

i4L SCARA Robot

INTRODUCING OMRON'S NEXT GENERATION I4L SCARA ROBOT SERIES

The **i4L** is a compact **SCARA robot** which offers strong performance at the lowest cost of ownership. Simple integration with compact design, easy wall or table mounting and unique Ethernet or EtherCAT connectivity in the base. Maximize uptime by means of interactive maintenance alarms and an RGB dome light.



OMRON I4-350L

OMRON I4-450L

OMRON I4L-550L

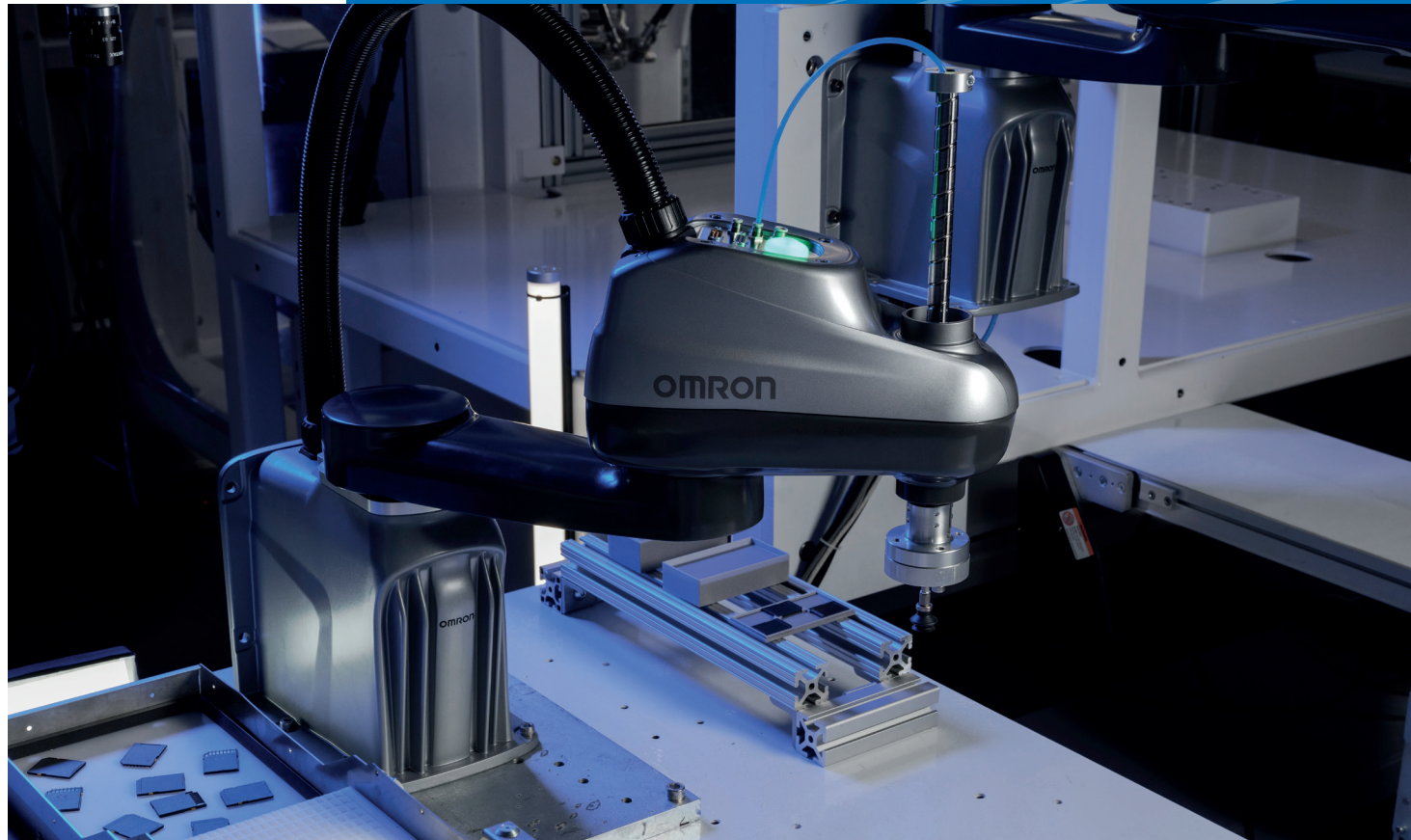


OPTIMAL PERFORMANCE FOR THE LIGHT-DUTY MARKET

Advanced performance at the lowest cost of ownership

Gain significantly greater performance for the lowest total cost of ownership. The i4L's speed, inertia, and repeatability offer advanced features providing the best performance necessary for your application.

