

# MOTOMAN HC10

**Human-Collaborative Robot**  
**6 integrated Sensors**



MOTOMAN HC10 is a 6 axes human-collaborative robot with a payload of 10 kg. Operator's safety is assured by a Power and Force Limit technology that stops the robot in case of contact with an operator.

The robot arm can be hand guided by an operator and robot positions and gripper operation can be registered via so called „Easy Teaching Smart HUB“. These features offer time saving during the robot programming. The robots arm geometry was designed to avoid pinch points (finger).

The MOTOMAN HC10 can operate without additional protective measures like a safety fence, depending on the risk assessment. This saves space and costs. Its installation area is very flexible and therefore able to operate at different workplaces.

## KEY BENEFITS

### High safety

- Contact force between operator and robot is limited to a safe level
- Arm geometry designed to avoid pinch points (finger protection)
- Safety standards – applications for Industrial robots: ISO 10218-1 (5.10.5 Power and Force limiting)
- Safety functions industrial robot controller: ISO 13849-1, PLd, Cat. 3

### Easy teaching

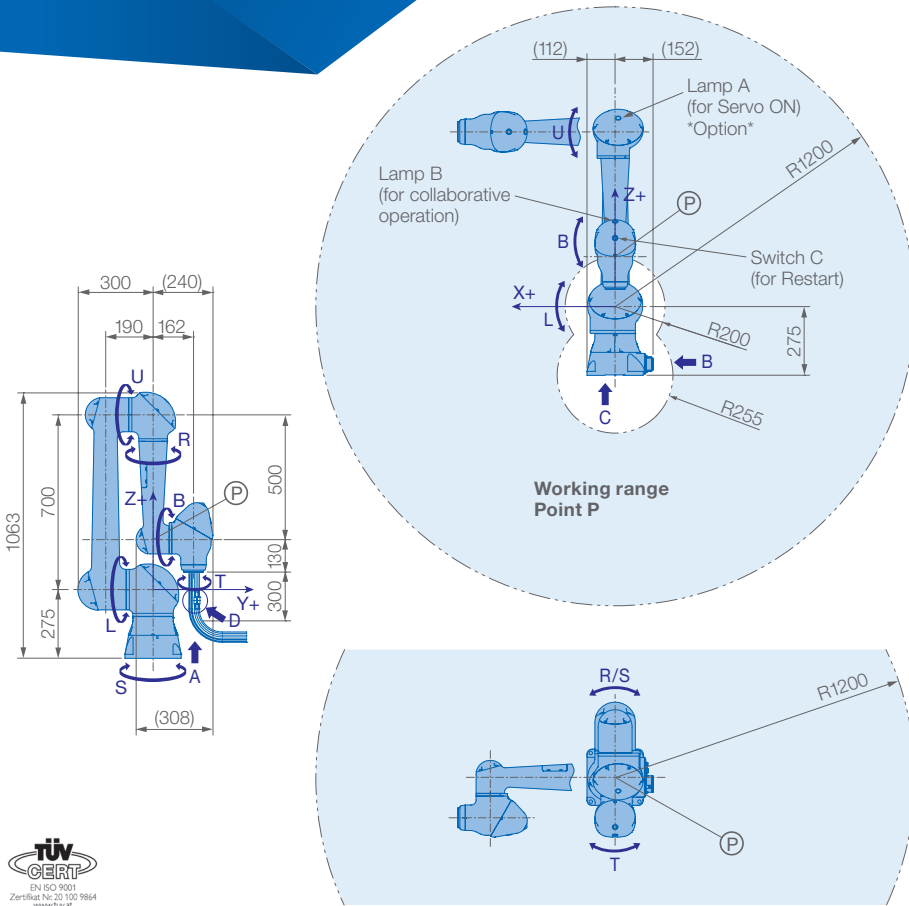
- Move the robot arm directly via hand guiding function: easy teaching mode with a Smart HUB

