

Flexible Lab Automation  
with the MOTOMAN CSDA10F

Controlled by  
FS100



MOTOMAN CSDA10F



 **YASKAWA**

# MOTOMAN CSDA10F – NEW dual arm robot for handling & biomedical uses

YASKAWA's dual arm CSDA10F MOTOMAN robot extends the robot range beyond handling applications to independent performance of work sequences. The CSDA10F offers high performance and unique characteristics in cleanrooms. Greater automation improves precision and accuracy of operations in pharmaceutical applications, clinical diagnosis and new medicine research and development.

## “Lean” Lab Automation without expensive system technology

The MOTOMAN CSDA10F can handle any existing conventional laboratory equipment. It executes protocols and work steps precisely as they were designed for manual laboratory tasks. Dedicated automation equipment, e.g. liquid handling systems, is not required. This allows simple and highly flexible automation concepts without the need to invest in expensive system technology.

No matter how varied the work sequences or how often they have to be refined or modified: You can teach the robot your new ideas very quickly.

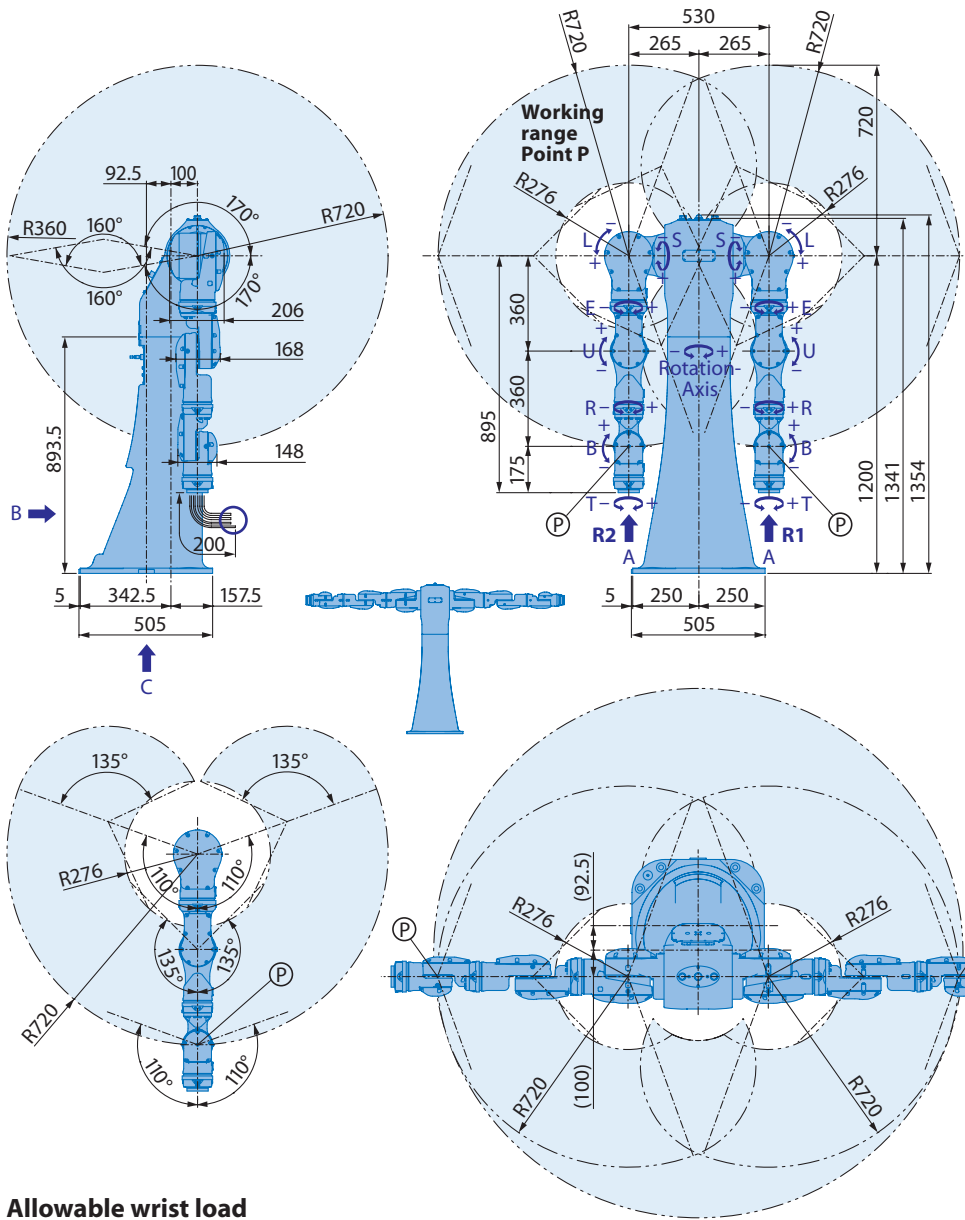
## Functionality and performance characteristics:

