

AD2-28 INSTRUCTIONS FOR USE

Thank you for having chosen an LAE electronic product. Before installing the instrument, please read this instruction booklet carefully in order to ensure safe installation and optimum performance.

DESCRIPTION



Fig.1 - Front panel

- Info / Setpoint button.
- Manual defrost / Decrease button.

INDICATIONS

- Thermostat output
- Fan output
- Defrost output
- Activation of 2nd parameter set
- Alarm
- Manual activation / Increase button.
- Exit / Stand-by button.

INSTALLATION

- The AD2-28 controller, size 107x95x47 mm (WxHxD), is to be secured to a DIN rail in such a position as to ensure that no liquid infiltrates causing serious damage and compromising safety.
- Make sure that electrical connections comply with the paragraph "wiring diagrams". To reduce the effects of electromagnetic disturbance, keep the sensor and signal cables well separate from the power wires.
- Place the probe T1 inside the room in a point that truly represents the temperature of the stored product.
- Place the probe T2 on the evaporator where there is the maximum formation of frost.
- The function of probe T3 is determined by the parameter T3. With T3=DSP the probe measures the temperature to be displayed. With T3=CND the probe measures the condenser temperature, it must therefore be placed between the fins of the condensing unit. With T3=2EU the probe measures the temperature of the second evaporator and it must therefore be placed where there is the maximum formation of frost. With T3=NON, the third probe is disabled.

OPERATION

During normal operation, the display shows either the temperature measured or one of the following indications:

Code	Meaning	Code	Meaning
dEF	Defrost in progress	hP	Condenser high pressure alarm
oFF	Controller in stand-by	h ₁	Room high temperature alarm
cL	Condenser clean warning	L ₀	Room low temperature alarm
d ₀	Door open alarm	E 1	Probe T1 failure
hC	Condenser high temperature alarm	E 2	Probe T2 failure
		E 3	Probe T3 failure

INFO MENU

The information available in this menu is:

Instant probe 1 temperature	Maximum probe 1 temperature recorded
Instant probe 2 temperature	Minimum probe 1 temperature recorded
Instant probe 3 temperature	Compressor working weeks
	Keypad state lock

*: displayed only if enabled (see §Configuration Parameters) **: displayed only if ACC > 0

Access to menu and information displayed.

- Press and immediately release button .
- With button or select the data to be displayed.
- Press button to display value.
- To exit from the menu, press button or wait for 10 seconds.

Reset of THI, TLO, CND recordings

- With button or select the data to be reset.
- Display the value with button .
- While keeping button pressed, use button .

SETPOINT : display and modification

- Press button for at least half second, to display the setpoint value.
- By keeping button pressed, use button or to set the desired value (adjustment is within the minimum SPL and the maximum SPH limit).
- When button is released, the new value is stored.

STAND-BY

Button , when pressed for 3 seconds, allows the controller to be put on a standby or output control to be resumed (with SB=YES only).

KEYPAD LOCK

The keypad lock avoids undesired, potentially dangerous operations, which might be attempted when the controller is operating in a public place. In the INFO menu, set parameter LOC=YES to inhibit all functions of the buttons. To resume normal operation of keypad, adjust setting so that LOC=NO.

SELECTION OF SECOND PARAMETER GROUP

It's possible to select control parameters between two different pre-programmed groups, in order for the fundamental control parameters to be adapted quickly to changing needs. Changeover from Group I to Group II (and vice versa) may take place MANUALLY by pressing button for 2 seconds (with IISM=MAN), or AUTOMATICALLY when heavy duty conditions are detected (with IISM=HDD), or when IISM=D12 and the AUXILIARY INPUT D12 is activated (the activation of D12 selects Group II). If IISM=NON, switchover to Group II is inhibited. The activation of Group II is signalled by the lighting up of the relevant LED on the controller display.

DEFROST

Automatic defrost. Defrost starts automatically as soon as the time set with parameter DFT has elapsed.