### No safety fence

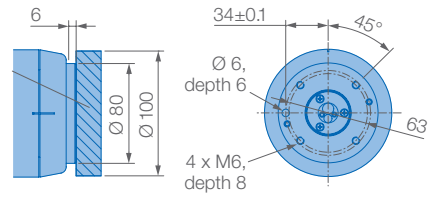
- Depending on the application, the HC10 can be used without a safety fence

### Features in the future

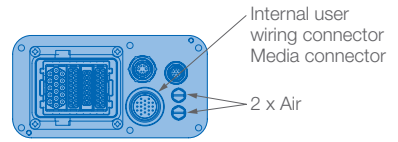
- Transfer between various workplaces via a mobile platform



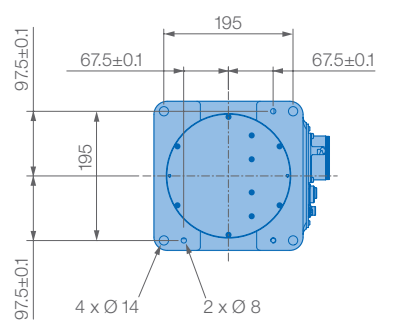
## View A



## View B

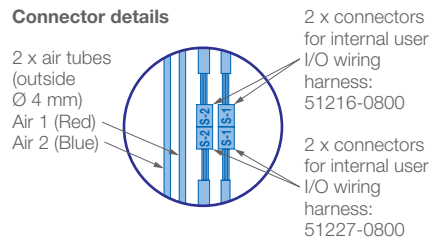


## View C

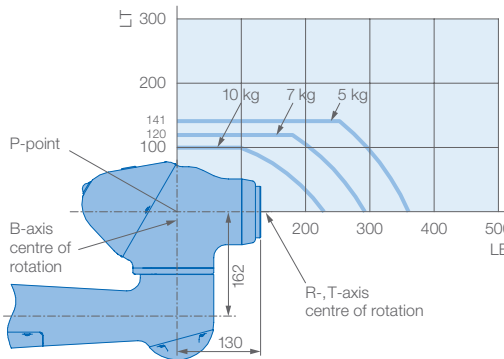


Mounting option: Floor, ceiling, wall

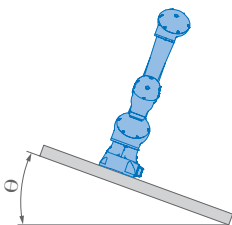
## View D



## Allowable wrist load



| Robot installation angle $\theta$ [deg.] | S-axis operating range [deg.] |
|--|-------------------------------|
| $0 < \theta \leq 60$                     | no limit                      |
| $60 < \theta$                            | within $\pm 60$               |



| Specifications HC10 |                          |                        |                       |  |                             |                         |
|---------------------|--------------------------|------------------------|-----------------------|--|-----------------------------|-------------------------|
| Axes                | Maximum motion range [°] | Maximum speed [°/sec.] | Allowable moment [Nm] | Allowable moment of inertia [kg · m <sup>2</sup> ] | Controlled axes             | 6                       |
| S                   | ±180                     | 130                    | –                     | –  | Max. payload [kg]           | 10                      |
| L                   | ±180                     | 130                    | –                     | –  | Repeatability [mm]          | ±0.1                    |
| U                   | +355/-5                  | 180                    | –                     | –  | Max. working range R [mm]   | 1200                    |
| R                   | ±180                     | 180                    | 27.4                  | 0.78   | Temperature [°C]            | 0 to +40*<br>0 to +35** |
| B                   | ±180                     | 250                    | 27.4                  | 0.78   | Humidity [%]                | 20 – 80                 |
| T                   | ±180                     | 250                    | 9.8                   | 0.1  | Weight [kg]                 | 47                      |
|                     |                          |                        |                       |  | Power supply, average [KVA] | 1                       |

\* during operation \*\* when the soft cover (optional) is attached

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