (Alu) |

* Depends on the application and environmental conditions.

LOAD DATA (static)

| | | |
|---------------------------|--------------------------------------|--------|
| M_{X stat} | Max. static moment about the X-axis: | 500 Nm |
| M_{Y stat} | Max. static moment about the Y-axis: | 200 Nm |
| M_{Z stat} | Max. static moment about the Z-axis: | 500 Nm |
| F_{X stat} | Max. static force in the X-axis: | 750 N |
| F_{Z stat} | Max. static force in the Z-axis: | 1000 N |

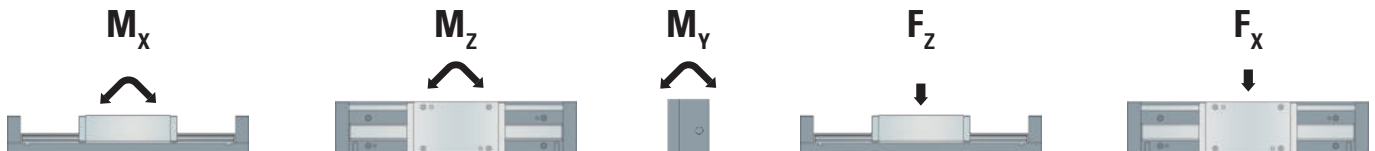
LOAD DATA (dynamic)

| | | |
|--------------------------|---------------------------------------|-------|
| M_{X dyn} | Max. dynamic moment about the X-axis: | 80 Nm |
| M_{Y dyn} | Max. dynamic moment about the Y-axis: | 40 Nm |
| M_{Z dyn} | Max. dynamic moment about the Z-axis: | 80 Nm |
| F_{X dyn} | Max. dynamic force in the X-axis: | 250 N |
| F_{Z dyn} | Max. dynamic force in the Z-axis: | 500 N |

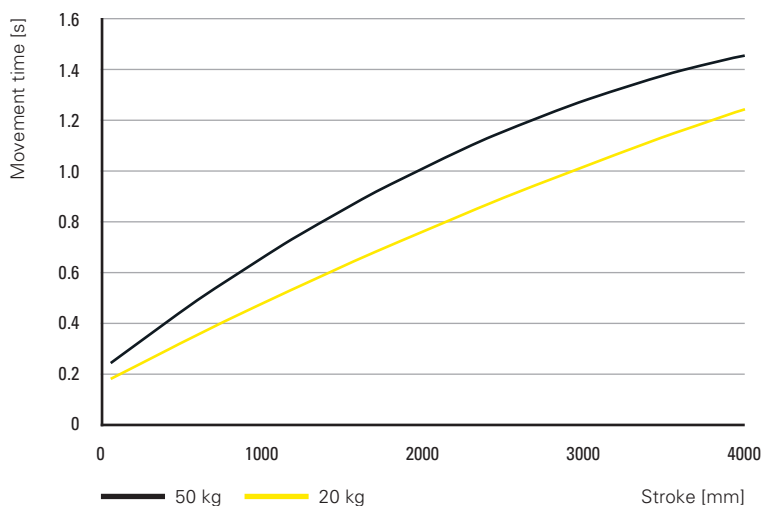
ENCODER

| | |
|---------|---------|
| Balluff | sin/cos |
| Balluff | BISS |
| Balluff | SSI |

LOAD DATA



TIMING DIAGRAM



HN 400

TECHNICAL DATA

| | | |
|----------------------------|---|---|
| U | Voltage range: | 200-480 V _{AC rms} |
| a_{Max} | Max. acceleration: | 40 m/s ² |
| v_{Max} | Max. speed: | 4 m/s |
| F_{N mot} | Nominal force: | 500 N |
| F_{P mot} | Peak force: | 1400 N |
| I_P | Peak current: | 18 A |
| s_{Max} | Max. stroke: | bis 1000 mm in 100 mm; > 1000 mm auf Anfrage |
| | Repeat accuracy: | 0.005 mm |
| m_{rec} | Max. recommended load: | 100 kg |
| m_{gui 0} | Mass of the guide rail with 0 mm stroke: | 15.11 kg (Alu) |
| m_{gui 100} | Mass of the guide rail per 100 mm stroke: | 2.9 kg (Alu) |
| m_{carr} | Mass of the carriage with motor: | 13.4 kg (Alu) |

* Depends on the application and environmental conditions.

