

MOTOMAN MPO10

Door Opener



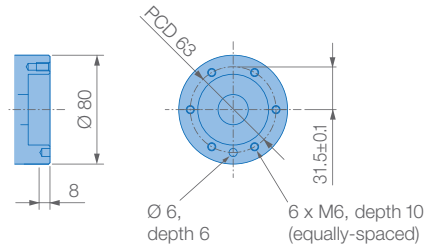
The MOTOMAN MPO10 is a compact door opener manipulator with 3 motion axes. Equipped with a door opening hook (optional), it is used to open vehicle body doors, hold them in position and close them again during paint shop operations. It has a motion range of 350 mm and is thus also suitable for paint lines with many vehicle body variants and SUV body-shells. The base housing is very flat, enabling the painting robot to pass overhead. It can optionally be positioned to the left or right of the vehicle body, with the working range of the rotational axes being accordingly adjustable. Cable routing is possible from 3 sides. The housing contains maintenance apertures and has rounded corners and smooth surfaces for easy cleaning.

A door opening hook with an integrated force sensor is optionally available. This monitors the force characteristic during opening and closing of the door, detects locking points and errors during opening of the door and thus improves the process reliability of the painting facility.

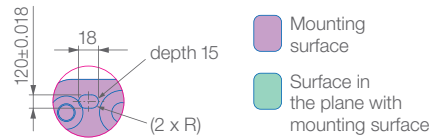
KEY BENEFITS

- Design: 3-axis kinematic system (2 rotational axes and 1 stroke axis)
- 3 electrically driven servo axes with absolutely accurate pulse coders
- Working ranges of the rotational axes can be configured as S, L or R type
- Max. payload capacity: 10 kg (dependent on pose/extension)
- Max. reach: 1400 mm
- Max. stroke: 350 mm
- Max. torque: 27 Nm
- Repeatability: less than +/- 0.15 mm
- Weight (manipulator only): 350 kg
- Explosion protection:
ATEX II 2 G Ex ib px IIB T4 Gb,
Ta = 0 to 40°C

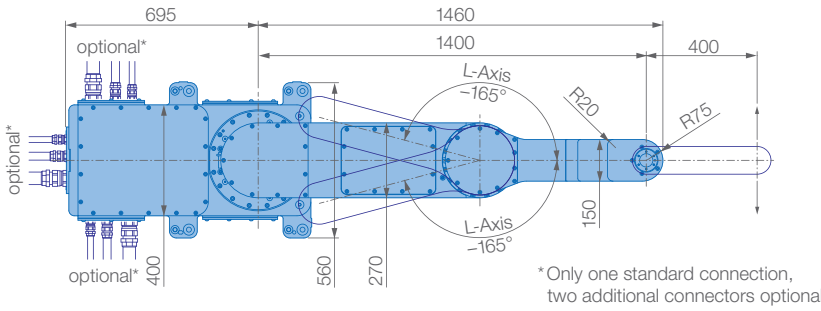
View A



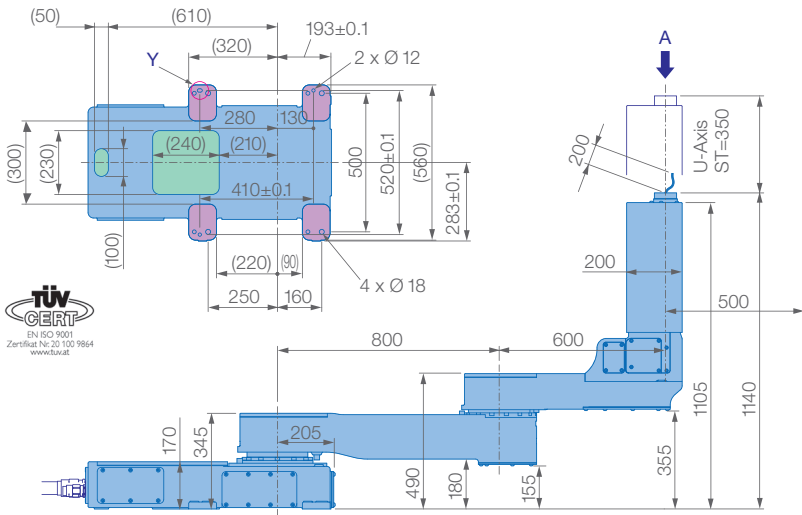
Detail Y



Mounting option: Floor
Protection class: IP4x



* Only one standard connection, two additional connectors optional



ATEX Category 2: (MPO10-Cxx)

Ex II 2 G Ex ib pxb IIB T4 Gb
Ta = 0°C to 40°C



ATEX Category 3: (MPO10-Fxx)

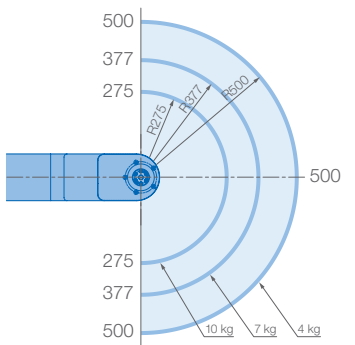
Ex III 3 G D Ex na h IIC T4 Gc
Ex to h IIIC T135°C Dc
Ta = 0°C to 40°C



Notice robot in ATEX category 2:

Features additional purge unit on or close to the robot (max. 20 m) and a top mounted half cabinet for controlling it.

Allowable load at the flange



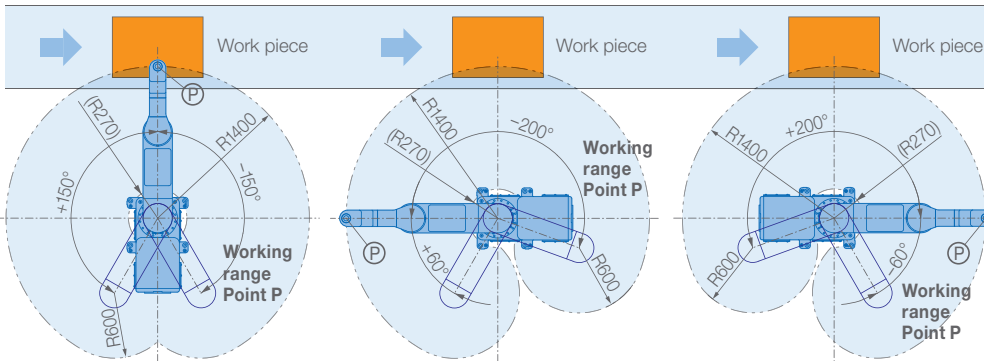
* Gravitational unit

	Allowable moment* [Nm]	Allowable moment of inertia [kg · m²]
Flange	27	1

Standard (S-Type)

(R-Type)

(L-Type)



Specifications MPO10

Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Controlled axes	
			Max. payload [kg]	Repeatability [mm]
S (S-Type)	±150	130	Max. working range R [mm]	1400
S (R-Type)	+60/-200	130	Temperature [°C]	0 to +40
S (L-Type)	+200/-60	130	Humidity [%]	20 - 80
L	±165	130	Weight [kg]	350
U	0 - 350 mm	500 mm/sec.	Power supply, average [KVA]	1.25

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