

# AKOCAM

The most complete solution  
for cold room store



## CAMCtrl 3 relay control, from -50°C to +150°C

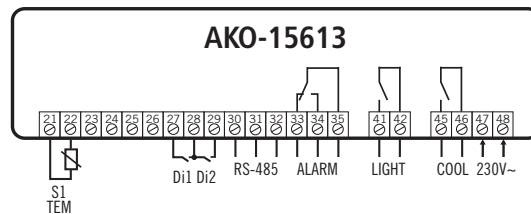


### Controller with built-in register for cold or heat.

Graphic screen with customisable information. Programming assistant and on-screen help. Input for NTC/PTC probe programme-configurable. Internal memory up to one year for temperature register, with a battery for autonomy up to 24 hours. Designed under EN 12830 European standard. Wall and panel mounting. Integrated RS485 communication, ModBus protocol.

**Application:** Industrial and commercial cold, cold rooms and cabinets, industrial machinery, ovens, etc.

- With NTC probe, temperature range from -50.0°C to +99.9°C
- With PTC probe, temperature range from -50.0°C to +150°C
- Resolution 0.1 °C
- Accuracy ±1 °C
- Clock in real time
- Box dimensions 230 x 230 x 90 mm
- Panel cut-out dimensions 214 x 214 mm
- Compressor relay SPST 16A, 250V, cosφ= 1
- Light relay SPST 16A, 250V, cosφ= 1
- Alarm relay SPDT 8A, 250V, cosφ= 1
- 2 configurable digital inputs



Reference	Description	Family	Pack
AKO-15613	CAMCtrl-3, 230V~	1510	1 Unit
AKO-156131	CAMCtrl-3 + printer, 100 to 240V~	1510	1 Unit

## CAMCtrl 6 relay control, from -50°C to +100°C

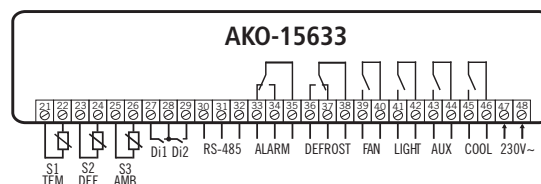


### Controller with built-in register.

Graphic screen with customisable information. Programming assistant and on-screen help. Auxiliary relay configurable for 2nd evaporator defrost or stop for pump down. Input for independent temperature probe or defrost control in 2nd evaporator. Internal memory up to one year for temperature register, with a battery for autonomy up to 24 hours. Designed under EN 12830 European standard. Wall and panel mounting. Integrated RS485 communication. ModBus protocol.

**Application:** Industrial and commercial cold, cold rooms and cabinets, etc.

- Box dimensions 230 x 230 x 90 mm
- Panel cut-out dimensions 214 x 214 mm
- IP65 protection
- Compressor relay SPST 16A, 250V, cosφ = 1
- Fan relay SPST 8A, 250V, cosφ= 1
- Defrost relay SPDT 16A, 250V, cosφ = 1
- Auxiliary relay SPST 16A, 250V, cosφ= 1
- Light relay SPST 16A, 250V, cosφ = 1
- Alarm relay SPDT 8A, 250V, cosφ = 1
- 2 configurable digital inputs



Reference	Description	Family	Pack
AKO-15633	CAMCtrl-6, 230V~	1510	1 Unit
AKO-156331	CAMCtrl-6 + printer, 100 to 240V~	1510	1 Unit

## CAMCtrl Control board with built-in register

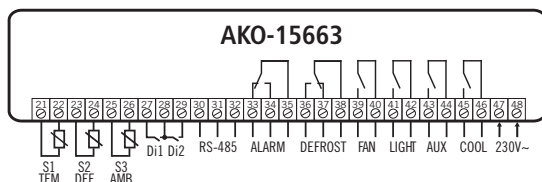


### Display and distributed control.

Display of information on graphic screen. Programming assistant and on-screen help. Autonomous control board, with internal memory up to one year for registering temperatures, with battery for autonomy up to 24 hours. Designed under EN 12830 European standard. Auxiliary relay configurable for 2nd evaporator defrost or pump down. Input for independent temperature probe or defrost control in 2nd evaporator. Wall and panel mounting. Integrated RS485 communication. ModBus protocol.

