

ELECTRIC SLIDE SERIES ELEKTRO CS

Compact electric slide, equipped with a guideway and a ball-recirculating pad capable of withstanding high radial loads on the piston rod.

The slide in the ELEKTRO CS series features the same technical choices as those made in the ELEKTRO SSC series in terms of extreme compactness and pure design, including the wear-resistant aluminium body.

Driven by a hardened steel screw and recirculating ball screw nut, the stainless-steel piston rod is coupled, via a rigid aluminium structure, to a recirculating pad that runs along a guide rail integral with the main body. The coupling system prevents the piston rod from rotating.

A magnet is integral with the piston rod to ensure an end-stop signal, while two longitudinal slots are provided on the body to accommodate Square-type sensors.

For easy re-greasing of the screw and nut, the cylinder body comes with a special hole that is normally closed with a silencer (to ensure IP65 protection this hole must be directed to the outside).

The ELEKTRO CS series slide is available in either a standard profile version or a V-Lock interface version.

The electric motor can be either connected in-line with the slide or by means of a transmission system; in the latter case, three different configurations are available.

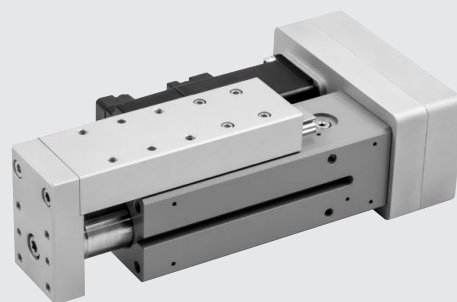
The motor can be selected from an optimised range comprising both STEPPING and BRUSHLESS motors.

Drives most suitable for motor control are also provided. When using motors of a make or model other than those offered in the catalogue, special flanges and couplings can be made and supplied on request.

in-line version



geared version



| TECHNICAL DATA | | Ø 32 |
|--|----|---|
| Environmental temperature range for STEPPING motors | °C | from -10 to +50 |
| BRUSHLESS motors | °C | from 0 to +40 |
| Electrical protection rating with STEPPING motors | | IP55 or IP65 (see key to codes on page A5.172) ** |
| BRUSHLESS motors | | IP65 (see key to codes on page A5.172) ** |
| Maximum relative humidity of the air for IP55 STEPPING motor | | 90% with 40°C; 57% with 50°C (no condensate) |
| IP65 BRUSHLESS motor | | 90% (no condensate) |
| Standard strokes (including 5 mm extra-stroke) for homing | mm | 55-80-100-125-150-200 |
| Positioning repeatability | mm | ±0.02 |
| Positioning accuracy | mm | ±0.2 * |
| Versions | | Ball screw In line or geared motor |
| Anti-rotation of the piston rod | | YES |
| Uncontrolled impact at the end of stroke | | NOT ALLOWED (for rear buffer ONLY) |
| Sensor magnet | | YES |
| Work position | | Any |
| Interface for fixing on carriage | | Standard / V-Lock |

* Indicative average data that gets influenced by various factors such as the type of motor, the cylinder version, etc ...

** Degree of protection guaranteed with greasing hole conveyed outside

MECHANICAL FEATURES

| | | | |
|--|------------------|------|------|
| Screw pitch (p) | mm | 4 | 10 |
| Screw diameter | mm | 12 | 12 |
| Static axial load (F _o) * | N | 2500 | 2500 |
| Dynamic axial load (F) ** | N | 2700 | 2700 |
| Maximum number of revs | 1/min | 3000 | 3000 |
| Maximum speed (V _{max}) | mm/s | 200 | 500 |
| "K" ratio of motor revs and piston rod speed | n/V | 15 | 6 |
| Maximum acceleration without load | m/s ² | | 5 |
| Maximum driving torque applicable to the screw | Nm | | 2.5 |

Example: V = 100 mm/s; pitch = 10 → K = 6 n = V · K = 100 · 6 = 600 rpm

* Static loads bearable without damage.

** Calculate mean axial load and the calculate life (see graphs on page A5.164).

N.B.: For the verification of the linear guide system, please refer to page A5.163. For the verification of the screw, see bottom of page.

WEIGHTS

| | | | |
|---|----|------|------|
| Screw pitch (p) | mm | 4 | 10 |
| Weight at stroke 0, in-line version | g | 1188 | 1198 |
| Weight at stroke 0, geared version | g | 1498 | 1508 |
| Additional weight each mm of stroke | g | 7.6 | 7.6 |
| Moving mass at stroke 0 (M0) | g | 546 | 553 |
| Additional moving mass each mm of stroke (MX) | g | 2.5 | 2.5 |

N.B.: You get the total weight of a complete slide by adding: weight stroke 0 + stroke [mm] · weight for each mm of stroke + weight of the motor.

MASS MOMENTS OF INERTIA

| | | | |
|-------------------------|-----------------------|--------|--------|
| Screw pitch | mm | 4 | 10 |
| Transmission ratio (τ) | | 1:1 | 1:1 |
| J0 at stroke 0 | kgmm ² | 7.821 | 7.934 |
| J1 each metre of stroke | kgmm ² /m | 12.76 | 13.76 |
| J2 each kg of load | kgmm ² /kg | 0.4053 | 2.5330 |
| J3 in-line transmission | kgmm ² | 2.879 | 2.879 |
| J3 geared transmission | kgmm ² | 3.237 | 3.237 |

The total mass moment of inertia (J_{tot}) reduced for the motor is: J_{tot} = {J1 · stroke [m] + J2 · [(MX · stroke) + M0 + load] + J0} · τ² + J3
MX and M0 are defined in the WEIGHTS table.

CALCULATION OF MEAN AXIAL LOAD F_m AND VERIFICATION

Peak axial load in a work cycle must not exceed the static axial load F_o.

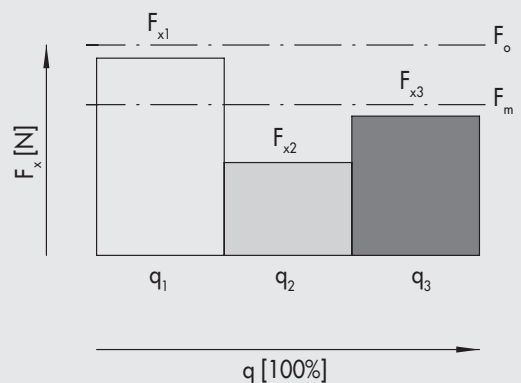
The peak value is usually achieved during upward acceleration in vertical installation. Exceeding this value leads to greater wear and hence shorter life of the recirculating ball screw.

Mean axial load F_m

$$F_m = \sqrt[3]{\sum F_x^3 \times \frac{V_x}{V_m} \times \frac{q}{100}} =$$

$$F_m = \sqrt[3]{F_{x1}^3 \times \frac{V_{x1}}{V_m} \times \frac{q_1}{100} + F_{x2}^3 \times \frac{V_{x2}}{V_m} \times \frac{q_2}{100} + F_{x3}^3 \times \frac{V_{x3}}{V_m} \times \frac{q_3}{100} + \dots}$$

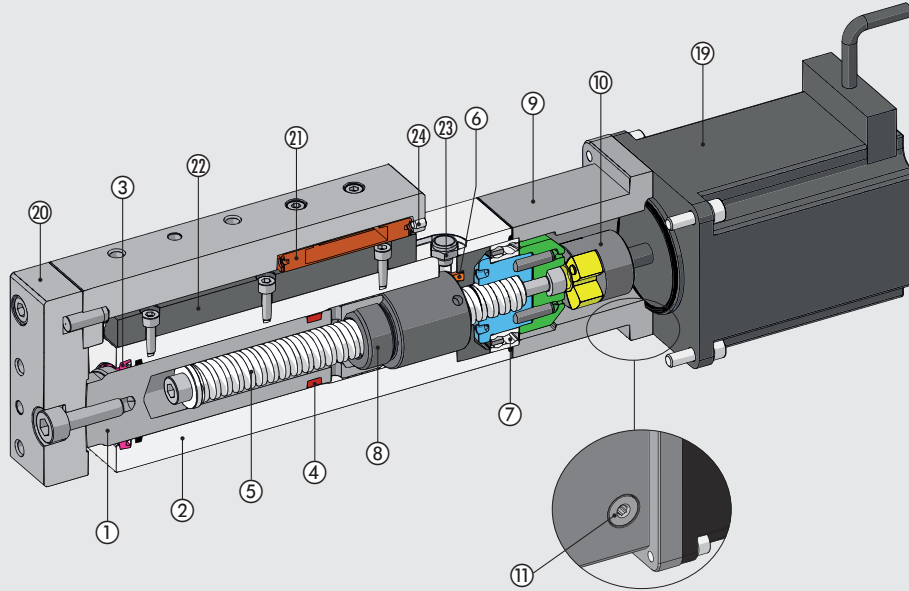
- F_x = Axial load at stage x
- F_m = Mean axial load during extension
- F_o = Static axial load
- q = Time segment
- V_x = Speed in the phase x
- V_m = Average speed



