

FAST MOVING TECHNOLOGY

STÄUBLI

TS2-60

4 axis industrial robot

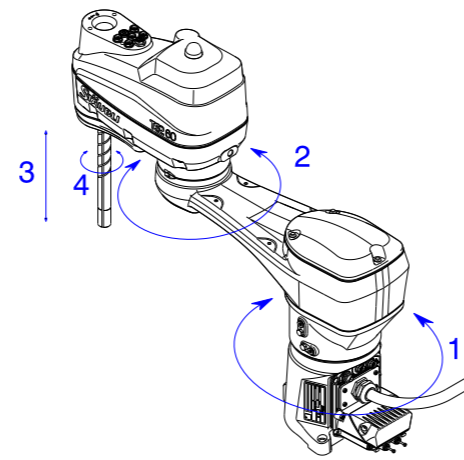


reddot winner 2021



Characteristics

| | |
|--------------------------------|--------------------------------------|
| Load capacity | 8.4 kg |
| Number of degrees of freedom | 4 |
| Repeatability XY - ISO 9283 | ± 0.01 mm |
| Repeatability Z - ISO 9283 | ± 0.004 mm |
| Repeatability Rz - ISO 9283 | ± 0.002° |
| Power Consumption - VDMA 24608 | 0.31 kW |
| Weight floor version | 39 kg (vertical cable outlet: 35 kg) |
| Attachment methods | Floor / Ceiling (option) |



Performance

| | |
|------------------------|-----------------------|
| Joint speed - axis 1 | 550°/s |
| Joint speed - axis 2 | 720°/s |
| Joint speed - axis 3 | 2500 mm/s |
| Joint speed - axis 4 | 2500°/s |
| Maximum inertia axis 4 | 0.1 kg.m ² |
| Brakes | Axis 3 and 4 |
| Cycles per minute * | 220 (0.27s) |

*Our programming and simulation software Staubli Robotics Suite 2019 enables an easy and precise definition of your specific application cycle time. Cycle time for 25 mm - 300 mm - 25 mm motion pattern with 2 kg payload.

Standard U cycle 25-300-25 mm:

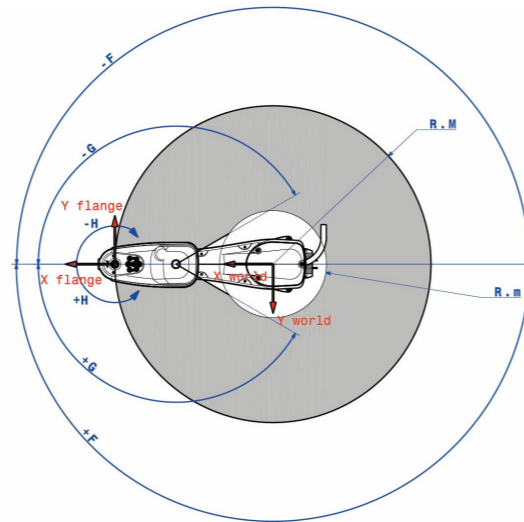


Work envelope and range of motion

| | |
|------------------------------------|--------|
| Maximum reach between axis 1 and 4 | 620 mm |
| Minimum reach between axis 1 and 4 | 210 mm |

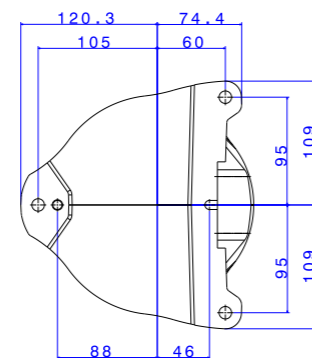
| | |
|----------------------|---------------------------|
| Angular reach axis 1 | 360° |
| Angular reach axis 2 | 300° |
| Z Stroke | 200 mm or 400 mm (option) |
| Angular reach axis 4 | 1000° ⁽¹⁾ |

(1) Under special conditions, consult us.

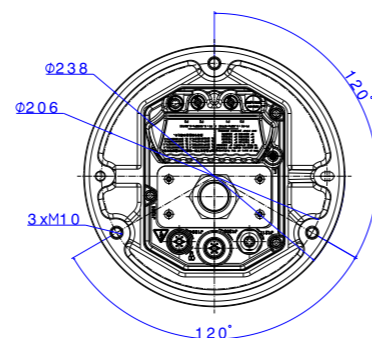


Installation environment

| | |
|---|---|
| Working temperature according to NF EN 60 204-1 | +5°C to +40°C |
| Humidity according to standard directive NF EN 60 204-1 | 30% to 95% max. non-condensing |
| Vertical cable outlet version | Available |
| Stäubli series controller | CS9 |
| Pressurized version | Available |
| Cleanroom standard ISO 14644-1 | Class ISO 6 |
| Protection class according to EN 60529 | IP34 standard / IP54 with ball screw cover / IP65 with ball screw cover and bellows |



Base interface (Horizontal cable outlet)

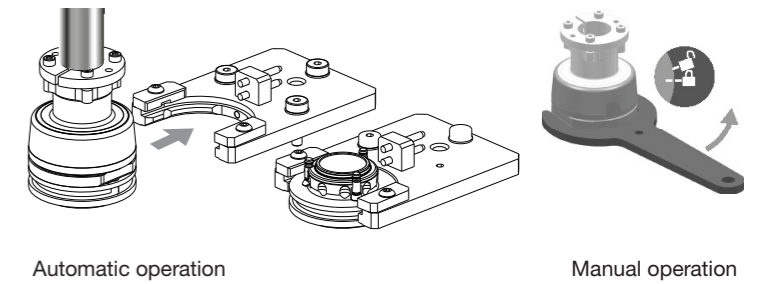


Base interface (Vertical cable outlet)