**Application:** Industrial and commercial cold, cold rooms and cabinets, etc.

- Temperature range -50°C to +99°C
- Resolution 0.1 °C / Accuracy ±1 °C
- NTC probe
- Clock in real time
- Display size 230 x 230 x 90 mm
- Panel cut-out dimensions 214 x 214 mm
- RS485 communication between units
- IP65 protection
- Compressor relay SPST 16A, 250V,  $\cos\varphi = 1$
- Fan relay SPST 8A, 250V,  $\cos\varphi = 1$
- Defrost relay SPDT 16A, 250V,  $\cos\varphi = 1$
- Auxiliary relay SPST 16A, 250V,  $\cos\varphi = 1$
- Light relay SPST 16A, 250V,  $\cos\varphi = 1$
- Alarm relay SPDT 8A, 250V,  $\cos\varphi = 1$
- 2 configurable digital inputs



Reference	Description	Family	Pack
<b>AKO-15663</b>	CAMCtrl-6S, 230V~	1510	1 Unit
<b>AKO-156631</b>	CAMCtrl-6S + printer, 100 to 240V~	1510	1 Unit
<b>AKO-15673</b>	CAMCtrl-6S Split Board, 230V	1510	1 Unit

## CAMCtrl Plus 6-relay control, from -50°C to +100°C



### Controller with breaker switch for operating manoeuvres

Electrical evaporator control and manoeuvring panels for refrigeration services with condenser units that already have a built-in electrical panel for power and manoeuvring the compressor and condenser.

For controlling refrigeration services with the following elements: liquid solenoid, Single-phase evaporator fans, air/time or electrical defrosting

Built-in temperature register (1 channel). Cold room light switch. Signalling of alarms by buzzer and relay. Graphic display

**Application:** Cold installations.

- Temperature range -50°C to +99°C
- Viewing on graphic screen
- Type of NTC sensor (1 included)
- Resolution 0.1 °C
- Precision ±1 °C
- Clock in real time
- Internal buzzer
- Box dimensions 230 x 230 x 90 mm
- Panel cut-out dimensions 214 x 214 mm
- IP65 protection
- SPST 16A, 250 V solenoid relay,  $\cos\varphi = 1$
- Fan relay SPST 8A, 250V  $\cos\varphi = 1$
- Light relay SPST 16A, 250V,  $\cos\varphi = 1$
- Alarm relay SPDT 8A, 250V,  $\cos\varphi = 1$
- 2 configurable digital inputs

Reference	Description	Evaporator	Defrost			Family	Pack
			air	230V/I	400V/III		
<b>AKO-15641</b>	CAMCtrl Plus-A	4,8A	Si	-	-	1510	1 Unit
<b>AKO-15642</b>	CAMCtrl Plus-1F	4,8A	-	2.500w	-	1510	1 Unit
<b>AKO-15643</b>	CAMCtrl Plus-3F	4,8A	-	-	6.500w	1510	1 Unit

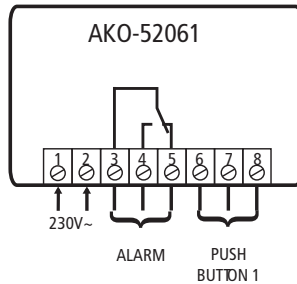
## CAMAlarm Trapped person alarm for cold room stores



### Optical and acoustic alarm.

This family of alarms is designed for cold room stores that work at negative temperatures or with controlled atmospheres, indicating optically and acoustically if anyone is trapped. All units have a relay output for connection to GSM alarm system.

