

AKOCORE

Maximum efficiency
in regulation Cold Room Stores



AKOCORE

AKOCORE is the new family of AKO controllers for cold rooms, with new advanced functions and a totally innovative design which, alongside the new CAMM Module (available as an option), provides

the installer with complete cold room monitoring and a new type of connectivity, without the need of networks or web servers, via the CAMM Tool mobile app.

FOR POSITIVE OR NEGATIVE COLD ROOMS

AKOCORE regulates the functioning of a cold room cooling circuit and can act upon all refrigeration circuit elements.



1. Autonomous installations as comprehensive installation controller.

2. Distributed Installations as Service Panel:

Distributed installations as service panel, acting upon elements in the cooling circuit's corresponding cold room store.



MAXIMUM EASE OF INSTALLATION

- Can be fixed to the wall using only 3 screws and has hinged front opening, which allows for one-handed fastening.
- Terminals identified on PCB and all wiring to the bottom of the device, with vast internal space.
- Upper and lower IP65 cable entry (using gland), and rear cable entry for installations where wiring should be hidden (No IP65, in this case).



EFFICIENT START-UP AND REGULATION

- The quickest installation system on the market, with a 2-step start-up wizard.
- Saving and loading parameters pre-determined using the CAMM Module is possible via the CAMM Tool app.
- Audible and visual alarms incorporated into the product.
- Controlling door frame resistance and controlling the defrosting of a second evaporator* or three-phase compressors/defrosting** is possible.



ATTRACTIVE AND VERSATILE DESIGN

- IP65 across the range.
- Built in a horizontal format, allowing for installation both next to and above the cold room door.
- Large, clear, intuitive display with colour-coded icons.
- Quick-access keys with the most common functions in a single click to facilitate use.



INCREASED CONNECTIVITY

- Serial Modbus.
- With the CAMM Module, it is possible to connect via Bluetooth using a mobile phone, control all relevant information relating to the installation and log important events. Moreover, via its "Share" mode, the CAMM module provides remote connectivity without the need for a network or a webserver.
- Digital inputs to silence the alarm, setpoint remote switching, remote defrost activation or defrost deactivation using charge-control systems.

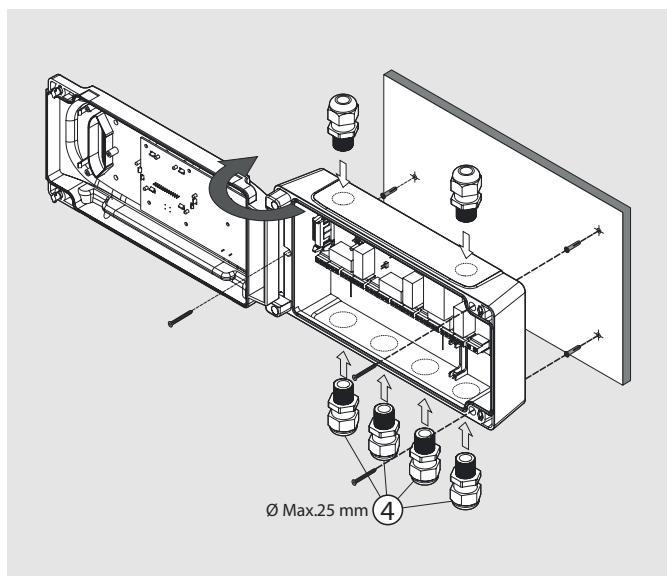
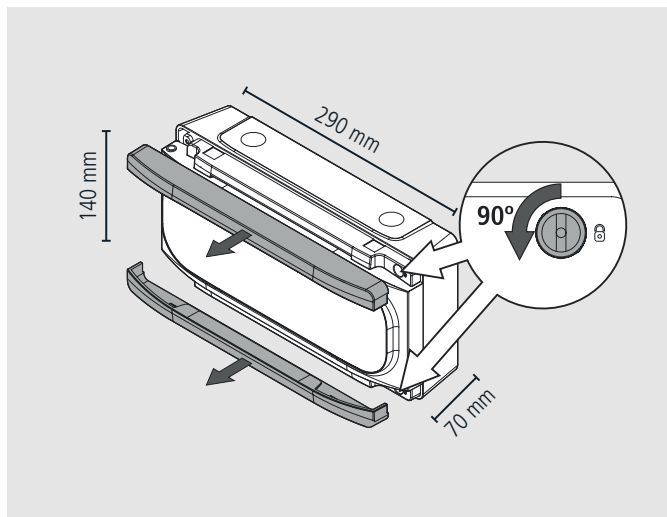
* available for models ending in the letters P and D.

