

FAST MOVING TECHNOLOGY

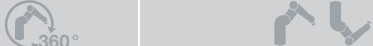
STÄUBLI

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
Average power consumption	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.m²	4 kg.m²	2.8 kg.m²
Maximum inertia axis 6	1 kg.m²	1 kg.m²	0.7 kg.m²
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

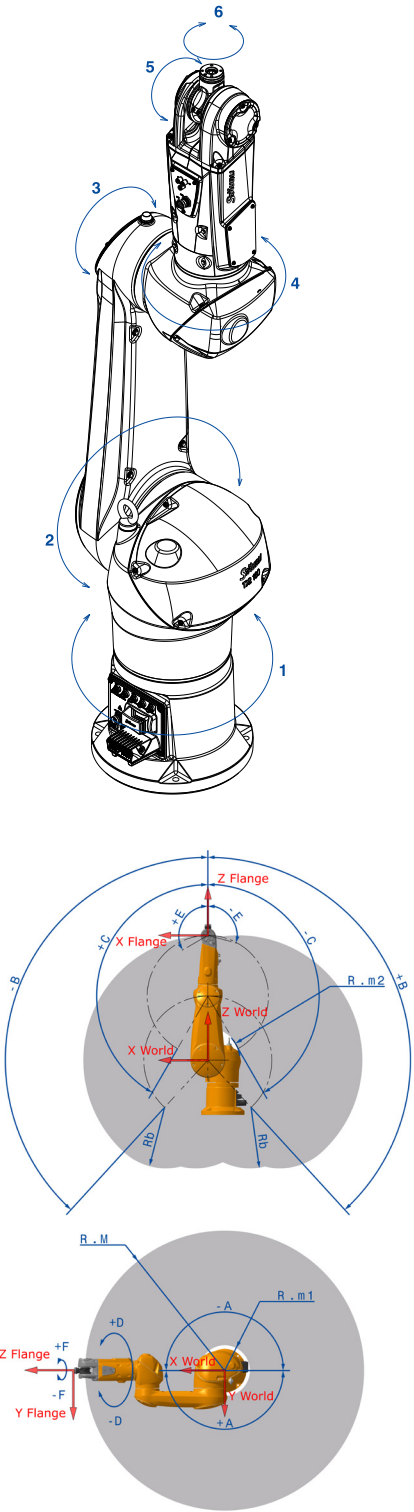
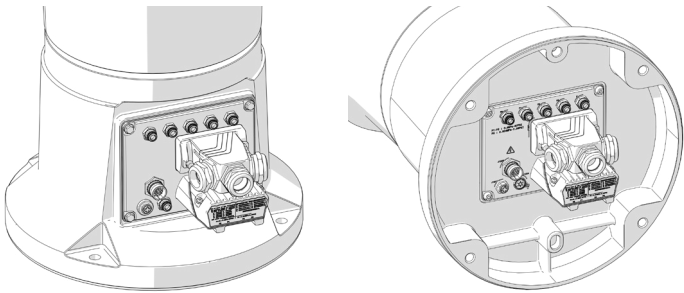
Axis 1 (A)	± 180°	± 180°	± 180°
Axis 2 (B)	+150°/-125°	± 137.5°	± 137.5°
Axis 3 (C)	+150°/-140°	+165°/-160°	+160°/-150°
Axis 4 (D)	± 270°	± 270°	± 270°
Axis 5 (E)	+135°/-110°	+135°/-110°	+135°/-110°
Axis 6 (F)	± 270° ⁽¹⁾	± 270° ⁽¹⁾	± 270° ⁽¹⁾

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

Installation environment

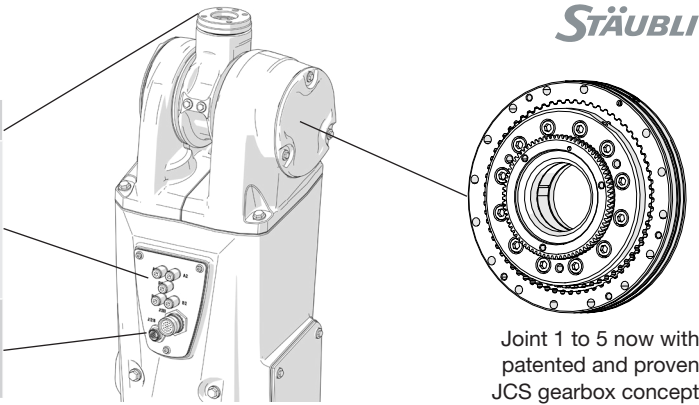
Working temperature according to NF EN 60204-1	+5°C to +40°C
Humidity according to NF EN 60204-1	30% to 95% max non-condensing
Vertical cable outlet version	Available
Pressurized version	Available
Controller	CS9 MP
Cleanroom standard ISO 14644-1	5
Protection class according to EN 60529	IP65/IP67