**Application:** Cold room stores



- Optical and acoustic alarm
- Interior light up to -50°C
- 1 output relay for remote alarm indication (GSM module)
- Wall and panel mounting
- IP65 protection
- Autonomy over 1 hour
- Alarm dimensions 230 x 230 x 87 mm
- Light dimensions 94 x 171 x 55 mm
- Power supply 230V~ ±10%, 50/60 Hz

Reference	Description	Family	Pack
<b>AKO-52061</b>	Alarm, with output for 1 light push button (included)	4200	5 Units
<b>AKO-520611</b>	Spare power supply	4200	1 Unit
<b>AKO-52062</b>	Light and pushbutton for spare alarm with 2m. cable	4200	1 Unit

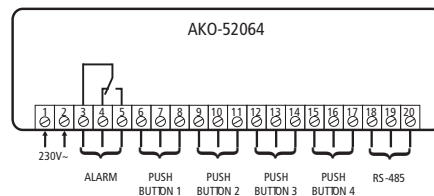
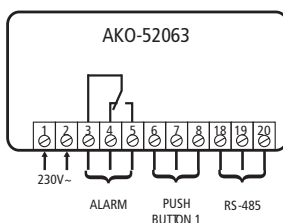
## CAMAlarm Trapped person alarm for cold room stores. EN 378-1 European standard



### Up to 4 lights to indicate up to 4 doors and pushbuttons.

This family of alarms is designed for cold room stores working at negative temperatures or with a controlled atmosphere, optically and acoustically signalling if there is someone trapped. All units have a relay output for connection to GSM alarm system. This model is designed under EN 378-1 European standard and is provided with RS485 communication for connection to a monitoring system.

**Application:** Cold room stores



- Optical and acoustic alarm
- Interior light up to -50°C
- 1 output relay for remote alarm indication (GSM module)
- Battery charge indication
- Autonomy over 10 hours
- Wall and panel mounting
- IP65 protection
- Alarm dimensions 230 x 230 x 87 mm
- Light dimensions 94 x 171 x 55 mm
- Power supply 230V~ ±10%, 50/60 Hz

Reference	Description	Family	Pack
<b>AKO-52063</b>	Alarm, with output for 1 light push button (included)	4200	5 Units
<b>AKO-520631</b>	Spare power supply for AKO-52063	4200	1 Unit
<b>AKO-52064</b>	Alarm, with output for 4 lights push button (1 included)	4200	5 Units
<b>AKO-520641</b>	Spare power supply for AKO-52064	4200	1 Unit
<b>AKO-52062</b>	Light and pushbutton for spare alarm with 2m. cable	4200	1 Unit

## CAMRegis Temperature and humidity data-loggers up to 5 inputs

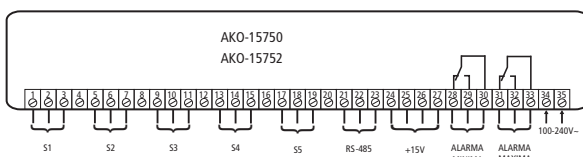


### Inputs for NTC probes, Pt100, thermocouples J, K and 4-20mA.

Graphic screen with customisable information. Display and printout by graphs or value tables. Very suitable for registering the temperature or humidity in applications where permanent display and registering is necessary. Memory to register data up to 1 year, with internal battery for autonomy up to 48 hours. Designed under EN 12830 European standard. Relay output for alarm signalling. Remote printout through printers on other units. Wall and panel mounting. Integrated RS485 communication. ModBus protocol.