- Fast cycle time with an unprecedented range of movement and repeatability
- Exceptionally powerful built-in servos to handle payloads with ease
- Advanced and robust industrial design
- Lowest total cost of ownership



MAXIMIZE UPTIME



Easy to service with interactive maintenance features to prevent accidents and reduce unplanned downtime

The i4L helps you maximize uptime and precision with its interactive maintenance features. The interactive maintenance features are a set of controls which help you monitor your robot with alerts from the RGB dome light and OMRON's ACE software. These features help to:

- Reduce unplanned downtime
- Simplify maintenance
- Prevent accidents before they happen

I4 ROBOT STATUS LIGHT CODES

● Off	24V Not present
○ Solid White	System initializing
● Solid Blue	System booting
⦿ Blinking Blue	Idle, 24V present
⦿ Blinking Green	Operational, Servo enabled
● Solid Red	FPGA Communication loss
⦿ Blinking Red	ESTOP or ERROR

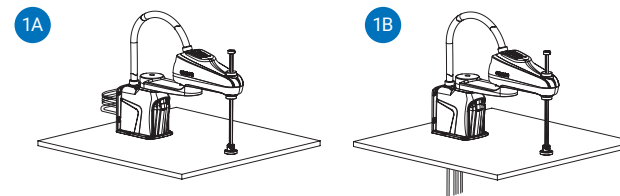
SIMPLE INTEGRATION

Get to work faster with simple integration and synchronization

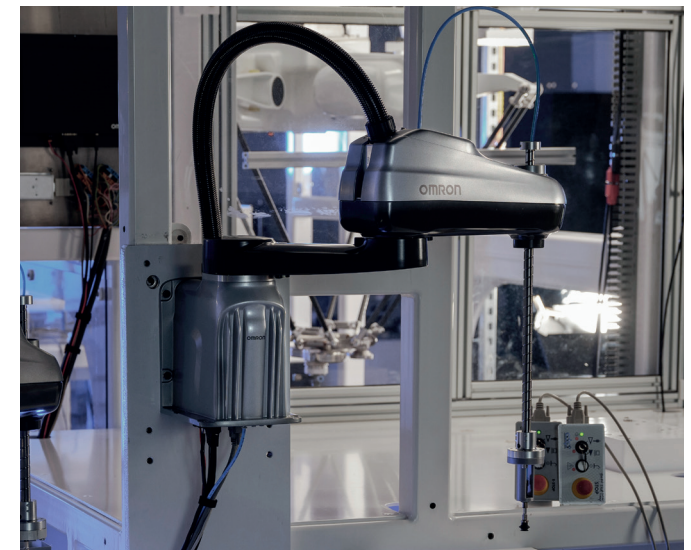
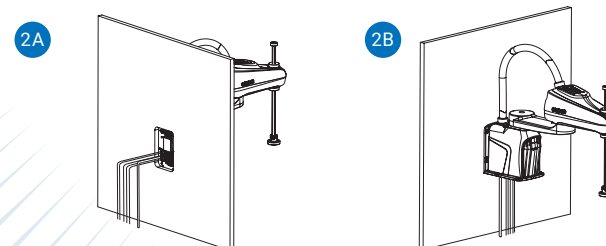
The i4L offers big features in a small footprint. It is compact and simple to install, and provides EtherCAT or Ethernet connectivity in the same controller. The i4L offers mount options for the wall or table. Also, the i4L's fully integrated controller reduces wiring expenses and simplifies mounting while all mounting hardware is included in the base.