User interface

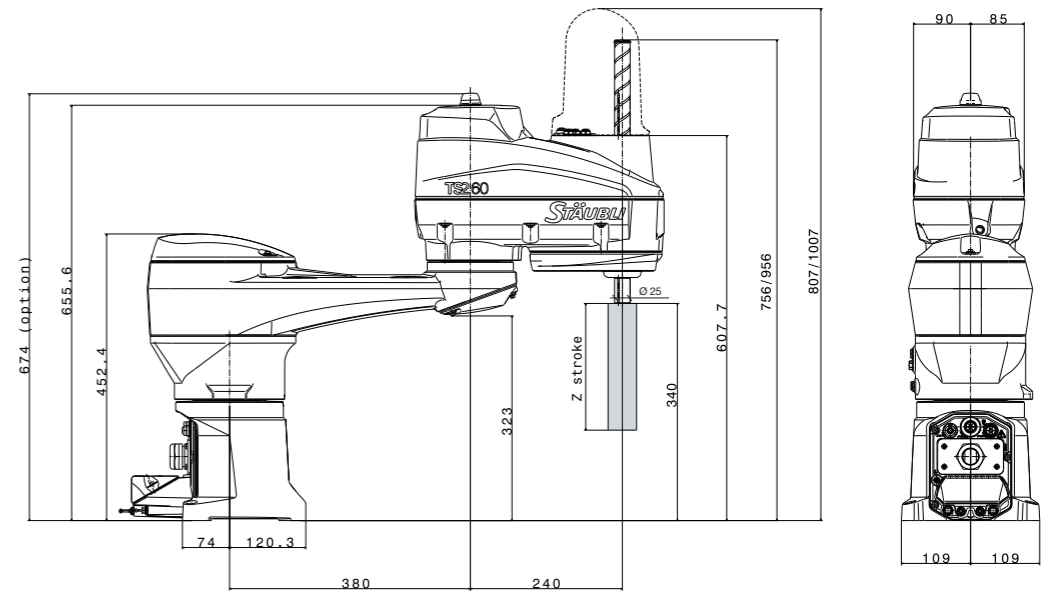
| | On forearm | On tool flange or tool changer (option) |
|-------------------|--|---|
| Mechanical | NF EN ISO 9409-1 Ø 40 mm, 4 screws M6 | |
| Pneumatic lines | 3 direct pneumatic lines or 2 electro distributors in option : pressure 5/2 bi-stable or pressure 5/3 mono-stable "center closed" or vacuum 3/2 mono-stable or vacuum + pressure 3/2 mono-stable | |
| Electrical cables | 10 electrical cables I/O + 1 multibus cable (4 wires) cat5e DIN M12 in the arm | 3 electrical cables I/O + 1 multibus cable (4 wires) cat5e DIN M12 in the arm |

Tool changer (option)

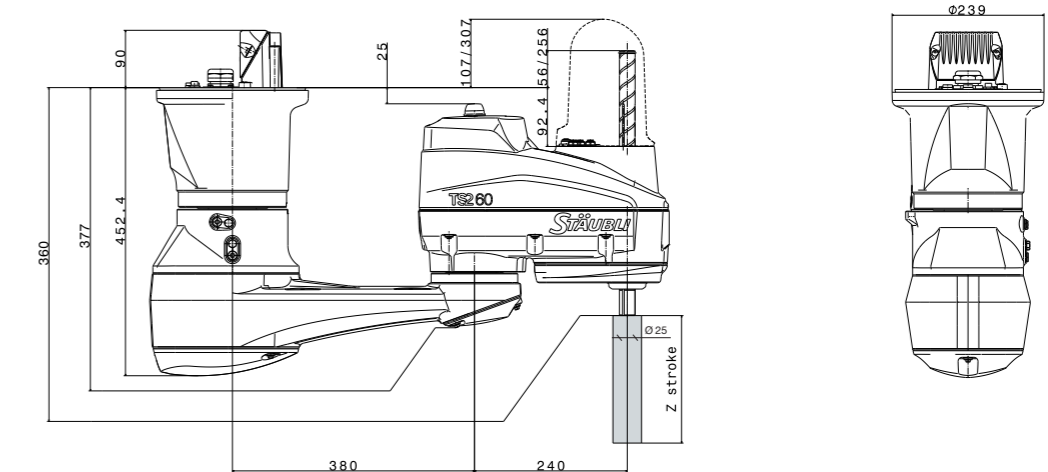


Dimensions

Floor mounting



Ceiling mounting (vertical cable outlet)



Sensitive environment versions

| | |
|---------------------------------------|-----------|
| Harsh (Automotive, Metal) | Available |
| ESD (ElectroStatic Discharge) version | Available |
| HE (Humid Environment) version | Available |
| Sterilean version | Available |

Available options

| | |
|--|----------------------------------|
| Cover axis 3 | for higher protection class |
| User harness from forearm to end of arm (flange or tool changer) | for higher connectivity |
| Flange interface | for easy integration |
| Tool changer interface | for more flexibility |
| Vertical cable outlet | for clean and clever integration |
| H1 oil and grease | for hygienic demands |



● Stäubli Units ○ Representatives/Agents

Global presence of the Stäubli Group

www.staubli.com