PPC-201

Purification Process Controller with programmable UV HF ballast for regular and high output UV lamps and UV monitor

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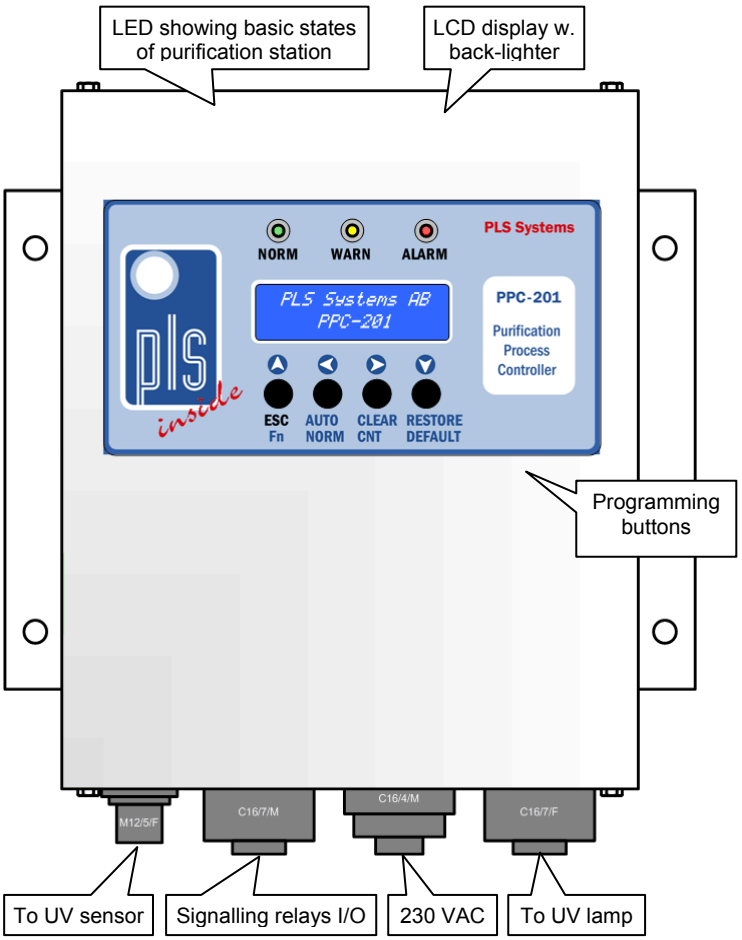
Description: PPC-201 is integrated water purification process controller providing all functions needed to drive reactors using AOT (Advanced Oxidizing Technology) with UV level supervision. Unit combines following basic modules:

- Programmable HF ECG with current capacity up to 1A capable to drive both low and high intensity UV lamps of different kind.
- Programmable UV monitor working with digital UV sensors from series UVS-100 and UVS-200
- Programmable controller managing UV discharge process, lamp and system diagnostics including working hours counter
- Optically isolated set of relays signaling different states of UV lamp, UV intensity and temperature inside reactor to external PLC



Basic parameters of PPC-201

Programmable HF ECG (UV ballast)
Type: programmable HF ECG for UV lamps
Output mode: AC current source mode
UV lamps:
- GPH (0.425A, 0.610A, 0.750A. 0.775A)
- GHO (0.80A, 0.85A, 0.90A, 0.95A, 1.0A)

Preheating: programmable intelligent preheating providing long tube life time
Ignition voltage: ≈800 V
Working frequency: ≈40 kHz, fixed
Max. processed power: 120W
Supply voltage: 190-250VAC 50/60 Hz
Life time: 100.000 h
λ-factor: 0.97
Inrush current: 0A (no inrush)
Lamp fault detection: all lamp faults detected in standby, preheating, heating, ignition and discharge mode
Signaling mode: 3 local LED's in front panel, interface to remote display panel
Signaling: Lamp Fault, Lamp Warning (tube end-of-life), Lamp OK

Programmable UV monitor
LED display: 3 x LED
LCD display: 2 x16 characters (white-on-blue)
Display back-lighter: yes, 4 modes
LED display items - controller global status
- NORM (UV level OK)
- WARN (UV level below warning level)
- ALARM (UV level below alarm level)

