

i4H SCARA Robot

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EXPERIENCE OMRON'S i4H LINE OF SCARA ROBOTS

The **i4H SCARA robot** provides a heavier payload and performance compared to its predecessor. Customers can complete machine loading, palletizing and mechanical assembly in industries such as food & beverage, automotive, digital, and medical. Maximize uptime with a first ever on-board display and health lighting indicator. The i4H is available in multiple configurations that include different reach lengths, z-axis stroke lengths, and environmental protection ratings with wall and ceiling mounting options possible.



OMRON i4-650H



OMRON i4-750H



OMRON i4-850H



ENHANCED MECHANICAL DESIGN FOR DEMANDING TASKS

Gain more out of production with a higher payload and faster cycle time

With a robust design, the i4H can achieve a more meaningful and efficient production for your factory needs.

- Higher payloads up to 15 kg
- High-speed cycle times
- Available in 650, 750, 850 mm reach lengths
- 210 or 410 mm quill options
- Standard model table mounts, with optional wall mount bracket and inverted version for ceiling mounting.



MAXIMIZE UPTIME



Discover OMRON's unique additions to the SCARA lineup

OMRON has added a few first ever features that will help reduce downtime, prevent accidents, and make maintenance an easier process.

- First ever on-board display for troubleshooting, maintenance, and visual inspections
- LED robot status indicator ring

i4H ROBOT STATUS LIGHT CODES

● Off	24 V Not present
○ Solid White	System initializing
● Solid Blue	System booting
⦿ Blinking Blue	Idle, 24 V present
⦿ Blinking Green	Operational, Servo enabled
● Solid Red	Error is present
⦿ Blinking Red	Emergency Stop

TACKLE YOUR FOOD & BEVERAGE NEEDS WITH OMRON'S i4H FOOD GRADE EDITION

OMRON has added IP20 food grade & IP65 food grade robots to your automated solution. These industrial robots utilize high-performance extreme pressure lubricants specially developed for the grease lubrication of machinery in the food & beverage industry.

These robots utilize a food grade grease and oil that is NSF H1 registered, ISO 21469 certified, and ideal for secondary packaging requirements.

Benefits include:

- Allows use in food and beverage packaging and processing applications
- Advanced seal technology to reduce potential oil leaking on IP65
- Excellent water resistance
- Available in multiple configurations
- Same top performance & repeatability as standard i4H



IP20 food grade robot



IP65 food grade robot

ESD/CLEANROOM MODEL

Address your electronic needs with OMRON's i4H Electro Static Discharge (ESD)/Cleanroom industrial robot. These models are ideal for applications requiring minimal particle contribution. Prevent electrostatic discharges and optimize performance needs with the i4H.

Benefits include:

- Cleanroom rated for Class 4 [ISO Standard (14644)]
- Allows for entry into electronic component and consumer electronic markets
- Available in multiple configurations
- ESD paint and grounding prevents the build up of static charge to reduce the risk of damaging sensitive parts and components.



SEAMLESS INTEGRATION

Getting started with the i4H has never been easier

Integrate with OMRON NJ through EtherCAT and programmable with all of OMRON's Sysmac products including Sysmac Studio.

OMRON's i4H EtherNET robot includes PROFINET communication protocol and is the ideal solution for operations that are not highly complex, but require top-performance and repeatability at a lower cost.



AUTOMATE YOUR PRODUCTION LINE WITH OMRON'S i4H

AUTOMATE YOUR FULL PRODUCTION LINE WITH OMRON

Easily program the i4H robot alongside the rest of OMRON's devices (vision, motion, IO, safety) from OMRON's single programming software, Sysmac Studio.

Additionally, OMRON's Sysmac Studio software is able to simulate your entire production line which reduces troubleshooting time and allows you to

achieve precise synchronization between conveyors, servos, and other devices connected to the EtherCAT network, all connected through EtherCAT.



TECHNICAL DETAILS

The i4H SCARA (Selective Compliance Assembly Robot Arm) is a 4-axis robot with 3 rotational axes and one translational/linear axis, ideal for high-speed repeatable applications.

Reach: The OMRON i4H is available in three different ranges: 650 mm, 750 mm, and 850 mm.

Payload: All three models have a maximum payload of 15 kg.

Mount: The i4H can be mounted to a table,

wall, or ceiling with an inverted orientation.

Quill: 210 mm Standard, 410 mm Long Quill.

Controller/Amplifier: The robot includes amplifiers and a robot controller in the base.

Product		i4-650H	i4-750H	i4-850H
Reach		650 mm	750 mm	850 mm
Maximum Payload***		15 kg		
Quill Length		210 / 410 mm		
Repeatability	XY (mm)	±0.015		
	Z (mm)	±0.01		
	Theta (deg)	±0.005		
Cycle Times*	Burst (s)**	0.41	0.39	
	Sustained (s)	0.45	0.46	0.50
	Blended Burst (s)**	0.32	0.31	0.31
Protection	IP20, Standard Lubrication	IP20 / NEMA Type 1		
	IP20, Food Grade Lubrication			
	IP65, Food Grade Lubrication	IP65/ NEMA Type 4		
ESD / Cleanroom		IP20 / NEMA Type 1 / ISO 4 (Class 10)		