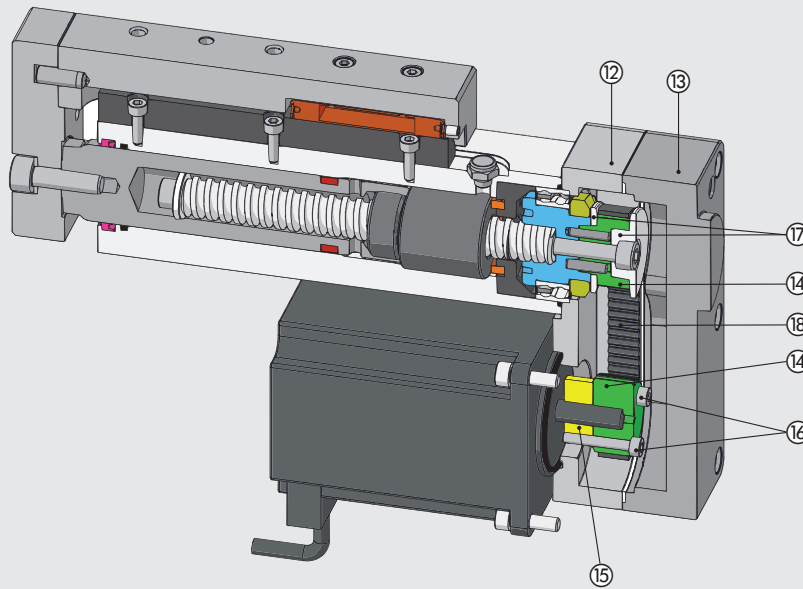
The mean axial load must not exceed the dynamic axial load: F_m ≤ F
The graphs on page A5.164, show screw life as a function of F_m

COMPONENTS

IN-LINE VERSION



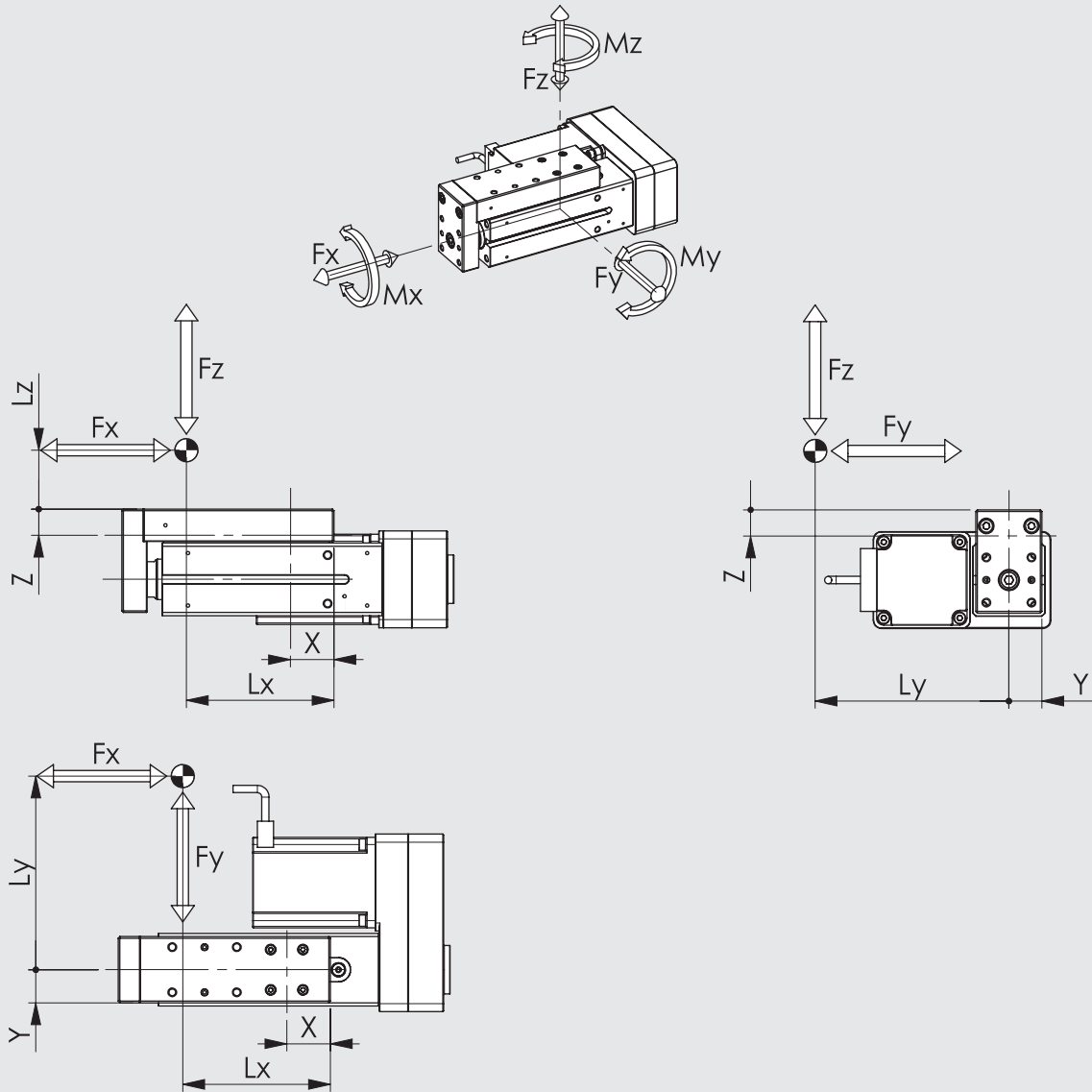
GEARED VERSION



- ① PISTON ROD: stainless steel (AISI 316)
- ② BODY: aluminium alloy with wear-resistant coating
- ③ WIPER RING: polyurethane
- ④ MAGNET: plastoferrite (optional)
- ⑤ SCREW: hardened and rolled steel
- ⑥ BUFFER: polyurethane
- ⑦ BEARING: oblique with two ball rings
- ⑧ RECIRCULATING BALL SCROLL: steel
- ⑨ ADAPTOR PLATE: anodized aluminium
- ⑩ ELASTIC COUPLING: aluminium / polyurethane
- ⑪ PLUG: for access to the elastic coupling screw
- ⑫ TRANSMISSION PLATE: anodized aluminium

- ⑬ COVER: anodized aluminium
- ⑭ COG PULLEY: anodized aluminium
- ⑮ ELASTIC COLLAR: anodized aluminium
- ⑯ ELASTIC COLLAR-LOCKING SCREWS: zinc-plated steel
- ⑰ BELT FLANGES: anodized aluminium
- ⑱ TOOTHED BELT: polyurethane with steel cables
- ⑲ MOTOR
- ⑳ SLIDE: anodized aluminium
- ㉑ BALL RECIRCULATION PAD: stainless steel / technopolymer
- ㉒ GUIDING RAIL FOR PADS: hardened stainless steel
- ㉓ SILENCER: access to the greasing screw and air exhaust
- ㉔ GRUB SCREW: for pad greasing

DIAGRAM OF FORCES AND MOMENTS



STATIC VERIFICATION

When on the slide is subjected simultaneously to torque and force, keep to the following equations, where the lengths have to be given in metres.

| X [mm] | Y [mm] | Z [mm] | Fy max [N] | Fz max [N] | Mx max [Nm] | My max [Nm] | Mz max [Nm] |
|--------|--------|--------|------------|------------|-------------|-------------|-------------|
| 27 | 20.5 | 16.25 | 2790 | 2790 | 21.8 | 13.5 | 13.5 |

