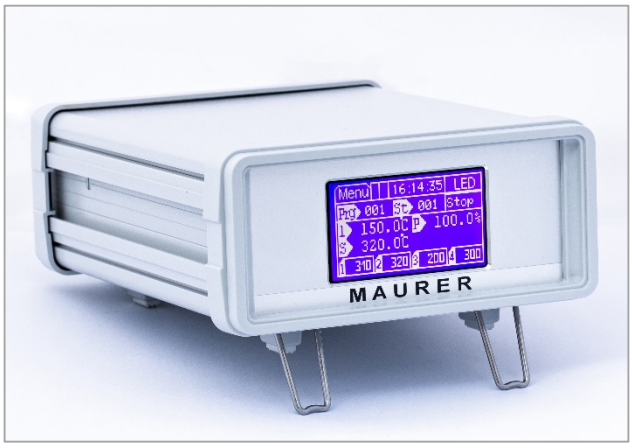
MAURER OPTOELEKTRONIK

ELECTRONIC PROCESS UNIT

AED 1012-PC
AED 1012-PC-DIN

for analogue & digital MAURER pyrometers



AED 1012-PC – standard design with foots

Complement your MAURER pyrometer with an electronic process unit and benefit from numerous functions. With this device you have all relevant data immediately in view. Adjusting the settings can be easily done thanks to the intuitive handling of the menu navigation. In addition, it enables you to record measured data and set the parameters for your pyrometer effortlessly and without a computer. This model is also a PID controller, which enables you to define up to 500 programs for controlling the performance of a generator e.g. in heating processes. For further control purposes, a large amount of data and signals can be tapped or fed from an external source via the terminal block on the rear side.

AED 1012-DIN-PC – in DIN-housing

The most important features und characteristics at a glance:

- PID Controller: define up to 500 programs with 1023 program steps in total
- Autotuning feature for automatic determination of PI-parameters
- 4 seperately adjustable switch outputs with optorelais
- Works as voltage supply for the pyrometer
- Digital pyrometer interface RS232 or RS485
- Overall parameter setting of pyrometer without computer possible
- Authorization management with optional PIN protection against unauthorized access
- Automatic determination of emissivity and transmission
- Ultra fast sampling rate of 50 µsec
- Multilingual Touchpanel
- 6-digit temperature display °C / °F
- Automatic scaling for digital pyrometers
- Data logging to USB flash drive with real time clock

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Technical Data

Pyrometer interface	RS232 / RS485, switchable
Computer interface	USB 2.0 Optional: ProfiBUS, ProfiNET, Ethernet, EtherCAT
Data recording	Recording on USB flash drive or PC, with real time clock
Input of actual value	Current loop of pyrometer (0 - 20 mA or 4 – 20 mA / input impendance 20 R)
Measurement indication	6-digit programmable, adjustable display rate 100 ms – 10 s
Sampling time	50 µsec
PID Parameter	xp: 1 – 1000 % ti: 0,1 – 9999 ms td: 0,1 – 9999ms P: 0 – 100 %
Program count / program steps	500 programs / 1023 program steps in total
Program step length	1 ms to 3600 ms
Set value	Manual or external 0 – 10 V or 2 – 10 V
Controller output	0 (4) – 20 mA or 0 – 10 V (each inverted possible), PWM
Measuring range	Manual scaling for analogue pyrometers from -50 °C to 4000 °C Automatic scaling for digital pyrometers
Switching outputs:	Set points adjustable within measuring range 2 x optorelais (optional 4 x) with changeover contacts, each 250 VAC / 100 mA 1 x optorelais pyrometer limit Switching hysteresis: Adjustable between 0 – 50 °C, response time 3 ms
Operating / Storage temperature	0 – 60 °C / -10 °C – 70 °C 32 – 140 °F / 14 – 158 °F
Supply voltage	100 – 277 VAC / 50 – 60 Hz
Power consumption	Max. 20 W
Power supply for pyrometer	+ 24 V / 300 mA (D-SUB)
Signal outputs	via 16-pol. screw terminal block
IP-Code	IP50
Weight / Dimensions (LxHxW)	AED 1012-PC: 1,3 kg / 155,5 x 69 x 204 mm (with foots: height 104 mm) AED 1012-PC-DIN: 1,1 kg / 96 x 96 x 170 mm (with power supply connector: width 235 mm), panel cutout 92x92 mm

Configurations

- In DIN-housing according to DIN 43700 for panel cutouts of 92 x 92 mm
- Connection of second pyrometer via RS232 interface
- Connection of up to 6 pyrometers via RS485 interface
- Additional current output 0 (4) – 20 mA
- Two additional switching outputs

Main Equipment

Electronic Equipment	Mechanical Equipment
Connection cables	Mounting brackets for panel installation * Table top stand *
Connection bar for up to 6 pyrometers	Protection casing IP65

* not available for DIN-housing