**Application:** Industrial and commercial cold, processing industry, etc.

- Temperature range depending on probe model -100.0 °C to +1000°C
- Range 4-20mA -999 to +999
- Resolution 0.1 / Accuracy ±1 °C
- Input accuracy 4-20mA ±0.2mA
- Box dimensions 230 x 230 x 90 mm
- Panel cut-out dimensions 214 x 214 mm
- Alarm relays 2 SPDT 8A, 250V, cosφ= 1
- IP65 protection
- Autonomy 48 hours



Reference	Description	Family	Pack
<b>AKO-15750</b>	Data-logger without printer 100 to 240V~ + 5 NTC probes	1570	1 Unit
<b>AKO-15752</b>	Data-logger with printer 100 to 240V~ + 5 NTC probes	1570	1 Unit
<b>AKO-15703</b>	Spare thermal paper roll	1590	10 Units (B)
<b>AKO-80013</b>	Wall humidity probe, 10 to 95%, -5/50°C, output 4-20mA	1590	1 Unit
<b>AKO-80040</b>	Tubular humidity probe, 5 to 95%, -10/70°C, output 4-20mA	1590	1 Unit
<b>AKO-80039</b>	USB/RS495 converter, with 2 m. cable to PC	1580	1 Unit
<b>AKO-5004</b>	Computer programme for management and monitoring	1580	1 Unit
<b>AKO-5003</b>	Software for transferring the AKO register data	1580	1 Unit

(B) Minimum, indivisible pack units.

## CAMRegis Temperature and humidity data-loggers up to 10 inputs

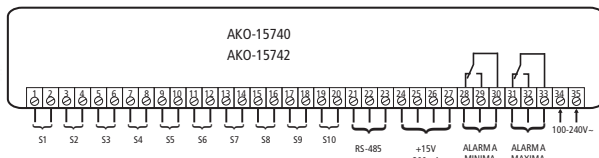


### Inputs for NTC probes, Pt100, thermocouples J, K and 4-20mA.

Graphic screen with customisable information. Display and printout by graphs or value tables. Very suitable for registering the temperature or humidity in applications where permanent display and registering is necessary. Memory to register data up to 1 year, with internal battery for autonomy up to 48 hours. Designed under EN 12830 European standard. Relay output for alarm signalling. Remote printout through printers on other units. Wall and panel mounting. Integrated RS485 communication. ModBus protocol.

**Application:** Industrial and commercial cold, processing industry, etc.

- Temperature range depending on probe model -100.0°C to +1000°C
- Range 4-20mA -999 to +999
- Resolution 0.1 / Accuracy ±1°C
- Input accuracy 4-20mA ±0.2mA
- Box dimensions 230 x 230 x 90 mm
- Panel cut-out dimensions 214 x 214 mm
- Alarm relays 2 SPDT 8A, 250V, cosφ= 1
- IP65 protection
- Autonomy 48 hours



Reference	Description	Family	Pack
<b>AKO-15740</b>	Data-logger without printer 100 to 240V~ + 5 NTC probes	1570	1 Unit
<b>AKO-15742</b>	Data-logger with printer 100 to 240V~ + 5 NTC probes	1570	1 Unit
<b>AKO-15703</b>	Spare thermal paper roll	1590	10 Units (B)
<b>AKO-80013</b>	Wall humidity probe, 10 to 95%, -5/50°C, output 4-20mA	1590	1 Unit
<b>AKO-80040</b>	Tubular humidity probe, 5 to 95%, -10/70°C, output 4-20mA	1590	1 Unit
<b>AKO-80039</b>	USB/RS495 converter, with 2 m. cable to PC	1580	1 Unit
<b>AKO-5004</b>	Computer programme for management and monitoring	1580	1 Unit
<b>AKO-5003</b>	Software for transferring the AKO register data	1580	1 Unit

(B) Minimum, indivisible pack units.

## AKOCAM

## CAMCombi 6-relay control, from -50°C to +100°C, with alarm for cold room store

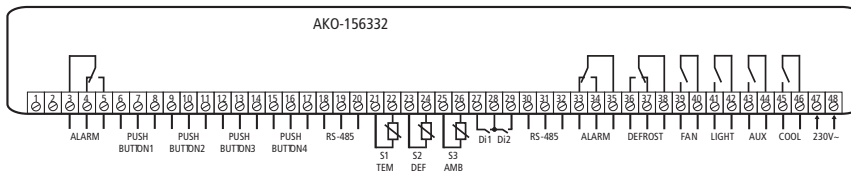


### Controller with built-in alarm and register.

This family of controllers with registers and alarm appears from the CAMCtrl, CAMRegis and CAMAlarm series. Display of information on graphic screen. Person locked in alarm in room with output for 4 lights and autonomy of 10 hours. Identification of the alarm signal to know which pushbutton has triggered the alarm. Wall and panel mounting. Interior space for up to 2 contactors. Integrated RS485 communication. ModBus protocol.