N.B.: The values in the table relates to the maximum admissible loads beyond which serious damage is likely to occur.

$$M_x = F_y \cdot (L_z + z) + F_z \cdot L_y \quad M_y = F_z \cdot (L_x - x) + F_x \cdot (L_z + z) \quad M_z = F_y \cdot L_x + (L_x - x) \cdot L_y$$

$$\frac{(M_x)}{M_{x0 \max}} + \frac{(M_y)}{M_{y0 \max}} + \frac{(M_z)}{M_{z0 \max}} + \frac{(F_y)}{F_{y0 \max}} + \frac{(F_z)}{F_{z0 \max}} \leq 1$$

DYNAMIC VERIFICATION

When on the slide is subjected simultaneously to torque and force, keep to the following equations, where the lengths have to be given in metres.

| X [mm] | Y [mm] | Z [mm] | Fy max [N] | Fz max [N] | Mx max [Nm] | My max [Nm] | Mz max [Nm] |
|--------|--------|--------|------------|------------|-------------|-------------|-------------|
| 27 | 20.5 | 16.25 | 1395 | 1395 | 10.9 | 6.75 | 6.75 |

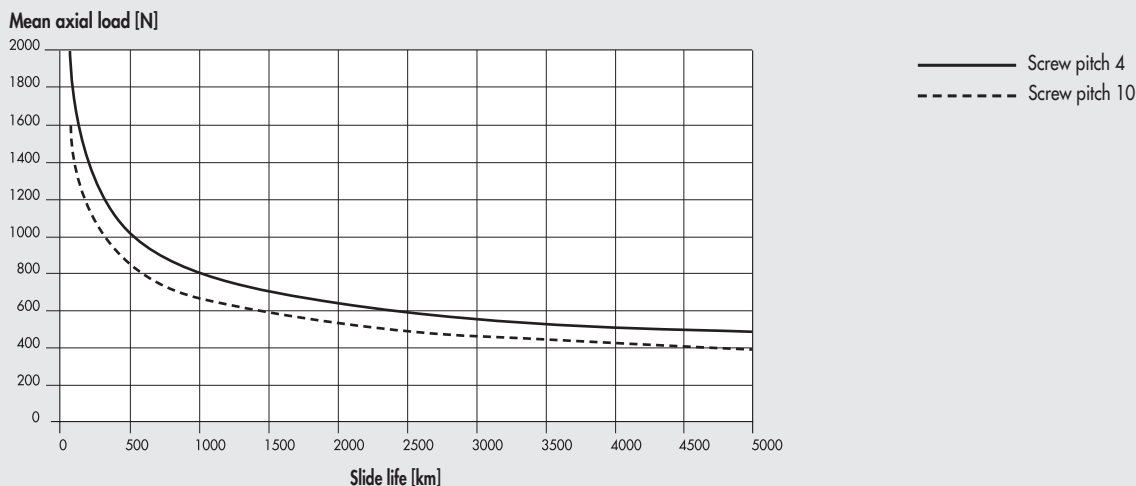
N.B.: The values are calculated on the basis of theoretical useful life of 10000 km.

$$M_x = F_y \cdot (L_z + z) + F_z \cdot L_y \quad M_y = F_z \cdot (L_x - x) + F_x \cdot (L_z + z) \quad M_z = F_y \cdot (L_x - x) + F_x \cdot L_y$$

$$\frac{(M_x)}{M_{x \max}} + \frac{(M_y)}{M_{y \max}} + \frac{(M_z)}{M_{z \max}} + \frac{(F_y)}{F_{y \max}} + \frac{(F_z)}{F_{z \max}} \leq 1$$

LIFE CHARACTERISTICS AS A FUNCTION OF THE MEAN AXIAL LOAD, VERSION WITH BALL SCREW

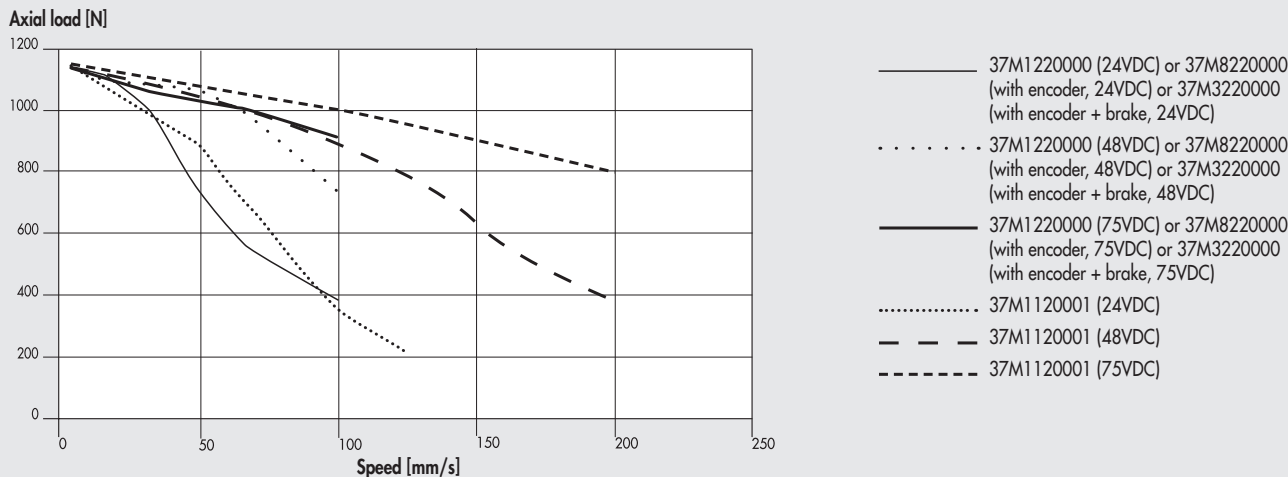
Life characteristics can vary considerably from those indicated in the graphs due to different operating conditions (radial loads, temperature, lubrication status, etc.).



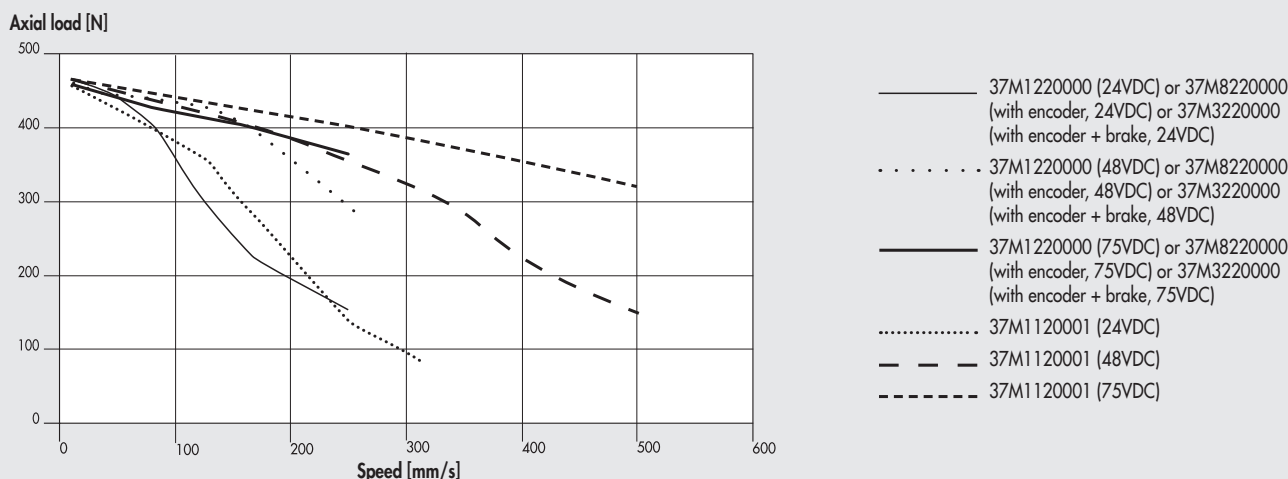
AXIAL LOAD CURVES AS A FUNCTION OF SPEED (SLIDE COMPLETE WITH MOTOR AND DRIVE)

N.B.: The obtainable load values already take the efficiency of the system into account.
For **STEPPING** motors, with the motor off, the drive current is automatically reduced by 50% to prevent overheating.
Consequently, available axial load with the motor stopped is also reduced by 50%.

