Horizontal Articulated Robot

LPH series

DENSO

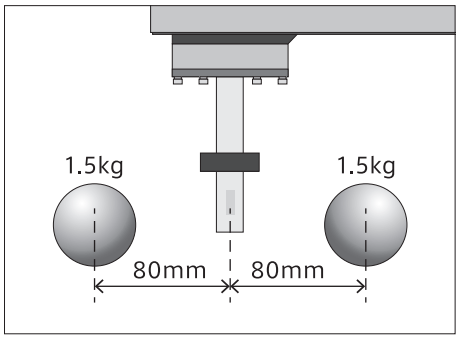
High-performance, low-priced, compact and light weight SCARA Robot!

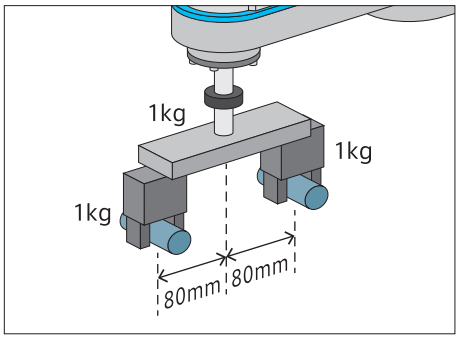
Maximum arm reach	400mm
Maximum payload	3kg
Position repeatability	±0.02mm
Mounting orientation	Floor

Features

Gripper Design with High Degree of Freedom

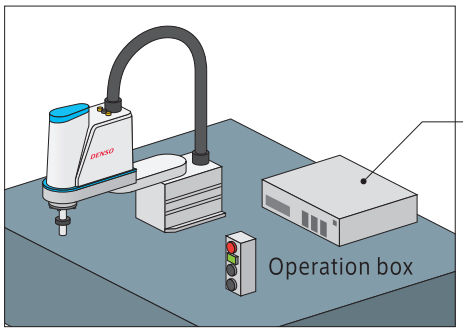
The maximum moment of inertia of the T-axis is large in order to provide a gripper design with a high degree of freedom.
* Also supports use in other configurations including in an overhanging position.

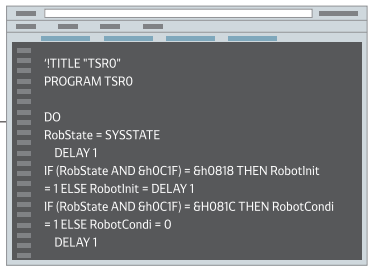




Reduction in Work Time without the Use of PLC

The robot and surrounding equipment can be controlled together according to the purpose through use of the high-performance controller RC8 function. This feature realizes a total cost down for equipment.





Privilege Task Function

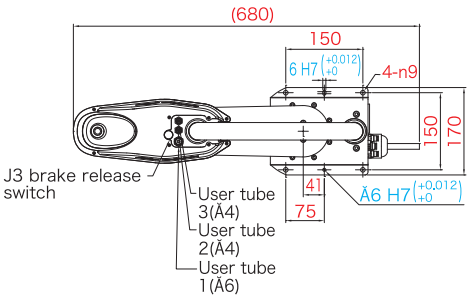
Enables Control from PLC with No Programming Knowledge Required

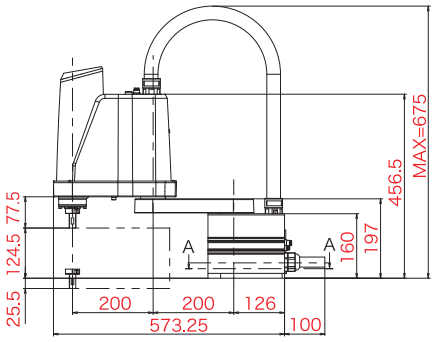
Utilizing the command-slave function provided as a free option enables the direct control of the robot from PLC through the Function Block (FB) feature that supports 130 types of robot commands that can be openly programmed from PLC.
This feature allows adjustments to be performed with only PLC knowledge without needing to create programs on the robot side, to realize a reduction in work time for initial adjustments at the start of use.

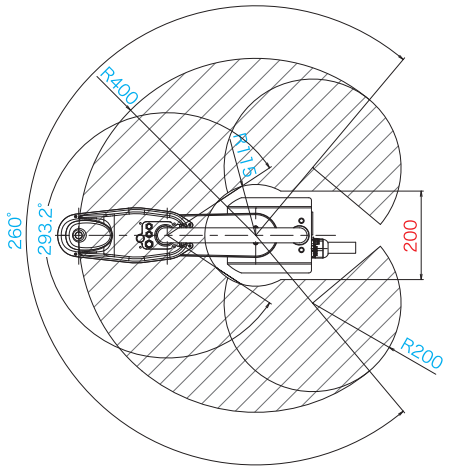
External dimensions and workable space

Unit: mm

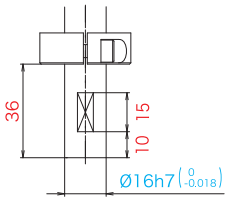
LPH040







■ Detailed drawing of End-effector mounting face



Specifications

Term		Specifications
Model name of robot unit		LPH-040A1
Overall arm length(first arm + second arm)		200+200=400mm
Motion angle and stroke	J1(1st-Axis)	±130°
	J2(2nd-Axis)	±146.6°
	Z(3rd-Axis)	150mm
	T(4th-Axis)	±360°
Axis combination		J1(1st-Axis)+J2(2nd-Axis)+Z(3rd-Axis)+T(4th-Axis)
Maximum payload		3kg
Cycle time (*2)		0.45sec
Maximum composite speed (at the center of an end-effector mounting face)	At the center of the hand mounting flange	4710mm/sec
	Z	1250mm/sec
	T	1875deg/sec
Position repeatability (at the center of an end-effector mounting face) (*3)	J1+J2	±0.02mm
	Z	0.02mm
	T	±0.01°
Maximum force-fit (downward, for up to 1 sec)		45N
Maximum allowable moment of inertia		0.075kgm²
Position detection		Absolute encoder
Drive motor and brake		AC servomotors for all joints / Brakes for Z axis
User air pipe		3 systems (ϕ4×2, ϕ6×1)
User signal line		15 (for proximity sensor signals, etc.)
Air source	Operating pressure	0.05~0.35MPa
	Max. allowable pressure	0.6MPa
Weight		Approx. 16kg

*1 :This product cannot be sold in some countries.
*2 :Time required for a robot to move a 2kg payload between two points 300 mm apart at a height of 25mm.
*3 :Position repeatability is the precision at constant ambient temperature.

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Please visit our website for more information on products and functions.
https://www.denso-wave.com/

YouTube
Official DENSO WAVE Channel:
Provides explanatory videos of functions, case studies, and robot applications.

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You can see product information from here.