- Timed defrost.** With DFM=TIM defrosts take place at regular intervals when the timer reaches the value of DFT. For example, with DFM=TIM and DFT=06, a defrost will take place every 6 hours.
- Optimized defrost.** With DFM=FRO the timer is only increased when the conditions occur for frost to form on the evaporator, until the time set with parameter DFT is matched. If the evaporator works at 0°C, defrost frequency depends on the thermal load and climatic conditions. With setpoints much lower than 0°C, defrost frequency mainly depends on the refrigerator operating time.
- Synchronised defrost.** With D12=DSY and when more units (models AD2-28x3xxx only) are linked to each other as per Fig. 3, synchronised defrosts of all linked controllers will take place. The first controller which will start defrost, will also get all other controllers synchronised.
- Defrost time count backup.** At the power-up, if DFB=YES, the defrost timer resumes the time count from where it was left off before the power interruption. Vice versa, with DFB=NO, the time count re-starts from 0. In stand-by, the accumulated time count is frozen.
- Manual or remote defrost start.** It's possible to manually start a defrost, by pressing button for 2 seconds, or defrost may be started remotely, if D12=RDS, through the making of the auxiliary contact D12.
- Defrost type.** Once defrost has started, Compressor and Defrost outputs are controlled according to parameter DTY. If FID=YES, the evaporator fans are active during defrost.
- Defrost termination.** The actual defrost duration is influenced by a series of parameters.

- Time termination:** T2=NO and T3 different from 2EU: the evaporator temperature is not monitored and defrost will last as long as time DTO.
- Temperature monitoring of one evaporator:** T2=YES and T3 different from 2EU. In this case, if the sensor T2 measures the temperature DLI before the time DTO elapses, defrost will be terminated in advance.
- Temperature monitoring of two evaporators:** T2=YES, T3=2EU, OAU=2EU. This function is for the control of two independent evaporators and it switches off the individual heating of the evaporator which gets to temperature DLI first, waiting for the second evaporator to get to that temperature before the time DTO elapses.

Resuming thermostatic cycle. When defrost is over, if DRN is greater than 0, all outputs will remain off for DRN minutes, in order for the ice to melt completely and the resulting water to drain. Moreover, if probe T2 is active (T2=YES), the fans will re-start when the evaporator gets to a temperature lower than FDD; Vice versa, if probe T2 is not active (T2=NO) or after defrost has come to an end, such condition does not occur by end of the time FTO, after FTO minutes have elapsed the fans will be switched on anyway.

Caution: if DFM=NON or C-H=HEA all defrost functions are inhibited; if DFT=0, automatic defrost functions are excluded. During a high pressure alarm, defrost is suspended. During defrost, high temperature alarm is bypassed.

CONFIGURATION PARAMETERS

- To get access to the parameter configuration menu, press button + for 5 seconds.
- With button or select the parameter to be modified.
- Press button to display the value.
- By keeping button pressed, use button or to set the desired value.
- When button is released, the newly programmed value is stored and the following parameter is displayed.
- To exit from the setup, press button or wait for 30 seconds.

