

DIGITAL UNIVERSAL CONTROLLER



Advantages:

- Self-optimizing PID-controller with adjustable fuzzy rate
- High accuracy ($\pm 0.2\%$)
- Exchangeable output modules
- 3 freely definable alarm outputs
- Ext. set value input 4 ... 20 mA
- Modular construction
- 100 ms detection time for analog inputs
- Decentralized set value setting
- Serial communication via RS-232C, RS422 or RS-485 and transmission output (4...20 mA)
- Step control
- Heating and cooling control
- Program regulation possible

Function:

- Manual output
- Heating / cooling control
- SP limiter
- Alarm for heating circuit interruption
- MV limiter
- MV change rate limiter
- Dig. input filter
- Input offset
- Run / Stop
- Options of protection features:
- Controller output modules
- Interface modules
- Dig. Inputs (i.a. for max. of 4 set values)

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Technical Data

Design:

Plastic housing for switch panel mounting

Degree of Protection - front:

NEMA4 for usage in confined spaces (corresponds to degree of protection IP66)

Degree of Protection - back:

Degree of protection according to IEC standard: IP20

Clamps:

Degree of protection according to IEC standard: IP20

Dimensions:

96 x 96 x 115 mm (WxHxD)

Front panel:

92 x 92 mm (WxH)

Connection:

Screw connection.
Wire cross section max. 2.5 mm

Auxiliary voltage:

100 ... 240 Vac, -15 + 10%, 50/60 Hz

Power consumption:

Approx. 16 VA

Climate storage:

-10 ... +70 °C

Operation:

0 ... +50 °C, 5 ... 95% rel. moisture, noncondensing

Display:

Two 4-digit seven-segment displays for PV and SV

Heights of digits:

PV = 15 mm red
SV = 11mm green

Input 1:

- Thermocouple types K, J, T, E, L, U, N, R, S, B, W or PLII
- Resistance thermometer JPt 100, PT100
- Voltage input: 0 ... 5 V, 1 ... 5 V, 1 ... 10 V, ($R_i > = 1$ MOhm)
- Current input: 0 ... 20 mA, 4 ... 20 mA ($R_i = 150$ Ohm)

Input 2:

Decentralized set value 4...20 mA ($R_i = 150$ Ohm)

Controller output:

(depending on integrated module)

Relay output

(potential-free contact)

SSR output

(semiconductor relay)

Voltage output

(active, pulse, 12 Vdc or 24 Vdc [NPN] / 24 Vdc [PNP])

Current output

(continuous 4 ... 20 mA or 0 ... 20 mA)

Alarm output:

Max. 3 alarm outputs each with 11 different alarm modes (with two-point controller)

Setting:

Digital adjustment with function keys
Control behavior: ON/OFF or PID-control with auto tuning
Proportional part: 0.1 ... 999.9 %
FS Integral time: 0 ... 3999 s
Differential: 0 ... 3999 s

Other features:

- Sensor calibration
- Adjustable switching frequency (output cycle)
- Selectable output for standard and reverse operation
- Upper and lower limit for set value
- Modulating controller configurable