



ACU2-B 柔触驱动器

使用说明书



装箱清单



柔触驱动器本体
ACU2-B x 1



电源适配器 (24VDC 2.5A 60W)
EC-64 x 1



变径接头 (6mm转4mm)
PN-273 x 1



电源线
EC-69 x 1



电源口转接线 (5.5x2.1)
EC-70 x 1



过滤器
PN-279 x 1



6mm气管
x 2m



4mm气管
x 2m

安全注意事项



警告：请严格遵守安全注意事项，错误操作可能导致本产品损坏和人身伤害。

1. 请使用配件中的电源适配器。不可用其他电压及低功率电源适配器，以免造成不可逆电路损伤。
2. 请勿对外壳施加过大外力造成破损，以免降低防护等级。

外观



参数

名称	范围	名称	范围
额定电压	24VDC±10%	外壳材质	工程塑胶
额定功率	18W	尺寸	120x158x75mm
寿命	5000小时	净重	800g
输出气压	十档设定 -80/-60/-40/-20/0/20/ 40/60/80/100/120 [kPa]	控制方式	1. 手动按钮 2. I/O, 电平信号
输出精度	±10kPa	防护等级	IP54
正压流量	4L/min	工作模式	持续信号驱动
真空流量	4L/min	工作噪音	60dB

使用步骤

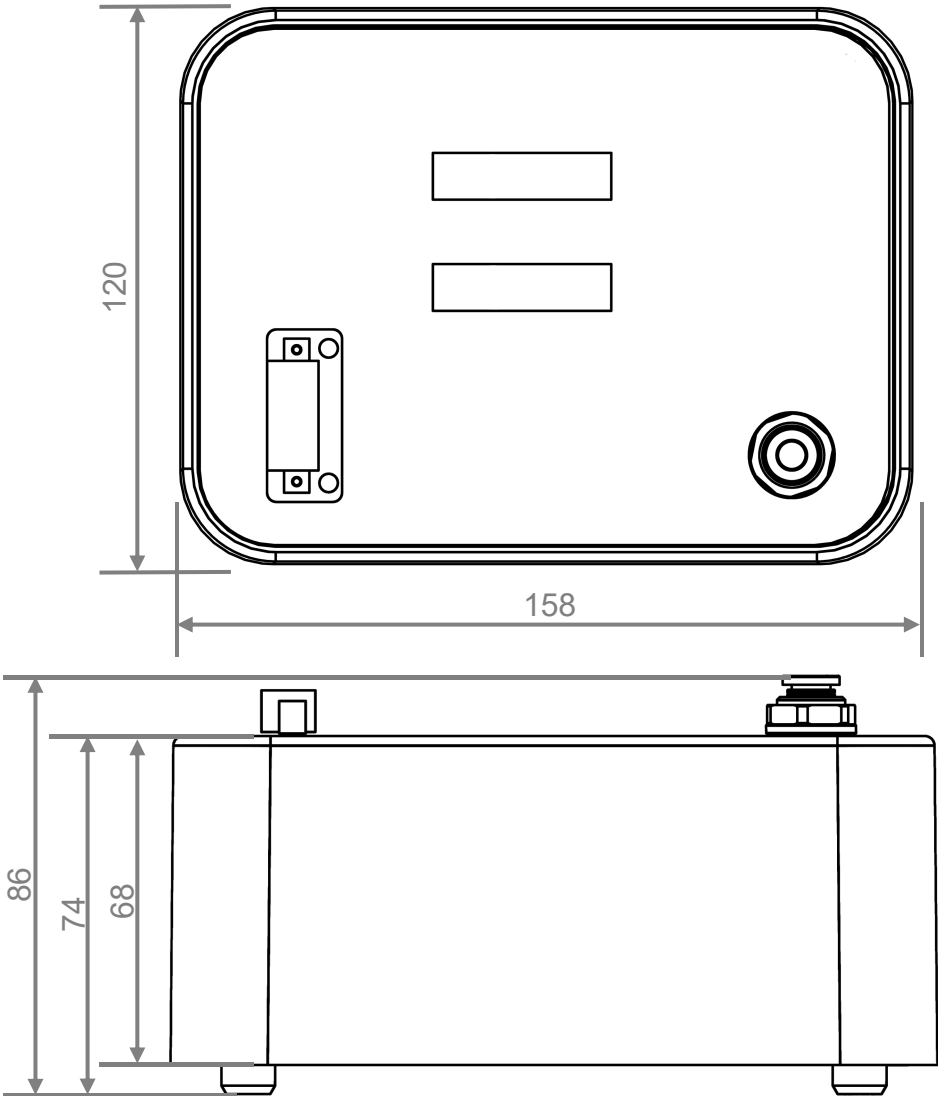
1. 请使用配件中的电源适配器，给驱动器上电。
2. 根据夹爪型号（柔指/柔爪）设定【调节夹爪气压】档位（非常重要）。参考“常见问题”解锁面板，通过【调节正压】、调节【负压按钮】，使【调节夹爪气压】数显表中的档位等于夹爪的使用气压（可咨询柔触技术工程师）。
3. 【夹爪端】气管连接夹爪。若管径不一致，可使用配件中的变径接头。
4. 操作【手动控制】按钮，检查夹爪工作情况。驱动器工作中，可通过【当前夹爪气压】数显表实时观察夹爪端气压档位。
5. 根据工况需求，在【端子控制】中选择端口与终端设备连接。

