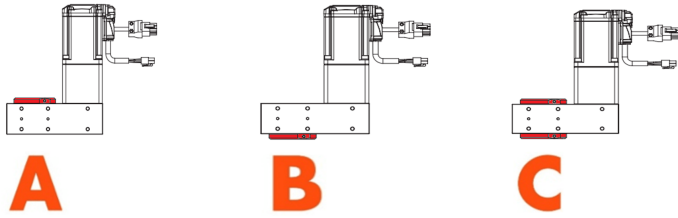
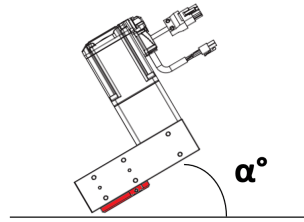


| | |
|-------------|--|
| Company | |
| Compiled by | |
| Date | |

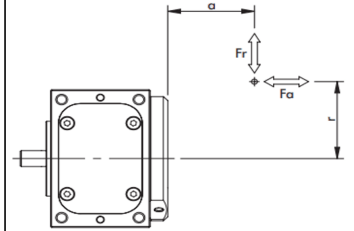
Rotating flange mounting position



Actuator mounting position



Load diagram



Rotating flange mounting position

- A
- B
- C

Actuator mounting position a from 0° to 90°

Phase No.




1 2 3 4 5 6 7 8 9 10

Rotation angle (° deg) + clockwise (CW) - counterclockwise (CCW)

Time (s)

Moment of inertia J with respect to the axis of rotation (kg • m²)

MOMENTS OF INERTIA FOR THE MOST COMMON SHAPES

| Denomination | Unit of measurement | Formula | Example |
|---|---------------------|--|--------------------------------------|
| Disco | | | |
| M Disk mass | kg |  $= \frac{Md^2}{8}$ | 7 |
| d Disk diameter | m | | 0.3 |
| J Moment of inertia of the disk | kg m² | | $= \frac{7 \cdot 0.3^2}{8} = 0.0787$ |
| Mass distant from rotation axis | | | |
| M Mass | kg |  $= MR^2$ | 0.5 |
| R Distance between barycenter and rotation axis | m | | 0.2 |
| J Moment of inertia of the mass | kg m² | | $= 0.5 \times 0.2^2 = 0.02$ |
| Parallelepiped with barycenter on rotation axis | | | |
| M Mass | kg |  $= M \frac{l^2}{12}$ | 10 |
| L Side of the parallelepiped | m | | 0.4 |
| J Moment of inertia of the mass | kg m² | | $= \frac{10 \cdot 0.4^2}{12} = 0.13$ |

EXTERNAL FORCE (N) (e.g. force of a cylinder/spring to be resisted)

Fa

Fr

POSITION OF EXTERNAL FORCE APPLICATION POINT (MM)

a

r

Resistant torque (Nm)

Any space limitations

Should the axis work "in position" (e.g., reach a defined angle, counteracting external torques), or "in torque" (e.g., push with controlled torque against contrast in an undefined position)?

- Torque
- Position

A feedback control is needed.

- Torque (brushless motor)
- Position (stepper with encoder or brushless)

No. of hours/day worked (h/d)

ENVIRONMENTAL CONDITIONS

Temperature °C / Humidity

Severity of environment use presence of dust, processing chips, etc.

Need for rotating flange stopped with motor not powered

Motor

- Metal Work
- Client
- To be evaluated (produce both solutions)

ACCESSORIES

V-Lock Adapter

Motor cable length

Available supply voltage

The control will be done with:

- PLC with step-dir board and "Line Driver" signals
- PLC with step-dir board and "Open Collector" signals
- PLC with brushless axis board
- There is no PLC

Short description, notes and draw of the possible application: