

AKOCONTROL

Thermometers, thermostats and
temperature and humidity controllers



AKOCONTROL Darwin

Data table of controllers for Refrigeration market

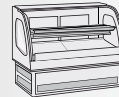
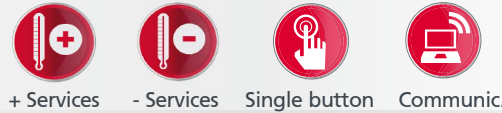
	Relays outputs				Outputs					Options				Format					
	Compressors res. (induc.)	Defrost	Fans res. (induc.)	Light/Aux./Alarm	Control temperature	End defrost temperature	Environment temperature	Digital input 1	Digital input 2	Power Supply	Buzzer	Real time clock	Integrated communications	Cut panel	Standard panel	Big display	large panel	DIN	Wall-mounting
Thermometers																			
AKO-D14012	-	-	-	-	-	-	-	-	NTC/PTC	-	-	-	-	-	•	-	-	-	-
AKO-D14023	-	-	-	-	-	-	-	-	NTC/PTC	-	-	-	-	-	•	-	-	-	-
AKO-D14023-C	-	-	-	-	-	-	-	-	NTC/PTC	-	-	•	-	•	-	-	-	-	-
AKO-13012	-	-	-	-	-	-	-	-	NTC	-	-	-	•	-	-	-	-	-	-
AKO-13023	-	-	-	-	-	-	-	-	NTC	-	-	-	•	-	-	-	-	-	-
AKO-D14602	-	-	-	-	-	-	-	-	NTC/PTC	-	-	-	-	-	-	-	-	-	•
AKO-14605	-	-	-	-	-	-	-	-	NTC	-	-	-	-	-	-	-	-	-	•
1 relay controllers																			
AKO-D14112	12A(9)	-	-	-	NTC/PTC	NTC/PTC*	-	•	•*	12/24V	-	-	-	-	•	-	-	-	-
AKO-D14123	12A(9)	-	-	-	NTC/PTC	-	-	-	-	230V	-	-	-	-	•	-	-	-	-
AKO-D14123-2	16A(10)	-	-	-	NTC/PTC	NTC/PTC*	-	•	•*	230V	-	-	-	-	•	-	-	-	-
AKO-D14123-2-RC	16A(10)	-	-	-	NTC/PTC	NTC/PTC*	-	•	•*	90-240V	-	•	•	-	•	-	-	-	-
AKO-13112	12A(9)	-	-	-	NTC	-	-	-	-	12V	-	-	-	•	-	-	-	-	-
AKO-13123	12A(9)	-	-	-	NTC	-	-	-	-	230V	-	-	-	•	-	-	-	-	-
AKO-10123	12A(9)	-	-	8A (4)	NTC	-	-	-	•	-	-	-	-	-	-	-	•	-	-
AKO-D10123	12A(9)	-	-	-	NTC/PTC	-	-	-	-	230V	-	-	-	-	-	-	•	-	-
AKO-D14615	12A(9)	-	-	-	NTC	-	-	-	-	230V	-	-	-	-	-	-	-	-	•
AKO-D14622	12A(9)	-	-	5A (4)	NTC/PTC	-	-	•	•	230V	-	-	-	-	-	-	-	-	•
AKO-D14622-C	12A(9)	-	-	5A (4)	NTC/PTC	-	-	•	•	90-240V	-	-	•	-	-	-	-	-	•
AKOTIM-21TE	12A(9)	-	-	-	NTC	-	NTC	•	-	230V	-	-	-	-	-	-	-	-	•
AKOTIM-21ATE	12A(9)	-	-	5A (4)	NTC	-	NTC	•	-	230V	-	-	-	-	-	-	-	-	•
AKOTIM-21ARTE	12A(9)	-	-	5A (4)	NTC	-	NTC	•	-	230V	-	•	-	-	-	-	-	-	•
AKOTIM-21ARTEB	12A(9)	-	-	5A (4)	NTC	-	NTC	•	-	230V	•	•	-	-	-	-	-	-	•
2 relays controllers																			
AKO-D14212	12A(9)	-	-	8A (4)	NTC/PTC	NTC/PTC*	-	•	•*	12V	-	-	-	-	•	-	-	-	-
AKO-D14223	12A(9)	-	-	8A (4)	NTC/PTC	NTC/PTC*	-	•	•*	230V	-	-	-	-	•	-	-	-	-
AKO-10223	12A(9)	8A (4)	-	8A (4)	NTC	NTC*	-	•	•*	230V	-	-	-	-	-	-	•	-	-
AKO-D10223	12A(9)	-	-	8A (4)	NTC/PTC	NTC/PTC*	-	•	•*	230V	-	-	-	-	-	-	-	•	-
AKOTIM-22TE	12A(9)	8A (4)	-	-	NTC	NTC	NTC	•	-	230V	-	-	-	-	-	-	-	-	•
AKOTIM-22ATE	12A(9)	8A (4)	-	5A (4)	NTC	NTC	NTC	•	-	230V	-	-	-	-	-	-	-	-	•
AKOTIM-22ARTE	12A(9)	8A (4)	-	5A (4)	NTC	NTC	NTC	•	-	230V	-	•	-	-	-	-	-	-	•
AKOTIM-22ARTEB	12A(9)	8A (4)	-	5A (4)	NTC	NTC	NTC	•	-	230V	•	•	-	-	-	-	-	-	•
3 relays controllers																			
AKO-D14312	12A(9)	-	5A(4)	8A(4)	NTC/PTC	NTC/PTC*	-	•	•*	12V	-	-	-	-	•	-	-	-	-
AKO-D14323	12A(9)	-	5A(4)	8A(4)	NTC/PTC	NTC/PTC*	-	•	•*	230V	-	-	-	-	•	-	-	-	-
AKO-D14323-C	12A(9)	-	5A(4)	8A(4)	NTC/PTC	NTC/PTC*	-	•	•*	90-240V	-	-	•	-	•	-	-	-	-
AKO-D16323	12A(9)	12A (9)	5A(4)	-	NTC/PTC	NTC/PTC	-	•	-	230V	-	-	-	-	-	•	-	-	-
AKO-10323	12A(9)	8A (4)	8A(4)	8A(4)	NTC	NTC	-	•	•	230V	-	-	-	-	-	-	•	-	-
AKO-D10323	12A(9)	-	5A(4)	8A(4)	NTC/PTC	NTC	-	•	•	230V	-	-	-	-	-	-	•	-	-
AKO-D14632	12A(9)	8A (4)	12A(9)	-	NTC	NTC	NTC*	•	•*	230V	-	-	-	-	-	-	-	-	•
AKO-D14632-C	12A(9)	8A (4)	12A(9)	-	NTC	NTC	NTC*	•	•*	90-240V	-	-	•	-	-	-	-	-	•
AKOTIM-23TE	12A(9)	8A (4)	5A(4)	-	NTC	NTC	NTC	•	-	230V	-	-	-	-	-	-	-	-	•
4 relays controllers																			
AKO-D14412	5A (4)	5A (4)	5A (4)	5A (4)	NTC/PTC	NTC/PTC*	NTC/PTC*	•*	•*	12V	-	-	-	-	•	-	-	-	-
AKO-D14412-RC	5A (4)	5A (4)	5A (4)	5A (4)	NTC/PTC	NTC/PTC*	NTC/PTC*	•*	•*	12V	-	•	•	-	•	-	-	-	-
AKO-D14423	5A (4)	5A (4)	5A (4)	5A (4)	NTC/PTC	NTC/PTC*	NTC/PTC*	•*	•*	230V	-	-	-	-	•	-	-	-	-
AKO-D14423-RC	5A (4)	5A (4)	5A (4)	5A (4)	NTC/PTC	NTC/PTC*	NTC/PTC*	•*	•*	90-240V	-	•	•	-	•	-	-	-	-
AKO-D14423P	12A(9)	8A(4)	5A (4)	5A (4)	NTC/PTC	NTC/PTC	NTC/PTC*	•*	•*	90-240V	-	-	-	-	•	-	-	-	-
AKO-D14423P-RC	12A(9)	8A(4)	5A (4)	5A (4)	NTC/PTC	NTC/PTC	NTC/PTC*	•*	•*	90-240V	-	•	•	-	•	-	-	-	-
AKO-D14642	12A (9)	8A (4)	12A(9)	5A (4)	NTC	NTC	NTC*	•	•*	230V	-	-	-	-	-	-	-	-	•
AKO-D14642-C	12A (9)	8A (4)	12A(9)	5A (4)	NTC	NTC	NTC*	•	•*	90-240V	-	-	•	-	-	-	-	-	•
AKOTIM-23ATE	12A (9)	8A (4)	5A(4)	5A (4)	NTC	NTC	NTC	•	-	230V	-	-	-	-	-	-	-	-	•
AKOTIM-23ARTE	12A (9)	8A (4)	5A(4)	5A (4)	NTC	NTC	NTC	•	-	230V	-	•	-	-	-	-	-	-	•
AKOTIM-23ARTEB	12A (9)	8A (4)	5A (4)	5A (4)	NTC	NTC	NTC	•	-	230V	•	•	-	-	-	-	-	-	•

* Configurable Input NTC/Digital

Application scope

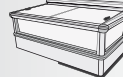
Thermometers

- Ideal for temperature indication.
- A single button for adjusting parameters.
- NTC/PTC probe selectable by program. Allow probe calibration.
- Temperature display in °C or °F with decimal point.



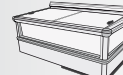
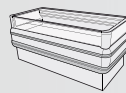
1 & 2 relays Controllers

- Ideal for positive service (temperatures above 3 °C) and static refrigerated units with positive temperature.
- HOT/COLD operation selectable by program.
- Defrost by compressor shutdown, air, resistance, and cycle reversal.
- Wizard to simplify startup with the 8 most common applications (soft drinks, fruit and vegetables, frozen, etc.)
- Auxiliary relay configurable for fans, defrost, alarm or light.



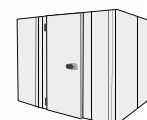
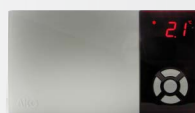
3 relays Controllers

- Ideal for negative or positive service, ventilated refrigerated units with positive or negative temperature.
- Auxiliary relay configurable for fans, defrost, alarm or light.
- Wizard to simplify startup with the 8 most common applications (soft drinks, fruit and vegetables, frozen, etc.)
- Defrost by compressor shutdown, air, resistance, and cycle reversal.



4 relays Controllers

- Ideal for positive or negative service, ventilated refrigerated units with positive or negative temperature.
- Auxiliary relay configurable for fans, defrost, alarm or light.
- Defrost by compressor shutdown, air, resistance, and cycle reversal.
- Wizard to simplify startup with the 8 most common applications (soft drinks, fruit and vegetables, frozen, etc.)
- Temperature display in °C or °F with decimal point.
- Configurable digital inputs (door, external alarm, severe external alarm, remote defrost mode, ECO or rapid cooling).



Thermostats and thermometers

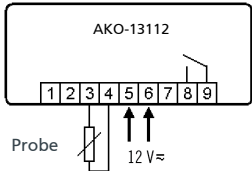
Range from -50 °C to +99.9 °C, panel mounting, small format



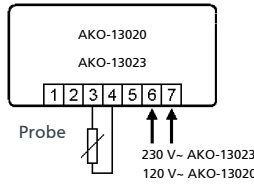
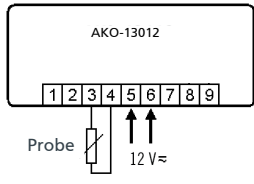
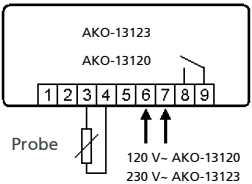
Small dimensions 66 x 32 x 56 mm

The dimensions of the panel cut-out make them exchangeable with traditional mechanical thermometers, by also integrating the thermostat and defrost clock function in a single unit. Programmable for cold and heat. Defrost by compressor stop. Possible password for entering programming, indication in °C or °F programme selectable and probe calibration.

Application: Industrial and commercial cold, displays, cabinets, etc.