Ø 32 with pitch 4 ball screw, STEPPING motor, STEPPING motors with encoder, STEPPING motors with encoder + brake

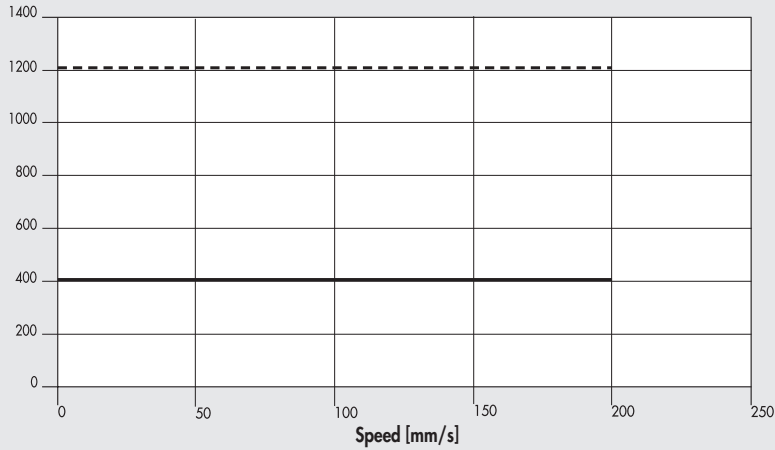


Ø 32 with pitch 10 ball screw, STEPPING motor, STEPPING motors with encoder, STEPPING motors with encoder + brake



Ø 32 with pitch 4 ball screw, BRUSHLESS motor and BRUSHLESS motor with brake

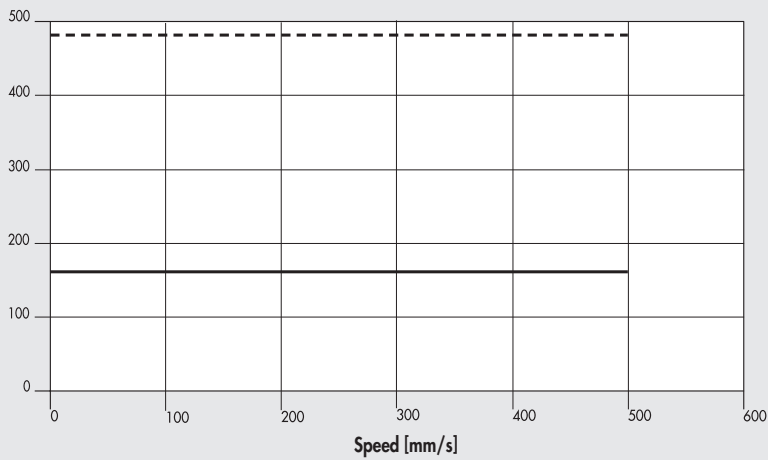
Axial load [N]



- Nominal 37M2000000 or 37M4000000 (with brake) + 37D2100000 (100W)
- - - Max 37M2000000 or 37M4000000 (with brake) + 37D2100000 (100W)

Ø 32 with pitch 10 ball screw, BRUSHLESS motor and BRUSHLESS motor with brake

Axial load [N]

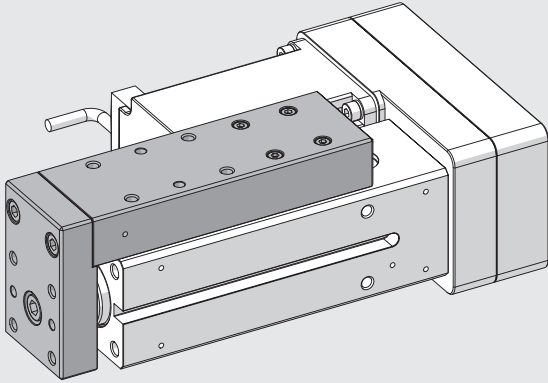


- Nominal 37M2000000 or 37M4000000 (with brake) + 37D2100000 (100W)
- - - Max 37M2000000 or 37M4000000 (with brake) + 37D2100000 (100W)

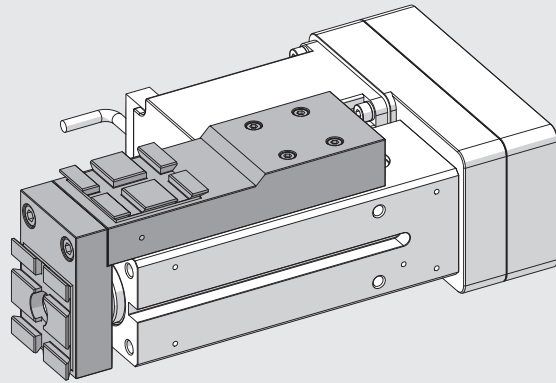
VERSIONS

TYPE OF CARRIAGE INTERFACE

STANDARD

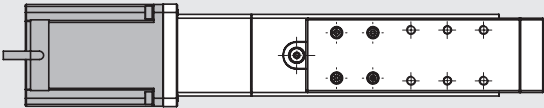


V-LOCK

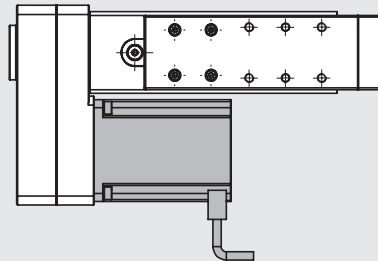


MOTOR POSITIONING

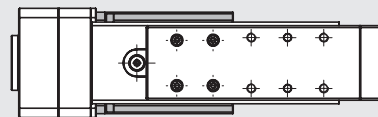
IN-LINE



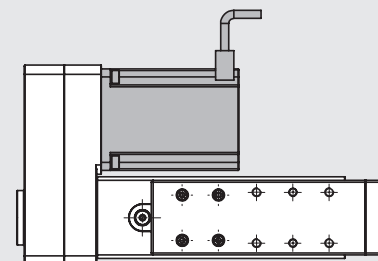
RIGHT GEARED



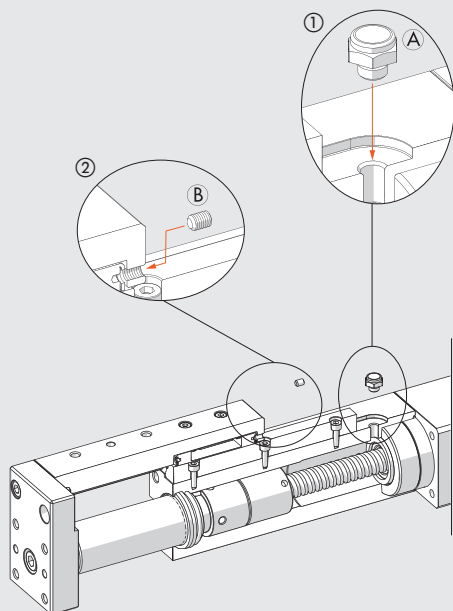
GEARED WITH MOTOR OPPOSITE TO THE SLIDE



LEFT GEARED



LUBRICATION DIAGRAMS



The slide features two specific lubrication zones:

- ① greasing point for the recirculating ball nut;
- ② greasing point for the recirculating ball pad.

Only use food-grade grease for re-greasing ULTRAPLEX FG1 NSF CAT H1 (code 9910514), according to the quantities indicated in the table.

Follow the steps below:

- retract the piston rod towards the motor adapter plate, as far as it will go;
- move the piston rod at low speed and/or controlled torque forwards by a value corresponding to the cylinder total stroke;
- remove silencer **A** and grub screw **B**;
- use a grease gun to pump grease into the two grease nipples;
- make the slide complete 4 strokes (at the end of which the piston rod will be back in its initial position);
- repeat the latter two steps;
- replace silencer **A** grub screw **B**;

The operation of re-greasing will have to be repeated at least once a year.