Programmable LCD display items:
- UV in [Wm^{-2}] (with UVS-200 and UVS-200T)
- UV in [%]
- working hours in [h:min]
- temperature in [°C] (with UVS-100T and UVS-200T)
- UV lamp status
- UV lamp discharge current in [A]

Display modes:
- UV lamp start-up diagnostics
- measurement display mode
- parameter review mode
- sign-on mode
- programming mode
- diagnostic mode

Keyboard: 4 push buttons with basic and extended functions
Keyboard basic functions: menu navigation, Esc, ENTER
Keyboard ext. functions: automatic normalization of UV level, clearing of working hours counter, restore of default parameters

Controller
Normal UV level: programmable
Warning UV level: programmable (0 to 99% of normal level)
Alarm UV level: programmable (0 to 99% of normal level)
Output relays: 7 programmable relays
Relay type: optically isolated SSR, 350V/120 mA, 30Ω
Relay delay: user programmable, from 1s to 999s
Relay mode: programmable, NC or NO
Hours counter: built-in, capacity of 99,999:59 hours
Sensor bus: RS-485
Sensor bus cable: 2x2 twisted pair, shielded
Sensor bus length: max. 1000 m
Automated procedures:
- UV lamp diagnostics
- UV level calibration
- Working hours counter reset
- UV sensor on-line recognition
- Restore of default parameters

