

INTRODUCING OMRON'S NEXT GENERATION 14L 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 **14-350L** 



OMRON **14-450L** 



**OMRON 14L-550L** 



INTERACTIVE MAINTENANCE ALARMS



# 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 advance 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



14L SCARA ROBOT

## 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

### **14 ROBOT STATUS LIGHT CODES**

Off

Solid White

Solid Blue

Blinking Blue Blinking Green

Solid Red

Blinking Red

24V Not present System initializing

System booting Idle, 24V present

Operational, Servo enabled **FPGA Communication loss** 

**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.



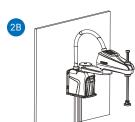
### **Table Mount**





### Wall Mount









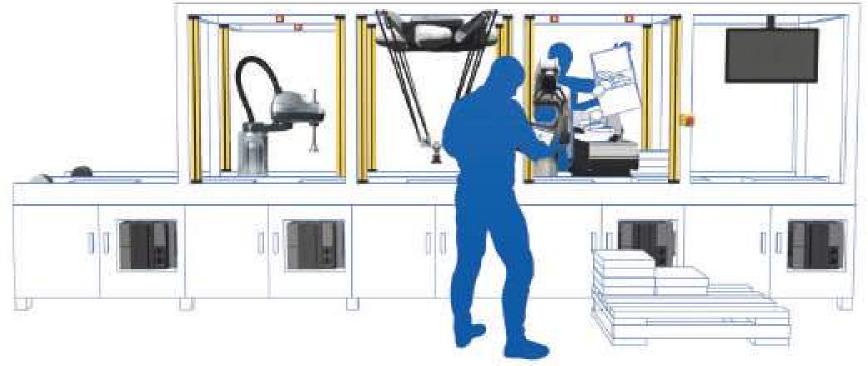
14L SCARA ROBOT

# 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.

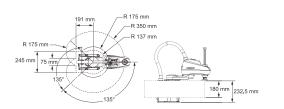
Additionally, OMRON's Sysmac software is able to simulate your entire production line which reduces troubleshooting time and allows you to achieve very high levels of synchronization between multiple robots or robots and servos, all connected through EtherCAT.



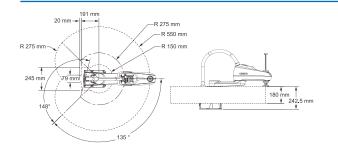
NOTE: ETHERCAT CONNECTIVITY AND INTERACTIVE MAINTENANCE ALARMS COMING SUMMER 2021.

### TECHNICAL **DETAILS**

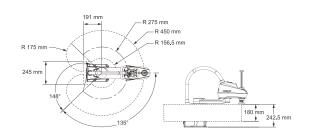
### OMRON **14-350L**



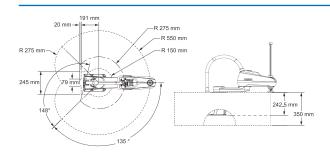
### OMRON **I4L-550L 180MM**



#### OMRON **14-450L**



### OMRON **I4L-550L 350MM**



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	

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).

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

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



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