- Temperature range -50 °C to +99.9 °C
- 2 Display digits (°C/°F)
- Resolution 1 °C
- Precision ±1 °C
- NTC Probe
- Panel cut-out dimensions 25,4x58 mm
- Front dimensions 32 x 66 mm
- Depth 51 mm



Reference	Description	Family	Pack
AKO-13012	12 V~, °C / °F probe NTC 1,5 m included	Small Format	12 Unit
AKO-13020	120 V~, °C / °F probe NTC 1,5 m included	Small Format	12 Unit
AKO-13023	230 V~, °C / °F probe NTC 1,5 m included	Small Format	12 Unit
AKO-13112	12V~, SPST relay 16 A, probe NTC included	Small Format	12 Unit
AKO-13120	120V~, SPST relay 16 A, probe NTC included	Small Format	12 Unit
AKO-13123	230V~, SPST relay 16 A, probe NTC included	Small Format	12 Unit

Thermometers

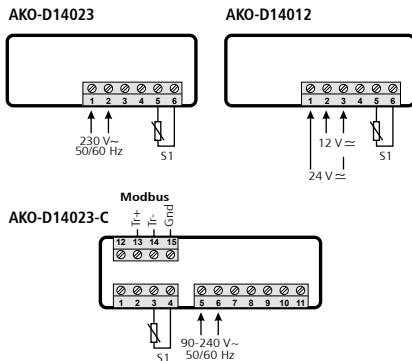
Range from -50 °C to +150 °C, panel mounting



Temperature display

Temperature display in °C or °F with decimal point. NTC/PTC probe selectable by programme. Allows probe calibration. A single button for adjusting parameters. The AKO-14023-C model has integrated RS-485 communication.

Application: Industrial and commercial refrigeration, displays, incubators, vehicles



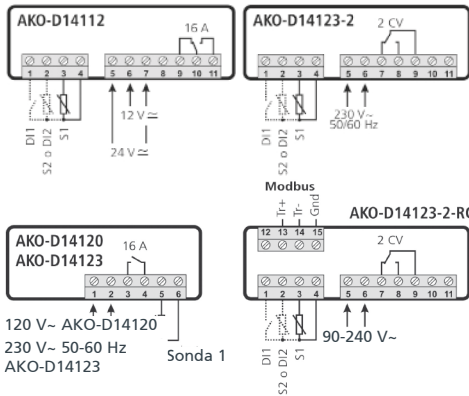
- NTC probe temperature range -50°C to + 99.9 °C
- PTC probe temperature range -50 °C to +150 °C
- 3-digit display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Panel cut-out dimensions 71 x 29 mm
- Front panel dimensions 79 x 38 mm
- Depth 43 mm (AKO-D14012 y AKO-D14023)
- Depth 61 mm (AKO-D14023-C)

Reference	Description	Family	Pack
AKO-D14012	12/24 V~, 1 NTC probe included	Standard Panel	12 Units
AKO-D14023	230 V~, 1 NTC probe included	Standard Panel	12 Units
AKO-D14023-C	90-240 V~, with communication, 1 NTC probe included	Standard Panel	12 Units



Thermostats

Range from -50°C to +150 °C, 1 relay output, panel mounting



Programmable for cold and heat

Display and control in °C and °F with decimalpoint. NTC/PTC probe selectable by programme. Possible password protection for configuration. Defrost by compressor shutdown. Configuration wizard depending on application (8 configurations).

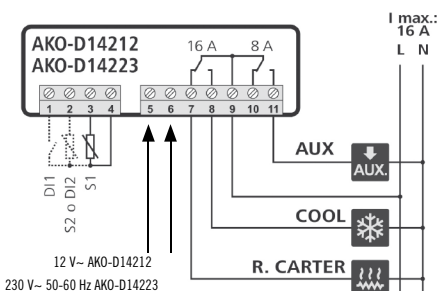
Application: Industrial and commercial refrigeration, displays, incubators, vehicles

- NTC probe temperature range -50°C to + 99.9 °C
- PTC probe temperature range -50 °C to +150 °C
- 3 digits Display (°C/° F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Panel cut-out dimensions 71 x 29 mm
- Front panel dimensions 79 x 38 mm
- Depth 43 mm (AKO-D14120 y AKO-D14123) SPST
- Depth 61 mm (AKO-D14112 y AKO-D14123-2-RC) SPDT
- Compressor relay SPST 16 A: AC1=12, AC3=9 (AKO-D1412x)
- Compressor relay SPDT 2 CV: AC1=16, AC3=10 (AKO-D14123-2, AKO-D14123-2-RC)
- Compressor relay SPDT 16 A: AC1=12, AC3=9 (AKO-D14112)
- The AKO-1423-2-RC model has integrated RS485 communication and Real Time Clock to defrost

Reference	Description	Family	Pack
AKO-D14112	12/24 V~, 1 SPDT relay 16 A, 1 NTC probe included	Standard Panel	12 Units
AKO-D14120	120 V~, 1 SPST 16 A, 1 NTC probe included	Standard Panel	12 Units
AKO-D14120-2	120 V~, 1 relay SPST 2 CV, 1 NTC probe included	Standard Panel	12 Units
AKO-D14123	230 V~, 1 SPST relay 16 A, 1 NTC probe included	Standard Panel	12 Units
AKO-D14123-2	230 V~, 1 SPDT relay 2 CV, 1 NTC probe included	Standard Panel	12 Units
AKO-D14123-2-RC	90-240 V~, 1 SPDT relay 2 CV, communication, real time clock, 1 NTC probe included	Standard Panel	12 Units

Temperature controller

Range from -50 °C to +99.9 °C, 2 relays, panel mounting



Compressor and auxiliary relay (defrost or fans)

Auxiliary relay function programmable as Defrost, Fans, Alarm or Light. A 2nd optional probe allows ending the defrost process by temperature. Programmable digital inputs such as door, switch, external alarm, remote defrost, energy saving or continuous cycle. Configuration wizard depending on application (8 configurations).

Application: Industrial and commercial refrigeration, display cabinets, electrical

- NTC probe temperature range -50°C to + 99.9 °C
- PTC probe temperature range -50 °C to +150 °C
- 3 Digits display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Panel cut-out dimensions 71 x 29 mm
- Front panel dimensions 79 x 38 mm
- Depth 61 mm
- Compressor relay SPDT 16 A: AC1=12, AC3=9
- Aux relay SPDT 8 A: AC1=8, AC3=4

Reference	Description	Family	Pack
AKO-D14212	12 V~, 2 relays , 1 NTC probe included	Standard Panel	12 Units
AKO-D14220	120 V~, 2 relays , 1 NTC probe included	Standard Panel	12 Units
AKO-D14223	230 V~, 2 relays, 1 NTC probe included	Standard Panel	12 Units

Temperature controllers

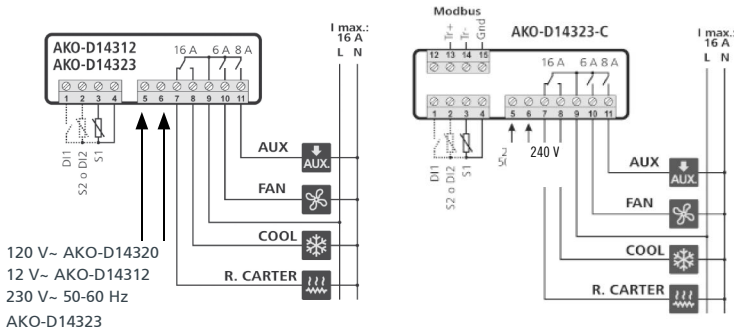
Range from -50 °C to +99.9 °C, 3 relays, panel mounting



Compressor, fan and auxiliary relay.

Auxiliary relay programmable as Defrost, Alarm or Light. Defrosts programmable by controlling compressor, resistances (or cycle reversal) and fans. A optional probe allows defrosting by temperature. Programmable digital inputs such as door switch, external alarm, remote defrost, energy saving or continuous cycle. Configuration wizard depending on application (8 configurations). The AKO-14323-C model has integrated RS-485 communication.

Application: Industrial and commercial refrigeration, display cabinets, electrical panels, etc.

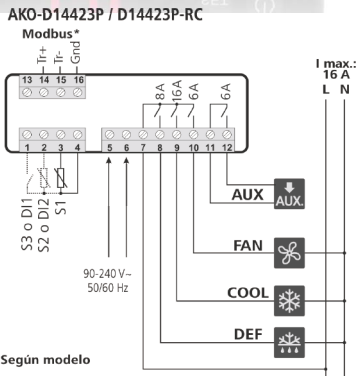


- NTC probe temperature range -50°C to +99.9 °C
- PTC probe temperature range -50 °C to +150 °C
- Temperature Range (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Panel cut-out dimensions 71 x 29 mm
- Front panel dimensions 79 x 38 mm
- Depth 61 mm
- Compressor relay SPDT 16 A: AC1=12, AC3=9
- Aux relay SPST 8 A: AC1=8, AC3=4
- Fan relay SPST 6 A: AC1=5, AC3=4

Reference	Description	Family	Pack
AKO-D14312	12 V~, 3 relays, 1 NTC probe included	Standard Panel	12 Units
AKO-D14320	120 V~, 3 relays, 1 NTC probe included	Standard Panel	12 Units
AKO-D14323	230 V~, 3 relays, 1 NTC probe included	Standard Panel	12 Units
AKO-D14323-C	90-240 V~, 3 relays, communication, 1 NTC probe included	Standard Panel	12 Units

Temperature controller

Range from -50 °C to +99.9 °C, 4 relays



Auxiliary relay programmable as an alarm, 2nd defrost, gas collection or light.

Defrost by heat, air or cycle reversal, programmable by controlling compressor, resistances (or cycle reversal) and fans. Real-time clock for starting defrosts. A 2nd optional probe allows defrosting by temperature. Programmable digital inputs such as door switch, external alarm, remote defrost, energy saving or continuous cycle. Integrated RS-485 communications. Configuration wizard depending on application (8 configurations). (8 configurations) for AKO-D14412-RC and AKO-D14423-RC devices.

Application: Industrial and commercial refrigeration, display cabinets, electrical

- NTC probe temperature range -50°C to +99.9 °C
- PTC probe temperature range -50 °C to +150 °C
- 3 Digits display (°C/°F)
- Resolution 0.1 °C
- Accuracy ±1 °C
- Panel cut-out dimensions 71 x 29 mm
- Front panel dimensions 79 x 38 mm
- Depth 61 mm
- Control of compressors, fan, defrost and auxiliary.
- Standar equipment with 6A relays
- Power equipment with 16A, 8A, 6A and 6A relays

Reference	Description	Family	Pack
AKO-D14412	12 V~, 4 relays, 1 NTC probe included	4 Relays	12 Units
AKO-D14420	120V~, 1 NTC probe included	4 Relays	12 Units
AKO-D14423	230V~, 1 NTC probe included	4 Relays	12 Units
AKO-D14412-RC	12 V~, 4 relays, communication + real time clock, 1 NTC probe included	4 Relays	12 Units
AKO-D14423-RC	90-240 V~, 4 relays, with communication and clock, 1 NTC probe included	4 Relays	12 Units
AKO-D14423P	Control. Panel STD, 90-240V, 4R Power, + NTC 1,5m	4 Relays	12 Units
AKO-D14423P-RC	Control. Panel STD, 90-240V, 4R Power, + Communic. + RTC +NTC 1,5m	4 Relays	12 Units



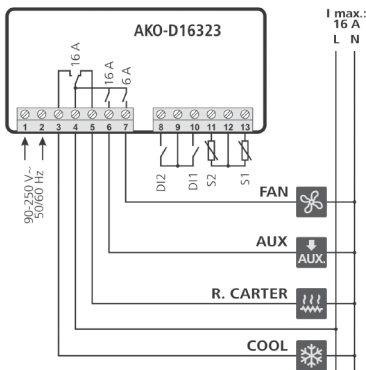
Temperature controllers

Range from -50 °C to +99.9 °C, 3 relays, panel mounting



Large display. Relay for compressor, fans and defrost
 Defrosts programmable by controlling compressor, resistances (or cycle reversal) and fans. A 2nd optional probe allows defrosting by temperature. Auxiliary relay programmable as Defrost, Alarm or Light. Programmable digital inputs such as door switch, external alarm, remote defrost, energy saving or continuous cycle. Configuration wizard depending on application (8 configurations).

