

PHT

Link To The World

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Cylindrical Coordinate-type Clean Robot

PHT-R-4



Product Features

This product is a horizontally articulated robot for use in cleanrooms. The machine is capable of forward/backward (X-axis), swivelling (θ -axis), up/down (Z-axis) + hand rotation (0° to 180°), and can be used for wafer transfer in air. The drive motor is an AC servo motor with absolute encoder specification in all axes.

Product overview

Model Name	PHT-R-4
Installation Environment	In clean room In air Temperature 10°C to 35°C Humidity 70% RH or less
Arm	Single Arm Material Aluminium · CFRP Ceramic
Operating Range	X-axis: 500mm θ -axis: 340deg Z-axis: 300mm Hand Rotation: $0 \sim 180^\circ$
Operating Speed(fastest)	X-axis: 500mm/sec θ -axis: 200deg/sec Z-axis: 250mm/sec Hand Rotation: 180deg/sec
Payload	3kg (Total hand base, hand and workpiece weight)

Robot Standard Specifications

Robot Type	PHT-R-4-2022
Object to be Conveyed	~ 300mm wafer (Other special workpieces, shapes & materials can be customised flexibly.)
Wafer Holding Method	Vacuum Suction · Edge Clamp · Edge Hold
Mechanical Structure Form	Horizontal articulated type Cylindrical coordinate system
Control Axis	4-axis
Motor Type	AC servo motor Absolute encoder spec.
Weight	Main unit weight: approx. 47Kg Controller: approx. 8Kg
Control Cable	3m (Standard) · 5m · 10m
Control Specs.(1)	Parallel interface 32 input points 32 output points
Control Specs.(2)	Serial interface RS-232C × 1line
Positioning Accuracy	±0.1mm or less
Cleanliness	ISO Class 2 (0.1µm min. 10pcs/m ³ max.)
Utility	Rated voltage: Single phase AC200 ~ 230V±10% Rated current: 5A Vacuum: -80 kPa or less 10NL/min min.
	Controller Specs.
Controller Type	MFD
Interface	RS232C 1 line Digital IO Input: 32 points · 24VDC 8mA Outputs: 32 points · 24VDC±3V 0.1A max.