PAR	RANGE	DESCRIPTION
SCL	1°C; 2°C; °F	Readout scale. 1°C (with INP=SN4 only): measuring range -50/-9.9 ... 19.9/80°C 2°C : measuring range -50 ... 120°C °F : measuring range -55 ... 240°F <i>Caution: upon changing the SCL value, it is then absolutely necessary to re-configure the parameters relevant to the absolute and relative temperatures (SPL, SPH, SP, ALA, AHA, etc.).</i>
SPL	-50...SPH	Minimum limit for SP setting.
SPH	SPL...120°	Maximum limit for SP setting.
SP	SPL... SPH	Setpoint (value to be maintained in the room).
C-H	REF; HEA	Refrigerating (REF) or Heating (HEA) control mode.
HYS	1...10°	OFF/ON thermostat differential.
CRT	0...30min	Compressor rest time. The output is switched on again after CRT minutes have elapsed since the previous switchover. We recommend to set CRT=03 with HYS<2.0°.
CT1	0...30min	Thermostat output run when probe T1 is faulty. With CT1=0 the output will always remain OFF.
CT2	0...30min	Thermostat output stop when probe T1 is faulty. With CT2=0 and CT1>0 the output will always be ON. <i>Example:</i> CT1=4, CT2= 6: In case of probe T1 failure, the compressor will cycle 4 minutes ON and 6 minutes OFF.
CSD	0...30min	Compressor stop delay after the door has been opened (active only if DS=YES).
DFM	NON; TIM; FRO	Defrost start mode NON : defrost function is disabled (the following parameter will be FID). TIM : regular time defrost. FRO : the defrost time count is only increased when the conditions occur for frost to form on the evaporator (optimised time increase).
DFT	0...99 hours	Time interval among defrosts. When this time has elapsed since the last defrost, a new defrost cycle is started.
DFB	NO/YES	Defrost timer backup. With DFB=YES, after a power interruption, the timer resumes the count from where it was left off with ±30 min. approximation. With DFB=NO, after a power interruption, the defrost timer will re-start to count from zero.
DLI	-50...120°	Defrost end temperature.
DTO	1...120min	Maximum defrost duration.
DTY	OFF; ELE; GAS	Defrost type OFF: off cycle defrost (Compressor and Heater OFF). ELE: electric defrost (Compressor OFF and Heater ON). GAS: hot gas defrost (Compressor and Heater ON).
DPD	0...240sec	Evaporator pump down. At the beginning of defrost, defrost outputs (determined by DTY) are OFF for DPD seconds.
DRN	0...30min	Pause after defrost (evaporator drain down time).
DDM	RT; LT; SP; DEF	Defrost display mode. During defrost the display will show: RT: the real temperature; LT: the last temperature before defrost; SP: the current setpoint value; DEF: "dEF".
DDY	0...60min	Display delay. The display shows the information selected with parameter DDM during defrost and for DDY minutes after defrost termination.
FID	NO/YES	Fans active during defrost.
FDD	-50...120°	Evaporator fan re-start temperature after defrost.
FTO	0...120min	Maximum evaporator fan stop after defrost.
FCM	NON; TMP; TIM	Fan mode during thermostatic control. NON : The fans remain ON all the time; TMP : Temperature-based control. The fans are ON when the compressor is ON. When the compressor is turned OFF, the fans remain ON as long as the temperature difference Te-Ta is greater than FDT. The fans are turned ON again with FDH differential. (Te = Evaporator temperature, Ta = Air temperature); TIM : Timed-based control. The fans are ON when the compressor is ON. When the compressor is OFF, the fans switch ON and OFF according to parameteres FT1, FT2, FT3 (See Fig.2).
FDT	-120...0°	Evaporator-Air temperature difference for the fans to turn OFF after the compressor has stopped.
FDH	1...120°	Temperature differential for fan re-start. <i>Example:</i> FDT = -1, FDH=3. In this case, after the compressor has stopped, the fans are OFF when Te > Ta - 1 (FDT), whereas the fans are ON when Te < Ta - 4 (FDT-FDH).
FT1	0...180sec	Fan stop delay after compressor stop. See Fig. 2
FT2	0...30min	Timed fan stop. With FT2=0 the fans remain on all the time.
FT3	0...30min	Timed fan run. With FT3=0, and FT2 > 0, the fans remain off all the time.
ATM	NON; ABS; REL	Alarm threshold management. NON : all temperature alarms are inhibited (the following parameter will be ADO). ABS : the values programmed in ALA and AHA represent the real alarm thresholds. REL : the values programmed in ALR and AHR are alarm differentials referred to SP and SP+HYS.
ALA	-50... 120°	Low temperature alarm threshold.
AHA	-50... 120°	High temperature alarm threshold.
ALR	-12... 0°	Low temperature alarm differential. With ALR=0 the low temperature alarm is excluded.
AHR	0... 12°	High temperature alarm differential. With AHR=0 the high temperature alarm is excluded.
ATI	T1; T2; T3	Probe used for temperature alarm detection.
ATD	0... 120min	Delay before alarm temperature warning.
ADO	0... 30min	Delay before door open alarm warning.
AHM	NON; ALR; STP;	Operation in case of high condenser alarm NON : high condenser alarm inhibited. ALR : in case of alarm, "HC" flashes in the display and the buzzer is switched on. STP : in addition to the alarm symbols displayed, the compressor is stopped and defrosts are suspended.

