

FAST MOVING TECHNOLOGY

**STÄUBLI**

# TX2-140/160 range

**6 axis industrial robots**



## Characteristics

	TX2-140	TX2-160	TX2-160L
Load capacity	40 kg	40 kg	25 kg
Reach (between axis 1 and 6)	1510 mm	1710 mm	2010 mm
Repeatability - ISO 9283	± 0.015 mm	± 0.02 mm	± 0.03 mm
Power Consumption - VDMA 24608	0.76 kW	0.715 kW	0.685 kW
Weight	250 kg	260 kg	265 kg
Attachment methods			

## Performance

	TX2-140	TX2-160	TX2-160L
Joint speed - axis 1	210°/s	210°/s	210°/s
Joint speed - axis 2	210°/s	210°/s	210°/s
Joint speed - axis 3	335°/s	335°/s	335°/s
Joint speed - axis 4	530°/s	530°/s	530°/s
Joint speed - axis 5	500°/s	500°/s	500°/s
Joint speed - axis 6	1500°/s	1500°/s	1500°/s
Maximum speed at load gravity center	9.6 m/s	10.3 m/s	12.2 m/s
Maximum inertia axis 5	4 kg.m <sup>2</sup>	4 kg.m <sup>2</sup>	2.8 kg.m <sup>2</sup>
Maximum inertia axis 6	1 kg.m <sup>2</sup>	1 kg.m <sup>2</sup>	0.7 kg.m <sup>2</sup>
Brakes	All axes		

## Work envelope and range of motion

	TX2-140	TX2-160	TX2-160L
Maximum reach between axis 1 and 5 (R.M)	1400 mm	1600 mm	1900 mm
Minimum reach between axis 1 and 5 (R.m1)	174 mm	272 mm	313 mm
Minimum reach between axis 2 and 5 (R.m2)	324 mm	422 mm	575 mm
Reach between axis 3 and 5 (R.b)	625 mm	625 mm	925 mm

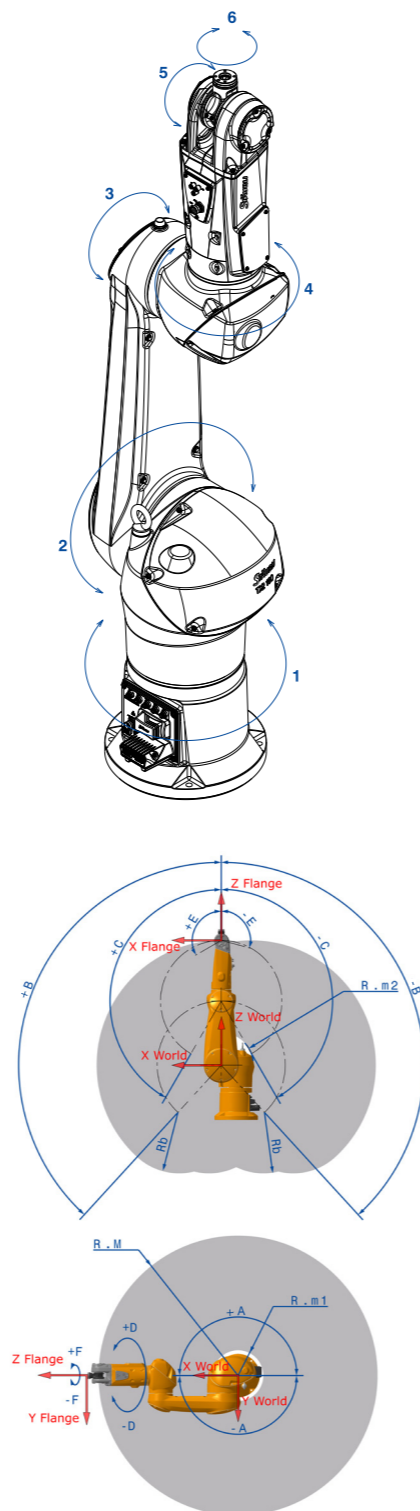
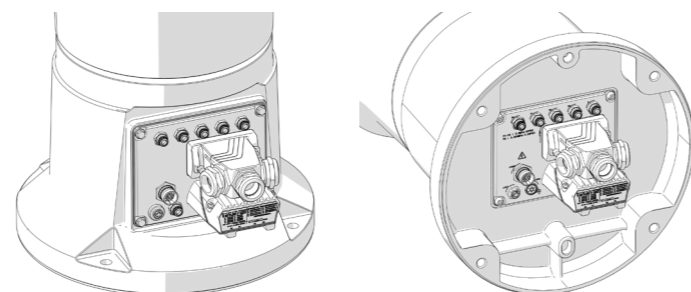
Axis 1 (A)	± 180°	± 180°	± 180°
Axis 2 (B)	+150°/-125°	± 137.5°	± 137.5°
Axis 3 (C)	+150°/-140°	+165°/-160°	+160°/-150°
Axis 4 (D)	± 270°	± 270°	± 270°
Axis 5 (E)	+135°/-110°	+135°/-110°	+135°/-110°
Axis 6 (F)	± 270° <sup>(1)</sup>	± 270° <sup>(1)</sup>	± 270° <sup>(1)</sup>

