



Digital Controller with Fuzzy-Logic E5AK

Special features:

- Self-optimizing PID controller with adjustable Fuzzy-quota
- High accuracy (+-0,2%)
- Exchangeable output modules
- 3 freely definable alarm outputs
- Ext. setpoint input 4...20 mA
- Modular structure
- 100 ms identificationtime for analog inputs
- Fuzzy-Self-Tuning
- Adjustment remote setpoint input
- Serial communications function to the RS-232C or RS422 or RS-485 and transfer procedure (4...20 mA)
- Position-proportional type
- Heat/-Cool control
- Controller with program is possible

Technical Data:

Construction:

Plastic housing for control panel installation

Protection according:

Front panel: NEMA4 for indoor use (IP66 equivalent)

Backside panel: IEC IP20

Clamps: IEC IP00

Dimensions:

96 x 96 x 115 mm (wxhxd)

Weight:

0,45 kg

Front panel cut-out:

92 x 92 mm (wxh)

Connection:

Screw connection

Wire cross section: max. 2,5 mm

Auxiliary Voltage:

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

Power consumption:

approx. 16 VA

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Technical Data:

Climate:

Storage : -25...+65 °C
Operation: -10...+50 °C
35 to 85 % relative humidity, non condensing

Displays:

2 four-digit, 7-segment displays for PV and SV

Digit height:

PV = 15 mm red
SV = 11 mm green

Output 1:

- Thermocouples Type K, J, T, E, L, U, N, R, S, B, W or PLII
- Reference termocouples JPt 100, PT100
- Voltage output:
0...5 V, 1...5 V, 1...10 V, ($R_i \geq 1 \text{ MOhm}$)
- Current input:
0...20 mA, 4...20 mA ($R_i = 150 \text{ Ohm}$)

Output 2:

Remote setpoint 4...20 mA ($R_i = 150 \text{ Ohm}$)

Controller output:

(depending on the built-in module)
relay output
SSR output
voltage output (aktiv, Puls, 12 Vdc or 24 Vdc
[NPN] / 24 Vdc [PNP])
current output (4...20 mA or 0...20 mA)

Alarm output:

approx. 3 alarm outputs with 11 differs Alarmmodi
(two-point-controller)

Setting type:

Digital setting with funktion keys

Regelverhalten:

ON/OFF or PID control with autotuning
Proportional: 0,1...999,9 % FS
Integralltime: 0...3999 s
Differential: 0...3999 s

Other features:

- Key locking
- Sensor adjustment
- Setpoint shift
- Output selectable for normal and reverse operation
- Upper and lower limit value for the setpoint
- Three-point controller configuration

Functions:

- Manual mode
- Heat-/Cool control
- Setpoint-Limiter
- Alarm heater burnout detection
- Setpoint-ramp
- MV-Limiter
- MV change rate limiter
- Input digital filter
- Input shift
- Run / Stop
- Security

Options:

- Controller output modules
- Interface modules
- dig. Inputs (for approx. 4 Setpoints)

Änderungen vorbehalten.