

Control Unit pe280 – Anodizing

The control unit „pe280 Anodizing“ is used for automatic control of the DC-power supply at the anodizing bath for the anodic oxidation of aluminum. The goal is to build a homogeneous layer of the aluminum surface with the required nominal thickness in the shortest possible time and with optimum energy input. The security of the process is carried by automating the capture of the batch size and the bath parameters.

Wall-mounting casing or build-in type available.



Control unit pe280 – Anodizing – in wall mounting casing

Functions:

Program numbers, program data, control functions and processes are displayed on the control unit

Collection of bath parameters for automatic anodizing settling

Ampere-hour counter

DC-level function:

Programming of Program operations consisting of up to 14 individual DC steps (programming of current, voltage and time value)

Internal program memory for three freely configurable program sequences for each type of control

1 temperature sensor (PT 100)

indication relay for the end of the process

BUS control / interfaces:

PROFIBUS interface available on request

EMV: EN55011 class A, group 1 ; EN61000-6-4 and EN61000-6-2;

CE-conformity IEN50178 - low voltage guide line

Technical equipment, design and features: subject to change! For further information please contact plating electronic GmbH.

Characteristic values

Designed for anodizing applications

Large 3-line LCD display, polycarbonate enclosure, keypad for easy operation

Current and voltage infinitely adjustable by UP / DOWN buttons

Current and voltage preset

Ampere-hour counter (totalizer)

Software update via PC by RS232 Flashsystem

Ambient temperature max. 40°C

Protection grade: IP54

Polycarbonate (ABS) casing, polycarbonate coated aluminium front panel

Menu language: English, French, Polish, Spanish, German

Data-cable: length 5m (other size in 5m steps, on request)

For DC power supply interface: analog, peRB interface

Weight: approx. 1000g

Dimensions (W x H x D): 240 x 170 (cable bushing included) x 85mm

Supply: 24V DC internally from the DC power supply, or 115V / 230V AC

Also included: 1 piece PT100 temp. sensor, acid-proof, to measure the temp. in the anodizing tank with 10m pre-wired cable; range -20 .. +50°C

Display resolution

Voltage: 1mV - 10mV - 100mV - 1V

Current: 1mA - 10mA - 100mA - 1A

(depending on rectifier type)

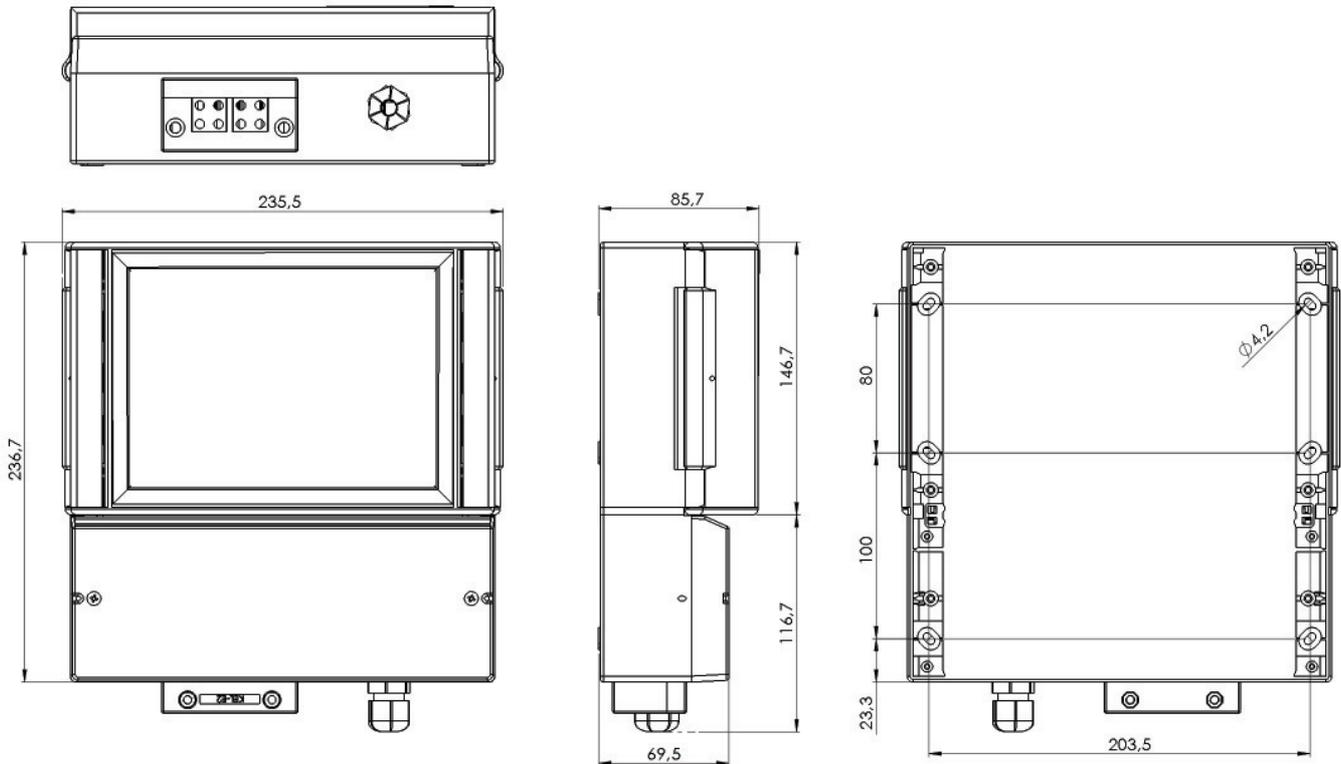
Current density regulation:

