

# PCU16

## POWER CONTROL UNIT



### DESCRIPTION

The PCU16 Power Control Unit is a compact, standalone microprocessor device for controlling UHV vacuum systems. It supports one ultra-high vacuum pump (e. g. turbo molecular pump, ion pump, cryo pump, etc.), electromagnetic vent valve, electromagnetic safety valve, fore vacuum pump and two vacuum gauges based on the 0 - 10V output standard. The PCU16 displays the state of all of the connected peripheral devices on a large 7" TFT LCD touchscreen, providing clear readouts of important system parameters to the user. The unit comprises several interlocks to protect the vacuum system in the event of power loss or in the case that a pump or other device might fail. Five different and most popular configurations are implemented on the delivered unit. Customers can choose one of these fixed configurations and set it as the default display. Easy firmware upgrade via USB. The unit can be remotely controlled via RS232/485 or Ethernet interfaces. The unit is equipped with autosave function (the device save your parameters, preset and apply them automatically after restart).

### APPLICATIONS

- Control of any high and ultra high vacuum system
- Measurement of pressure
- Bakeable and non-bakeable systems
- Control and automation of pump down cycle
- Control and automation of venting cycle

The PCU16 has an externally attached UPS ensuring full control and protection of the vacuum system even on power failure. It is available with full dedicated software application or library module.

### ADDITIONAL INFORMATION

- The PCU16 front control panel is divided into two parts:
- Left - graphical presentation of vacuum system
  - Right - panel which indicates the current state of the vacuum system (set-points, power, failures etc.)

### TECHNICAL DATA

Supply voltage	100 - 240 VAC, 50/60 Hz (power consumption max 250 W)
Measurement channels	2
Display range	$2 \times 10^{-12}$ - $2.1 \times 10^5$ mbar
Compatible sensors:	
Channel 1:	CTR90, TTR91, TTR211, PKR251, PCR280, ANALOG IN, PG105
Channel 2:	CTR90, TTR91, TTR211, PTR225, PTR90, ITR90, ITR100, Baratron, ANALOG IN, MKS937A, PG105, MG13/14, PKR251/360/361, PCR280, ATMION
Supported valves	any 24V / max 2A
Supported fore vacuum pump	any 1 phase 230 VAC, 5 A max or 1 - 3 phase with external interface
Supported TMP	RS232/485 connected via TURBO. DRIVE S any with the standard ON/OFF control
Communication interface	RS232/485, Ethernet
Communication protocol	MODBUS-TCP
User interface	7" TFT display with touchscreen
Interface languages	English, German, Polish
Dimensions	212.6 × 128.4 × 260.3 mm (W×H×D) 1/2 of 3HE 19"
Weight (approx.)	3.6 kg



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