

# MOTOMAN HC10DT IP67

**Human-Collaborative Robots for harsh Environments**

**6 integrated Sensors**

with internal Cable Routing



MOTOMAN HC10DT IP67 (B10 + B12) are 6 axes human-collaborative robots with a payload of up to 10 kg. Complying to EN 60529-IP67, they are dust and waterproof protected to operate in harsh environments. 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 "Teach" and "Tool" buttons. These features offer time saving during the robot programming. The robot's arm geometry was designed to avoid pinch points (finger) and provides internal wiring options (Air (-B10) or Ethernet (-B12).

The MOTOMAN HC10DT IP67 robots can operate without additional protective measures like a safety fence, depending on the risk assessment. This saves space and costs.

## KEY BENEFITS

### Controller

- Available with YRC1000 or YRC1000micro industrial robot controller.

### High safety

- Contact force between operator and robot is limited to a safe level
- Safety by Design: rounded edges without pinch points (finger protections)
- Internal cable routing options: Air (-B10) or Ethernet (-B12)
- Safety standards – applications for industrial robots: ISO 10218-1 (5.10.5 Power and Force Limiting)
- Complies to ISO TS 15066
- Safety functions industrial robot controller: ISO 13849-1, PLd, Cat. 3
- Functional Safety Unit included
- Safe Force/Torque Sensors in all 6 links

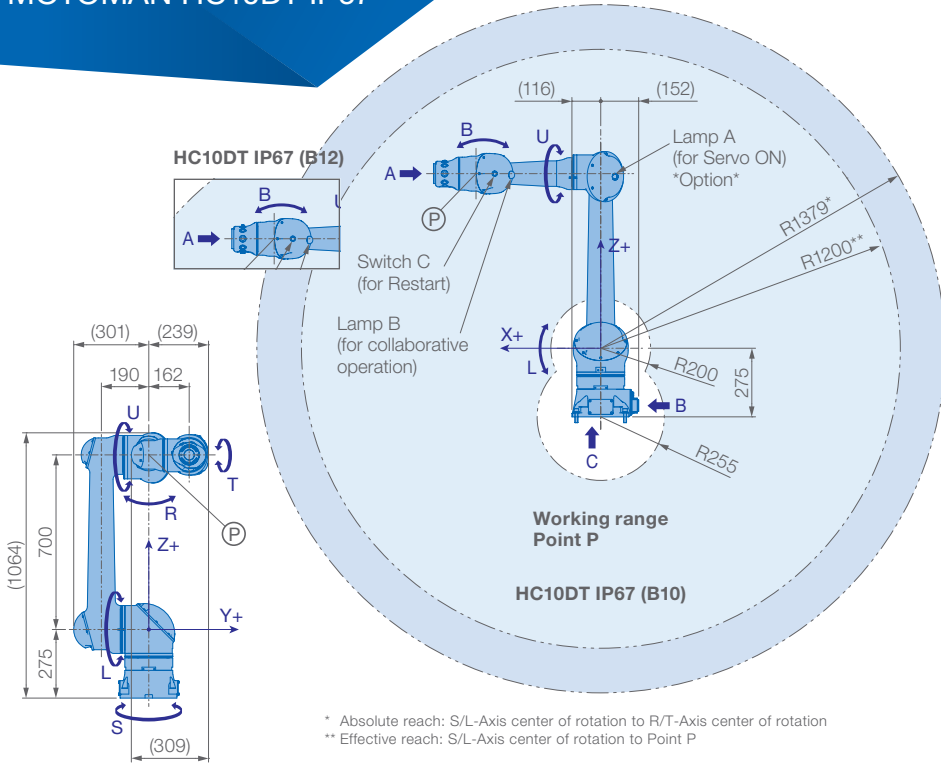
### Easy teaching

- Move the robot arm directly via hand guiding function: easy teaching mode supported by function buttons at the wrist

