

ROBOPUMP

New Release
Environmentally Friendly
Factory Airless Vacuum Pump



Compact design which can be installed near the robot tip



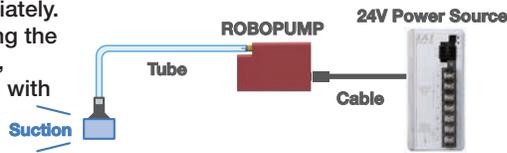
Equipment can be *entirely electric* with ROBO Pump®.



Click here for movie

No piping necessary

Unlike an ejector, no air piping, compressor, or solenoid valve is required. Simply connect the ROBO Pump to the cable and power supply, and it can be activated immediately. Additionally, by equipping the wireless feature (option), wireless communication with a teaching tool can be performed.



Compact and Easy

This palm-size unit requires very little installation space. The unit contains a built-in solenoid valve and pressure sensor, making it ideal for suctioning lightweight objects.



Main Unit Features

The display unit is capable of showing the current pressure and alarm details. Additionally, various settings such as threshold values and parameters can be set with the operation switches (four-way + center push type).

Operation switches



Display panel

Pressure
 -54 kPa
 Current Pressure Display

Alarm
 Code EC1
 Detail 0001
 Address 0000
 Alarm Display

Threshold
 Suction -45kPa
 Release -4kPa
 Threshold Setting

Parameter1
 PIOpattern 1
 Energy sav. 0
 ReleaseT. 1.0s
 Parameter Change

Model number **RP - VPM** - [] - [] - []
 Series Type (Every 1m) (Every 1m) Options
 Power & Communication Cable length Power - I/O Cable Cable length

VPM Vacuum Pump (Standard)

1	1m
to	to
10	10m

(Note) When using the interface box, 9m is the maximum available.

0	No Cable Terminal block connector is included when "ACR" is not selected *
1 to 9	1m to 9m standard cable included
S1 to S9	1m to 9m 4-way connector cable included

* When selecting RCON-EC connection specification (ACR), select "0." * Power - I/O connector is not included.
 (S): 4-way connector cable
 (Note) Make sure that the total length along with the actuator cable is 10m or less.

Power - I/O Cable * Only a terminal block connector is included.

Standard connector cable		
Cable code	Cable length	User Wiring Type Flying leads CB-EC-PWBIO□□□-RB enclosed
0	No Cable	* The only accessory provided is the terminal block.
1 to 3	1 to 3m	✓
4 to 5	4 to 5m	✓
6 to 9	6 to 9m	✓

4-way connector cable		
Cable code	Cable length	User Wiring Type Flying leads CB-EC2-PWBIO□□□□-RB enclosed
S1 to S3	1 to 3m	✓
S4 to S5	4 to 5m	✓
S6 to S9	6 to 9m	✓

(Note) Robot cable.

Blank	NPN specification (Connected via I/F box) No option
ACR	RCON-EC connection specification ¹
PN	PNP specification (Connected via I/F box) ¹
WL	Wireless communication specification (Connected via I/F box) ²

¹ "PN" cannot be selected when "ACR" is selected.
 (I/O for "ACR" option is NPN only)

² "WL" cannot be selected when "ACR" is selected.
 (When using wireless communication, an interface box and cable must be purchased separately.)

Product Price

Specification
RCON-EC connection specification (Note1)
NPN/PNP specification

(Note1) Make sure to select "ACR" in the options.

Power & Communication Cable

Cable code	Cable length
1 to 3	1 to 3m
4 to 5	4 to 5m
6 to 10	6 to 10m

(Note) Robot cable.

Options

Name	Option code
RCON-EC connection specification	ACR
PNP specification	PN
Wireless communication specification	WL

Brackets (sold separately)

Name	Model
Side Attachment Bracket	RP-BKT-VPM
Cable Support Bracket	RP-FST-VPM

* For the external dimensions and mounting methods, refer to the instruction manuals.