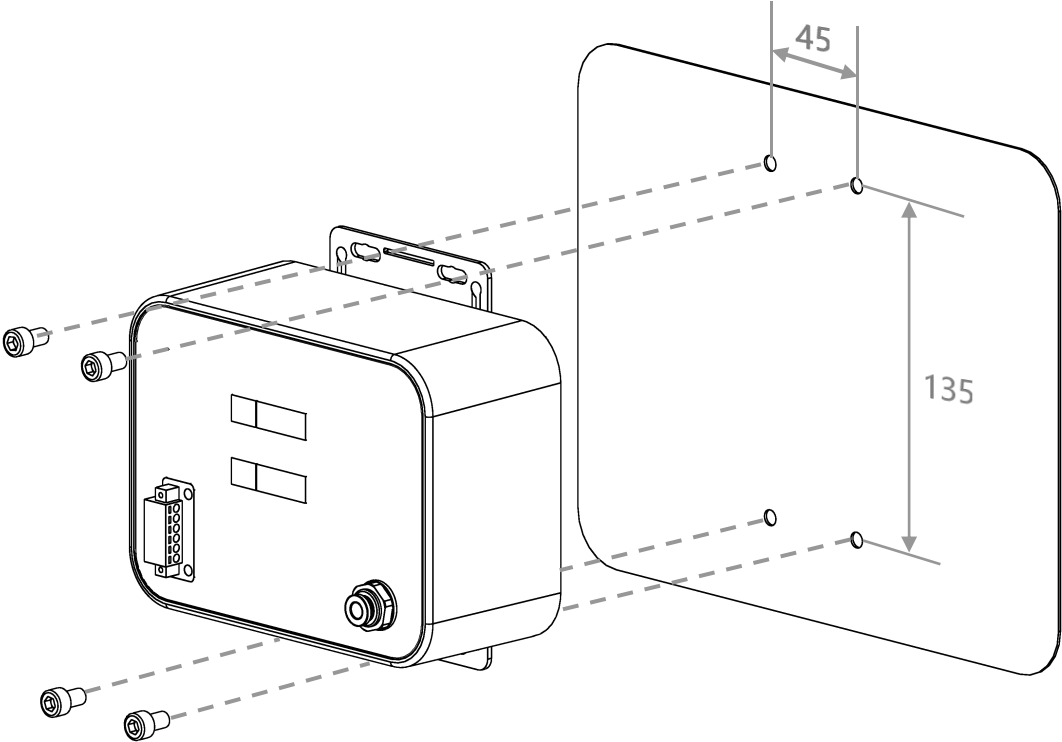
通讯

驱动器外部驱动信号类型为电平信号，5-24VDC，NPN/PNP通用，可由PLC或机械臂信号控制。

端子序号	内容	功能	柔指姿态	柔爪姿态	案例1： 西门子PLC 200SMART系列，该设备为PNP输出。则2、4号线接M端口，1、3号线接DQ端口。 案例2： 遨博协作机器人i5系列，该设备为NPN输出。则1、3号线接24V+端口，2、4号线接DO端口。
1	电平输入A+	输出正压			
2	电平输入A-		闭合	张开	
3	电平输入B+	输出真空			
4	电平输入B-		张开	闭合	
5	24V DC+	电源	/		
6	24V DC-				

尺寸





常见问题

1. 解锁面板调节按钮。

两组调节按钮（【调节正压】、【调节负压】），任意一组的【+】【-】同时长按3秒，直至面板【夹爪设定气压】表头数值闪烁。两组调节按钮10秒内无操作，面板自动进入锁屏状态。

2. 驱动器工作模式。

夹爪气路不泄漏的情况下，夹爪气压到位后，呈保压状态（气泵停止工作，夹爪保持住压力状态）。若气压档位设置有变化或气路有泄漏，驱动器重新启动直至气压到位为止。

3. 驱动器短暂断电后的状态。

断电前有【手动控制】信号。断电再上电后，手动信号清空，夹爪状态继续保持，同时【夹爪当前气压】表头显示夹爪内部气压档位值。直到【手动控制】信号再触发，驱动器再工作。

断电前有【端子控制】信号，且为持续信号。断电再上电后，根据实时的信号触发相应驱动器输出状态。

4. 多种控制方式的优先级。

I/O > 手动控制



ACU2-B Rochu Control Unit

Instructions



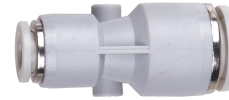
Packing List



Rochu Control Unit
ACU2-B x 1



Power Adapter
(24VDC 1.04A 25W)
EC-02 x 1



Reducing Joint
(6mm trun 4mm)
PN-273 x 1



Power Port Conversion Cable
(5.5x2.1)
EC-70 x 1



filter
PN-279 x 1



6mm Pipe
x 2m



4mm Pipe
x 2m

Safety Caution



Warning: Please strictly observe the safety cautions, incorrect operation may cause damage to the product and personal injury.

1. Please use the power adapter in the fittings. Do not use other voltage or low power adapter to avoid irreversible circuit damage.
2. Do not put too much force to the shell. It may cause damage and lower the protection level.

Appearance



Parameter

Parameter	Range	Parameter	Range
Rated Voltage	24VDC $\pm$ 10%	Shell Material	aluminum alloy
Rated Power	18W	Size	120x158x75mm
Lifetime	5000hours	Net Weight	980g
Output Pressure	10 gears setting -80/-60/-40/-20/0/20/ 40/60/80/100/120 [kPa]	Control Mode	1. manual button 2. I/O, level signal
Output Precision	$\pm 10\text{kPa}$	Protection Level	IP54
Pressure Flow	4L/min	Working Mode	continuous signal drive
Vacuum Flow	4L/min	Working Noise	60dB