Application: Industrial and commercial refrigeration



- NTC probe temperature range -50°C to + 99.9 °C
- PTC probe temperature range -50 °C to +150 °C
- 2 digits Display (°C/°F)
- Resolution: 0,1 °C on range -9,9 to 9,9 °C (1 °C in other range)
- Panel cut-out size 124 x 85 mm
- Front panel dimensions 139 x 100 mm
- Depth 40 mm
- Compressor relay SPDT 16 A: AC1=12, AC3=9
- Aux relay SPST 16 A: AC1=12, AC3=9
- Fan relay SPST 6 A: AC1=5, AC3=4

Reference	Description	Family	Pack
AKO-D16323	90-240 V~, 3 relays, 1 NTC probe included	Big Panel	10 Units

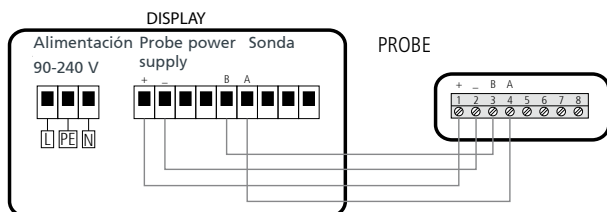
Display of temperature and humidity

Range from -9 °C to +60 °C, panel mounting



Display of temperature and humidity for installation in buildings and public premises.
 Fast and easy installation, perfect visibility trough display and 3 digits of 100 mm in size allowing goog read up to 50 m included probe.

Application: Small's supermarkets, sports centers, restaurants, bus stations, train stations, airports, etc..



- Temperature range -9 °C to +60 °C
- 3 digits display (°C/°F)
- Temperature accuracy 0,5 %
- Humidity accuracy 2 % (10 up to 90 %)
- Front panel dimensions 482 x 368 mm
- Depth 41 mm
- Power supply 90-240 V

Reference	Description	Family	Pack
AKO-D17023	GRANVis display of temperature and humidity	Panel XXL	1 Units

Thermostat and Thermometer

Range from -50 °C to +99.9 °C, wall mounting

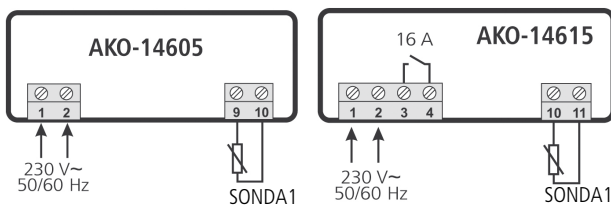


Programmable temperature display for cold and heat

Display and control in °C and °F. Possibility of blocking parameters. Defrost by compressor shutdown. NTC probe included in the kit, extendable with AKO-15586. Fixing holes suitable for universal recessed box.

Application: Industrial and commercial refrigeration, displays, cabinets, incubators, vehicles, etc...

- NTC probe temperature range -50°C to + 99.9 °C
- 2 digits display (°C/°F)
- Resolution 1 °C
- Accuracy ±1 °C
- Dimensions 80 x 120 x 37 mm
- Compressor relay SPST 16 A: AC1=12, AC3=9 (AKO-14615)



Reference	Description	Family	Pack
AKO-14605	230 V~, 1 NTC probe included	Mural	12 Units
AKO-14615	230 V~, 1 relay SPST 16A, 1 NTC probe included	Mural	12 Units

Thermometers

Range from -50 °C to +150 °C, wall mounting

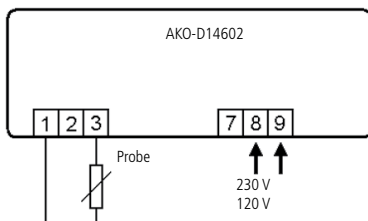


Programmable NTC or PTC probe

Temperature display in cold and heat applications. Allows probe calibration, display in °C or °F and password to enter programming. Fixing holes adapted to universal embedding box.

Application: Industrial and commercial cold, cold rooms, industrial warehouses, etc.

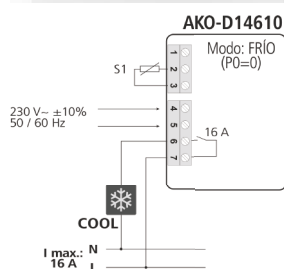
- NTC probe temperature range -50°C to + 99.9 °C
- PTC probe temperature range -50 °C to +150 °C
- 3 digits display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Box dimensions 171 x 94 x 42 mm
- Power supply 230 V~ ±10%, 50/60 Hz



Reference	Description	Family	Pack
AKO-D14601	Thermometer 120 V~, 1 NTC probe included	Mural	10 Units
AKO-D14602	Thermometer 230 V~, 1 NTC probe included	Mural	10 Units

Temperature controllers

Range from -50 °C to +150 °C, 1 output relay, wall mounting



Programmable for cold and heat.

NTC or PTC probe programme-selectable. Display and control with decimal point. Wall mounting. Fixing holes adapted to universal embedding box. Parameter protection by password. Indication in °C or °F.

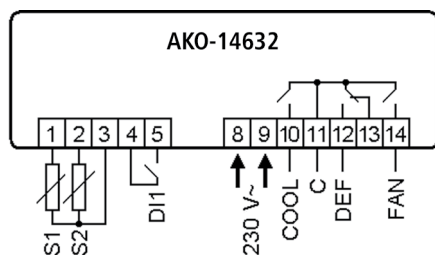
Application: Industrial and commercial cold, cold rooms stores, incubators, industrial warehouses, etc.

- NTC probe temperature range -50 °C to +99.9 °C
- PTC probe temperature range -50°C to +150 °C
- 3 digits display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Box dimensions 171 x 94 x 42 mm
- Control relay SPST 16 A: AC1=12, AC3=9
- Alarm relay SPST 6A: AC1=5, AC3=4

Reference	Description	Family	Pack
AKO-D14610	Controller 230 V~, 1 SPST relay, 1 NTC probe included	Mural	10 Units
AKO-D14612	Controller 120 V~, 1 SPST relay, 1 NTC probe included	Mural	10 Units
AKO-D14621	Controller 120 V~, 1 SPST relay + 1 alarm relay, 1 NTC probe included	Mural	10 Units
AKO-D14622	Controller 230 V~, 1 SPST relay + 1 alarm relay, 1 NTC probe included	Mural	10 Units
AKO-D14622-C	Controller 90-240V~, 1 SPST relay + 1 alarm relay, 1 NTC probe included + communication	Mural	10 Units

Temperature controllers

Range from -50 °C to +99.9 °C, 3 relays, wall mounting



Defrost by electric heat, air or hot gas bypass.

Programmable defrost by regulating the compressor, resistances (or hot gas bypass) and fans. With a 2nd optional probe, it enables defrost by temperature. Password enabled for entering the programming. Indication in °C or °F selectable by programme and probe calibration.

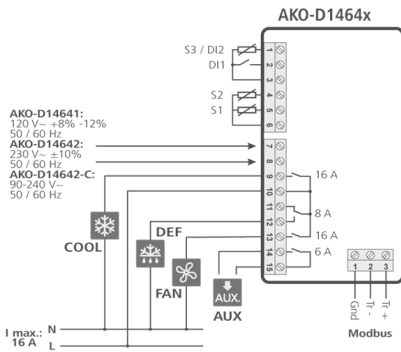
Application: Industrial and commercial cold, cold room stores, etc.

- NTC probe temperature range -50 °C to + 99.9 °C
- 3 digits display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Box dimensions 171 x 94 x 42 mm
- Digital input for door contact
- Compressor relay SPST 16 A: AC1=12, AC3=9
- Fan relay SPST 6 A: AC1=5, AC3=4
- Defrost relay SPDT 8 A: AC1=8, AC3=4
- Power supply 120/230V~ ±10%, 50/60 Hz

Reference	Description	Family	Pack
AKO-D14631	Controller 120 V~, 3 relays, 1 NTC probe included	Mural	10 Units
AKO-D14632	Controller 230 V~, 3 relays, 1 NTC probe included	Mural	10 Units
AKO-D14632-C	Controller 90-240V~, 3 relays, 1 NTC probe included + communication	Mural	10 Units

Temperature controllers

Range from -50 °C to + 99.9 °C, 4 relays, wall mounting



Configurable auxiliary relay.

Defrost by electric heat, air or hot gas bypass, programmable by regulating the compressor, resistances (or hot gas bypass) and fans. With a 2nd optional probe, it enables defrost by temperature. Auxiliary relay configurable for indicating alarms, defrost 2nd evaporator or solenoid control. Possible stop for pump down. Input for independent temperature probe or defrost control in 2nd evaporator. Digital input for door contact.

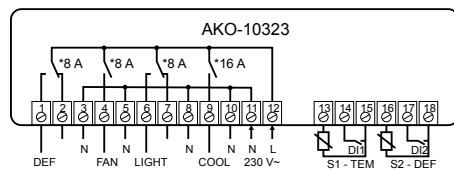
Application: Industrial and commercial cold, cold room stores, etc.

- NTC probe temperature range -50 °C to + 99.9 °C
- Display 3 Digits (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Box dimensions 171 x 94 x 42 mm
- Compressor relay SPST 16 A: AC1=12, AC3=9
- Fan relay SPST 6 A: AC1=5, AC3=4
- Defrost relay SPDT 8 A: AC1=8, AC3=4
- Aux relay SPST 6 A: AC1=5, AC3=4
- Power supply 230V~ ±10%, 50/60 Hz

Reference	Description	Family	Pack
AKO-D14641	Controller 120 V~, 4 relays, 1 NTC probe included	Mural	10 Units
AKO-D14642	Controller 230 V~, 4 relays, 1 NTC probe included	Mural	10 Units
AKO-D14642-C	Controller 90-240V~, 4 relays, 1 NTC probe included + communication	Mural	10 Units

Large frontal temperature controllers

Range -50 °C to +99.9 °C, 2,3 and 4 relays, panel mounting



Compressor, defrost, fan and light relay

6 keys: Up, Down, Set, Escape, Light and ON/OFF. Pushbutton to turn the unit on and off and light switch. Defrost by compressor shutdown. Continuous cycle is possible. Password enabled for entering programming, programme-selectable indication in °C o °F Digital input configurable for door contact, severe alarm, remote defrost, change in set-point temperature.

Application: Industrial and commercial cold, cold room stores, etc.

- NTC probe temperature range -50 °C to + 99.9 °C
- 3 digits display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Panel cut-out dimensions 150x31 mm
- Box dimensions 149 x 30 x 57,7 mm
- Frame 174 x 34 mm
- Compressor relay SPST 16 A: AC1=16, AC3=10
- Light relay SPDT 8 A: AC1=8, AC3=4
- Defrost relay SPDT 8 A: AC1=8, AC3=4 (solo AKO-10223 y AKO-10323)
- Fans relay SPDT 8 A: AC1=8, AC3=4 (only AKO-10223 and AKO-10323)
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Description	Family	Pack
AKO-10123	Controller 1 control relay + light relay 230 V~	AKOFRONT-Large	10 Units
AKO-10223	Controller 2 control relay + light relay 230 V~	AKOFRONT-Large	10 Units
AKO-10323	Controller 3 control relay +light relay 230 V~	AKOFRONT-Large	10 Units

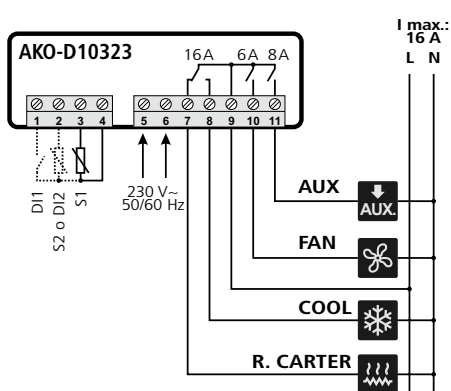
Extended panel temperature controllers

Range from -50 °C to +99.9 °C, 1, 2, 3 relays, panel mounting



Compressor relay, auxiliary and fans (3 relays controls only).
 Auxiliary relay programmable as defrost, alarm or light. Programmable defrost controlling compressor, electric heat (or inverted cycle) and fans. With a 2nd optional probe it enable defrost by temperature. Configurable digital input for door contact, external alarm, remote defrost, energy (saving) or continuous cycle.
 Assistant to put on service (8 settings). It incorporates two switches for auxiliary functions ideal for controlling furniture on/off, lights, etc.

