

# MOTOMAN SP165-105

Spot Welding & Handling with the SP-series



The MOTOMAN SP165-105 is a spot welding and handling robot with a long reach of over 3 meters. This robot is often used for handling tasks related to spot welding, e.g. work-piece handling with stationary welding gun. It is suitable for a wide range of common spot welding guns and technologies, especially also for servo-controlled welding guns with robot-assisted gun balance. Its slim design does not require mechanical counterweight compensation and allows low moving masses as well as higher accelerations and speeds. The stable wrist is particularly suitable for small and fast positioning movements, as are common in spot welding applications.

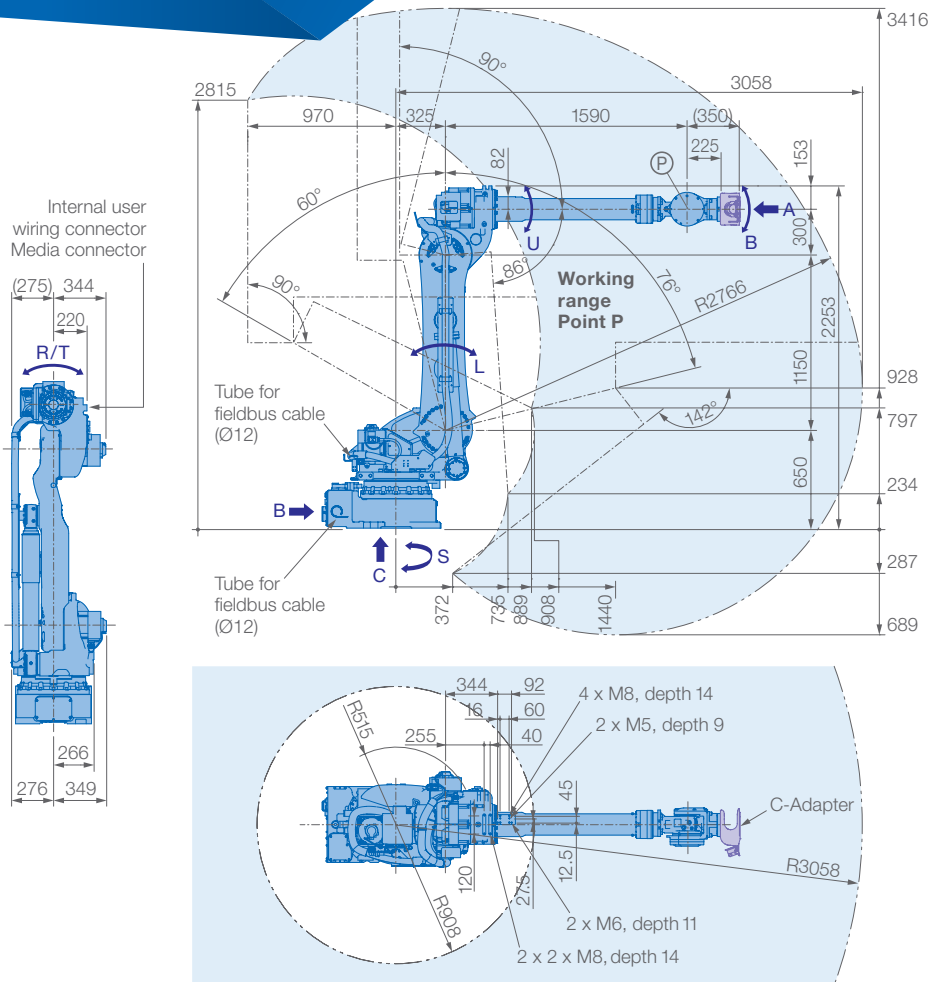
The MOTOMAN SP165-105 features the latest Yaskawa Sigma7 servo drive technology, is state-of-the-art in terms of dynamics and energy efficiency, and enables outstanding cycle times.

## KEY BENEFITS

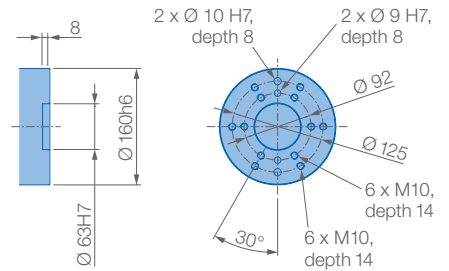
- Various application possibilities
- High payload (105 kg including C-adapter) and large working range (3058 mm)
- High repeatability ( $\pm 0.05$  mm)
- Slim body and compact footprint
- Integrated cable and media guide in the robot arm
- High robot density in production line possible
- Shortened process times
- High dynamics

## OPTIONS

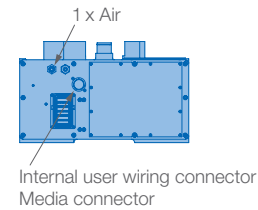
- Cable packages of various designs, easily adaptable
- C-adapter for optimal cable routing on the wrist
- Sockets and base plates
- Extended robot cables
- Fieldbus and Safety Bus options
- External drive axes, tracks
- Functional Safety Unit (FSU), area limitations
- Vision system, e.g. MotoSight 2D



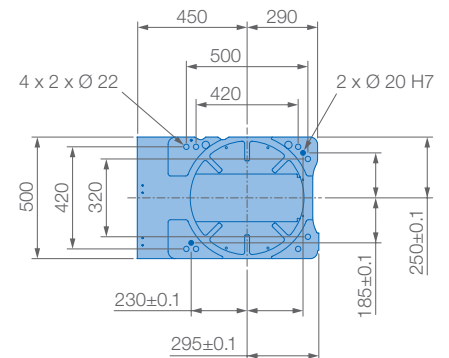
View A



View B



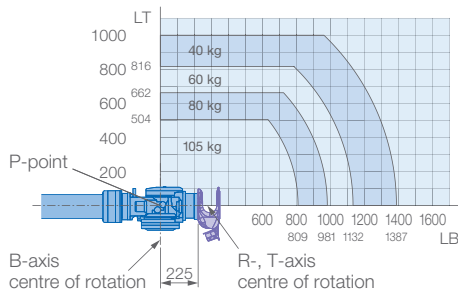
View C



Mounting option: Floor

IP Protection: IP54 (body), IP67 (wrist)

Allowable wrist load with C-adapter



Specifications SP165-105					
Axes	Maximum motion range [°]	Maximum speed [°/s]	Allowable moment [Nm]	Allowable moment of inertia [kg · m <sup>2</sup> ]	Controlled axes
					6
					Max. payload [kg]
					105 (120°)
S	±180	125	–	–	Repeatability [mm]
					±0,05
L	+76/–60	115	–	–	Max. working range R [mm]
					3058
U	+90/–86	125	–	–	Temperature [°C]
					0 to +45
R	±210 (±360°)	182	834 (883°)	77 (79°)	Humidity [%]
					20 – 80
B	±125 (±130°)	175	834 (883°)	77 (79°)	Weight [kg]
					1090
T	±210 (±360°)	265	520	40	Power supply, average [kVA]
					5.0

\* ohne C-Adapter

Yaskawa Europe GmbH

Robotics Division  
Yaskawastraße 1  
85391 Allershausen  
Germany

Tel. +49 (0) 8166 90-0  
robotics@yaskawa.eu.com  
www.yaskawa.eu.com

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