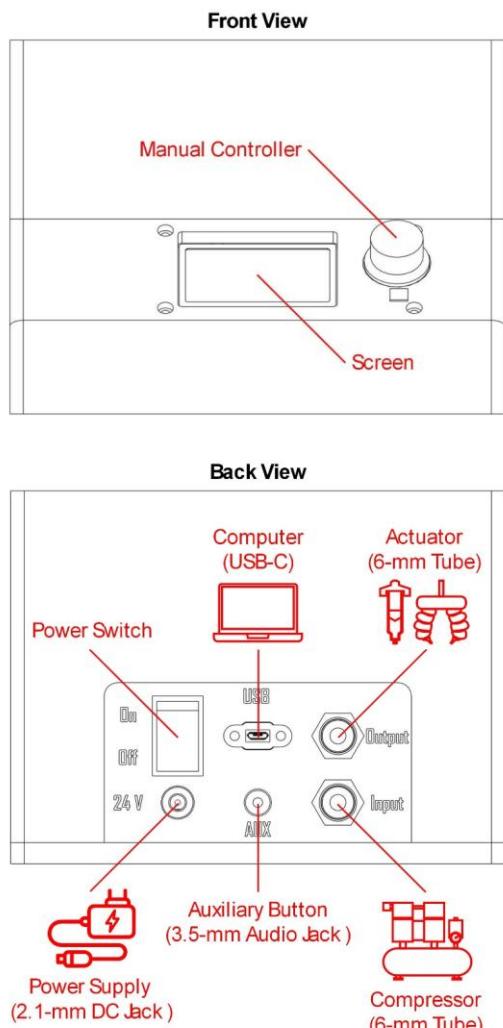


# Instruction Manual for Open-interface Programmable Pressure Controller

The intended use of this product is to enable programmable control of pneumatic air pressure through a user-defined computer program via serial communication.

## User Interface



## Key Specifications

Fluid Type	Air
Set Pressure	0–700 kPa*
Supply Pressure	Set Pressure + 100 kPa
Power Supply	24 VDC
Current	1 A
Total Accuracy	±1.225% FS
Max Frequency	10 Hz
Temperature	0–50 °C
Programming Protocol	Serial Communication (Baud Rate: 115200)

## Manual Pressing

Actions	Descriptions
single press	In mode selection, enter the highlighted system mode.
	In "simple" mode, toggle the state of output pressure. The state "on" controls output pressure to set pressure. Otherwise, the state "off" neutralizes output pressure.
	In "pulse" mode, toggle the state of output pressure pulses. The state "on" generates the pulses with output pressure controlled to set pressure. Otherwise, the state "off" stops the pulses and neutralizes output pressure.
	During the state "on", the screen turns green.
double press	Advance the adjusting parameter to the next item on the list.
press and hold	Return to mode selection.

## Programming Commands / Responses

Commands	Descriptions
vers	Report the firmware version.
home	Reset all parameters to default values and return to mode selection.
mode	Read or set the system mode. <ul style="list-style-type: none"> <li>o Reading: mode</li> <li>o Setting to "simple": mode=simple</li> </ul>
pres	Read the feedback value of control pressure in kPa.
pref	Read or set the value of set pressure. <ul style="list-style-type: none"> <li>o Reading: pref</li> <li>o Setting to 100 kPa: pref=100</li> </ul>
pmax	Read or set the max value of set pressure. <ul style="list-style-type: none"> <li>o Reading: pmax</li> <li>o Setting to 500 kPa: pmax=500</li> </ul>
offs	Zero the current feedback value of control pressure.
oupt	Read or set the state of output pressure, in "simple" mode, and output pressure pulses, in "pulse" mode. <ul style="list-style-type: none"> <li>o Reading: oupt</li> <li>o Setting to "on": oupt=on</li> </ul>
freq	Read or set the frequency of output pulses. Available only in "pulse" mode. <ul style="list-style-type: none"> <li>o Reading: freq</li> <li>o Setting to 2 Hz: freq=2</li> </ul>
ok	Response for successful recognition and execution of a command.
unrecognized command	Response for invalid commands

\* When set pressure is set to be 0–5 kPa, it is uncontrollable. If this value falls in this range, the controller turns it to 5 kPa.

For additional details, please visit the product repository: [github.com/schaiwuth/open-interface-pressure-controller](https://github.com/schaiwuth/open-interface-pressure-controller).