Application: Industrial and commercial cold, displays, electric panels, etc.



- NTC probe temperature range -50 °C to +99.9 °C
- PTC probe temperature range -50°C to +150 °C
- Temperature range (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Panel cut-out dimensions 136 x 29 mm
- Box dimensions 70 x 61 x 28,5 mm
- Frame 181 x 38 mm
- Compressor relay SPST 16 A: AC1=16, AC3=10
- Light relay SPDT 8 A: AC1=8, AC3=4
- Aux relay SPST 8 A: AC1=8, AC3=4
- Fans relay SPST 6 A: AC1=8, AC3=4
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Description	Family	Pack
AKO-D10123	Controller 1 control relay + light switch and on/off 230 V~	AKOFRONT-Large	10 Units
AKO-D10223	Controller 2 control relay + light switch and on/off 230 V~	AKOFRONT-Large	10 Units
AKO-D10323	Controller 3 control relay + light switch and on/off 230 V~	AKOFRONT-Large	10 Units

Thermometers

Range from -50 °C to +70 °C, panel mounting



AKO-80025



AKO-80032

Battery thermometers.
 Temperature display in cold and heat applications.

Application: Industrial and commercial cold, displays.

- Temperature range - 50 °C to +70 °C (NTC probe included)
- LCD display
- Resolution 0,1 °C
- Accuracy ±1 °C
- Battery power supply 1,5 V (G10)
- Dimensions AKO-80025 48 x 28,6 x 14 mm
- Dimensions AKO-80032 85 x 29,2 x 15 mm

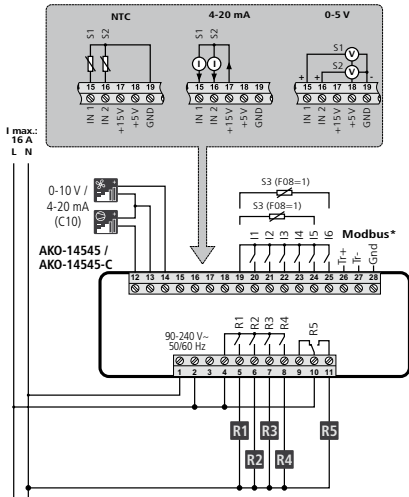
Reference	Description	Family	Pack
AKO-80025	Thermometer Battery, 1 NTC probe included	LCD Thermometer	25 Units
AKO-80032	Solar Thermometer and battery, 1 NTC probe included	LCD Thermometer	25 Units

Controller for compressors and condensers rack

Up to 5 stages and 2 analogical outputs for converters



AKO-14545 / AKO-14545-C



Inverter control outputs for 1 compressor and condenser fans

Electronic controllers for regulation of capacity in refrigerated stations designed for more efficient management and energy savings through floating condensation. Regulation in proportional bandwidth and neutral zone. Rotation of compressors by operation hours. Information displayed on screen. Quick and intuitive menus with programming wizard. Reading and configurable programming by pressure or temperature, compatible with the following gases: R404a, R134a, R717a, R22, R410a, R507a, R744, R407a, R407f, R1234y. It has 5 relay outputs, 1 of which is configurable as a control or alarm.

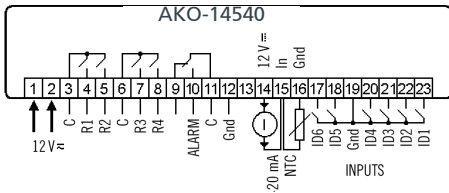
Application: Cold installations

- Power supply: 90~ 240 V, 50/60 Hz
- 2 analogic outputs 4-20 mA or 0-10 V
- 2 outputs for pressure probes 4-20 mA, 0-5 V or NTC temperature probe
- Relays: R1, R2, R3, R4 relays: SPST 5(4)A
- R5 relay: SPDT 5(4)A
- Events data logger by real time clock
- Panel cut-out: 71 x 29 mm.
- 6 digital inputs (4 for thermal and 2 configurable)
- Temperature range: NTC -50.0 °C to +99.9 °C, 4-20 mA / 0-5 V, -99.9 to +99.9 °C

Reference	Description	Family	Pack
AKO-14545	Compressor and condenser station 5 stages 90-240 V	Compressor Racks	1 Unit
AKO-14545-C	Compressor and condenser station + communication 5 stages, 90-240 V	Compressor Racks	1 Unit

Compressors and condensers rack

Up to 4 stages



Operating modes, proportional band and neutral zone

4 stage controller for compressors or condensers. Compressor rotation by operating hours. Probe reading configurable by pressure or temperature probe. 5 relay outputs: 4 control outputs and 1 alarm output. Also with 6 digital inputs, 4 for the compressor protection thermal switches, 1 for high pressure switch and 1 for low pressure switch..

Application: Cold installations

- Power supply 12 V~ ±20%, 50/60 Hz
- Relays R1, R2, R3 y R4 SPST 6 A: AC1=5, AC3=4
- Alarm relay SPDT 8 A: AC1=8, AC3=4
- Panel cut-out 70,5 x 28,5 mm
- Front part dimensions 75,8 x 33,8 mm
- Depth 61 mm
- 3 digit display
- Accuracy (4-20 mA) ±1%
- Accuracy (NTC) ±1%
- Resolution (4-20 mA) 0,01
- Resolution (NTC) 0,1 °C
- Scale with input 4-20 mA -99.9 a +99.9
- Temperature range (NTC) -50 °C a +105 °C
- NTC probe or 4-20 mA

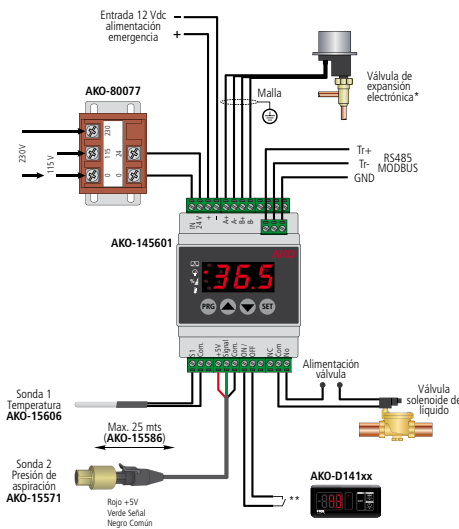
Reference	Description	Family	Pack
AKO-14540	Compressor and condensers station 4 stages, 12 V	Compressor Racks	1 Unit
AKO-15590	Transformer 120-230 V/12 V rack	Compressor Racks	1 Unit

CONTROL EVC

Universal control for electronic expansion valve with step motor



AKO-14560



Electronic expansion valve control solution with step motor.

The controller efficiently manages the electronic expansion valve's positioning. Easy and fast start-up with only 3 parameters. Compatible with most valves used in the refrigeration market:

DANFOSS: 12.5 ETS, ETS 25B, 50B ETS, ETS 100B, ETS 250, ETS 400

ALCO: EX4, EX5, EX6, EX7, EX8

CAREL: E2V, E2VP

SPORLAN: SEI 0.5 ~ 11 ~ 20 1.5 SEI SEI 30, SEI 100, 175 SEI

Suitable for working on facilities with the following refrigerant gases:

R-22, R-134A, R-404A, R-407C, R-410A, R-717, R-23, R-507C, HFO 1234ze,

R-744, R-407A, R-407F, R-507A

The kit includes all components needed to regulate the expansion valve:

Controller, temperature probe, pressure probe and power supply transformer. The controller comes prepared with integrated RS485 communication to connect to the AKONET supervision software.

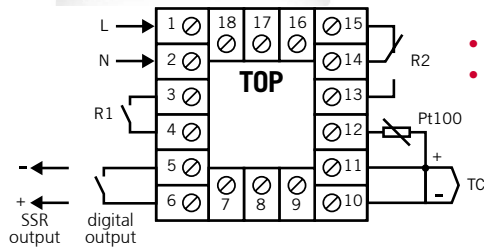
Application: Cold installations

- Display °C, °F, Bar or Psi
- Power supply 24 V~ +10% /-15%, 50/60 Hz
- Outputs for electronic expansion valve: Valves for bipolar step motors
- Pressure probe: 0.5 to 4.5 V, ratiometric
- Temperature probe: Pt1000
- Relay: SPST 2(2)A
- DIN Rail mounting
- Box dimensions 70 x 115 x 58 mm (4 DIN modules)

Reference	Description	Family	Pack
AKO-14560	Kit for the control of electronic expansion valves: - Controller AKO-145601 - Pressure probe AKO-15571 - Temperature probe AKO-15606 - Power supply transformer 110 - 220 V / 24 V AKO-80077	Compressor Racks	1 Unit
AKO-145601	Electronic controller EEV (Spare part)	Accessories	1 Unit
AKO-15571	Pressure probe -1 to 15 bar	Accessories	1 Unit
AKO-15572	Pressure probe -1 to 25 bar	Accessories	1 Unit
AKO-15606	Temperature probe Pt1000 -100 to 120 °C	Accessories	1 Unit
AKO-80077	Power supply transformer 110 – 200 V / 24 V	Accessories	1 Unit

Temperature controllers

Range from -99.9 °C to +1370 °C, 48 x 48 format



Input for Pt100 probe, J and K thermocouple.

ON/OFF Control. Programmable for cold and heat. With the 2 outputs, the controller can be used to work as a stage plus alarm.

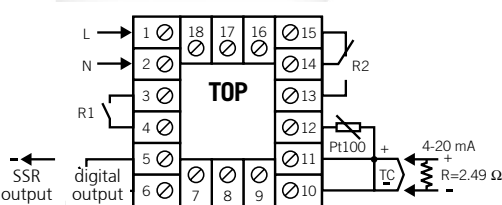
Application: Ovens, electrical panels, industrial installations, etc.

- Temp range with Pt100 probe -99.9 °C to +850 °C
- Temp range with thermocouple J -99.9 °C to +800 °C
- Temp range with thermocouple K -99.9 °C to +1370 °C
- Resolution 0,1 °C
- Accuracy ± 1 °C
- 4 Digits display (°C/°F)
- Output SSR 12 Vdc, max. 10 mA
- Front part dimensions 48 x 48 mm
- Panel cut-out dimensions 45 x 45 mm
- Depth 119 mm
- R1 SPST relay 6 A, 250 V
- Relé R2 SPDT 5 A, 250 V

Reference	Description	Family	Pack
AKO-15440	Controller ON/OFF power supply from 20 up to 48 V~	48x48 Panel	1 Unit
AKO-15490	Controller ON/OFF power supply from 100 up to 240 V~	48x48 Panel	1 Unit

PID controller, 48 x 48 format

Range from -99.9 °C up to +1370 °C



Input for Pt100 probe, Thermocouple J and K, 4-20mA

Programmable for cold and heat. Controller PID or ON/OFF programmable. Self-tuning function. Probe input configurable as Pt100, thermocouple J and K, 4-20mA. With the 2 outputs, the controller can be used to work as a stage plus alarm. Digital input configurable for SetPoint change or start-stop of the unit.

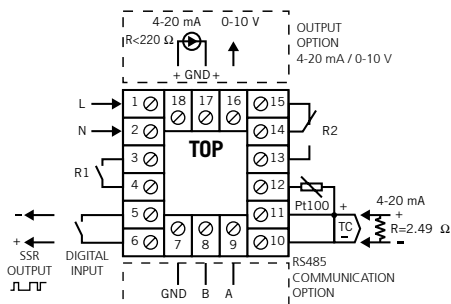
Application: Ovens, electrical panels, industrial installations, etc.