Cable outlet horizontal and vertical (option)



User interface

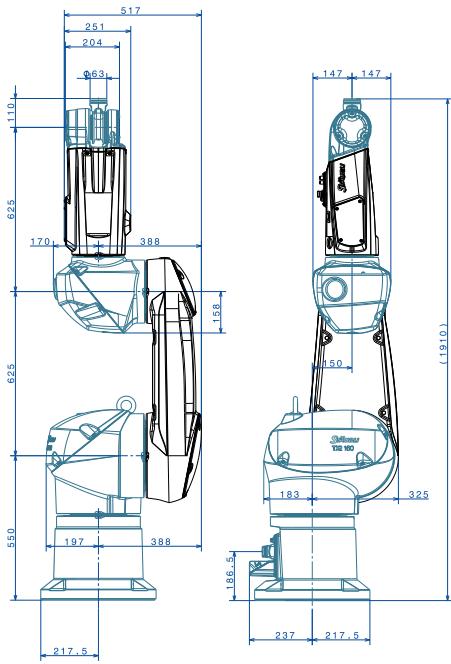
Forearm connections	Mechanical	NF EN ISO 9409-1 Ø 50 mm, 4 screws M6
	Pneumatic	2 direct lines between base and forearm or 2 optional solenoid valves : bi-stable solenoid valves 5/2 « pressure » or Mono-stable « center close » solenoid valves 5/3 « pressure » or Mono-stable solenoid valves 3/2 « vacuum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



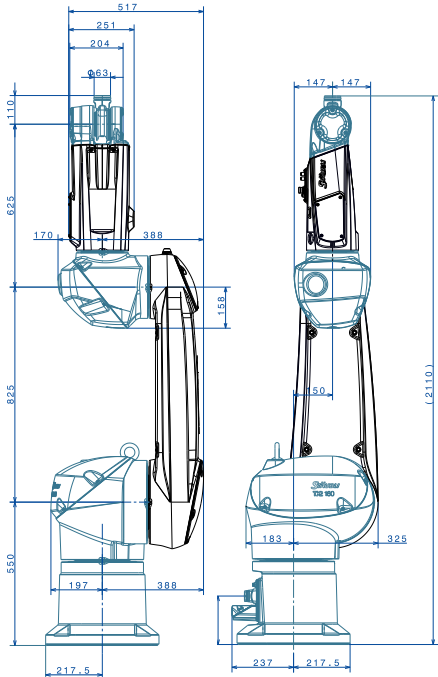
Joint 1 to 5 now with patented and proven JCS gearbox concept

Dimensions

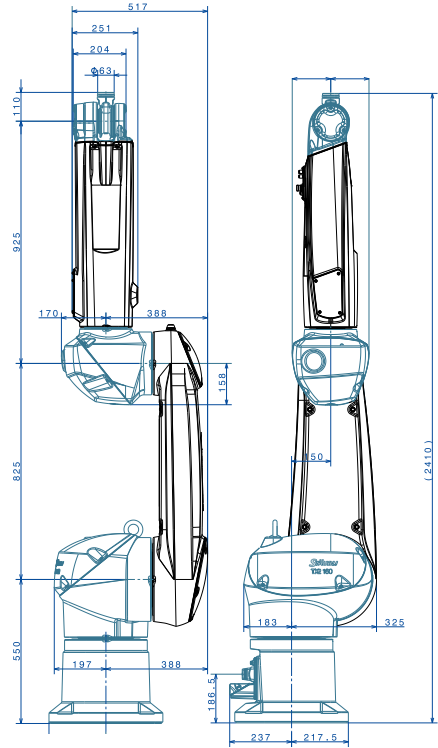
TX2-140



TX2-160

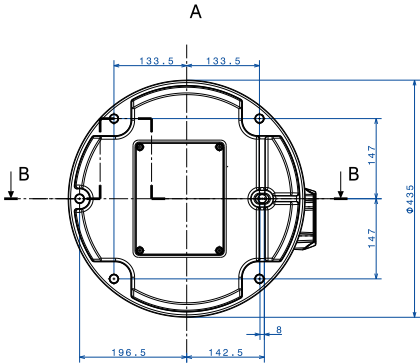


TX2-160L



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