MOUNT OPTIONS AND THE WIRING

Table Mount



Wall Mount

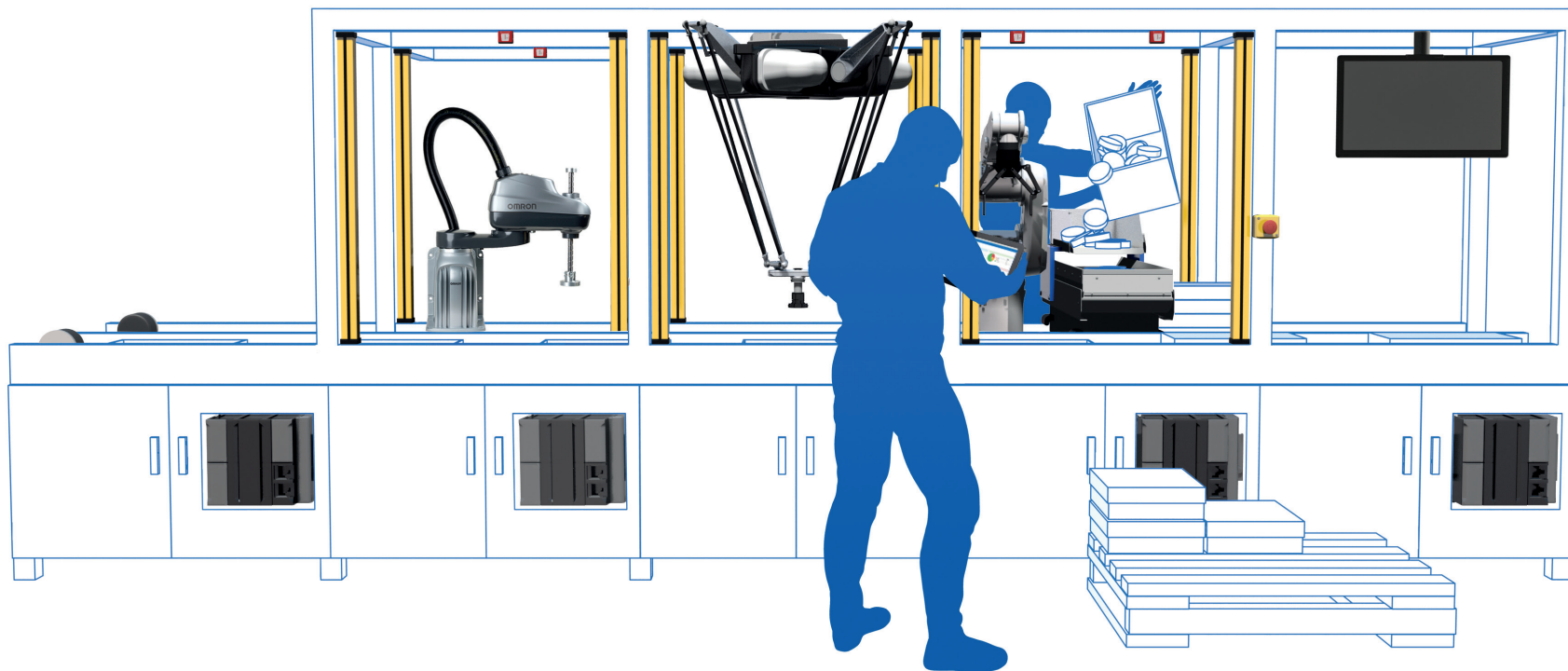


AUTOMATE YOUR PRODUCTION LINE WITH OMRON'S i4L

Automate your full production line with OMRON

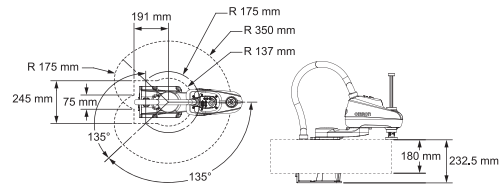
You can easily program the i4L robot alongside the rest of OMRON's devices (vision, motion, IO, safety) from OMRON's single programming software, Sysmac.

Additionally, OMRON's Sysmac software is able to simulate your entire production line which reduces troubleshooting time and allows you to achieve very high levels of synchronization between multiple robots or robots and servos, all connected through EtherCAT.