** available for models ending in the letter D.

VERSIONS AND REFERENCES

Versions	Models	Relay outputs							Other Functions		
		Power supply	Solenoid	Defrost (20A)	Fan (16A)	Auxiliary 1	Crankcase Resistors	Auxiliary 2 (16A)	Defrost 2nd Evaporator	Defrost 400V / III	CAMM module
4 RELAY TEMPERATURE CONTROLLER	AKO-16523	230V	1A	3000 W	12A (9A)	15A (15A)	150W				Optional
	AKO-16520	120V	1A	3000 W	12A (9A)	15A (15A)	150W				
5 RELAY TEMPERATURE CONTROLLER WITH ELECTRICAL PROTECTION	AKO-16523P	230V	1A	3000 W	12A (9A)	15A (15A)	150W	12A (9A)	■		
	AKO-16520P	120V	1A	3000 W	12A (9A)	15A (15A)	150W	12A (9A)	■		
5 RELAY TEMPERATURE CONTROLLER AND III+N POWER CONTACTOR	AKO-16523D	230V	1A	10,000W	12A (9A)	15A (15A)	150W	12A (9A)	■	■	

DIMENSIONS



TECHNICAL SPECIFICATIONS

Power supply AKO-16523 / AKO-16523P /

AKO-16523D.....230 V ~ ± 10%, 50 ± 5%

AKO-16520 / AKO-16520P.....120 V ~ + 8% - 12%, 50 ± 5%

Maximum input power in the operation.....15 W

Maximum nominal current.....15

A Relay SSV / DEFROST - SPDT - 20 A NO.....(EN60730-1: 15 (15) A 250 V~)
NC.....(EN60730-1: 15 (13) A 250 V~)

Relay FAN - SPST - 16 A.....(EN60730-1: 12 (9) A 250 V~)

Relay COOL - SPST - 16 A.....(EN60730-1: 12 (9) A 250 V~)

Relay AUX 1 / H.CRANK - SPDT - 20 A NO.....(EN60730-1: 15 (15) A 250 V~)
NC.....(EN60730-1: 15 (13) A 250 V~)

Relay AUX 2 - SPDT - 16 A NO.....(EN60730-1: 12 (9) A 250 V~)
NC.....(EN60730-1: 10 (8) A 250 V~)

Contactor (AKO-16523D) AC.....20 A 400 V~ (III)
AC3.....9 A 400 V~ (III)

Number of relay operations.....EN60730-1:100.000 operations

Probe temperature rang.....-50.0 oC a 99.9 °C

Resolution,settinganddifferential.....0.1°C

Thermometric precision.....±1°C

Tolerance of the NTC probe at.....±0.4 °C

Input for NTC probeAKO-14901

Maximum input power in the operation.....10 VA

Working ambient temperature.....from -5oC to 40°C

Storage ambient temperature.....from -30 oC to 60 °C

Degree of protection.....IP 65

Installation category.....II s/ EN 61439-1

Degree of pollution.....II s/ EN 61439-1

Double isolation between power supply, secondary circuit and relay output.

Dimensions.....290 mm (An) x 141 mm (Al) x 84.4 mm (P)

Internal buzzer

HARDWARE CHARACTERISTICS

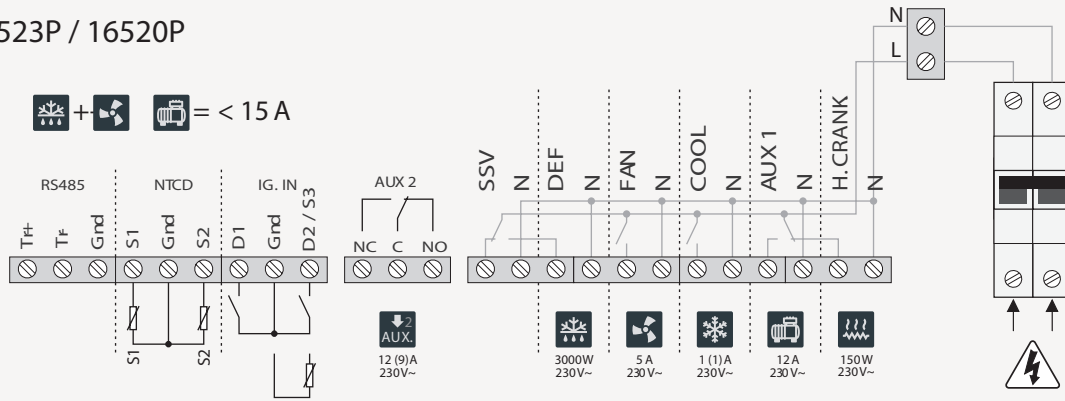
Inputs			Outputs		
ANALOGUE INPUTS	A1	Room store temperature	COOL - 16A	Solenoid	
	A12	Evaporator temperature	DEFROST - 20A	Electrical Resistance	
	A13/DI2	Log temperature **	FAN EVAP - 16A	Evaporator Fans	
2 DIGITAL INPUTS	D11 and D12/A3	Door contact External alarm Severe external alarm SP switching Remote defrost Defrost lockout Pressure switch low	RELAYS	AUX1 - 20A	Crankcase Resistor or Compressor
				AUX2* - 16A	Alarm
			Light		
			2nd evaporator		
			Door frame resistance		

* Available for models ending in the letters P and D.