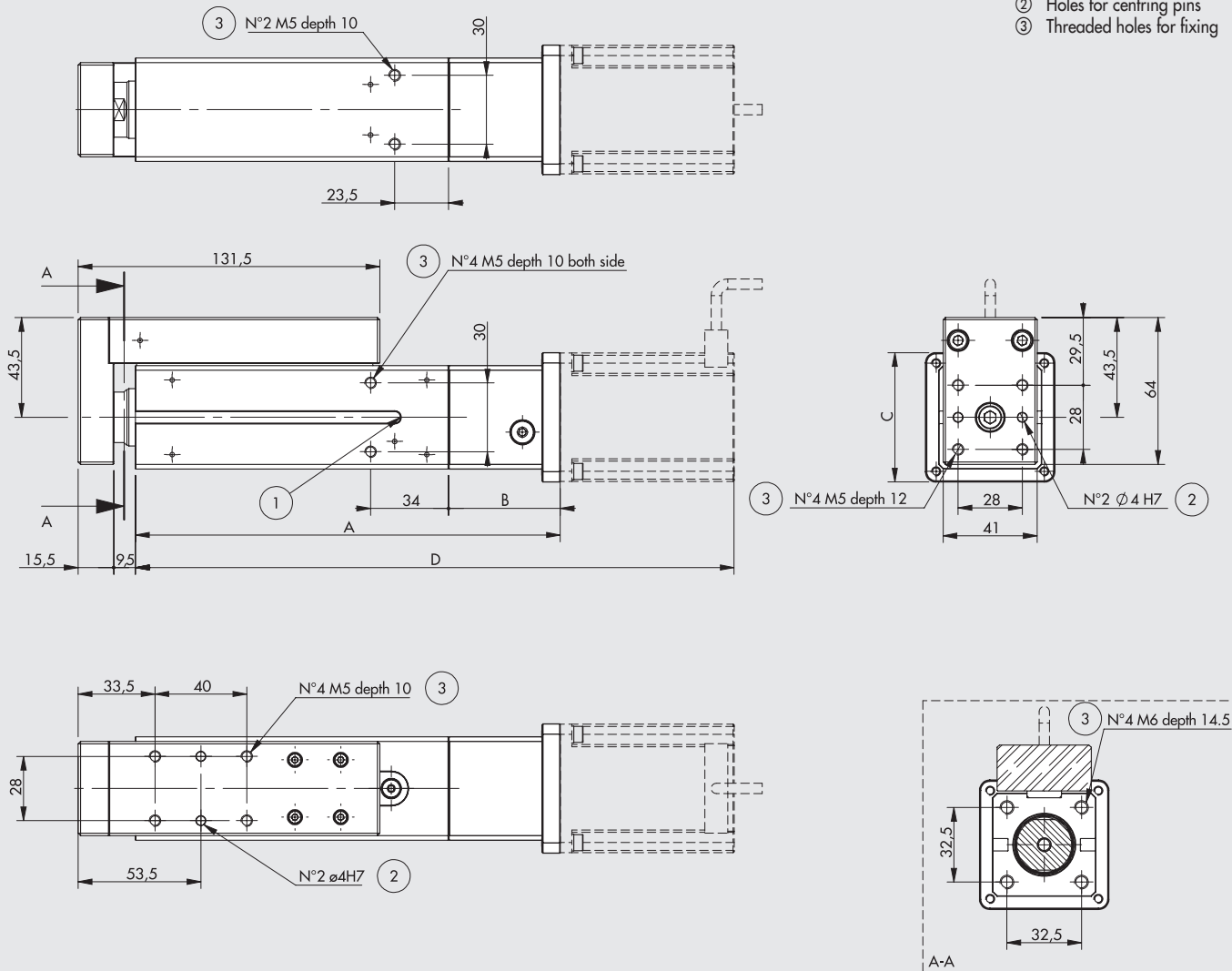
| | | Pad | | Screw | |
|------------------------|----|------|------|-------|--|
| Screw pitch (p) | mm | - | 4 | 10 | |
| Relube grease quantity | g | 0.7 | 0.3 | 0.5 | |
| | cc | 0.61 | 0.26 | 0.42 | |

NOTES

DIMENSIONS SLIDE IN-LINE

WITHOUT MOTOR

- ① N° 2 slots for sensors
- ② Holes for centring pins
- ③ Threaded holes for fixing



SLIDE WITH MOTOR

| | | 1121 | | | | 1220 | | | | 8220 | | | | 3220 | | | | 2000 | | | | 4000 | | | |
|--------|------|-----------------|------|----|-----|-----------------|------|----|-----|--------------------------|------|----|-----|----------------------------------|------|----|-----|------------------|------|----|-----|--------------------------|------|----|-----|
| | | STEPPING MOTOR | | | | STEPPING MOTOR | | | | STEPPING MOTOR + ENCODER | | | | STEPPING MOTOR + ENCODER + BRAKE | | | | MOTORE BRUSHLESS | | | | MOTORE BRUSHLESS + BRAKE | | | |
| | | code 37M1120001 | | | | code 37M1220000 | | | | code 37M8220000 | | | | code 37M3220000 | | | | code 37M2000000 | | | | code 37M4000000 | | | |
| | | A | B | C | D | A | B | C | D | A | B | C | D | A | B | C | D | A | B | C | D | A | B | C | D |
| STROKE | 0055 | 185 | 48.5 | 56 | 261 | 185 | 48.5 | 60 | 277 | 185 | 48.5 | 60 | 292 | 185 | 48.5 | 60 | 337 | 190 | 53.5 | 45 | 291 | 190 | 53.5 | 45 | 327 |
| | 0080 | 210 | 48.5 | 56 | 286 | 210 | 48.5 | 60 | 302 | 210 | 48.5 | 60 | 317 | 210 | 48.5 | 60 | 362 | 215 | 53.5 | 45 | 316 | 215 | 53.5 | 45 | 352 |
| | 0100 | 230 | 48.5 | 56 | 306 | 230 | 48.5 | 60 | 322 | 230 | 48.5 | 60 | 337 | 230 | 48.5 | 60 | 382 | 235 | 53.5 | 45 | 336 | 235 | 53.5 | 45 | 372 |
| | 0125 | 255 | 48.5 | 56 | 331 | 255 | 48.5 | 60 | 347 | 255 | 48.5 | 60 | 362 | 255 | 48.5 | 60 | 407 | 260 | 53.5 | 45 | 361 | 260 | 53.5 | 45 | 397 |
| | 0150 | 280 | 48.5 | 56 | 356 | 280 | 48.5 | 60 | 372 | 280 | 48.5 | 60 | 387 | 280 | 48.5 | 60 | 432 | 285 | 53.5 | 45 | 386 | 285 | 53.5 | 45 | 422 |
| | 0200 | 330 | 48.5 | 56 | 406 | 330 | 48.5 | 60 | 422 | 330 | 48.5 | 60 | 437 | 330 | 48.5 | 60 | 482 | 335 | 53.5 | 45 | 436 | 335 | 53.5 | 45 | 472 |