Using Steps

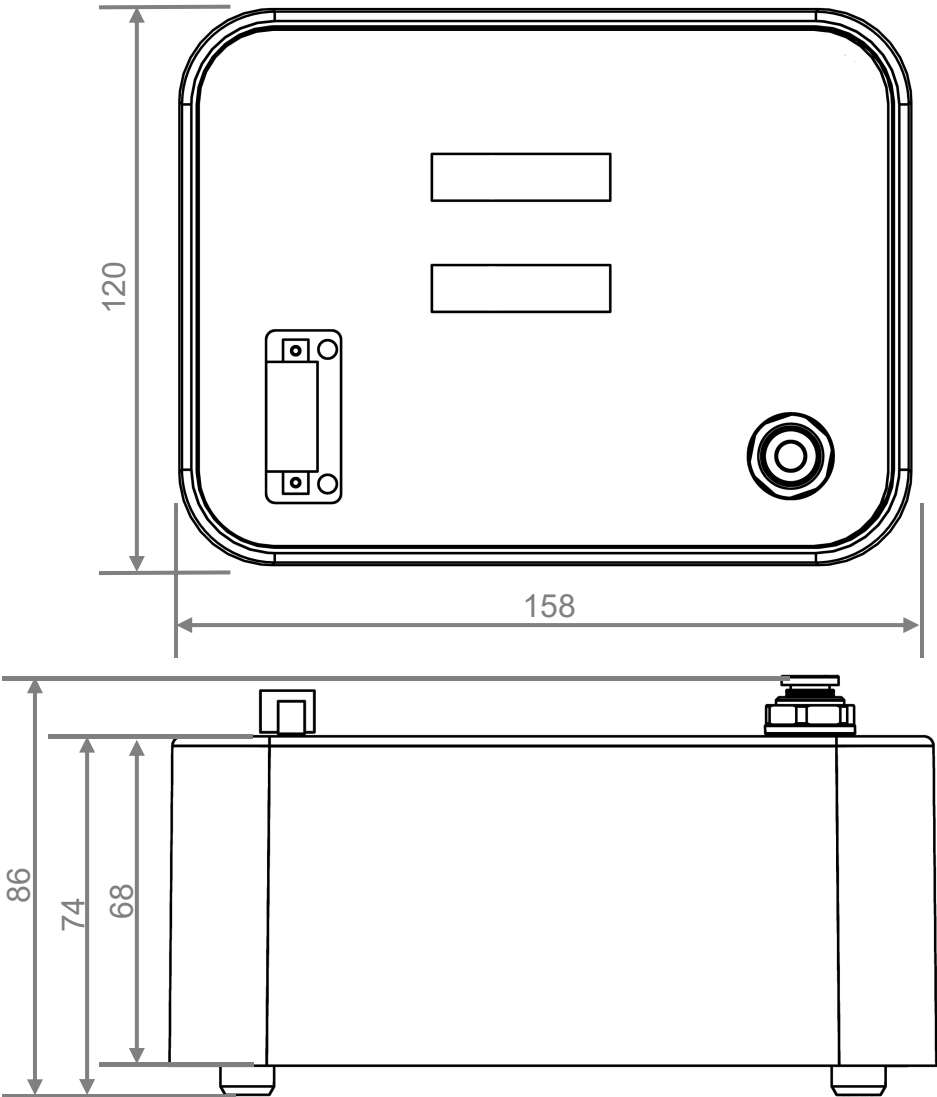
1. Use the power adapter to power up the control unit.
2. **Set the [Set Work. Press.] gear according to the type of the gripper (IMPORTANT).**
Unlock the panel by referring to 'F&Q' and adjust the [Set Pressure] and [Set Vacuum] buttons to make the gear in the digital display of [Set Work. Press.] equal to the using pressure of the gripper (consult our technical engineers).
3. Connect the [Gripper Port] to the gripper. If the pipe diameter is inconsistent, use the reducing joints in the fitting.
4. Operate the [Manual] button to check the working performance of the gripper. When the control unit is working, the pressure gear of the gripper can be observed in real time through the [Current Gripper Press.] digital display.
5. According to working conditions, select ports to connect with terminal equipment in the [Port Control].