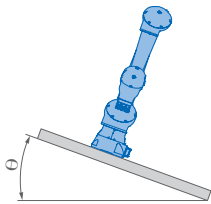
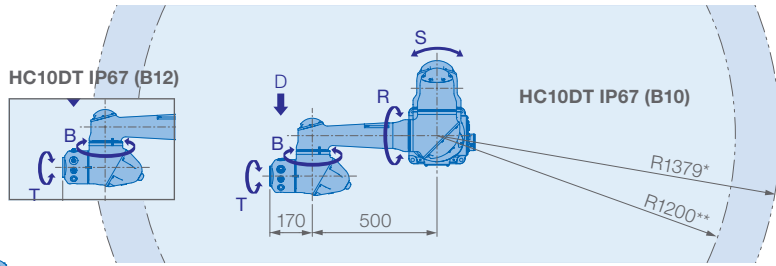
### Safety and Speed

- Depending on the application, the MOTOMAN HC10DT can be switched between safe/collaborative mode in phases of man-robot-interaction, and returning into high speed when absence of the operator is detected by additional safety devices



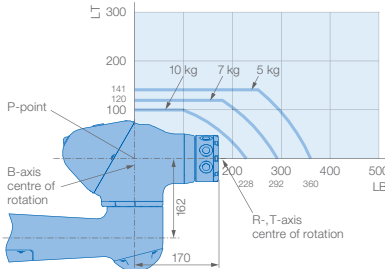


\* Absolute reach: S/L-Axis center of rotation to R/T-Axis center of rotation  
 \*\* Effective reach: S/L-Axis center of rotation to Point P

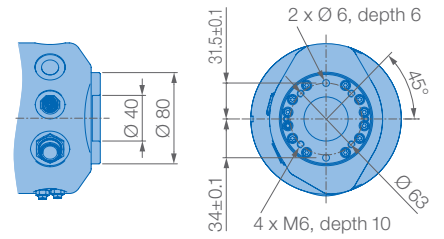


Robot installation angle $\theta$ [deg.]	S-axis operating range [deg.]
$0 \leq \theta \leq 60$	no limit
$60 < \theta$	$\pm 60$ max.

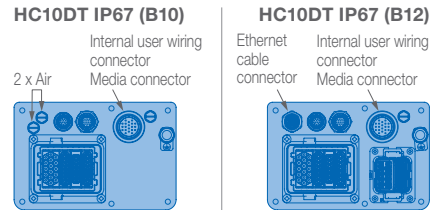
### Allowable wrist load



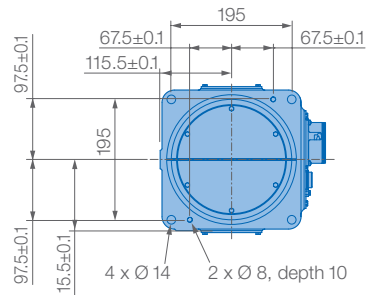
### View A



### View B

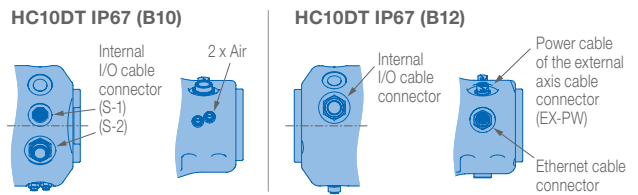


### View C



Mounting options: Floor, ceiling, wall, tilt\*  
 IP Protection: EN 60529-IP67  
 \* S Axis motion limits – see table left side

### View D



Specifications HC10DT IP67 (B10 + B12)						
Axes	Maximum motion range [°]	Maximum speed [°/s]	Allowable moment [Nm]	Allowable moment of inertia [kg · m <sup>2</sup> ]	Controlled axes	6
S	$\pm 180$	130	–	–	Max. payload [kg]	10
L	$\pm 180$	130	–	–	Repeatability [mm]	$\pm 0.1$
U	+265/–95	180	–	–	Max. working range R [mm]	1379*/1200**
R	$\pm 180$	180	27.4	0.78	Temperature [°C]	0 to +40
B	$\pm 180$	250	27.4	0.78	Humidity [%]	20 – 80
T	$\pm 180$	250	9.8	0.1	Weight [kg]	58
					Power supply, average [kVA]	1.0

\* Absolute reach: S/L-Axis center of rotation to R/T-Axis center of rotation \*\* Effective reach: S/L-Axis center of rotation to Point P

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