

ROBO PUMP

New Release Environmentally Friendly Factory Airless Vacuum Pump



Compact design
which can be
installed near
the robot tip



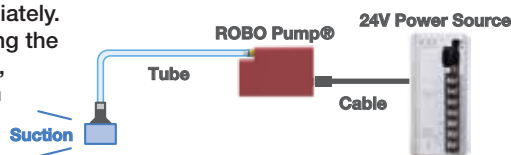
Equipment can be *entirely electric* with ROBO Pump®.



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) Power & Communication Cable length		(Every 1m) Power - I/O Cable Cable length		Options
	VPM		Vacuum Pump (Standard)						
1			1m						
to			to						
10			10m						

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

* 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.

*Please choose "ENG" option for the English Language Version.

Blank	NPN specification (Connected via I/F box) No option
ACR	RCON-EC connection specification *1
ENG	Please add "ENG" option for English Version
PN	PNP specification (Connected via I/F box) *1
TMD2	Split motor and controller power supply specification *1
WL	Wireless communication specification (Connected via I/F box) *2

*1 "PN" and/or "TMD2" 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.

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.

Options

Name	Option code
RCON-EC connection specification	ACR
PNP specification	PN
Split motor and controller power supply specification	TMD2
Wireless communication specification	WL

Brackets (sold separately)

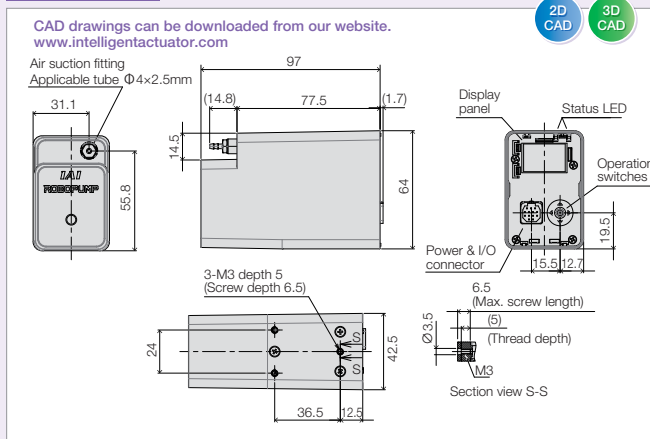
Name	Model
Side Attachment Bracket	RP-BKT-VPM
Cable Support Bracket	RP-FST-VPM

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

Specification

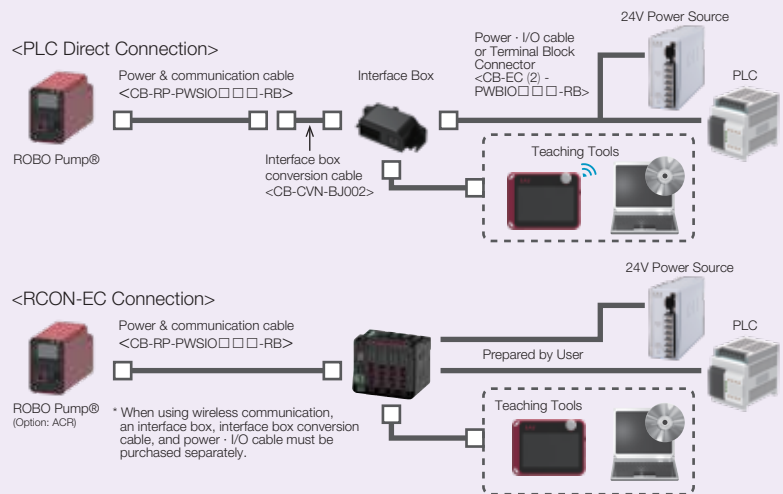
Item	Contents
Withdrawal Method	Vent to atmosphere
Pump Type	Diaphragm Pump System
Power supply voltage	24VDC±10%
Power supply current	Rated 0.8A maximum 1.3A
Vacuum pressure	-50kPa or less
Generated flow volume	1.8L/min or more
Air suction fitting size	For Φ4x2.5mm tube
Installation orientation	Horizontal
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



Connected

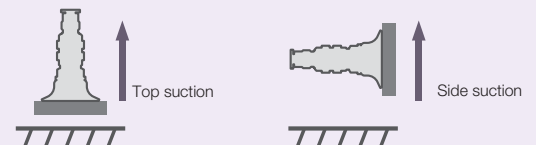
* For individual model numbers and connection limitations, refer to the instruction manual.



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)



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

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