

FAST MOVING TECHNOLOGY


STÄUBLI

TX2-90 range

6 axis industrial robots



Characteristics

	TX2-90	TX2-90L	TX2-90XL
Load capacity	14 kg	12 kg	7 kg
Reach (between axis 1 and 6)	1000 mm	1200 mm	1450 mm
Number of degrees of freedom	6	6	6
Repeatability - ISO 9283	± 0.02 mm	± 0.02 mm	± 0.02 mm
Power Consumption - VDMA 24608	0.575 kW	0.49 kW	0.475 kW
Weight	114 kg	117 kg	119 kg
UL certification	✓	✓	✓
Attachment methods			

Performance

Joint speed -axis 1	330°/s	345°/s	330°/s
Joint speed -axis 2	340°/s	340°/s	350°/s
Joint speed -axis 3	430°/s	420°/s	410°/s
Joint speed -axis 4	540°/s	540°/s	540°/s
Joint speed -axis 5	475°/s	475°/s	475°/s
Joint speed -axis 6	760°/s	760°/s	760°/s
Maximum speed at load gravity center	10.9 m/s	11.1 m/s	11.6 m/s
Maximum inertia axis 5	1.5 kg.m ²	1.25 kg.m ²	1 kg.m ²
Maximum inertia axis 6	0.25 kg.m ²	0.20 kg.m ²	0.15 kg.m ²
Brakes	All axes		

Work envelope and range of motion

Maximum reach between axis 1 and 5 (R. M)	900 mm	1100 mm	1350 mm
Minimum reach between axis 1 and 5 (R.m1)	200 mm	272 mm	327 mm
Minimum reach between axis 2 and 5 (R.m2)	256 mm	320 mm <td 391 mm	
Reach between axis 3 and 5 (R.b)	425 mm	550 mm	650 mm

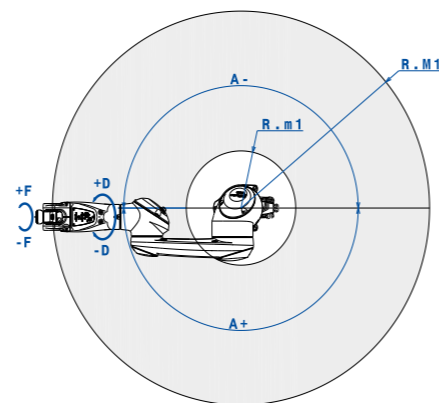
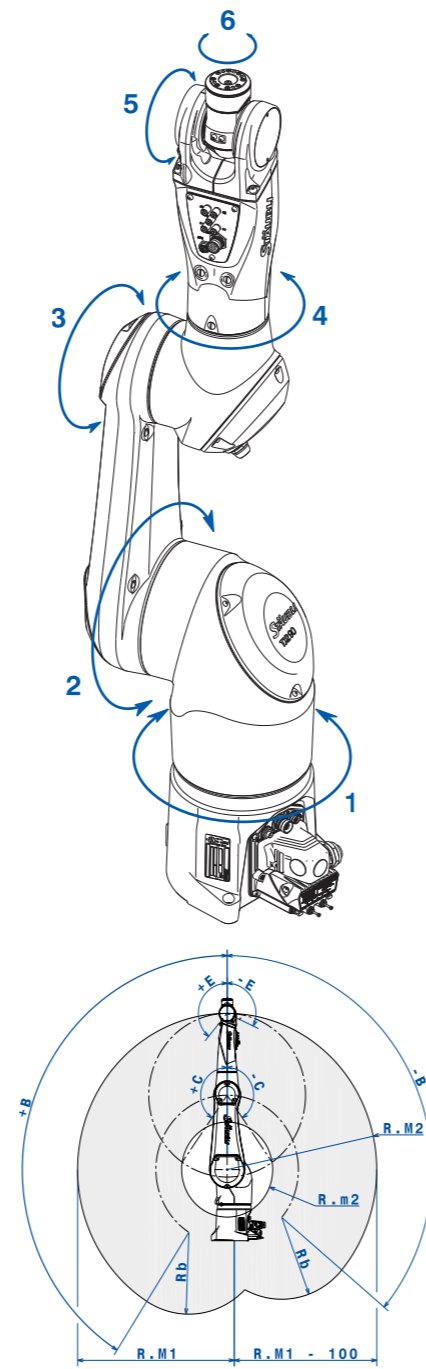
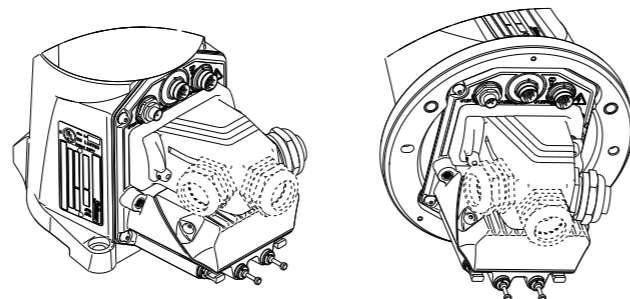
Axis 1 (A)	± 180°
Axis 2 (B)	± 147.5°/-130°
Axis 3 (C)	± 145°
Axis 4 (D)	± 270°
Axis 5 (E)	+ 140°/-115°
Axis 6 (F)	± 270° ⁽¹⁾