- Temperature range probe Pt100 -99.9 °C to +850 °C
- Temperature range with thermocouple J -99.9 °C to +800 °C
- Temperature range with thermocouple K -99.9 °C to +1370 °C
- Temperature range with thermocouple 4-20mA -999 °C to +2500 °C
- Resolution 0,1 °C
- Accuracy ± 1 °C
- Display 4 Digits (°C/°F)
- SSR control output 12 Vdc, max. 10 mA
- Front part dimensions 48x48mm
- Panel cut-out dimensions 45x45mm
- Depth 119 mm
- R1 relay SPST 6 A, 250 V
- R2 relay SPDT 5 A, 250 V

Reference	Description	Family	Pack
AKO-15400	Controller with power supply from 20 up to 48 V~	48x48 Panel	1 Unit
AKO-15450	Controlador con alimentación from 100 up to 240 V~	48x48 Panel	1 Unit

PID controller, 48 x 48 format

Range -99.9 °C to +1370 °C, output 4-20 mA/0-10 V



With 4-20mA/0-10V output.

Programmable for cold and heat. Controller PID or ON/OFF programme-selectable. Self-tuning function. Probe input configurable as Pt100, thermocouple J and K, 4-20 mA. With the 2 outputs, the controller can be used to work as a stage plus alarm. With the 4-20 mA/0-10V output option, we have an analogue output to govern a valve or to resend the signal to a variator or PLC. With the RS-485 communication option, the unit can be connected to a network working with ModBus protocol.

Application: Ovens, electrical panels, industrial installations, etc.

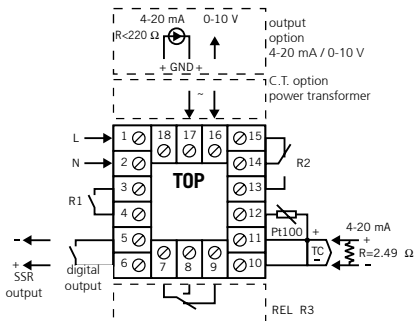
- Temperature range with probe Pt100 -99.9 °C to +850,0 °C
- Temperature range with probe thermocouple J -99.9 °C to +800,0 °C
- Temperature range with probe thermocouple K -99.9 °C to +1370 °C
- Temperature range with 4-20 mA -999 °C to +2500 °C
- Resolution 0,1 °C
- Accuracy ±1 °C
- Display 4 Digits (°C/°F)
- Output SSR 12 Vdc, max 10 mA
- Front part dimensions 48 x 48 mm
- Panel cut-out dimensions 45 x 45 mm
- Depth 119 mm
- R1 relay SPST 6 A, 250 V
- R2 SPDT 5 A, 250 V

Reference	Description	Family	Pack
AKO-15430	20 to 48 V~, with 4-20 mA	48x48 Panel	1 Unit
AKO-15437	20 to 48 V~, with 4-20 mA output + communication	48x48 Panel	1 Unit
AKO-15480	100 to 240 V~, with 4-20 mA output + communication	48x48 Panel	1 Unit.
AKO-15487	100 to 240 V~, with 4-20 mA output + communication	48x48 Panel	1 Unit.

*Available on request

PID controller, 48 x 48 format

Range from -99.9 °C to +1370 °C, 3 relays



With additional relay output.

Programmable for cold and heat. Controller PID or ON/OFF programme-selectable. Self-tuning function. Probe input configurable as Pt100, thermocouple J and K, 4-20 mA. Digital input configurable for SetPoint change or start-stop of the unit. With the 3 outputs, the controller can operate as a two stage, a neutral zone, with alarm signalling. With the 4-20 mA/0-10V output option, we have an analogue output to govern a valve or to resend the signal to a variator or PLC. With the option of an input for current transformer (C.T.) the breakage of the heating resistance can be detected.

Application: Ovens, electrical panels, industrial installations, etc.

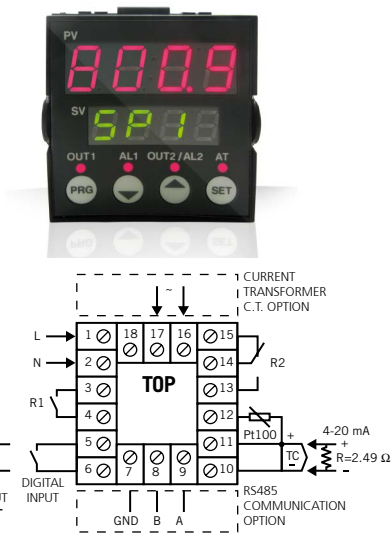
- Temperature range with probe Pt100 -99.9 °C a +850,0 °C
- Temp range with thermocouple J -99.9 °C to +800,0 °C
- Temp range with thermocouple K -99.9 °C to +1370 °C
- Temperature range with 4-20 mA -999 °C to +2500 °C
- Resolution 0,1 °C , Accuracy ±1 °C
- 4 Digits display (°C/°F)
- Output control SSR 12 Vdc, maximum 10 mA
- Front part dimensions 48 x 48 mm
- Panel cut-out dimensions 45 x 45 mm
- Depth 119 mm
- R1 relay SPST 6 A, 250V
- R2 relay SPDT 5 A, 250V
- R3 relay SPDT 5 A, 250V

Reference	Description	Family	Pack
AKO-15410	20 to 48 V~, relay 3 SPDT 5 A	48x48 Panel	1 Unit
AKO-15413	20 to 48 V~, relay 3 SPDT 5 A, with 4-20 mA output	48x48 Panel	1 Unit
AKO-15415	20 to 48 V~, relay 3 SPDT 5 A, wit input for C.T.	48x48 Panel	1 Unit
AKO-15460	100 to 240 V~, relay 3 SPDT 5 A	48x48 Panel	1 Unit
AKO-15463	100 to 240 V~, relay 3 SPDT 5 A, with output 4-20 mA	48x48 Panel	1 Unit
AKO-15465	100 to 240 V~, relay 3 SPDT 5 A, with output for C.T.	48x48 Panel	1 Unit
AKO-80033	Intensity transformer (CT) 25 A/0,05 A	48x48 Panel	25 Units

*Available on request

Control PID, formato 48 x 48

With RS485 communication



Communication and input for current transformer.

Programmable for cold and heat. Controller PID or ON/OFF programme-selectable. Self-tuning function. Probe input configurable as Pt100, thermocouple J and K, 4-20 mA. With the 2 outputs, the controller can be used to work as a stage plus alarm. With the option of an input for current transformer (C.T.) the breakage of the heating resistance can be detected. With the RS-485 communication option, the unit can be connected to a network working with ModBus protocol.

Application: Ovens, electrical panels, industrial installations, etc.

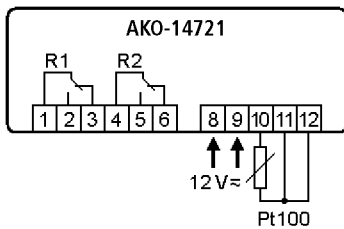
- Temperature range with probe Pt100 -99.9 °C to +850,0 °C
- Temperature range with thermocouple J -99.9 °C to +800,0 °C
- Temperature range with thermocouple K -99.9 °C to +1370 °C
- Temperature range with 4-20 mA -999 °C to +2500 °C
- Resolution 0,1 °C / Accuracy ± 1 °C
- 4 Digits display (°C/°F)
- Output control SSR 12 Vdc, max10 mA
- Front part dimensions 48 x 48 mm
- Panel cut-out dimensions 45 x 45 mm
- Depth 119 mm
- R1 relay SPST 6 A, 250 V
- R2 relay SPDT 5 A, 250 V

Reference	Description	Family	Pack
AKO-15401	20 to 48 V~, with input for C.T.	48x48 Panel	1 Unit
AKO-15402	20 to 48 V~, with communication	48x48 Panel	1 Unit
AKO-15403	20 to 48 V~, with input C.T. + comunicación	48x48 Panel	1 Unit
AKO-15451	100 to 240 V~, with input C.T.	48x48 Panel	1 Unit
AKO-15452	100 to 240 V~, with communication	48x48 Panel	1 Unit
AKO-15453	100 to 240 V~, with input C.T + communication	48x48 Panel	1 Unit
AKO-80033	Intensity transformer (C.T.) 25 A/0,05 A	48x48 Panel	25 Units

* Available on request

Input controllers 4/20 mA

Range from -50 °C to + 600 °C, 2 relays, panel mounting



2 control relays.

Programmable for direct and inverse operation. With 2 relay outputs, the controller can be used to work as 2 independent stages, 2 related stages, neutral zone and 1 stage plus alarm. It has 1 digital input for remote change of the SetPoint

Aplicación: Fyers, electric panels, industrial installations, sewage treatment

- Temperature range -50 °C to +600 °C
- 3 digits display
- Resolution 1 °C
- Accuracy $\pm 0,5$ °C
- Pt100 probe
- Panel cut-out dimensions 70,5 x 28,5 mm
- Front part dimensions 75,8 x 33,8 mm
- Depth 61 mm
- Control relay 2 SPDT 8 A, 250 V
- Power supply 12 V~ $\pm 15\%$, 50/60 Hz

Reference	Description	Family	Pack
AKO-14721	12 V~, Pt-100 probe no included	Control Industrial	12 Units

Temperature or humidity controllers

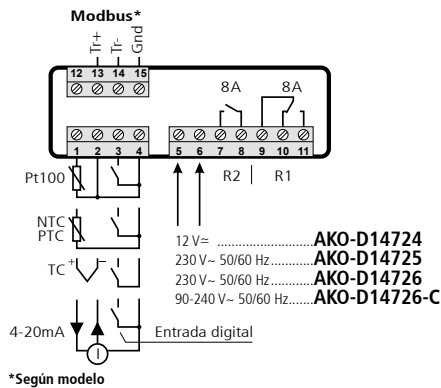
2 relays output, panel mounting



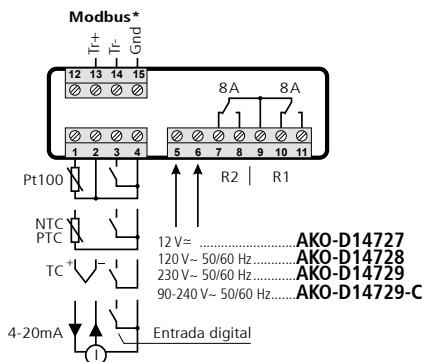
Input for Pt100, NTC, PTC probes, J and K thermocouple, 4-20 mA
 Programmable for cold and heat.
 With the 2 relay outputs, the controller can be used to work as 2 independent stages, 2 related stages, neutral zone and one stage plus alarm.
 Digital input for SetPoint change.

Application Ovens, electric panels, industrial installations, incubators, etc.

AKO-D14724/6/6-C



AKO-D14727/9/9-C

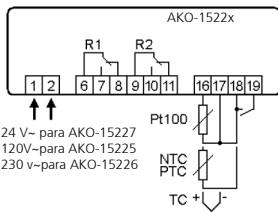


- Temperature range with probe Pt100 -100 °C to +440 °C
- Temperature range with probe NTC -50 °C to +100 °C
- Temperature range with probe PTC -50 °C to +150 °C
- Range 4-20 mA from -999 to + 999
- Temperature range with thermocouple J 0 °C to +600 °C
- Temperature range with thermocouple K 0 °C to +1000 °C
- Resolution 0,1 °C (1 °C for thermocouples J, K)
- Accuracy ±1 °C (±2 °C for thermocouples J, K)
- 3 Digits display (°C/°F)
- Panel cut-out dimensions 71 x 29 mm
- Front part dimensions 79 x 38 mm
- Depth 61 mm
- Control relay 1, 8 A SPST-SPDT: AC1=8, AC3=4 (available depending reference)
- Control relay 2, 8 A SPDT: AC1=8, AC3=4
- RS 485 integrated communication (AKO-14726-C and AKO-14729-C)

Reference	Description	Family	Pack
AKO-D14724	12 V~, temperature or humidity controller	Control Industrial	12 Units
AKO-D14725	120 V~, temperature or humidity controller	Control Industrial	12 Units
AKO-D14726	230 V~, temperature or humidity controller	Control Industrial	12 Units
AKO-D14726-C	90-240 V~, temperature or humidity controller + communication	Control Industrial	12 Units
AKO-D14728	12 V~, temperature or humidity controller	Control Industrial	12 Units
AKO-D14729	230 V~, temperature or humidity controller	Control Industrial	12 Units
AKO-D14729-C	90-240 V~, temperature or humidity controller + communication	Control Industrial	12 Units

Temperature controllers

Range from -99.9 °C to +999 °C, 2 relays, DIN rail mounting



Input for Pt100, NTC, PTC probes, J and K thermocouple.