**Application:** Cold room stores

- Temperature range -50°C to +99°C
- Resolution 0.1°C
- Accuracy  $\pm 1$  °C
- NTC probe
- Real time clock
- Box dimensions 346 x 230 x 111 mm
- Panel cut-out dimensions 330 x 214 mm
- Compressor relay SPST 16A, 250V,  $\cos\varphi = 1$
- Fan relay SPST 8A, 250V,  $\cos\varphi = 1$
- Defrost relay SPDT 16A, 250V,  $\cos\varphi = 1$
- Auxiliary relay SPST 16A, 250V,  $\cos\varphi = 1$
- Light relay SPST 16A, 250V,  $\cos\varphi = 1$
- Alarm relay SPDT 8A, 250V,  $\cos\varphi = 1$
- 1 output relay for remote alarm signalling (GSM module)
- Interior light up to -50°C
- IP65 protection



Reference	Description	Family	Pack
<b>AKO-156332</b>	CAMCtrl-6 + alarm, 230V~ (1 light included)	1510	1 Unit
<b>AKO-52062</b>	Light and pushbutton for spare alarm with 2m. cable	4200	1 Unit

## CAMCombi 6-relay Split control, from -50°C to +100°C, with alarm for cold room store

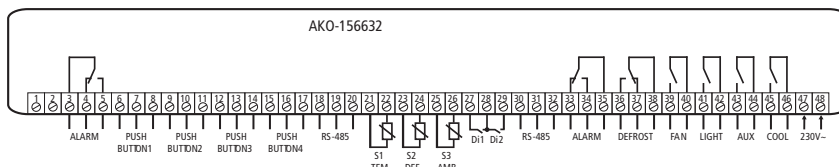


### Display with alarm and control board with built-in register.

This family of controllers with registers and alarm appears from the CAMCtrl, CAMRegis and CAMAlarm series. Display of information on graphic screen. Autonomous control board, with internal memory up to one year for registering the temperature. Person locked in alarm in room with output for 4 lights and autonomy of 10 hours. Identification of the alarm signal to know which pushbutton has triggered the alarm. Wall and panel mounting. Interior space for up to 2 contactors. Integrated RS485 communication. ModBus protocol.

**Application:** Cold room stores

- Temperature range -50°C to +99°C
- Resolution 0.1 °C / Accuracy  $\pm 1$  °C
- NTC probe
- Real time clock
- Box dimensions 346 x 230 x 90 mm
- Panel cut-out dimensions 214 x 214 mm
- Compressor relay SPST 16A, 250V,  $\cos\varphi = 1$
- Fan relay SPST 8A, 250V,  $\cos\varphi = 1$
- Defrost relay SPDT 16A, 250V,  $\cos\varphi = 1$
- Auxiliary relay SPST 16A, 250V,  $\cos\varphi = 1$
- Light relay SPST 16A, 250V,  $\cos\varphi = 1$
- Alarm relay SPDT 8A, 250V,  $\cos\varphi = 1$
- 1 output relay for remote alarm signalling (GSM module)
- Interior light up to -50°C
- IP65 protection



Reference	Description	Family	Pack
<b>AKO-156632</b>	CAMCtrl-6S + alarm, 230V~ (1 light included)	1510	1 Unit
<b>AKO-15673</b>	CAMCtrl-6S Split Plate, 230V~	1510	1 Unit
<b>AKO-52062</b>	Light and pushbutton for spare alarm with 2m. cable	4200	1 Unit