

TX2 robot range Man and Machine



TX2 robot

CS9 controller

SP2 manual
control pendant

Safety

TX2



CONSISTENT PERFORMANCE EXCEEDING YOUR DEMANDS

- ▶ Optimum balance of speed, payload, rigidity, size and envelope
- ▶ Largest range of high performance robots
- ▶ Renowned for dynamic stability and trajectory control
- ▶ JCS/JCM patented reduction gear system



ABILITY TO WORK IN DIFFICULT ENVIRONMENTS

- ▶ IP65/IP67 (wrist)
- ▶ Pioneer and global leader in closed structure robots
- ▶ Vertical cable outlet
- ▶ Arm pressurization
- ▶ Special versions (HE, stericlean, supercleanroom...) in development



WIDER USE IN SENSITIVE OR RESTRICTED WORKSPACES

- ▶ Pioneering Safe digital encoders
- ▶ DSI board easily accessible
- ▶ Multiple mounting possibilities
- ▶ IO and Ethernet connections located on robot base and forearm



Entire new family with reach radius ranging from 515 to 1450 mm.



CS9 controller



FAST DIAGNOSTICS

- ▶ 2 line alphanumeric man / machine interface on the front



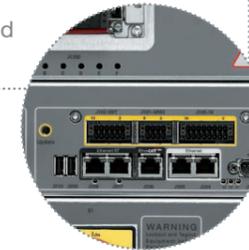
QUICK SERVICE

- ▶ Front access design for control modules and filters
- ▶ Data matrix code for easy part identification



INTEGRATED REALTIME ETHERNET WITH SAFETY PROTOCOL

- ▶ Integrated Safe IOs
- ▶ Standard Ethercat bus, Ethernet, RS 232 and USB connections



SIL3 PLe



SP2 manual control pendant



PUTTING CONTROL IN YOUR HANDS

- ▶ Light, compact and robust
- ▶ 7" LCD color touch screen
- ▶ Portrait or landscape (rotating cradle)
- ▶ Fits right or left handed
- ▶ USB port
- ▶ Hard and softkeys for safe control
- ▶ Designed for use in harsh environment (e.g. machine tools)



EASIER MAN AND MACHINE INTERACTION

- ▶ Intuitive, tablet-like touch based system interface
- ▶ Customizable user graphics
- ▶ Configurable «User Homepage» for quick information and shortcuts



SAFETY

Safety functions are easy and inexpensive to implement. They allow a higher level of interactions between robots and human operators, while still guaranteeing protection of your people, production and investment.

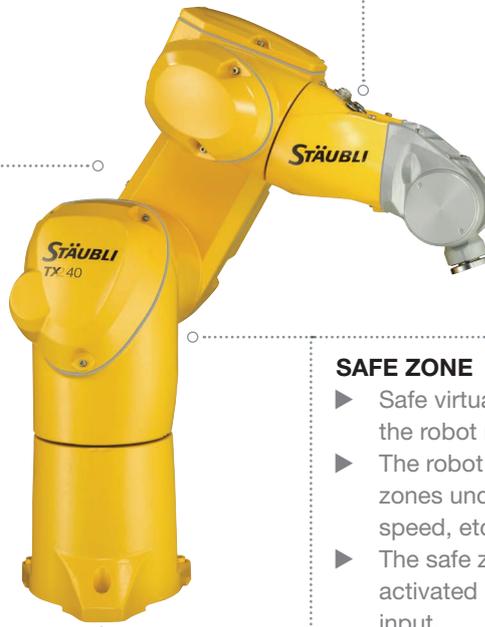
SAFE STOP

- ▶ The operator can interact more easily with the robot.
- ▶ The robot slows to a halt before the operator approaches.
- ▶ The robot maintains the safe stop status while there is man and machine interaction. The operator can for example load / unload the end effector as the robot will not move but maintain its in-program status and not create an e-stop mode requiring re-initialisation of the cell.
- ▶ The robot restarts.



SAFE TOOL

- ▶ In addition to the robot body, additional safe tool envelopes can be created by defining one or several safe TCPs (Tool Center Points).
- ▶ These envelopes can be activated dynamically (when the robot holds a part or picks up a workpiece).



SAFE ZONE

- ▶ Safe virtual volumes or joint limits restricting the robot movements.
- ▶ The robot can be allowed to enter the safe zones under predefined conditions (reduced speed, etc...).
- ▶ The safe zones can be active at all time or activated upon receipt of an associated safe input.



SAFE SPEED

- ▶ The operator can enter the cell with the robot still running at low speed (≤ 250 mm/s).
- ▶ The robot slows down when the operator opens the door.
- ▶ The protection of the operator is controlled through an enabling switch.
- ▶ The robot resumes full speed when the operator exits the cell and shuts the door.
- ▶ The robot restarts.



www.staubli.com/robotics

Headquarters
74210 FAVERGES (Annecy) / France
Tel.: +33 4 50 65 62 87
Fax: +33 4 50 65 61 30
robot.sales@staubli.com

For a list of Staubli Robotics offices around the world, please go to www.staubli.com/robotics/contacts

STÄUBLI