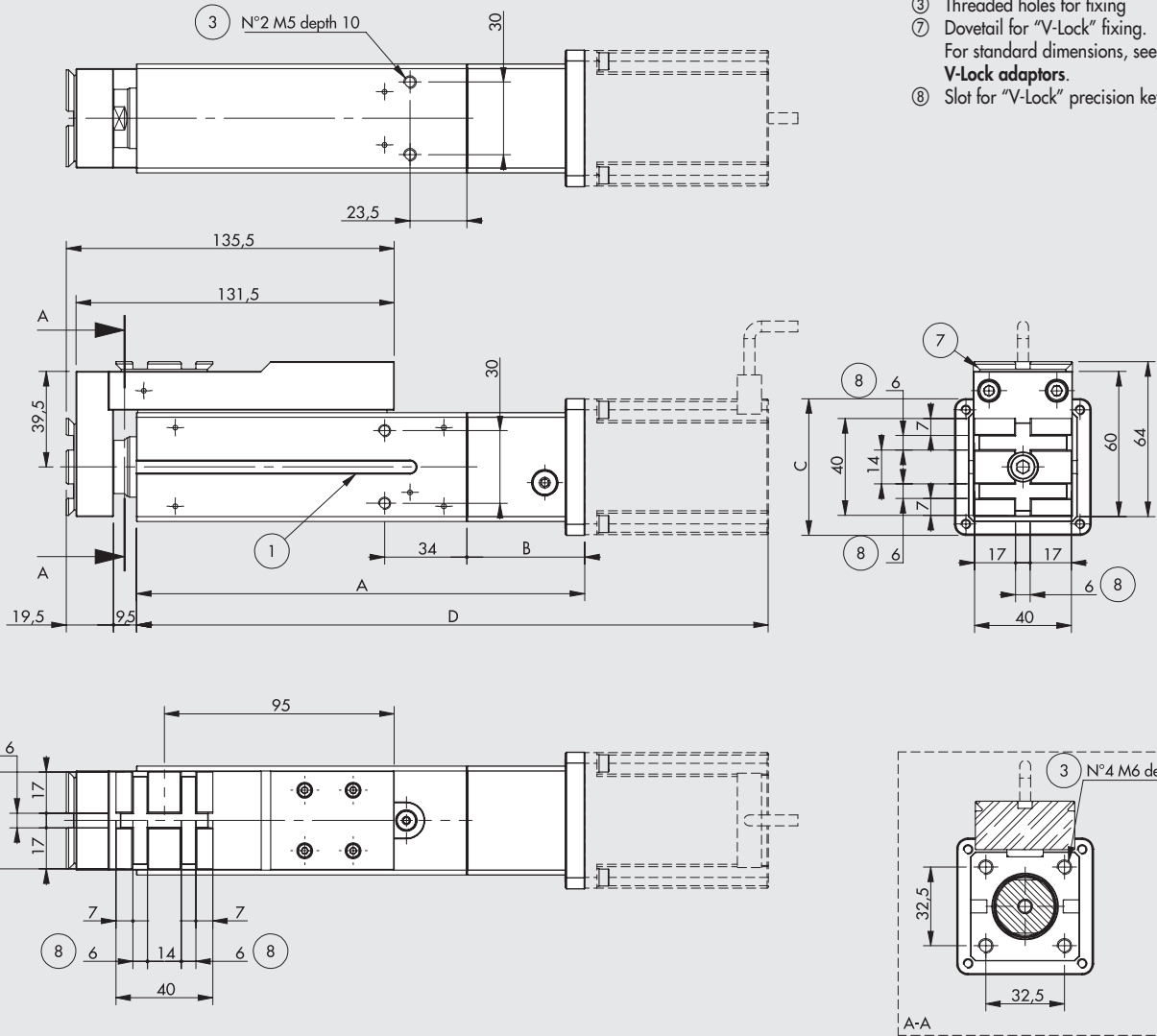
377032 _ _ _ _ 12 _ _ _ _
 377032 _ _ _ _ 42 _ _ _ _

To complete the code: _ _ _ _ = enter the stroke _ _ _ _ = enter the type of drive

V-LOCK IN-LINE SLIDE DIMENSIONS

WITHOUT MOTOR

- ① N° 2 slots for sensors
- ③ Threaded holes for fixing
- ⑦ Dovetail for "V-Lock" fixing. For standard dimensions, see chapter V-Lock adaptors.
- ⑧ Slot for "V-Lock" precision key



SLIDE WITH MOTOR

| | | 1121 | | | | 1220 | | | | 8220 | | | | 3220 | | | | 2000 | | | | 4000 | | | |
|--------|------|-----------------|------|----|-----|-----------------|------|----|-----|--------------------------|------|----|-----|----------------------------------|------|----|-----|-----------------|------|----|-----|-------------------------|------|----|-----|
| | | STEPPING MOTOR | | | | STEPPING MOTOR | | | | STEPPING MOTOR + ENCODER | | | | STEPPING MOTOR + ENCODER + BRAKE | | | | BRUSHLESS MOTOR | | | | BRUSHLESS MOTOR + BRAKE | | | |
| | | code 37M1120001 | | | | code 37M1220000 | | | | code 37M8220000 | | | | code 37M3220000 | | | | code 37M2000000 | | | | code 37M4000000 | | | |
| | | A | B | C | D | A | B | C | D | A | B | C | D | A | B | C | D | A | B | C | D | A | B | C | D |
| STROKE | 0055 | 185 | 48.5 | 56 | 261 | 185 | 48.5 | 60 | 277 | 185 | 48.5 | 60 | 292 | 185 | 48.5 | 60 | 337 | 190 | 53.5 | 45 | 291 | 190 | 53.5 | 45 | 327 |
| | 0080 | 210 | 48.5 | 56 | 286 | 210 | 48.5 | 60 | 302 | 210 | 48.5 | 60 | 317 | 210 | 48.5 | 60 | 362 | 215 | 53.5 | 45 | 316 | 215 | 53.5 | 45 | 352 |
| | 0100 | 230 | 48.5 | 56 | 306 | 230 | 48.5 | 60 | 322 | 230 | 48.5 | 60 | 337 | 230 | 48.5 | 60 | 382 | 235 | 53.5 | 45 | 336 | 235 | 53.5 | 45 | 372 |
| | 0125 | 255 | 48.5 | 56 | 331 | 255 | 48.5 | 60 | 347 | 255 | 48.5 | 60 | 362 | 255 | 48.5 | 60 | 407 | 260 | 53.5 | 45 | 361 | 260 | 53.5 | 45 | 397 |
| | 0150 | 280 | 48.5 | 56 | 356 | 280 | 48.5 | 60 | 372 | 280 | 48.5 | 60 | 387 | 280 | 48.5 | 60 | 432 | 285 | 53.5 | 45 | 386 | 285 | 53.5 | 45 | 422 |
| | 0200 | 330 | 48.5 | 56 | 406 | 330 | 48.5 | 60 | 422 | 330 | 48.5 | 60 | 437 | 330 | 48.5 | 60 | 482 | 335 | 53.5 | 45 | 436 | 335 | 53.5 | 45 | 472 |

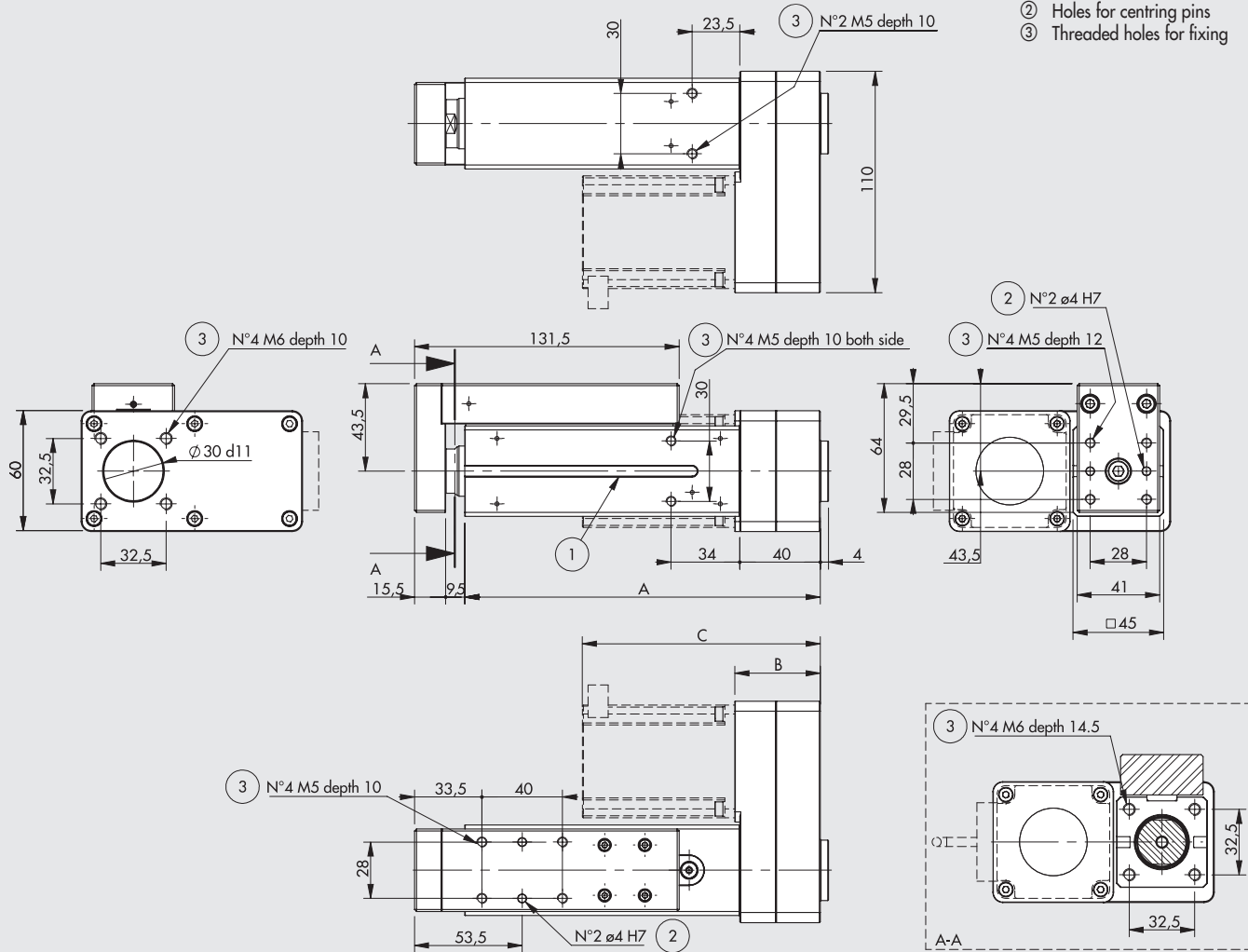
377K32 ___ 12 ___
 377K32 ___ 42 ___

To complete the code: ___ = enter the stroke ___ = enter the type of drive

DIMENSIONS SLIDE GEARED

WITHOUT MOTOR

- ① N° 2 slots for sensors
- ② Holes for centring pins
- ③ Threaded holes for fixing