With the 2 relay outputs, the controller can be used to work as 2 independent stages, 2 related stages, neutral zone and one stage plus alarm. Digital input for SetPoint change.

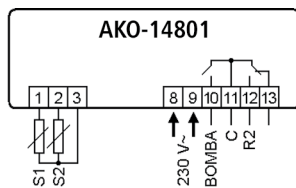
Application: Ovens, electric panels, industrial installations, incubators, etc.

- Temperature range with probe Pt100 -100 °C to +440 °C
- Temperature range with probe NTC -50 °C to +100 °C
- Temperature range with probe PTC -50 °C to +100 °C
- Temperature range with thermocouple J 0 °C a +600 °C
- Temperature range with thermocouple K 0 °C a + 999 °C
- Display 3 Digits (°C/°F)
- Resolution 0,1 °C (1 °C for thermocouples, J, K)
- Accuracy ±1 °C (±2 °C for thermocouples, J, K)
- Box dimensions 70 x 90 x 58 mm (4 DIN modules)
- Front part dimensions 42,2 x 66,2 mm
- Control relays 2 SPDT 8 A: AC1=8, AC3=4

Referencie	Description	Family	Pack
AKO-15227	24 V~, for DIN rail 4 modules, 70 x 58 x 90 mm	Control Industrial	6 Units
AKO-15225	120 V~, for DIN rail 4 modules, 70 x 58 x 90 mm	Control Industrial	6 Units
AKO-15226	230 V~, for DIN rail 4 modules, 70 x 58 x 90 mm	Control Industrial	6 Units

Solar energy controller

Differential thermostat 2 relays, wall mounting



Pump controls, support resistance or air-thermal.

Input for 2 probes. Probe 1 configurable as NTC or PTC, probe 2 NTC. De-icing function. Second relay programmable as air-thermal regulating function to limit the temperature in the solar panel or thermostat function for the support resistance in the accumulator. Parameter protection by password. Test pushbuttons. Low consumption. Fixing holes adapted to universal embedding box.

Application: Thermal solar energy installations

- NTC probe temperature range -50 °C to +99.9 °C
- PTC probe temperature range -50°C to +150 °C
- 3 digits display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- Box dimensions 171 x 94 x 42 mm
- Pump relay SPST 16 A: AC1=12, AC3=9
- Relay R2 SPDT 8 A: AC1=8, AC3=4
- Power supply 230V~ ±10%,50/60 Hz

Referencie	Description	Family	Pack
AKO-14801	Controller 230 V~, 2 relays, 1 NTC probe included	AKOSOL-Solar Energy	10 Units

Solar Energy Regulators

Differential thermostats for 1 and 2 relays for wall mounting

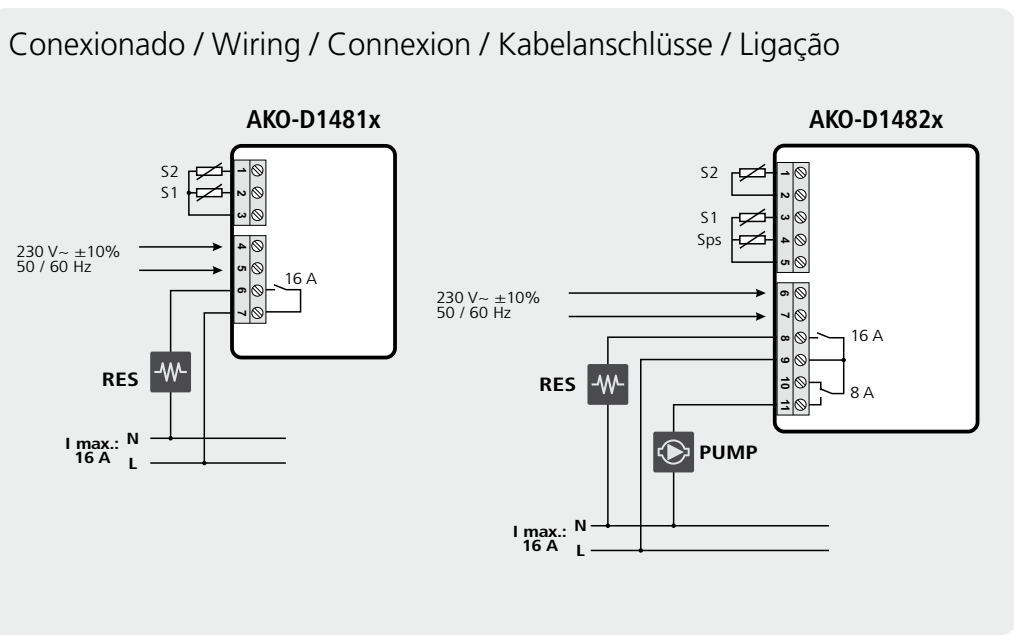


Wall mounting Differential Thermostat for devices producing thermal solar energy, with an integrated or independent accumulator, and including a support tank

Application: Thermal solar energy facilities.

- Configuration wizard according to equipment type
- Relay for pumping of 8A SPST (AKO-D1482x)
- Relay for Air heater/Support resistance 16A
- Two inputs for temperature probe
- AKO-D1482x with an additional input for temperature probe panel
- AKO-D1482x with ECO mode

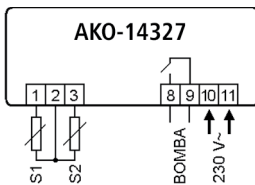
Types of probes S1 / S2	NTC AKO-149xx/PTC AKO-1558xx
Sps	PT1000
Range of measurement	NTC -50.0 °C to +99.9 °C (-58.0 °F to 210 °F)
	PTC -50.0 °C to +150 °C (-58.0 °F to 320 °F)
	PT1000 -50.0 °C to +200 °C (-58.0 °F to 392 °F)
Resolution	-50 to 100 °C 0.1 °C
	> 100 °C 1 °C
Box dimensions	171 x 94 x 42mm
Power supply	230Vac +-10%, 50/60Hz



Reference	Description	Family	Packaging
AKO-D14810	Wall Differential Thermostat 1 Relay	AKOSOL	10 Units
AKO-D14810-R	Wall Differential Thermostat 1 Relay with RTC	AKOSOL	10 Units
AKO-D14820	Wall Differential Thermostat 2 Relay	AKOSOL	10 Units
AKO-D14820-R	Wall Differential Thermostat 2 Relays with RTC	AKOSOL	10 Units

Solar energy controllers

Panel differential thermostat



Panel differential thermostat

Input for 2 NTC probes. De-icing function. Pump stop for excessive temperature in probe 2. Low consumption.

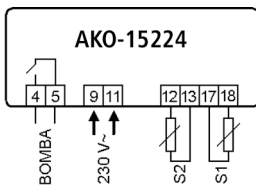
Application: Thermal solar energy installations

- Temperature range from -50 °C to + 99.9 °C
- Resolution 1 °C
- Accuracy ±1 °C
- Panel cut-out dimensions 70,5 x 28,5 mm
- Front part dimensions 75,8 x 33,8 mm
- Depth 61 mm
- Pump relay SPST 16 A: AC1=10, AC3=7
- Power Supply 230 V~ ±10%, 50/60 Hz

Reference	Description	Family	Pack
AKO-14327	Controller 230 V~, 1 relay, 1 NTC probe included	AKOSOL-Solar Energy	12 Units

Solar energy controllers

Differential thermostat, DIN rail mounting (4 modules)



DIN rail format for panel integration.

Input for 2 NTC probes. De-icing function. Pump stop for excessive temperature in probe 2. Low consumption.

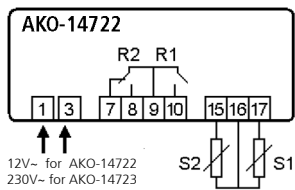
Application: Thermal solar energy installations

- Temperature range from -50 °C to +99.9 °C
- Display 3 Digits (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- NTC probe
- Box dimensions 70 x 90 x 58 mm (4 DIN modules)
- Front part dimensions 42,2 x 66,2 mm
- Pump relay SPST 16 A: AC1=12, AC3=9
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Description	Family	Pack
AKO-15224	Controller 230 V~, 1 relay, 1 NTC probe included	AKOSOL-Solar Energy	6 Units

Temperature controllers

2 relays, up to 2 probes, panel mounting



Multifunction device

The two probe inputs may be linked with the relay outputs for the functions of thermometer and thermostat in cold and heat applications, as a differential control of the two probes, double thermostat, two stages, neutral zone, etc. The configuration of the menus means that certain parameters may or may not be adjusted by the user, so that they might exclusively have the information and adjustment that the use of the machine requires. It is possible to modify the functions of the keys on the front and the temperature display. The configuration may be blocked by password.

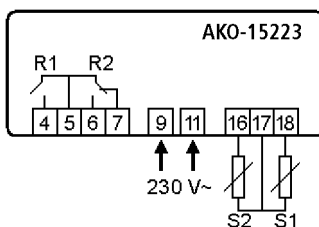
Application: Solar energy, electric panels, industrial installations, etc

- Temp range from -50 °C to + 99.9 °C
- 3 digits display (°C/°F)
- Resolution 0,1 °C
- Accuracy 0,5 °C
- NTC probe (1 included)
- Panel cut-out 70,5 x 28,5 mm
- Front part dimensions 75,8 x 33,8 mm
- Depth 61 mm
- Relay R1 SPST 16 A: AC1=12, AC3=9
- Relay R2 SPDT 8 A: AC1=8, AC3=4

Referencie	Description	Family	Pack
AKO-14722	12 V~, for panel cut-out 70,5 x 28,5 mm	Industrial Control	12 Units
AKO-14723	230 V~, for panel cut-out 70,5 x 28,5 mm	Industrial Control	12 Units

Temperature controllers

2 relays, up to 2 probes, DIN rail mounting



Multifunction device

The two probe inputs may be linked with the relay outputs for the functions of thermometer and thermostat in cold and heat applications, as a differential control of the two probes, double thermostat, two stages, neutral zone, etc. The configuration of the menus means that certain parameters may or may not be adjusted by the user, so that they might exclusively have the information and adjustment that the use of the machine requires. It is possible to modify the functions of the keys on the front and the temperature display. The configuration may be blocked by password.

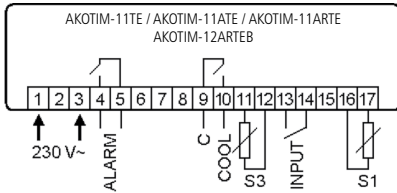
Application: Solar energy, electric panels, industrial installations, etc

- Temp range from -50 °C to + 99.9 °C
- 3 digits displays (°C/°F)
- Resolution 0,1 °C
- Accuracy 0,5 °C
- NTC probe (1 included)
- Box dimensions 70 x 90 x 58 mm (4 modules DIN)
- Front part dimensions 42,2 x 66,2 mm
- Relay R1 SPST 16 A: AC1=12, AC3=9
- Relay R2 SPDT 8 A: AC1=8, AC3=4
- Power supply 230 V~ ±10%, 50/60 Hz

Referencie	Description	Family	Pack
AKO-15223	230 V~, for DIN rail	Industrial Control	6 Units

Modular controllers AKOTIM

Range from -50 °C to +99.9 °C, 1 relay, panel mounting



Compressor control relay

Used to regulate the temperature of cold generators and to display the information from the operation log on, the refrigeration time, the defrost time and the complete cycle. They store information on the maximum and minimum temperatures reached, in addition to other useful parameters to the HACCP. Programme-selectable indication in °C o °F 2 inputs for control probe and independent temperature. Digital input for door contact. Defrost by compressor stop.