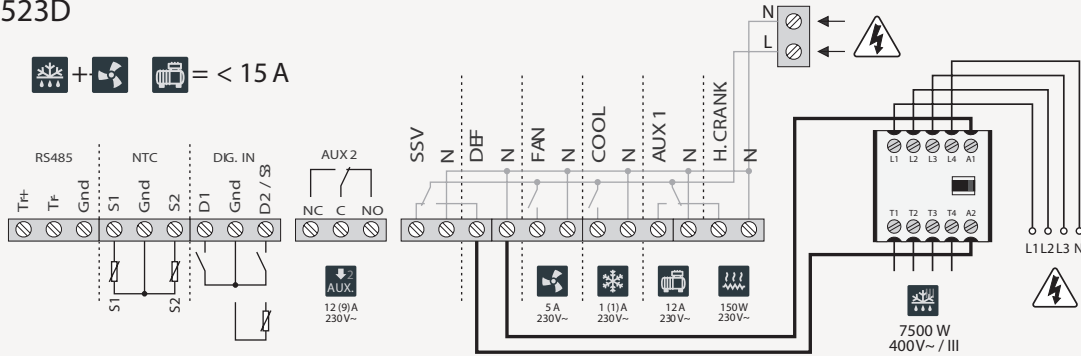
** According to EN-12830 Regulation.

WIRING

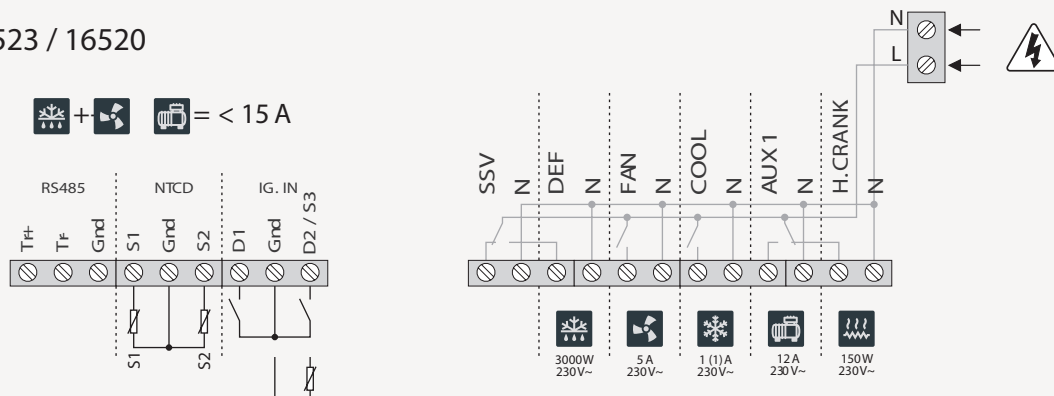
AKO-16523P / 16520P



AKO-16523D



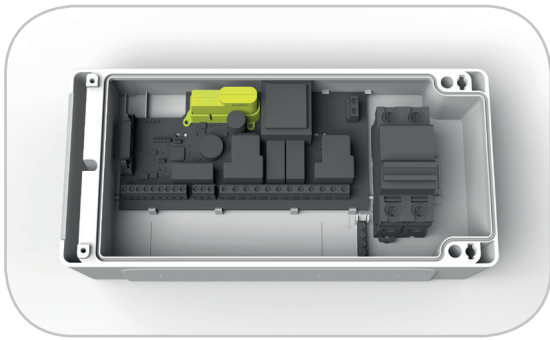
AKO-16523 / 16520



CAMM Module

A new horizon for usability and connectivity

Module for connectivity and storage of key installation information, allowing for access to the AKOCORE controller from a mobile device. .



- Cold room activity log.
- Continuous temperature log.
- Events and modification audits in its configuration.
- Summary of key data.
- Mobile configuration and parametrisation.
- User interface extension.
- Sharing of devices for remote management.

BENEFITS

1

INSTALLATION

- Reduces installation time and makes device configuration simpler.
- Device can be configured from a mobile phone and standard parameters and configurations can also be created, saved and shared with other installers.

2

START-UP

- Provides information on the installation's performance and use after start-up.
- Identifies errors in device performance, using logs of configuration and parametrisation changes.

3

POST-SALES

- Monitors and logs cold room activity to optimise its regulation.
- Local and remote connectivity from a mobile phone, without the need for a local network or webserver, to access key information for maintenance, avoiding costly travel to the installation.



AKOCORE



AKO-58500 CAMM
MODULE



CAMM Tool
app for the
installer



CAMM Fit
app for the
user

Presence in over 90 countries



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Consult our other ranges at
www.ako.com