Signal Communication

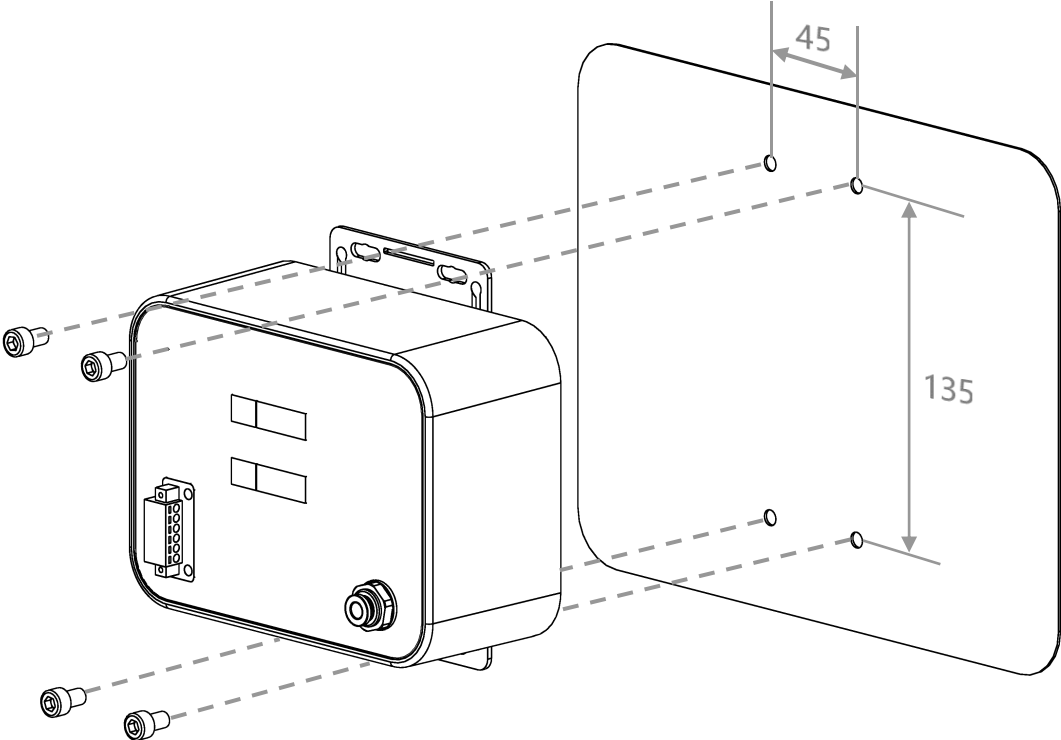
The external driving signal type of the control unit is level signal, 5~24VDC, both PNP and NPN can be used, which can be controlled by PLC or robot signal.

No.	Content	Function	Soft Finger	Soft Beak	Case 1: Siemens PLC 200smart series, the device is PNP output. Then lines 2 and 4 are connected to port M and lines 1 and 3 are connected to port DQ. Case 2: AUBO cooperative robot i5 series, the device is NPN output. Then line 1 and 3 are connected to port 24V+, and lines 2 and 4 are connected to port DO.
1	level input A+	output pressure			
2	level input A-		grab	open	
3	level input B+	output vacuum			
4	level input B-		open	grab	
5	24V DC+	power	/		
6	24V DC-				

Size



Install



1. Unlock the panel adjustment button.

Two groups of adjustment buttons ([Set Pressure], [Set Vacuum]), [+] and [-] of any group are pressed for 3 seconds at the same time, until the value of the [Set Work. Press.] display meter on the panel flashes. If there is no operation within 10 seconds, the panel will be locked automatically.

2. The control unit working mode.

Under the condition that the air circuit of the gripper does not leak, after the air pressure inside the gripper is in place, it is in a pressure-holding state (the air pump stops working, and the gripper keeps the pressure state). If there is a change in the gear value of the [Set Gripper Press.] display meter or there is leakage in the air circuit, the control unit will start again until the air pressure is in place.

3. The state of the drive after a brief power loss.

There is a [Manual] signal before power off. After power on again, the manual signal will be cleared, the state of the gripper will continue to be maintained. And the air pressure gear value of the gripper will be displayed in the [Current Gripper Press.] display meter at the same time. Until the [Manual] signal is triggered again, the drive will work again. There is a [Port Control] signal before power off, and it is a continuous signal. After power on again, the control unit will be corresponding state according to the real-time signal.

4. Priority of various control methods.

I/O > Manual