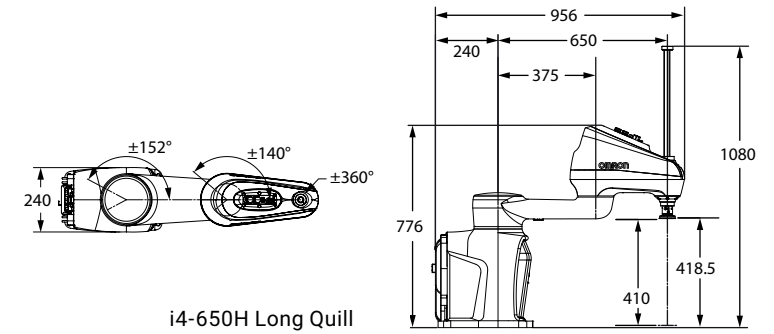
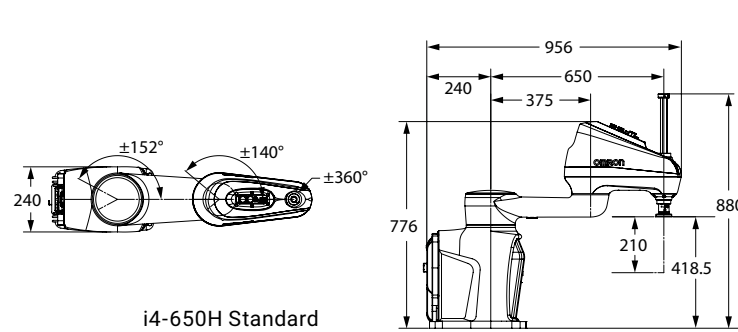
*Cycle Time, in mm (25/305/25) (seconds, at 20C ambient) with 2.0 kg payload

**Burst and Blended Burst Cycle Time, in mm (25/305/25) (seconds, at 20 C ambient) with 2.0 kg payload but with arc motion

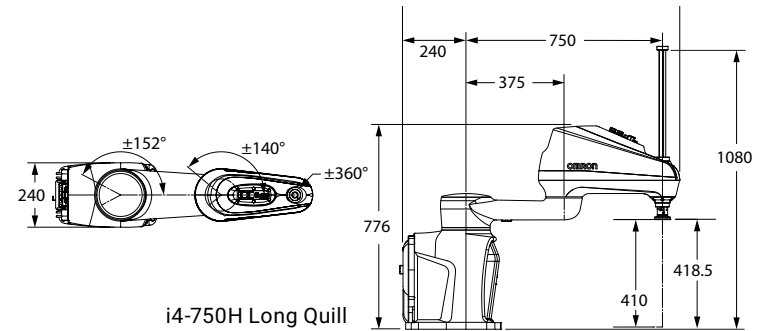
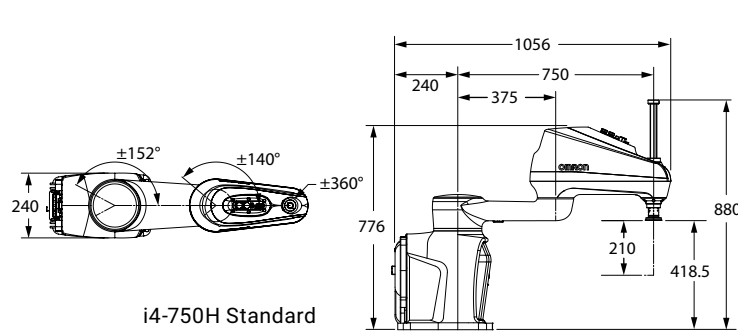
*** Payload includes any object(s) attached to a robot link or tool flange, including end-effectors, tooling, valves, grippers, and objects being handled by the robot.

TECHNICAL DETAILS

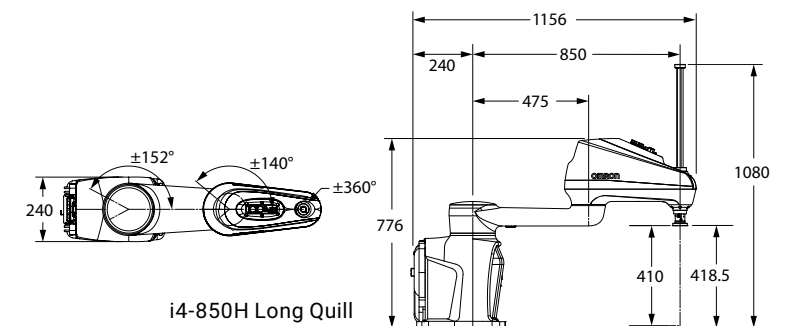
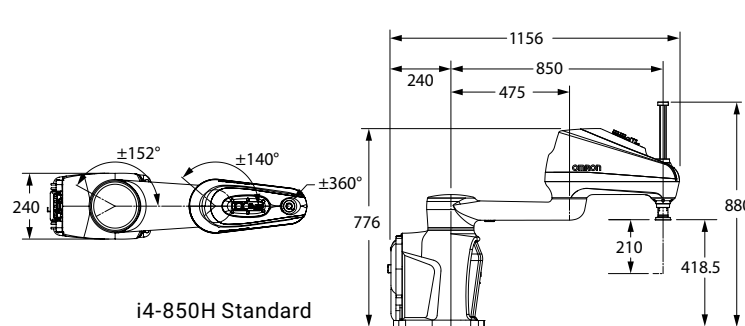
i4-650H



i4-750H



i4-850H



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