SLIDE WITH MOTOR

| | | 76 | | | 92 | | | 106,6 | | | 152 | | | 100,6 | | | 136,6 | | |
|--------|------|-----------------|------|-------|-----------------|------|-------|--------------------------|------|-----|----------------------------------|------|-------|-----------------|------|-----|-------------------------|------|-----|
| | | 1121 | | | 1220 | | | 8220 | | | 3220 | | | 2000 | | | 4000 | | |
| | | STEPPING MOTOR | | | STEPPING MOTOR | | | STEPPING MOTOR + ENCODER | | | STEPPING MOTOR + ENCODER + BRAKE | | | BRUSHLESS MOTOR | | | BRUSHLESS MOTOR + BRAKE | | |
| | | code 37M1120001 | | | code 37M1220000 | | | code 37M8220000 | | | code 37M3220000 | | | code 37M2000000 | | | code 37M4000000 | | |
| STROKE | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C | |
| | 0055 | 177 | 42.5 | 118.5 | 177 | 42.5 | 134.5 | 177 | 42.5 | 149 | 177 | 42.5 | 194.5 | 177 | 43.5 | 144 | 177 | 43.5 | 180 |
| | 0080 | 202 | 42.5 | 119 | 202 | 42.5 | 135 | 202 | 42.5 | 149 | 202 | 42.5 | 194.5 | 202 | 43.5 | 144 | 202 | 43.5 | 180 |
| | 0100 | 222 | 42.5 | 119 | 222 | 42.5 | 135 | 222 | 42.5 | 149 | 222 | 42.5 | 194.5 | 222 | 43.5 | 144 | 222 | 43.5 | 180 |
| | 0125 | 247 | 42.5 | 119 | 247 | 42.5 | 135 | 247 | 42.5 | 149 | 247 | 42.5 | 194.5 | 247 | 43.5 | 144 | 247 | 43.5 | 180 |
| | 0150 | 272 | 42.5 | 119 | 272 | 42.5 | 135 | 272 | 42.5 | 149 | 272 | 42.5 | 194.5 | 272 | 43.5 | 144 | 272 | 43.5 | 180 |
| | 0200 | 322 | 42.5 | 119 | 322 | 42.5 | 135 | 322 | 42.5 | 149 | 322 | 42.5 | 194.5 | 322 | 43.5 | 144 | 322 | 43.5 | 180 |

377032 ___1N ___ 377032 ___16 ___ 377032 ___19 ___
 377032 ___4N ___ 377032 ___46 ___ 377032 ___49 ___

To complete the code: ___ = enter the stroke ___ = enter the type of drive

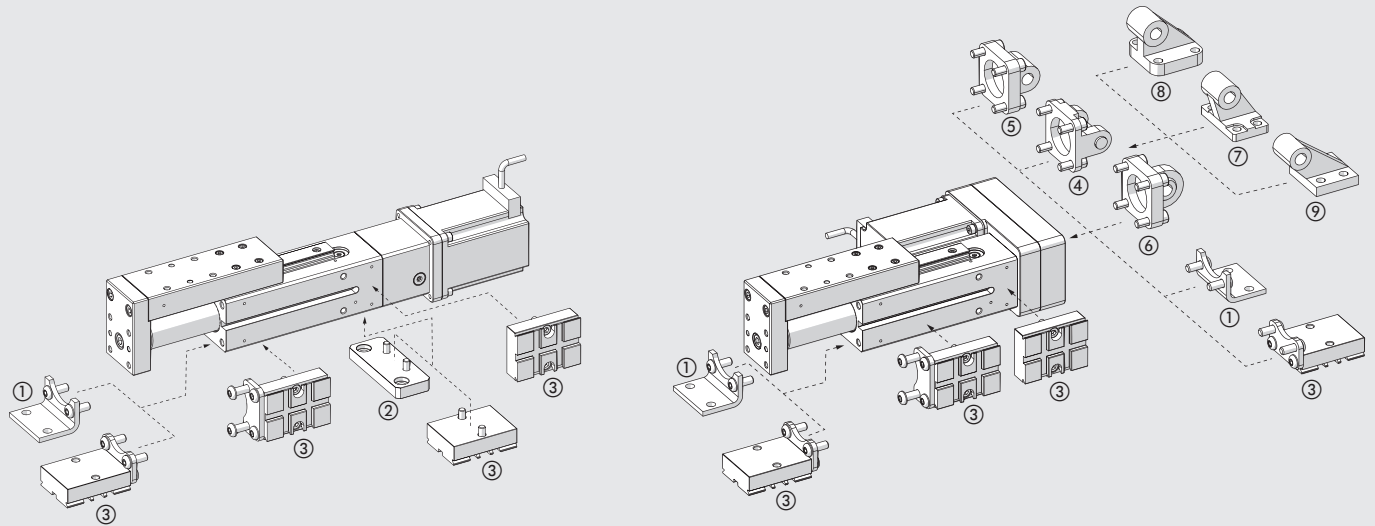
ACCESSORIES FOR ELECTRIC SLIDE SERIES ELEKTRO CS

Note: Where specified, limit the maximum axial loads (Fmax) according to the electric slides.

FIXING OPTIONS

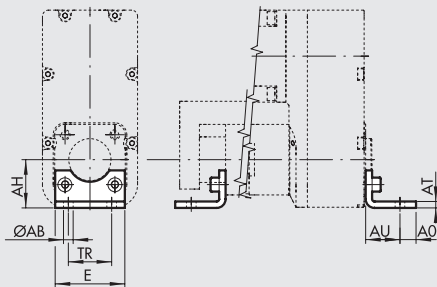
IN-LINE VERSION

GEARED VERSION



ACTUATORS
ELECTRIC SLIDE SERIES ELEKTRO CS

① FOOT MODEL A ELEKTRO CS

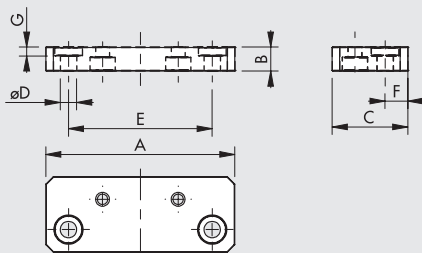


STEEL

| Code | Ø | Ø AB | AH | AO | AT | AU | TR | E | Weight [g] | Fmax [N] |
|------------|----|------|----|----|----|----|----|----|------------|----------|
| 0950327111 | 32 | 7 | 32 | 11 | 4 | 24 | 32 | 45 | 76 | 1600 |

Note: Individually packed with 2 screws.

② ELEKTRO CS IN-LINE BACK FOOT

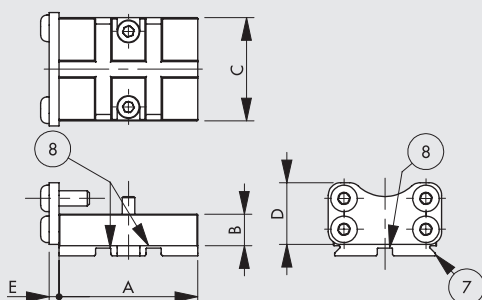


ALUMINIUM

| Code | Ø | A | B | C | D | E | F | G | Weight [g] | Fmax [N] |
|------------|----|----|-----|----|-----|----|---|-----|------------|----------|
| 0950327110 | 32 | 75 | 9.5 | 30 | 6.5 | 57 | 9 | 3.5 | 60 | 1600 |

Note: Individually packed with 2 screws.
N.B.: Use in the In-Line version only.