(1) Can be configured by software up to ± 11 250° (± 31 rotations)

## Installation environment

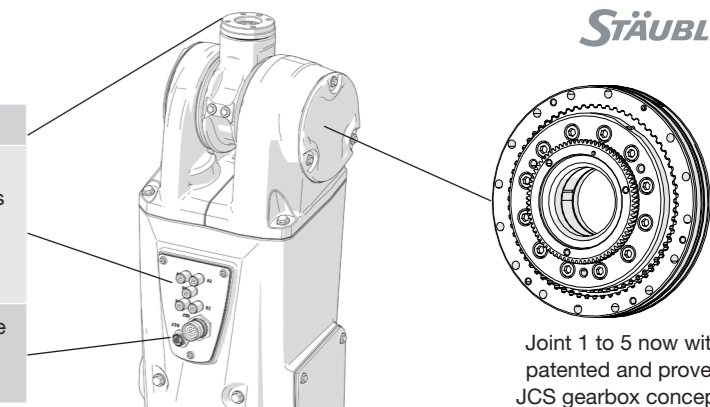
Working temperature according to NF EN 60204-1	+5°C to +40°C
Humidity according to NF EN 60204-1	30% to 95% max non-condensing
Vertical cable outlet version	Available
Pressurized version	Available
Controller	CS9 MP
Cleanroom standard ISO 14644-1	5
Protection class according to EN 60529	IP65/IP67

### Cable outlet horizontal and vertical (option)



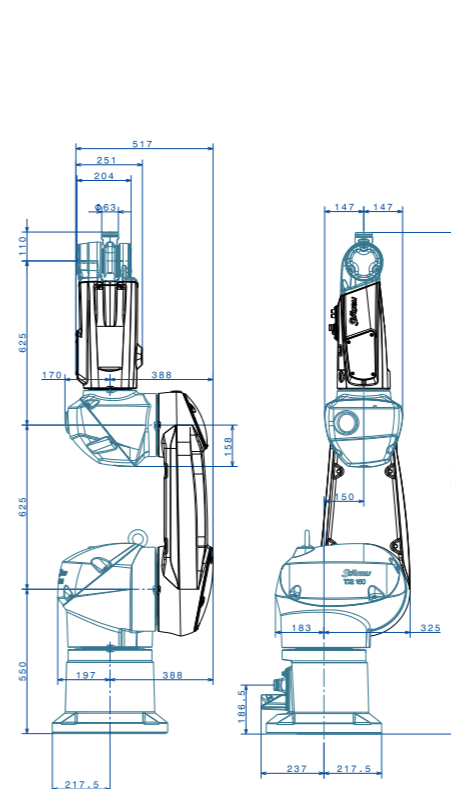
## User interface

Mechanical	NF EN ISO 9409-1 Ø 50 mm, 4 screws M6
Pneumatic	2 direct lines between base and forearm or 2 optional solenoid valves : bi-stable solenoid valves 5/2 « pressure » or Mono-stable « center close » solenoid valves 5/3 « pressure » or Mono-stable solenoid valves 3/2 « vacuum »
Electrical	10 electrical lines I/O and Multibus cable inside the arm + 3 electrical lines + 4 Multibus cable Cat 5e lines, DIN M12