LOAD DATA (static)

| | | |
|---------------------------|--------------------------------------|---------|
| M_{X stat} | Max. static moment about the X-axis: | 1000 Nm |
| M_{Y stat} | Max. static moment about the Y-axis: | 500 Nm |
| M_{Z stat} | Max. static moment about the Z-axis: | 1000 Nm |
| F_{X stat} | Max. static force in the X-axis: | 1000 N |
| F_{Z stat} | Max. static force in the Z-axis: | 1500 N |

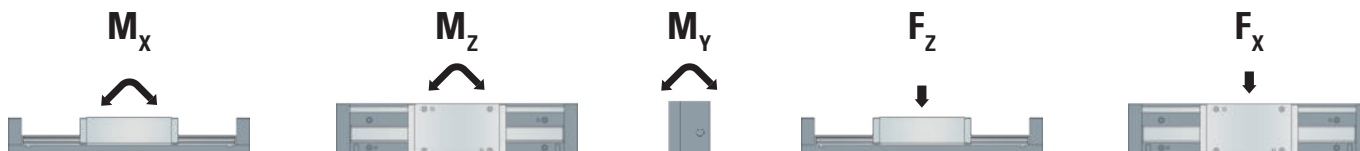
LOAD DATA (dynamic)

| | | |
|--------------------------|---------------------------------------|--------|
| M_{X dyn} | Max. dynamic moment about the X-axis: | 140 Nm |
| M_{Y dyn} | Max. dynamic moment about the Y-axis: | 60 Nm |
| M_{Z dyn} | Max. dynamic moment about the Z-axis: | 140 Nm |
| F_{X dyn} | Max. dynamic force in the X-axis: | 500 N |
| F_{Z dyn} | Max. dynamic force in the Z-axis: | 1000 N |

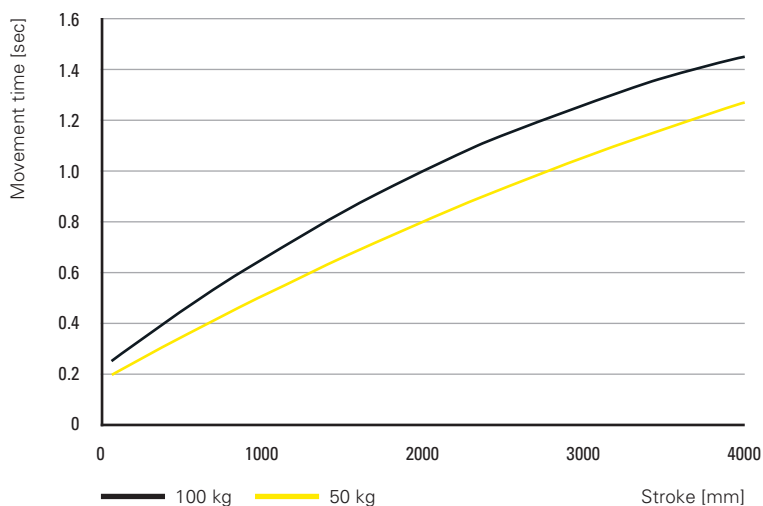
ENCODER

| | |
|---------|---------|
| Balluff | sin/cos |
| Balluff | BISS |
| Balluff | SSI |