- Human-like dual arm robot-system
  - 15 servo-controlled rotation axes (7 per arm und 1 monumental axis)
  - Max. payload of 10 kg per arm
  - Arm length 895 mm (From shoulder joint to flange)
  - Industrial robot controller FS100
  - Easy programming of new tasks and work sequences
- Designed for excellent hygiene management
  - Special coating and surface treatment of the robot enables cleaning with hydrogen peroxide
  - Sealed structure to protect robot arms (IP64) and base axis (IP50)
  - Conforms to ISO 14644-1, Cleanroom class 6, (Low particle emission)
- Full built-in wiring harnesses and air lines
  - Desired movements with no peripheral interference
  - Can reach into narrow spaces

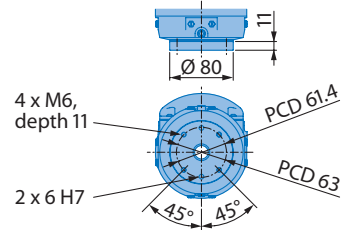
## Advantages of flexible laboratory automation:

- Work with standard laboratory equipment, no need of expensive laboratory instruments
- Use of high-quality analytical instruments around the clock
- Preparation of samples with any required level of complexity
- Reliable in environments that are hazardous to health
- Achieve consistently outstanding work results
- Remembering and repeating of tricks of experienced laboratory specialists
- Fast programming of new tasks and work sequences

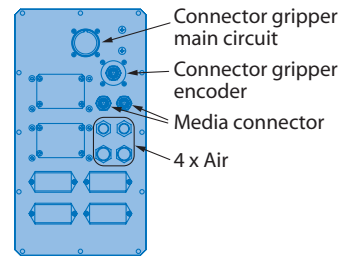




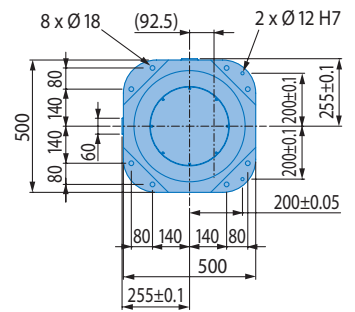
**View A (Flange)**



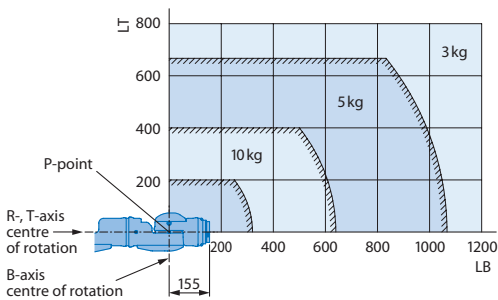
**View B (Media connection)**



**View C (Ground mounting)**



**Allowable wrist load**



Mounting options: Floor



All dimensions in mm | Technical data may be subject to change without previous notice | Please request detailed drawings at robotics@yaskawa.eu.com – YR-CSDA10F-A1A, B-03-2015, A-No. 163287

**Specifications SDA10F**

Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m <sup>2</sup> ]	Controlled axes	
Rotation	±170	130	-	-		15
S	±170	170	-	-	Max. payload [kg/arm]	10
L	±110	170	-	-	Repeat. pos. accuracy [mm]	±0.1
θ	±170	170	-	-	Max. reach [mm]	R = 720/720
U	±135	170	-	-	Temperature [°C]	0 to +40
R	±180	200	31.4	1.0	Humidity [%]	20 – 80
B	±110	200	31.4	1.0	Weight [kg]	220
T	±180	400	19.6	0.4	Power supply, average [KVA]	2.0

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