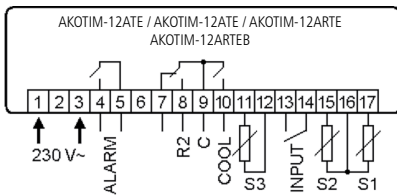
Application: Industrial and commercial cold, displays, electrical panels, etc.

- Temp range from -50 °C to + 99.9 °C
- 3 digits display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- NTC probe
- Front part dimensions 75,8 x 33,8 mm
- Panel cut-out 70,5 x 28,5 mm
- Depth 61 mm
- Compressor relay SPST 16 A: AC1=12, AC3=9
- Alarm relay SPST 6 A: AC1=5, AC3=4 (No AKOTIM-11TE)
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Alarm relay	Real time clock	Buzzer	Family	Pack
AKOTIM-11TE	-	-	-	AKOTIM	12 Units
AKOTIM-11ATE	yes	-	-	AKOTIM	12 Units
AKOTIM-11ARTE	yes	yes	-	AKOTIM	12 Units
AKOTIM-11ARTEB	yes	yes	yes	AKOTIM	12 Units

Modular controllers AKOTIM

Range from -50° C to +99.9 °C, 2 relays, panel mounting



Compressor relay and R2 (defrost or fans)

Used to regulate the temperature of cold generators and to display the information from the operation log on, the refrigeration time, the defrost time and the complete cycle. They store information on the maximum and minimum temperatures reached, in addition to other parameters of use to the HACCP, 3 inputs for regulating probe, evaporator and independent temperature. Digital input for door contact. Defrost by electric heat or air. Programme-selectable indication in °C o °F.

Application: Industrial and commercial cold, displays, electrical panels, etc.

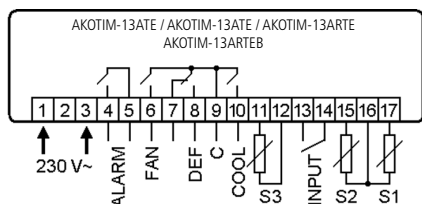
- Temperature range -50 °C to +99.9 °C
- 3 digits display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- NTC probe
- Front part dimensions 75,8 x 33,8 mm
- Panel cut-out 70,5 x 28,5 mm
- Depth 61 mm
- Compressor relay SPST 16 A: AC1=12, AC3=9
- Relay R2 SPDT 8 A: AC1=8, AC3=4
- Alarm relay SPST 6 A: AC1=5, AC3=4 (No AKOTIM-12TE)
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Alarm relay	Real time clock	Buzzer	Family	Pack
AKOTIM-12TE	-	-	-	AKOTIM	12 Units
AKOTIM-12ATE	yes	-	-	AKOTIM	12 Units
AKOTIM-12ARTE	yes	yes	-	AKOTIM	12 Units
AKOTIM-12ARTEB	yes	yes	yes	AKOTIM	12 Units



Modular controllers AKOTIM

Range from -50 °C to + 99.9 °C, 3 relays, panel mounting



Relay for compressor, fans and defrost

Used to regulate the temperature of cold generators and to display the information from the operation log on, the refrigeration time, the defrost time and the complete cycle. They store information on the maximum and minimum temperatures reached, in addition to other useful parameters to the HACCP. Programme-selectable indication in °C or °F. 2 inputs for control probe and independent temperature. Digital input for door contact. Defrost by electric heat, air or hot gas bypass.

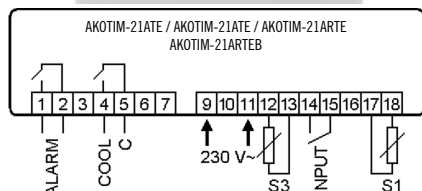
Application: Industrial and commercial cold, displays, electrical panels, etc.

- Temperature range from -50 °C a + 99.9°C
- 3 digit Display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- NTC probe
- Front part dimensions 75,8 x 33,8 mm
- Panel cut-out 70,5 x 28,5 mm
- Depth 61 mm
- Compressor relay SPST 16 A: AC1=12, AC3=9
- Fan relay SPST 6 A: AC1=5, AC3=4
- Defrost relay SPDT 8 A: AC1=8, AC3=4
- Alarm relay SPST 6 A: AC1=5, AC3=4 (No AKOTIM-13TE)
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Alarm relay	Real time clock	Buzzer	Family	Pack
AKOTIM-13TE	-	-	-	AKOTIM	12 Units
AKOTIM-13ATE	yes	-	-	AKOTIM	12 Units
AKOTIM-13ARTE	yes	yes	-	AKOTIM	12 Units
AKOTIM-13ARTEB	yes	yes	yes	AKOTIM	12 Units

Controles modulares AKOTIM

Range from -50 °C to +99.9 °C, 1 relay, rail DIN mounting



Compressor control relay

Used to regulate the temperature of cold generators and to display the information from the operation log on, the refrigeration time, the defrost time and the complete cycle. They store information on the maximum and minimum temperatures reached, in addition to other useful parameters to the HACCP. Programme-selectable indication in °C o °F. 2 inputs for control probe and independent temperature. Digital input for door contact. Defrost by compressor stop.

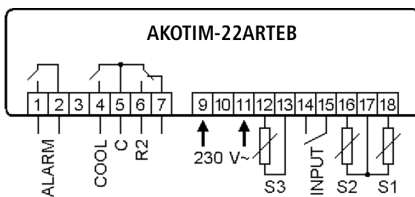
Application: Industrial and commercial cold, displays, electrical panels, etc.

- Temperature range from -50 °C to +99.9 °C
- 3 digit display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- NTC probe
- Box dimensions 70 x 90 x 58 mm (4 modules DIN)
- Front part dimensions 42,2 x 66,2 mm
- Compressor relay SPST 16 A: AC1=12, AC3=9
- Fan relay SPST 6 A: AC1=5, AC3=4
- Defrost relay SPDT 8 A: AC1=8, AC3=4
- Alarm relay SPST 6 A: AC1=5, AC3=4 (No AKOTIM-21TE)
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Alarm relay	Real time clock	Buzzer	Family	Pack
AKOTIM-21TE	-	-	-	AKOTIM	12 Units
AKOTIM-21ATE	yes	-	-	AKOTIM	12 Units
AKOTIM-21ARTE	yes	yes	-	AKOTIM	12 Units
AKOTIM-21ARTEB	yes	yes	yes	AKOTIM	12 Units

Modular controllers AKOTIM

Range from -50 °C to +99.9 °C, 2 relays, DIN rail mounting



Compressor relay and R2 (defrost or fans)

Used to regulate the temperature of cold generators and to display the information from the operation log on, the refrigeration time, the defrost time and the complete cycle. They store information on the maximum and minimum temperatures reached, in addition to other useful parameters to the HACCP. 3 inputs for regulating probe, evaporator and independent temperature. Digital input for door contact. Defrost by electric heat or air. Programme-selectable indication in °C or °F.

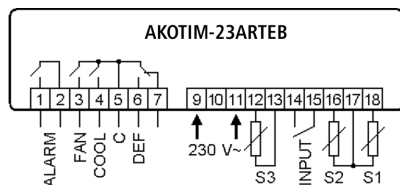
Application: Industrial and commercial cold, displays, electrical panels, etc.

- Temperature range from -50 °C to +99.9 °C
- 3 digits display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- NTC probe
- Box dimensions 70 x 90 x 58 mm (4 modules DIN)
- Front part dimensions 42,2 x 66,2 mm
- Compressor relay SPST 16 A: AC1=12, AC3=9
- Alarm relay SPST 6 A: AC1=5, AC3=4 (No AKOTIM-22TE)
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Alarm relay	Real time clock	Buzzer	Family	Pack
AKOTIM-22TE	-	-	-	AKOTIM	6 Units
AKOTIM-22ATE	yes	-	-	AKOTIM	6 Units
AKOTIM-22ARTE	yes	yes	-	AKOTIM	6 Units
AKOTIM-22ARTEB	yes	yes	yes	AKOTIM	6 Units

Modular controllers AKOTIM

Range from -50 °C to +99,9 °C, 3 relays, DIN rail mounting



Relay for compressor, fans and defrost

Used to regulate the temperature of cold generators and to display the information from the operation log on, the refrigeration time, the defrost time and the complete cycle. They store information on the maximum and minimum temperatures reached, in addition to other useful parameters to the HACCP. Programme-selectable indication in °C or °F. 2 inputs for control probe and independent temperature. Digital input for door contact. Defrost by electric heat, air or hot gas bypass.

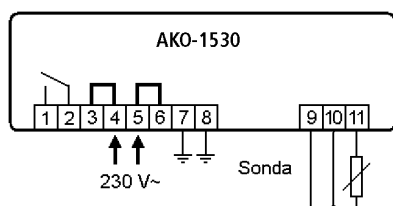
Application: Industrial and commercial cold, displays, electrical panels, etc.

- Temp range -50 °C to + 99.9 °C
- 3 digit display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±1 °C
- NTC probe
- Box dimensions 70 x 90 x 58 mm (4 modules DIN)
- Front part dimensions 42,2 x 66,2 mm
- Compressor relay SPST 16 A: AC1=12, AC3=9
- Fan relay SPST 6 A: AC1=5, AC3=4
- Defrost relay SPDT 8 A: AC1=8, AC3=4
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Alarm relay	Real time clock	Buzzer	Family	Pack
AKOTIM-23TE	-	-	-	AKOTIM	6 Units
AKOTIM-23ATE	yes	-	-	AKOTIM	6 Units
AKOTIM-23ARTE	yes	yes	-	AKOTIM	6 Units
AKOTIM-23ARTEB	yes	yes	yes	AKOTIM	6 Units

Temperature controllers

Range from -50 °C to + 350 °C, 1 relay in IP65 box



Suitable for outdoors

It is designed to regulate the temperature of pipes, tanks, valves, processing equipment, etc. that require local control and are installed outdoors or in aggressive atmospheres, either due to dirt, humidity, corrosion, etc.

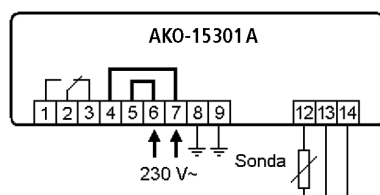
Application: Industrial installations, agricultural, etc.

- Temperature range -50 °C to +350 °C
- 3 digit display (°C/°F)
- Resolution 0,1 °C
- Accuracy ±0,5 °C
- Pt100 probe
- Box dimensions 120 x 160 x 66 mm
- Work temperature -30 °C to +60 °C
- Protection IP65
- Control relay SPST 20 A: AC1=20, AC3=12
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Description	Family	Pack
AKO-1530	Thermostat up to 350 °C, relay 20 A SPST, without probe	Industrial Control	5 Units
AKO-717425	Thermostat to pipe fixing support	Accessories	1 Unit
AKO-15595	Probe Pt-100, from -50 to 200 °C, 1,5 m of cable with braid	Temperature	5 Units

Temperature controllers

Energy controller



Energy saving.

A controller designed to adjust the energy contribution from heating cables or other heat sources, in applications in which it must vary in line with the ambient temperature. Its use is particularly suitable in system where, once designed and applied, the only variable that influences in the system is the ambient temperature.

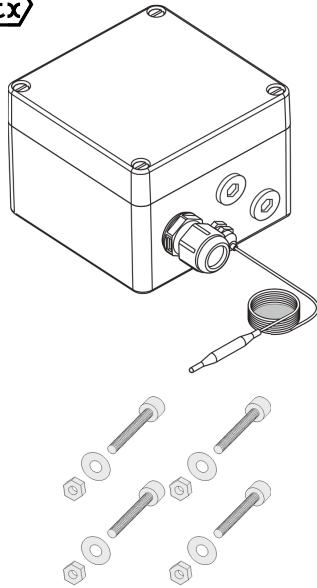
Application: Electrical traces, avoid freezing on ramps, terraces, etc.