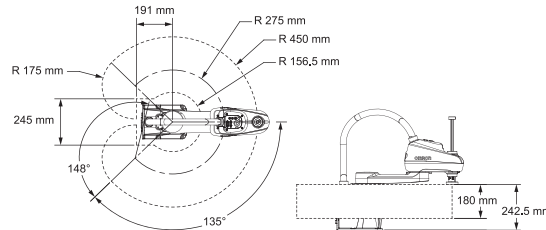


TECHNICAL DETAILS

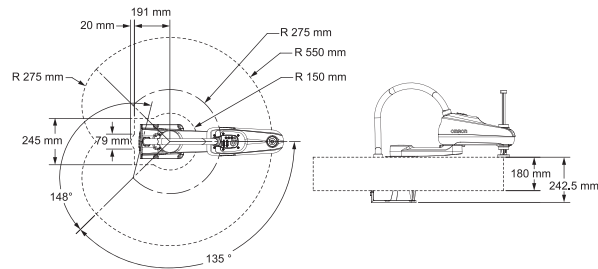
OMRON I4-350L



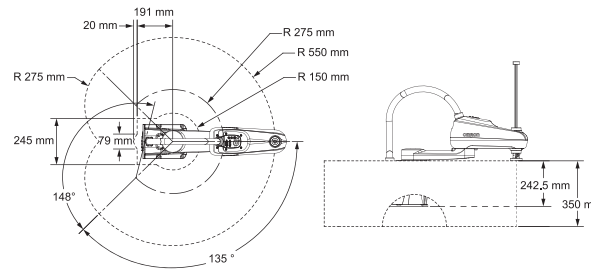
OMRON I4-450L



OMRON I4L-550L 180MM



OMRON I4L-550L 350MM



The i4L 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 i4L family comes in three different ranges: 350mm, 450mm, and 550mm.

Payload: All i4L models have a payload of 5KG.

Mount: The i4L can be table mounted and wall mounted.

Quill: The robot can be configured with a 180mm quill. The large model (550mm) can support a longer quill (350mm) with a z stroke of 350mm.

Controller/Amplifier: The robot includes amplifiers and a robot controller in the base. Two robot controllers are provided, the iCS- ECAT (EtherCAT slave controller), and the iCS-ENET (Standalone Ethernet/ IP controller).

Product		i4-350L	i4-450L	i4-550L	
Reach		350mm	450mm	550mm	
Maximum Payload		5kg			
Quill Length		180mm	180mm	180mm	350mm
Repeatability	XY (mm)	±0.01	±0.01	±0.01	±0.01
	Z (mm)	±0.01	±0.01	±0.01	±0.01
	Theta (deg)	±0.01	±0.01	±0.01	±0.01
Cycle Times*	Burst	0.54	0.48		
	Sustained	0.57	0.57	0.54	
	Blended Burst (s)**	0.45	0.42	0.38	

* ADEPT CYCLE, IN MM 25/305/25 (SECONDS, AT 20C AMBIENT) WITH 2.0KG PAYLOAD

** FAST CYCLE, IN MM 25/305/25 (SECONDS, AT 20C AMBIENT) WITH 2.0KG PAYLOAD BUT WITH ARC MOTION

OMRON Corporation Industrial Automation Company

Kyoto, JAPAN

Contact: www.ia.omron.com

OMRON EUROPE B.V.

Wegalaan 67-69, 2132 JD Hoofddorp
The Netherlands
Tel: (31)2356-81-300/Fax: (31)2356-81-388

OMRON ASIA PACIFIC PTE. LTD.

No. 438A Alexandra Road # 05-05/08 (Lobby 2),
Alexandra Technopark,
Singapore 119967
Tel: (65) 6835-3011/Fax: (65) 6835-2711

OMRON ELECTRONICS LLC

2895 Greenspoint Parkway, Suite 200 Hoffman Estates,
IL 60169 U.S.A.
Tel: (1) 847-843-7900/Fax: (1) 847-843-7787

OMRON ROBOTICS AND SAFETY TECHNOLOGIES, INC.

4225 Hacienda Drive, Pleasanton, CA 94588 U.S.A.
Tel: (1) 925-245-3400/Fax: (1) 925-960-0590

OMRON (CHINA) CO., LTD.

Room 2211, Bank of China Tower, 200 Yin Cheng Zhong Road,
PuDong New Area, Shanghai, 200120, China
Tel: (86) 21-5037-2222/Fax: (86) 21-5037-2200

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