



SICLIMAT[®] SAPHIR

AC Controller

ACX32.000

For control, switching and monitoring functions

Supply voltage AC 24 V, signal voltage DC 0...10 V

Technical Data

Power supply	Supply voltage	AC 24 V ($\pm 15\%$) or DC 26...35 V
	Current consumption	approx. 0.3 A with full configuration
Inputs and outputs	Load	AC 12...250 V, max. 2 A recommended min. 0.5 A, AC/DC 12 V
	Relay outputs DO1...DO8	DO1...DO8 Changeover
Universal inputs UI1...UI14	All universal inputs with common reference	UI = 0...10 V, non-floating
	Conversion time	approx. 30 ms/analog input and approx. 12 ms/digital input
	Protective circuit	up to +24 V without destruction
	Adjustable via software	
	Voltage	0...10 V
	Input impedance	approx. 100 k Ω
	Resolution	up to 12 bit (default 10 bit)
Offset error	0.2 %	
Gain error	$\pm 0.3\%$	

	Current	0...20 mA (via ext. 100 Ω shunt)
	Resolution	12 bit (default 10 bit)
	Offset error	0.5 %
	Gain error	±1 %
	PT1000 elements	
	Sensor current	400 μA
	Resolution	0.1 K
	Accuracy	±2 K
	PT100, NI1000 elements	
	Sensor current	400 μA
	Resolution	0.1 K
	Accuracy	±0.5 K
	PTC, NTC thermistors	
	Sensor current	400 μA
	Temperature measurement	up to approx. 4.5 kΩ resistance value (from 4.5 kΩ with shunt resistor)
	Digital input	External supply not possible. Voltage supplied by device; 24 V at max. 4.5 mA, non-floating, i.e. use floating contacts only!
	Input frequency	max. 20 Hz
Fast binary inputs DI1...DI4	Digital input	External supply not possible, voltage supplied by device: 24 V at max. 6 mA, non-floating, i.e. use floating contacts only!
	Input frequency	Restricted to 50 Hz via software
Analog outputs AO1...AO8	Output voltage	0...10 V, non-floating
	Linearity error	±2 LSB
	Offset error	0.5 %
	Gain error	±0.5 %
	Resolution	10 bit
	Load current	5 mA
	Setting time	approx. 60 ms
	Protective circuit	up to +24 V without destruction
Interfaces	Peripheral interfaces (X1...X12)	WAGO Cage Clamp terminal blocks (Order under ACX90.12)
	Serial interface (X13)	8-pin RJ45 jack
	For external IO's	Sub-D, male, 9-pin
Memory	Internal data memory	256 kbyte ...2 Mbyte RAM 2 Mbyte ...4 Mbyte flash 128 kBit EEPROM
Protection	Degree of protection of housing	IP20
Safety class	Humidity class	F as per DIN 40040

Environmental conditions	Air pressure	
	Operation	min. 700 hPa, corresponding to max. 3000 m AMSL
	Transport	min. 260 hPa, corresponding to max. 10'000 m AMSL
	Temperature	
Operation	-10...+50 °C	
Storage	-30...+70 °C	
Norms and standards	Mechanical strength	DIN IEC 68-2-32
	EMC measurement	EN 50081-2 class A; EN 50082-2
	Burst tab Electric strength	EN 50082-2
	Vibration and shock test	EN 60068-2-27/31/32
	Climatic test	EN 60068-2-14
	Storage temperature	EN 60068-2-1/2
	Humidity test	DIN IEC 60068-2-30
	Temperature-rise test	EN 60068-2-14
General data	Dimensions	W x H x D
	Overall device	284 mm x 158 mm x 54 mm
	Motherboard	280 mm x 150 mm
	Installation principle	EN 50022; DIN-rail 37 x 7.5 mm
	Weight	1.3 kg
	Colour	RAL 7016



In order to protect against accidental contact with relay connections at voltages greater than $42 V_{eff}$, the device must be installed in an enclosure (preferably a control panel). It must be impossible to open the enclosure without the aid of a key or tool.

Installation