- Temperature range -40 °C to +200 °C
- Visualizador 3 dígitos (°C/°F)
- Resolución 0,1 °C
- Precisión ±0,5 °C
- Sonda tipo Pt100
- Box dimensions 120 x 160 x 66 mm
- Protection IP65
- Control relay SPST 10 A: AC1=10, AC3=6
- Power supply 230 V~ ±10%, 50/60 Hz

Reference	Description	Family	Pack
AKO-15301A	Energy regulator ambient temperature function, 10 A relay	Industrial Control	1 Unit
AKO-15599	Pt-100 probe for ambient temperature	Temperature	1 Unit

Mechanical thermostat

Thermostats Ex of IIC T6. T3



Suitable for hazardous locations. (Zones 1 and 2). It is designed to regulate the temperature of pipes, tanks, valves, process equipment, etc. that require local control and are installed outdoors or in environments that are harsh due to dirt, moisture, corrosion, etc.

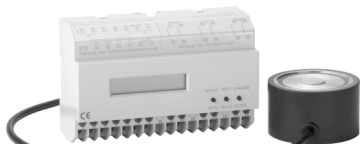
Application: electrical heat-tracing

	AKO-71667	AKO-71668
Temperature range:	0 °C to +200 °C	+20 °C to +550 °C
Acceptable temperatures in bulb:	-60 °C/330 °C (Máx. 350 °C)	-60 °C/550 °C
Temperature differential	+5/0 K	+12.5/0 K
Ambient temperatures	-55 °C to +40/50 °C	
Bulb material	AISI 316	
Bulb length	5 m	3 m
Switch cutting capacity (230 Vac)	25 A/50 °C/T3	
Nominal voltage	230 V ± 10%	
Box material	Polyester	
Box dimensions	160 x 160 x 90 mm	
Inputs into box	1xM25, 2xM20	
Protection degree	IP 65	

Reference	Description	Family	Packaging
AKO-71667	Thermostat control, 0 to 200 °C, Ex of IIC T6.T3, capillary 5 m	Industrial control	1 unit
AKO-71668	Thermostat control, +20 to 500 °C, Ex of IIC T6.T3, capillary 3 m	Industrial control	1 unit

Temperature controllers

Ice and snow centre



Guaranteeing energy savings of 80% with respect to control by means of thermostats.

This ice control centre is used in automatic heating installations for open spaces. With this system, the heating comes on only if there is a chance of freezing, for example, snow, ice or sleet and automatically turns off after thawing.

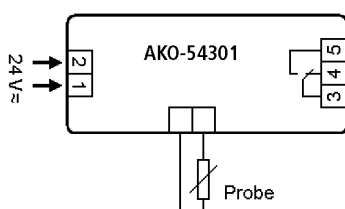
Application: To avoid ice on ramps, terraces, roofs, guttering, etc.

- Measurement of temperature, humidity, ice and snow
- Floor temperature range -40 °C to +70 °C
- Programme after heat from 10 min to 120 min
- Consumption meter in hours

Reference	Description	Family	Pack
AKO-80015	Ice and snow centre	Industrial Control	1 Unit
AKO-80016	Temp. and humidity probe for ramps, streets, pavements and terraces	Ice and Snow	1 Unit
AKO-80020	Ice and snow probe for ramps, streets, pavements and terraces	Ice and Snow	1 Unit
AKO-80030	Ice and snow ramp for roofs and guttering	Ice and Snow	1 Unit
AKO-80031	Ice and snow ramp for roofs and guttering	Ice and Snow	1 Unit

Temperature controllers

Thermostats for lifts



DIN rail mounting

They are used to comply with the directive 95/16/EC in lift machinery rooms. Minimum alarm level adjusted to +5 °C and maximum alarm to +40 °C. 3 indication leds: Maximum, minimum alarm and temperature OK. Includes an NTC probe with 1,5 m of cable.

Application: Lifts

- Relay connected between 5 °C and 40 °C
- Accuracy ± 5 °C
- NTC probe
- Box dimension 18 x 90 x 58 mm (1 module DIN)
- Depth 61 mm
- Relay SPDT 8 A, 24 V
- Power supply 24 V~ $\pm 20\%$ 50/60 Hz

Reference	Description	Family	Pack
AKO-54301	24 V~, DIN rail mounting, temp. fixed. min. 5 °C max. 40 °C	Industrial Control	12 Units

Probes and accessories

Accessories



*AKO-14910



AKO-80004A



AKO-15586



AKO-155908

Reference	Description	Family	Pack
AKO-14910*	Transparent lid for front protection (no available to Darwin)	Accessories	120 Units (B)
AKO-15586	Metre of cable for extending probes, 2 x 0,5 mm ² shielded	Accessories	10 0m (A)
AKO-155908	Stainless steel sheath, 1/2" Gas thread	Accessories	10 Units
AKO-80004A	Converter from Pt-100 to 4-20 mA	Accessories	1 Unit

(A) The meters of packaged material are the standard ones; however, we reserve the right to supply in different lengths those indicated.

(B) Minimum, indivisible pack units.

*No available to Darwin.

Probes and accessories

Temperature probes

Reference	Description	Familia	Pack
AKO-14901	NTC probe, from -50 to 100 °C, 1,5 m of cable	Temperature	48 Units
AKO-14902	NTC probe, from -50 to 100 °C, 2,0 m of cable	Temperature	48 Units
AKO-14903	NTC probe, from -50 to 100 °C, 3,0 m of cable	Temperature	48 Units
AKO-14906	NTC probe, from -50 to 100 °C, 6,0 m of cable	Temperature	24 Units
AKO-14915	NTC probe, from -50 to 100 °C, stainless steel connector, 3,0 m of cable	Temperature	1 Units
AKO-14940	Spare probe, temperature and humidity (For AKO-15726)	Accesories	4 Units
AKO-15561	NTC probe, from -50 to 100 °C, IP68 protection, AISI 304. 1,5 m of cable	Temperature	10 Units
AKO-155801	PTC probe, from -50 to 150 °C, 1,5 m of cable	Temperature	10 Units
AKO-155802	PTC probe, from -50 to 150 °C, 2,0 m of cable	Temperature	10 Units
AKO-155803	PTC probe, from -50 to 150 °C, 3,0 m of cable	Temperature	10 Units
AKO-155807	PTC probe, from -50 to 150 °C, 7,0 m of cable	Temperature	10 Units
AKO-155815	PTC probe, from -50 to 150 °C, 15,0 m of cable	Temperature	5 Units
AKO-155830	PTC probe, from -50 to 150 °C, 30,0 m of cable	Temperature	1 Unit
AKO-15582	Pt-100 probe, from -50 to 180 °C, 2,0 m of cable without braid	Temperature	1 Unit
AKO-15584	Pt-100 probe, from -50 to 180 °C, 10,0 m of cable without braid	Temperature	1 Unit
AKO-15585A	Pt-100 probe, from -40 to 180 °C, 2,0 m of cable without braid	Temperature	1 Unit
AKO-15595	Pt-100 probe, from -50 to 200 °C, 1,5 m of cable with braid	Temperature	5 Units
AKO-15587	Pt-100 probe, from -60 to 350 °C, 2,0 m of cable with braid	Temperature	1 Unit
AKO-15597	Pt-100 probe, from -70 to 200 °C, 2,0 m of teflon cable	Temperature	1 Unit
AKO-15598	Pt-100 probe, from -200 to 600 °C, 1,5 m of MI cable	Temperature	1 Unit
AKO-15599	Pt-100 probe for environment temperature	Temperature	1 Unit
AKO-80008	Pt-100 probe EExd IIT6, IP65 box, to drums	Temperature	1 Unit
AKO-80019	Pt-100 probe EExd IIT6, for Ex zone and pipes	Temperature	1 Unit
AKO-15601	J probe, de 0 a 600 °C, 3,0 m of cable	Temperature	1 Unit
AKO-15602	K probe, de 0 a 1.000 °C, 3,0 m of cable	Temperature	1 Unit
AKO-15586	Metre of cable for extending probes, 3 x 0,5 mm2 shielded	Temperature	100m (A)
AKO-15705	Metre of cable for extending probes, 4 x 0,5 mm2 shielded	Temperature	100m (A)

(A) The meters of packaged material are the standard ones; however, we reserve the right to supply in different lengths those indicated.

Parameter servers



AKO-14918



AKO-80018

Tools for copying parameters

Computers with the same configuration must be set.
The portable servers allow the installer to load quickly one preprogrammed settings to computers without having to enter programming.

Reference	Description	Family	Pack
AKO-14917	Converter module CMOS/RS485	Accessories	6 Units
AKO-14918*	Portable server for AKO-14xxx (No Darwin)	Accessories	10 Units
AKO-D14918	Portable server for Darwin	Accessories	1 Unit
AKO-80018	Power supply 230/12 V for programmers (Darwin devices)	Accessories	1 Unit
AKO-80039	USB-RS485 conversor	Accessories	1 Unit

*Portable server incompatible with AKOCONTROL DARWIN

Quick table for probes and accessories

NTC temperature probes			
Reference	Description	Temperature range	
(A) AKO-14901	TPE 1,5 meter long TPE 15x ø meter cable	range -50 °C to 105 °C	
(A) AKO-14902	TPE 2 meter long TPE 15x ø meter cable	range -50 °C to 105 °C	
(A) AKO-14903	TPE 3 meter long TPE 15x ø meter, bulb 6 mm	range -50 °C to 105 °C	
(A) AKO-14906	TPE 6 meter long TPE 15x ø meter, bulb 6 mm	range -50 °C to 105 °C	
(B) AKO-15561	special evaporator and sumpdesible IP68 stainless steel bulb 6 mm 40 x ø	range -50 °C to 105 °C	
(C) AKO-14915	click specia probe, silicone cable 3 meters AISI 304 bulb stainless steel ø3 mm	range -50 °C to 110 °C	
PTC temperatura probes			
AKO-155801	silicone cable 1,5 metros stainless bulb 6 mm 40 x ø	range -50 °C to 105 °C	
AKO-155802	silicone cable 2 metros stainless bulb 6 mm 40 x ø	range -50 °C to 150 °C	
AKO-155803	silicone cable 3 metros stainless bulb 6 mm 40 x ø	range -50 °C to 150 °C	
AKO-155807	silicone cable 7 metros stainless bulb 6 mm 40 x ø	range -50 °C to 150 °C	
AKO-155815	stainless bulb15 metros stainless bulb 6 mm 40 x ø	range -50 °C to 150 °C	
AKO-155830	silicone cable 30 metros stainless bulb 6 mm 40 x ø	range -50 °C to 150 °C	
Pt100 temperature probes			
(A) AKO-15585A	silicone cable 2 meters AISI 316 stainless bulb100 ø 6 mm	range -40 °C to 180 °C	
AKO-15587	fiber cable 2 meters AISI 316 stainless bulb 100 ø 6 mm	range -60 °C to 350 °C	
(B) AKO-15596	silicone cable 1,6 meters AISI 316 stainless bulb , ángulo, ø 6 mm	range -200 °C a 200 °C	
(C) AKO-15597	teflon cable 2 meters AISI 316 stainless bulb 100 ø 6 mm	range -100 °C to 200 °C	
Temperature probes & thermopar			
AKO-15601	thermopar type J, fiber cable 3 meters AISI 316 stainless bulb 100 ø 3 mm	range -0 °C to 600 °C	
AKO-15602	thermopar type K, fiber cable 3 meters stainless bulb 4,5 mm 150 x ø	range -0 °C to 1000 °C	
4-20 Humidity probes			
(A) AKO-80040	tubular humidity probe stainless filter 10% a 95% RH	range -10 °C to 70 °C	
(B) AKO-80013	HVAC dryers applications stainless filter 10% a 95% RH	range -5 °C to 50 °C	
Accessories for controllers			
(A) AKO-14910	transparent cover for front protection (minimum order 120 unities)		
(B) AKO-15586	protection cable 30 x 30 5m2, for probe extensions NTC, PTC and PT100 (price per meter)		
(C) AKO-15908	1/2" wire GAS. Diameter 8 mm, lenght 140 mm AISI 304 Stainless sheat		
Transformers and power			
(A) AKO-15589	Power converter 14 to 30 V/ 125 V, 5 VA. Rail DIN mounting DIN, used to 24 V thermostat, Power supply up to 10 probes		
(B) AKO-15590	Transformer 120-230 V 12 V, maximum consumption 3 VA		
(C) AKO-80014A	Power Supply 115-230 V/ 24 V, 1A , AKO-80013 & AKO80014A Power Supply probe		