③ ELEKTRO CS V-LOCK FITTING



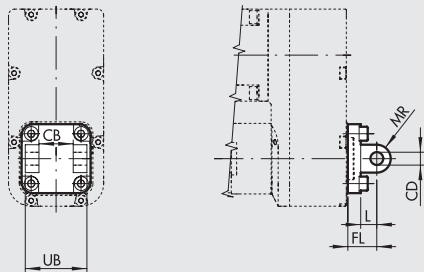
ALUMINIUM

| Code | Ø | A | B | C | D | E | Weight [g] |
|-------------|----|----|----|----|----|---|------------|
| 0950327112K | 32 | 55 | 13 | 41 | 25 | 4 | 150 |

Note: Individually packed with 6 screws.

- ⑦ Dovetail for "V-Lock" fixing. For standard dimensions, see **chapter V-Lock adaptors**.
- ⑧ Slot for "V-Lock" precision key

④ FEMALE HINGE - MODEL B



ALUMINIUM

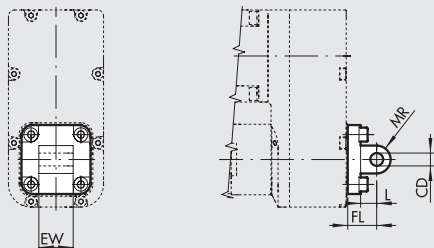
| Code | Ø | UB | CB ^{H14} | FL | CD ^{H9} | MR | L | Weight [g] | Fmax [N] |
|-------------|----|----|-------------------|----|------------------|----|----|------------|----------|
| W0950322003 | 32 | 45 | 26 | 22 | 10 | 10 | 12 | 116 | 800 |

STEEL

| Code | Ø | UB | CB ^{H14} | FL | CD ^{H9} | MR | L | Weight [g] | Fmax [N] |
|-------------|----|----|-------------------|----|------------------|----|----|------------|----------|
| W095E322003 | 32 | 45 | 26 | 22 | 10 | 10 | 13 | 348 | 1600 |

Note: Supplied with 4 screws, 4 washers, 2 snap rings and 1 pin.
 N.B.: Mounting requires 4 M6x16 UNI 5931 screws.

⑤ MALE HINGE - MODEL BA



ALUMINIUM

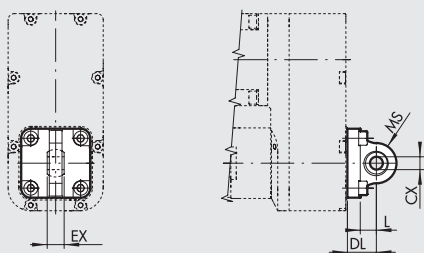
| Code | Ø | EW | FL | MR | CD ^{H9} | L | Weight [g] | Fmax [N] |
|-------------|----|----|----|----|------------------|----|------------|----------|
| W0950322004 | 32 | 26 | 22 | 10 | 10 | 13 | 94 | 800 |

STEEL

| Code | Ø | EW | FL | MR | CD ^{H9} | L | Weight [g] | Fmax [N] |
|-------------|----|----|----|----|------------------|----|------------|----------|
| W095E322004 | 32 | 26 | 22 | 10 | 10 | 13 | 282 | 1600 |

Note: Supplied with 4 screws.
 N.B.: Mounting requires 4 M6x14 UNI 5931 screws.

⑥ ARTICULATED MALE HINGE - MODEL BAS



ALUMINIUM

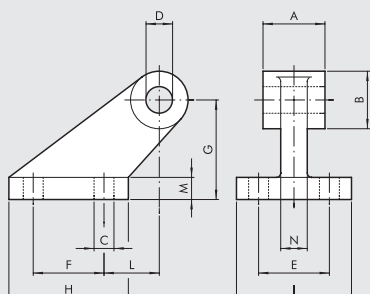
| Code | Ø | DL | MS | L | CX ^{H9} | EX | Weight [g] | Fmax [N] |
|-------------|----|----|----|----|------------------|----|------------|----------|
| W0950322006 | 32 | 22 | 16 | 12 | 10 | 14 | 106 | 800 |

STEEL

| Code | Ø | DL | MS | L | CX ^{H9} | EX | Weight [g] | Fmax [N] |
|-------------|----|----|----|----|------------------|----|------------|----------|
| W095E322006 | 32 | 22 | 15 | 14 | 10 | 14 | 318 | 1600 |

Note: Supplied with 4 screws, 4 washers.
 N.B.: Mounting requires 4 M6x16 UNI 5931 screws.

⑦ CETOP HINGE FOR MODEL B - MODEL GL

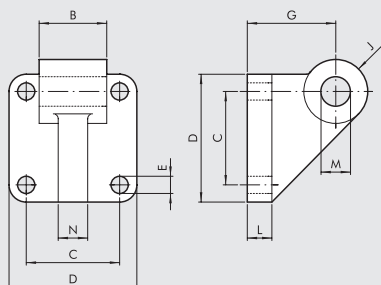


ALUMINIUM

| Code | Ø | A | B | C | D | E | F | G | H | I | L | M | N | Weight [g] | Fmax [N] |
|-------------|----|----|----|---|----|----|----|----|----|----|----|---|----|------------|----------|
| W0950322008 | 32 | 26 | 19 | 7 | 10 | 25 | 20 | 32 | 37 | 41 | 18 | 8 | 10 | 96 | 800 |

Note: Supplied with 4 screws, 4 washers.

⑧ COUNTER-HINGE FOR MODEL B - MODEL GS

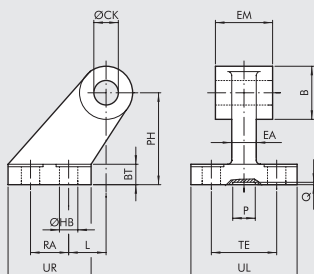


ALUMINIUM

| Code | Ø | B | C | D | E | G | J | L | M | N | Weight [g] | Fmax [N] |
|-------------|----|----|------|----|---|----|----|----|----|----|------------|----------|
| W0950322108 | 32 | 26 | 32.5 | 45 | 7 | 32 | 11 | 10 | 10 | 10 | 106 | 800 |

Note: Supplied with 4 screws, 4 washers.

⑨ ISO 15552 COUNTER-HINGE FOR MODEL B - MODEL AB7



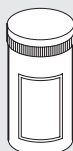
ALUMINIUM

| Code | Ø | EM | B | ØHB | ØCK | TE | RA | PH | UR | UL | L | BT | EA | P | Q | Weight [g] | Fmax [N] |
|-------------|----|----|----|-----|-----|----|----|----|----|----|---|----|----|----|---|------------|----------|
| W0950322017 | 32 | 26 | 20 | 6.6 | 10 | 38 | 18 | 32 | 31 | 51 | 3 | 8 | 10 | 21 | 3 | 60 | 800 |

STEEL

| Code | Ø | EM | B | ØHB | ØCK | TE | RA | PH | UR | UL | L | BT | EA | P | Q | Weight [g] | Fmax [N] |
|-------------|----|----|----|-----|-----|----|----|----|----|----|---|----|----|----|---|------------|----------|
| W095E322017 | 32 | 26 | 20 | 6.6 | 10 | 38 | 18 | 32 | 31 | 51 | 3 | 8 | 10 | 20 | 5 | 180 | 1600 |

GREASE

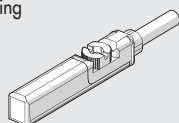


| Code | Description | Weight [g] |
|---------|--------------------------------------|------------|
| 9910514 | Grease pipe ULTRAPLEX FG1 NSF CAT H1 | 400 |

RETRACTABLE SENSOR

SENSOR, SQUARE TYPE

Latest generation, secure fixing



For codes and technical data, see [chapter A6](#).

DRIVES



For motor-drive couplings see table on page [A5.172](#).

SPARE PARTS

ELECTRIC MOTORS



For motor-drive couplings see table on page [A5.172](#).