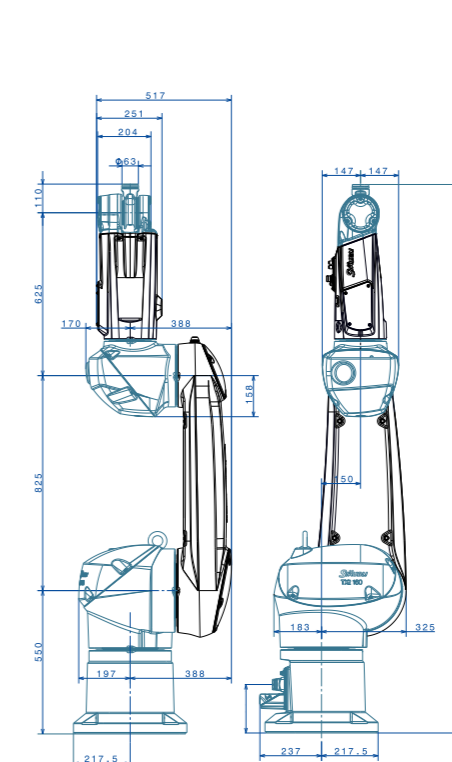


## Dimensions

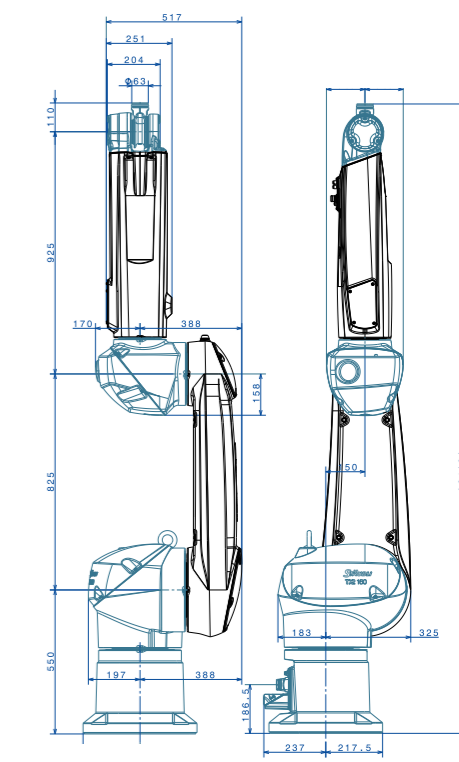
### TX2-140



### TX2-160



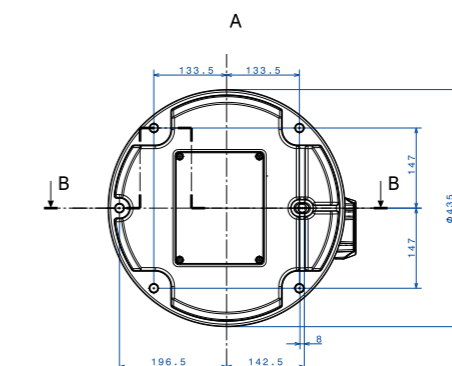
### TX2-160L



Blue parts = same parts and same dimensions

### Mounting

(for horizontal cable outlet)



## Sensitive environment versions

Harsh (Automotive, Metal)	Available
ESD (ElectroStatic Discharge)	Available
HE (Humid Environment)	Available
Stericlean	Available
SCR (SuperCleanRoom)	Available

## Available options

Vertical cable outlet	for smarter integration
H1 oil and grease	for hygienic demands



● Stäubli Units   ○ Representatives / Agents

# Global presence of the Stäubli Group