Specification

Item	Contents
Withdrawal Method	Vent to atmosphere
Pump Type	Diaphragm Pump System
Power supply voltage	24VDC±10%
Power supply current	Rated 0.8A maximum 1.3A
Vacuum pressure	-50kPa or less
Generated flow volume	1.8L/min or more
Air suction fitting size	For Φ4x2.5mm tube
Installation orientation	Horizontal
Ambient operating temperature	0 to 40°C
Ambient operating humidity	85% RH or less (no condensation)
Allowable Duty Cycle	100% Duty cycle operation available * Duty (%) =Vacuum Time / (Vacuum Time + Stop Time)
Protection rating	IP20
Mass	320g

Appearance

CAD drawings can be downloaded from our website.
www.intelligentactuator.com

Air suction fitting
 Applicable tube Φ4x2.5mm

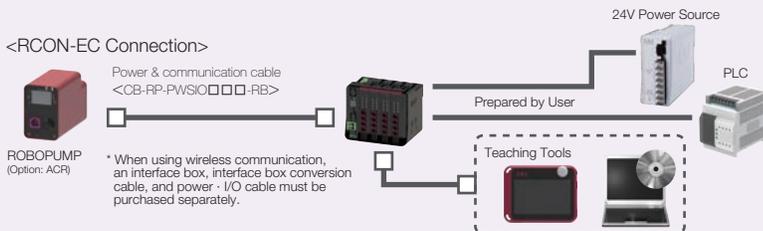
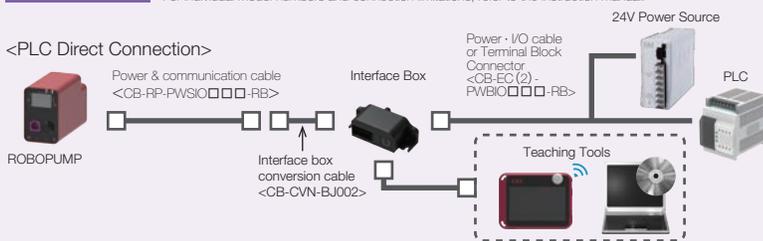
2D CAD 3D CAD

Dimensions: 97, 1.7, 64, 19.5, 15.5, 12.7, 6.5, 12.5, 36.5, 24, 31.1, 55.8, 14.5, 14.8, 77.5, 6.5 (Max. screw length), (S) (Thread depth), M3, Section view S-S

Labels: Display panel, Status LED, Operation switches, Power & I/O connector

Connected

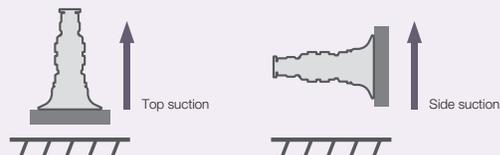
* For individual model numbers and connection limitations, refer to the instruction manual.



Reference for Loadable Workpiece Mass

Suction Cup Diameter (mm)	Top suction payload (kgf) <Safety Margin 4>	Side suction payload (kgf) <Safety Margin 8>
1	0.001	0.0005
3	0.009	0.0045
6	0.036	0.018
10	0.1	0.05
15	0.225	0.113
20	0.401	0.2

(Pressure -50kPa, Nitrile Rubber Pad)



IAI America, Inc.

USA Headquarters & Western Region (Los Angeles) : 2690 W. 237th Street, Torrance, CA 90505 +1-(310) 891-6015

Midwest Branch Office (Chicago) : 110 East State Parkway, Schaumburg, Illinois 60173 +1-(847) 908-1400

Southeast Branch Office (Atlanta) : 1220 Kennestone Circle, Suite 108, Marietta, GA 30066 +1-(678) 354-9470

www.intelligentactuator.com

JAPAN Headquarters : 1210 Iharacho, Shimizu-ku, Shizuoka-shi, Shizuoka, 424-0114, JAPAN

The information contained in this product brochure may change without prior notice due to product improvements.

IAI Industrieroboter GmbH

Ober der Röth 4, D-65824 Schwalbach am Taunus, Germany

IAI (Shanghai) Co., Ltd.

Rm 2-1105, Hesheng Fortune Square, South side of Beian Bridge, Nanshi Street, Heping Qu, Tianjin 300021, China

IAI Robot (Thailand) Co., Ltd.

825 Phairokijija Tower 7th Floor, Debaratana Rd., Bangna Nuea, Bangna, Bangkok 10260, Thailand