AHT	-50...120°	Condensation temperature alarm (referred to T3 probe).
ACC	0...52 weeks	Condenser periodic cleaning. When the compressor operation time, expressed in weeks, matches the ACC value programmed, "CL" flashes in the display. With ACC=0 the condenser cleaning warning is disabled and CND disappears from Info Menu.
IISM	NON; MAN; HDD; D12	Switchover mode to second parameter set NON : inhibition to use the second parameter group (the following parameter will be SB). MAN : button switches the two parameter groups over. HDD : automatic switchover to the second parameter group, when heavy duty conditions are detected. D12 : switchover to the second parameter group when the auxiliary D12 input makes.
IISL	-50... IISH	Minimum limit for IISP setting.
IISH	IISL... 120°	Maximum limit for IISP setting.
IISP	IISL... IISH	Setpoint in mode 2.
IHY	1... 10°	OFF/ON differential in mode 2.
IIFC	NON;TMP; TIM	Fan control in mode 2. See FCM.
HDS	1...5	Controller sensitivity for the automatic switchover from Group I to Group II (1=minimum, 5=maximum).
IIDF	0...99 hours	Time interval among defrosts in mode 2.
SB	NO/YES	Stand-by button enabling.
DS	NO/YES	Door switch input enabling (closed when door is closed).
D12	NON; HPS; IISM; RDS; DSY	D12 digital input operation NON : digital input 2 not active. HPS : when contact opens a condensing unit high pressure alarm occurs. IISM : when contact makes the controller will use group 2 parameters. RDS : when contact makes a defrost is started (remote control). DSY : defrost synchronisation. The controllers, linked as per Fig. 3, will all start and end defrost together. The first controller in defrost will get defrost of all the others started. The last controller ending defrost will get defrost of all the others stopped.
LSM	NON; MAN; DOR	Light control mode NON : light output not controlled. MAN : light ouput controlled through button (if OAx=LGT). DOR : light ouput switched on when door is opened (if OAx=LGT).
OA1	NON; 0-1; LGT; 2CU; 2EU; AL0; AL1	AUX 1 output operation NON : output disabled (always off). 0-1 : the relay contacts follow the on/standby state of controller. LGT : output enabled for light control. 2CU : output programmed for the control of an auxiliary compressor. 2EU : output enabled for the control of the electrical defrost of a second evaporator. AL0 : contacts open when an alarm condition occurs. AL1 : contacts make when an alarm condition occurs.
OA2	See OA1	AUX2 output operation. See OA1.
2CD	0...120 sec	Auxiliary compressor start delay. If OAx=2CU the auxiliary output is switched on with a delay of 2CD seconds after the main compressor has cut-in. Both compressors are turned off at the same time.
INP	SN4; ST1	Temperature sensor selection. With INP=SN4, the probes must be the LAE models SN4.; with INP = ST1, the probes must be the LAE models ST1...
OS1	-12.5..12.5°C	Probe T1 offset.
T2	NO/YES	Probe T2 enabling (evaporator).
OS2	-12.5..12.5°C	Probe T2 offset.
T3	NON; DSP; CND; 2EU	Auxiliary probe T3 operation NON : probe T3 not fitted. DSP : temperature T3 to be displayed. CND : condenser temperature measurement. 2EU : second evaporator temperature measurement.
OS3	-12.5..12.5°C	Probe 3 offset.
TLD	1...30 min	Delay for minimum temperature (TLO) and maximum temperature (THI) logging.
SIM	0...100	Display slowdown.
ADR	1...255	AD2-28 address for PC communication.