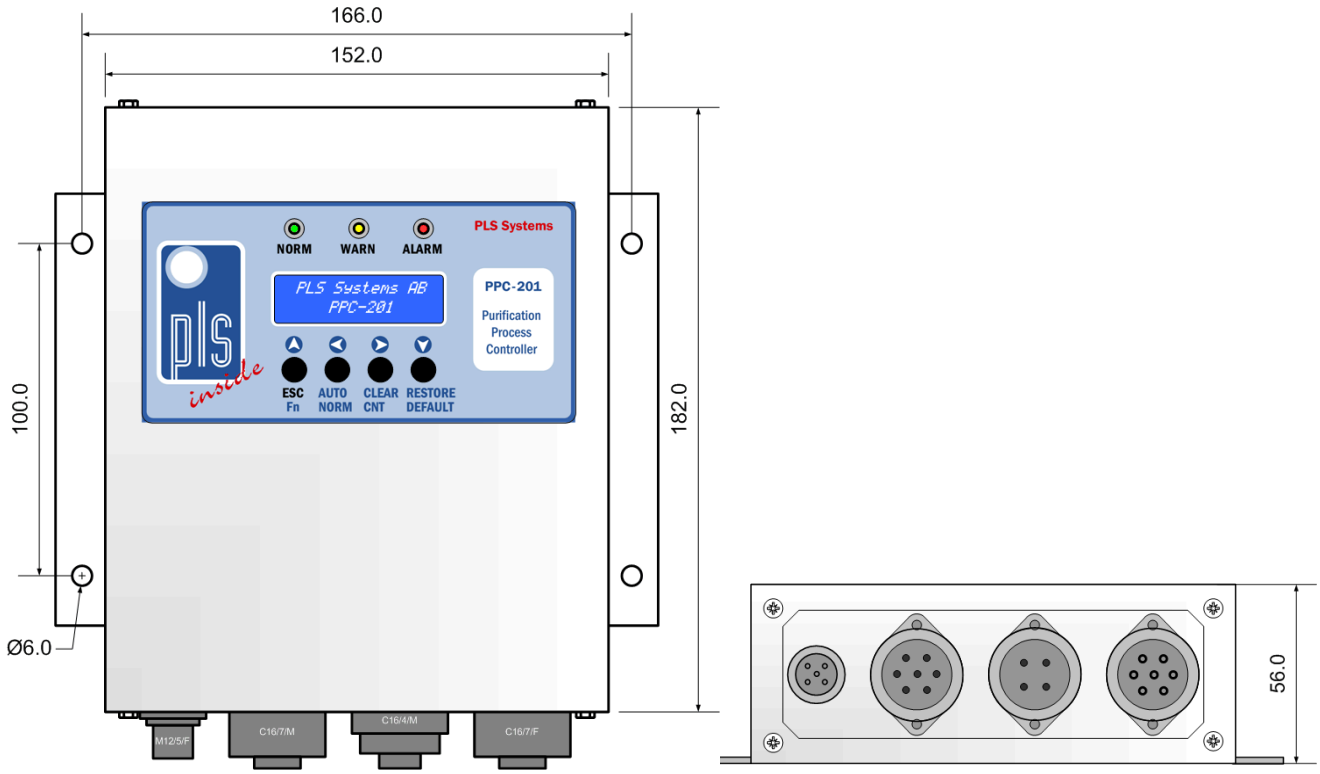


Fig. 1. Dimensions

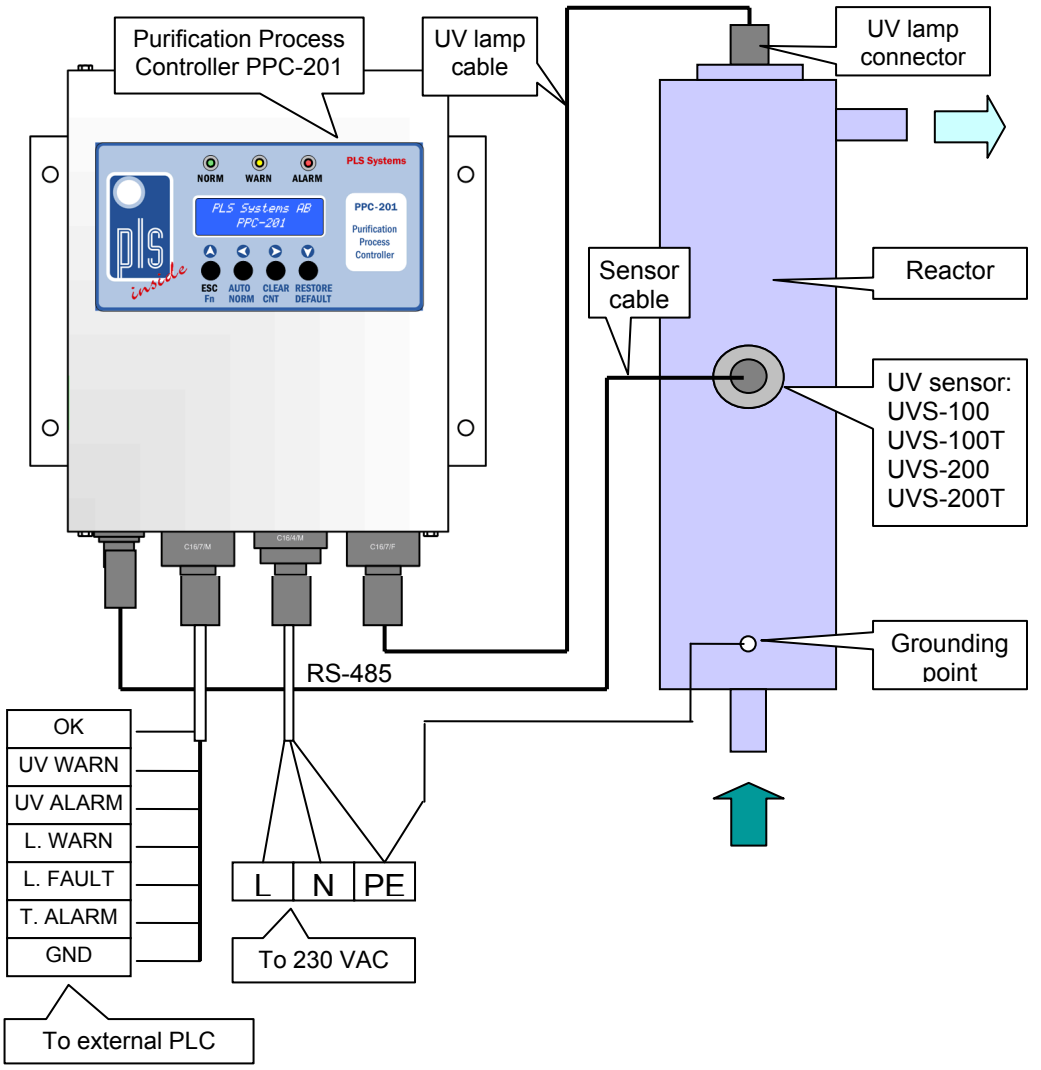


Fig. 2. Example of installation wiring