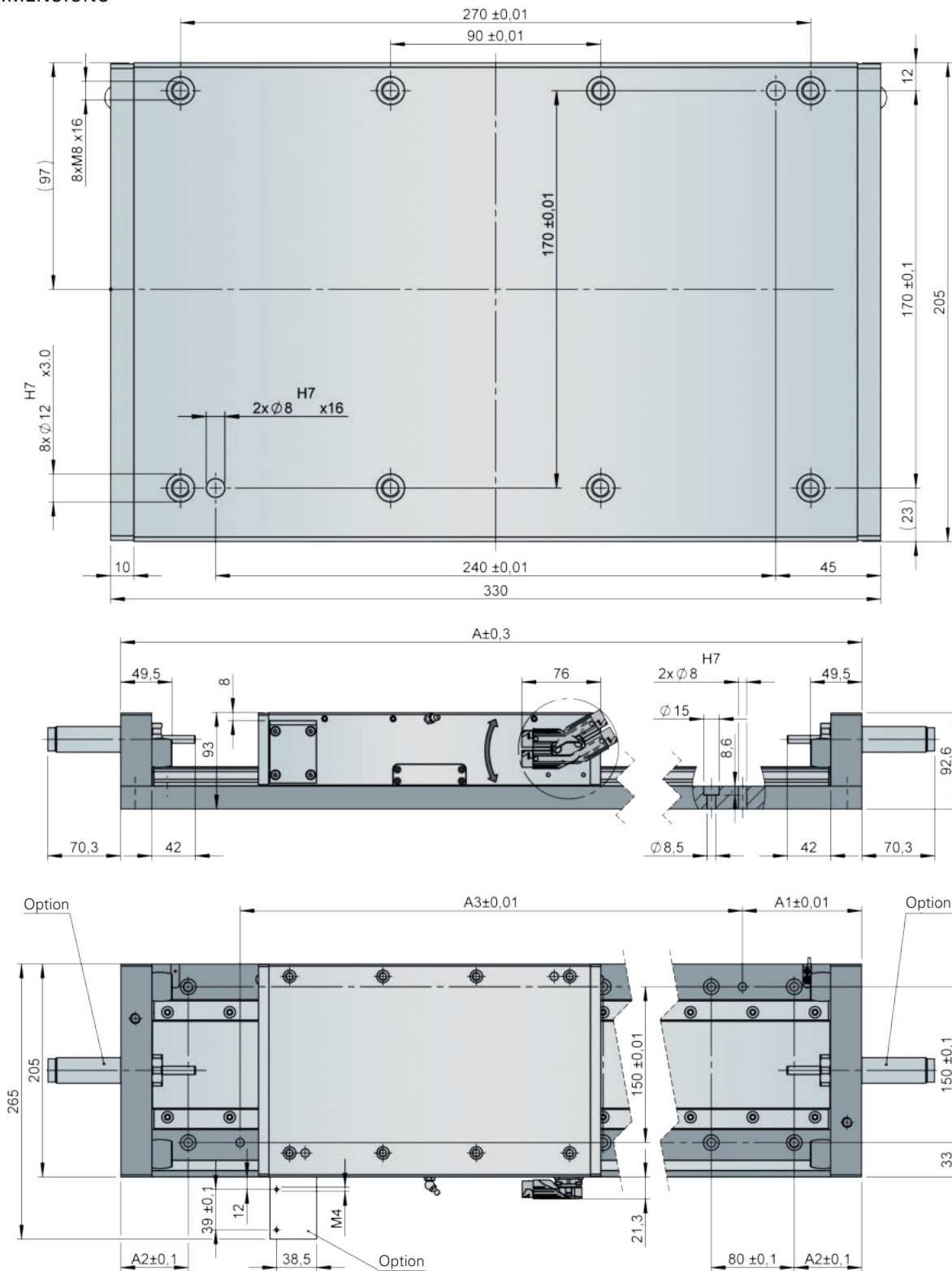
LOAD DATA



TIMING DIAGRAM



DIMENSIONS



| Standard strokes (Examples) | A | A1 | A2 | A3 |
|-----------------------------|------|-----|----|------|
| 500 | 930 | 115 | 65 | 700 |
| 1000 | 1430 | 115 | 75 | 1200 |

Strokes larger than 1000 mm and intermediate strokes in 100 mm increments available on request

STANDARD FEATURES: SAFE ENCODER MOUNTING, ALUMINIUM BASE PLATE, REFERENCE SWITCH ON THE RIGHT (ONLY FOR SIC01), SINGLE SLIDE, RUBBER END BUFFER, LUBRICATION CONNECTION FOR MANUAL LUBRICATION MOUNTED, PLUG-IN CONNECTION FOR AUTOMATIC LUBRICATION AND CENTERING SLEEVES ENCLOSED

| Attribute | Value | HN100 | 500 | SIC01 | PL |
|--------------------|---|-------|-----|-------|----|
| Type | HN100 HN200 HN400 | | | | |
| Stroke in mm | 100 to 2000 in 100mm steps | | | | |
| Measuring system | SIC01 = magnetic, inkremental SSI20B = magnetic, absolute SSI 20Bit (Bosch), up to stroke 1000 BISS20 = magnetic, absolute BiSS 20Bit (B&R), up to stroke 1000 SSI20S = magnetic, absolute SSI 20Bit (Siemens), up to stroke 1000 SSI23B = magnetic, absolute SSI 23Bit (Bosch), from stroke >1000 SSI23S = magnetic, absolute SSI 23Bit (Siemens), from stroke >1000 BISS32 = magnetic, absolute BiSS 32Bit (B&R), from stroke >1000 | | | | |
| Connector position | PL = connector left PR = connector right | | | | |



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