(1) Software configurable up to ± 11 250°

Installation environment

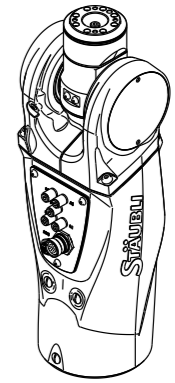
Working temperature according to NF EN 60 204-1	+5°C to +40°C
Humidity according to NF EN 60 204-1	30% to 95% max non-condensing
Vertical cable outlet version	Available
Pressurized version	Available
Controller	CS9
Cleanroom standard ISO 14644-1	5
Protection class according to EN 60529	IP65/IP67

Cable outlet horizontal and vertical (option)

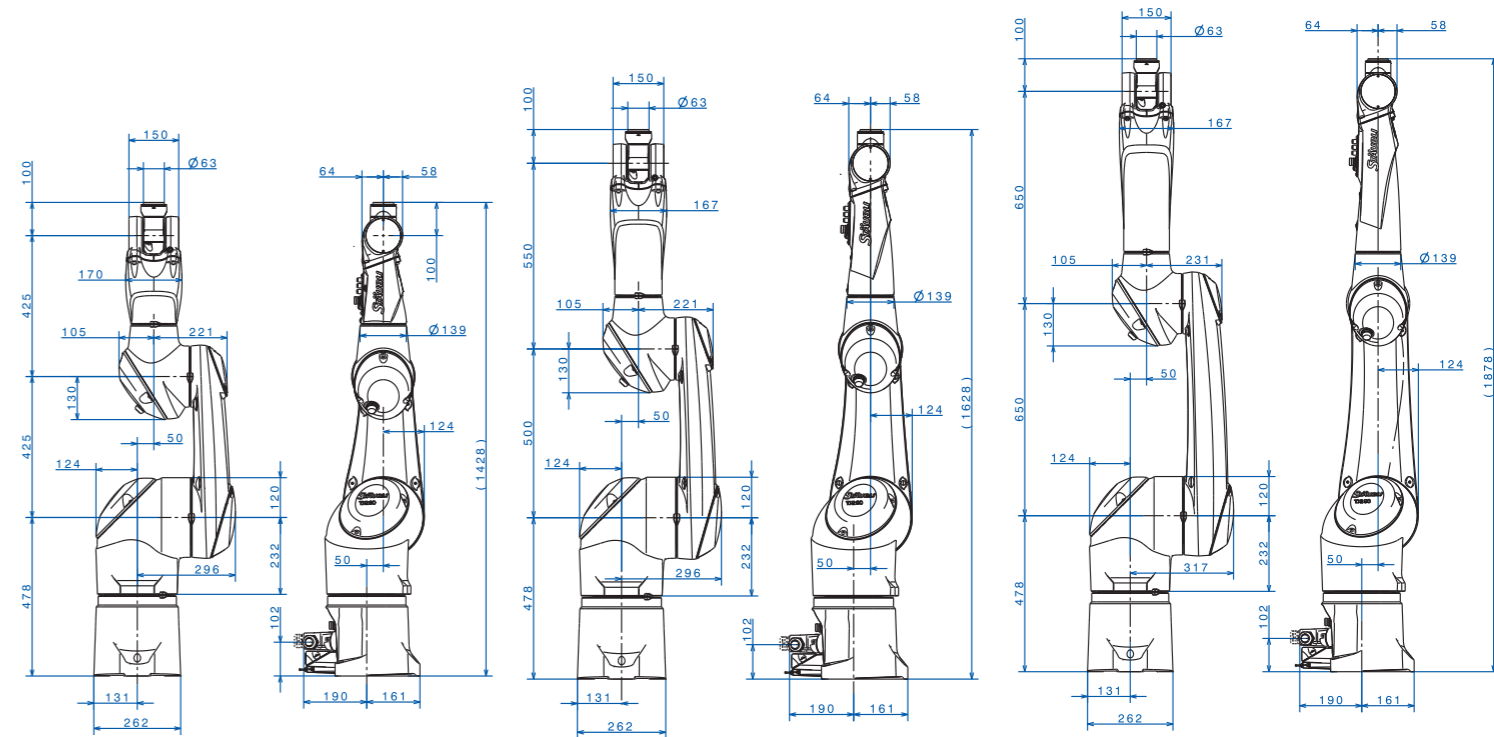


User interface

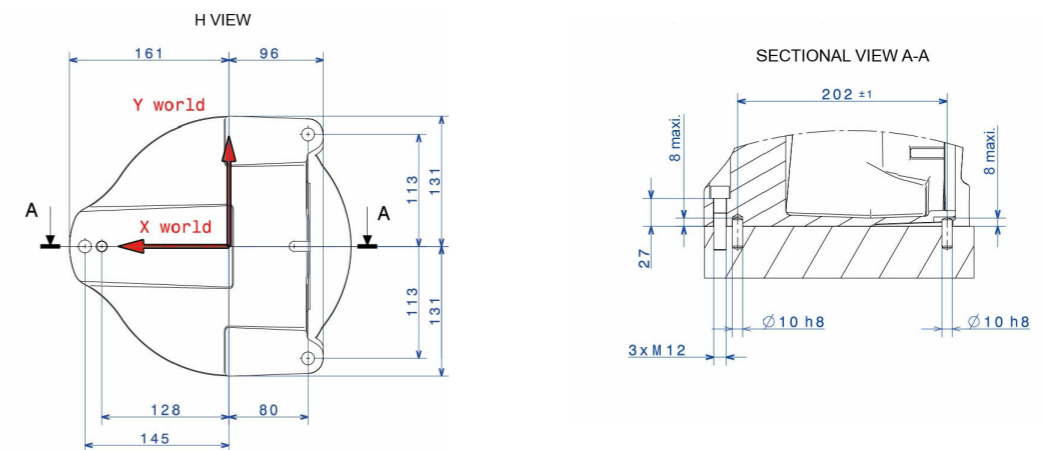
FOREARM CONNECTIONS	
Pneumatic	2 direct lines between base and forearm or 2 optional solenoid valves: bi-stable solenoid valves 5/2 « pressure » or mono-stable « center close » solenoid valves 5/3 « pressure » or Mono-stable solenoid valves 3/2 « vacuum »
Electrical	10 electrical lines I/O + 3 electrical lines + 1 Multibus cable (4 lines cat 5e lines), DIN M12



Dimensions



Mounting (not for vertical cable outlet option)



Sensitive environment versions

Harsh (Automotive, Metal)	Available
ESD (ElectroStatic Discharge) version	Available
HE (Humid Environment)	Available
Stericlean	Available
SCR (Supercleanroom) - class 2 cleanliness ISO 14644-1	Available

Available options

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



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Global presence of the Staubli Group

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