The "current density" determines the amount of electric current in the anodic bath and automatically calculates the anodic time according to the pre-selected nominal layer thickness set by the operator.

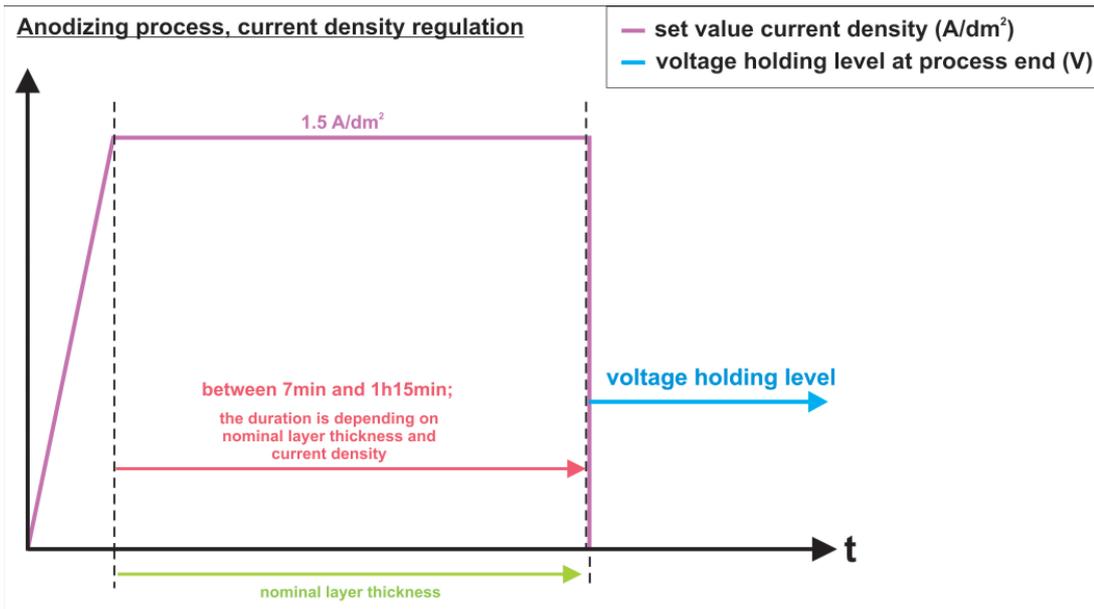
In "Automatic mode", there are only three parameters to be set manually:

- the desired current density of 0,5 ... 2.0 A / dm²
- the required nominal layer thickness of 5 ... 25 µm
- the "curve type" (sheet metal or profile)

Standard dimensions



If additional components are to be installed - such as BUS interfaces, supply units or isolation amplifiers - the casing depth is 138 or 226 mm, respectively.



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