WIRING DIAGRAMS

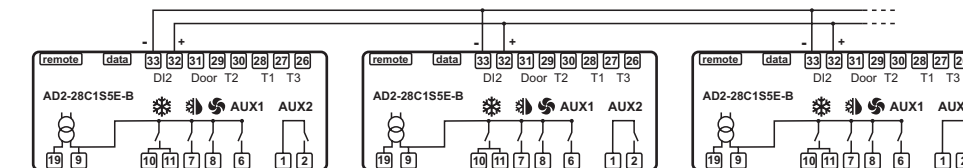
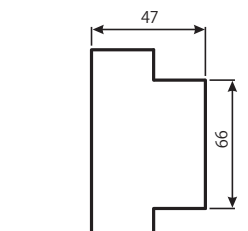
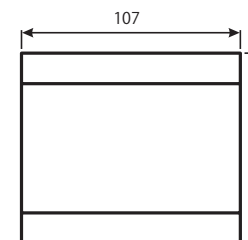
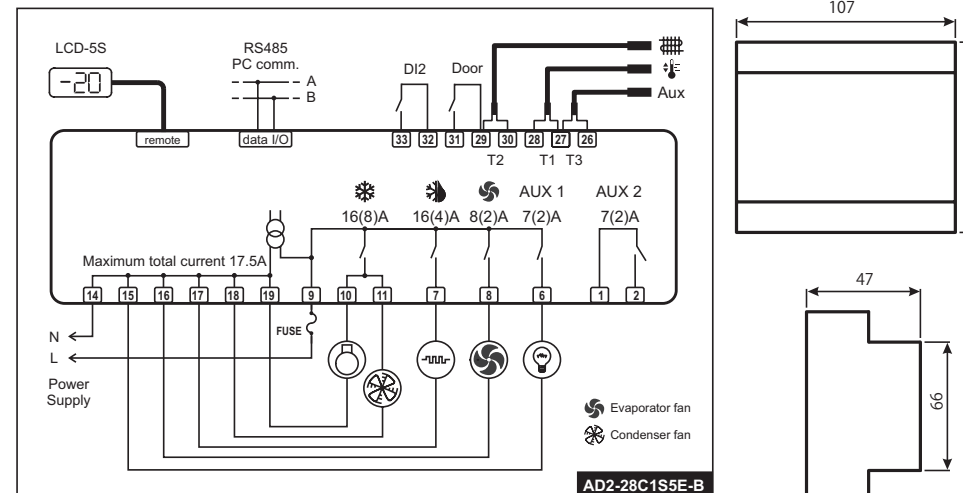


Fig.3 Connection for synchronising defrost start and termination



TECHNICAL DATA

Power supply	
AD2-28...D	12Vdc ±10%, 3W
AD2-28...E	230Vac ±10%, 50/60Hz, 3W
AD2-28...U	115Vac ±10%, 50/60Hz, 3W

Relay output max loads (240Vac)

	AR2-28...S/T...-	AR2-28...Q/R...-
Compressor	16A resistive 8 FLA 48 RLA	12A resistive 8 FLA 48 RLA
Evap. Fan	8A resistive 2 FLA 12 RLA	8A resistive 2 FLA 12 RLA
Defrost	16A resistive	12A resistive
Auxiliary loads 1	7A resistive	7A resistive
Auxiliary loads 2	7A resistive	7A resistive

Input
NTC 10KΩ@25°C LAE Part No. SN4...
PTC 1000Ω@25°C LAE Part No. ST1...

Measurement Range
-50...120°C, -55...240°F
-50 / -9.9 ... 19.9 / 80°C (NTC10K only)

Measurement accuracy
<0.5°C within the measurement range

Operating conditions
-10 ... +50°C; 15%...80% r.H.

CE - UL (Approvals and Reference norms)
EN60730-1; EN60730-2-9; EN55022 (Class B);
EN50082-1
SDFY2.SA32385, UL 60730-1A



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AD2-28 INSTRUCCIONES DE USO

Les agradecemos por la preferencia demostrada eligiendo un producto LAE electronic. Antes de comenzar con la instalación del instrumento, lea detenidamente estas instrucciones para así obtener el mejor rendimiento y seguridad.

DESCRIPCIÓN



Fig.1 — Panel frontal

- Botón Info / Setpoint.
Botón desescarche manual / disminución.

INDICACIONES

- Salida termostatación
Salida ventiladores
Salida termostatación
Activación 2º set de parámetros
Alarma
Botón modalidad manual / aumento.
Botón Salida / Stand-by.

INSTALACIÓN

- El instrumento AD2-28 tiene estas dimensiones:107x95x47(LxHxP);
Realice las conexiones eléctricas tomando como referencia el párrafo "esquemas de conexión".
Coloque la sonda T1 en un punto de la cámara que tenga perfectamente la temperatura del producto que se ha de conservar.
Coloque la sonda T2 en el evaporador en el punto donde se forma más escarcha.
La función de la sonda T3 está determinada por el parámetro T3.

FUNCIONAMIENTO

VISUALIZACIONES

Durante el funcionamiento normal, en la pantalla se visualiza la temperatura medida, o bien una de las siguientes indicaciones:

Table with 2 columns: Abbreviation and Description. Includes terms like dEF, oFF, cL, dO, hc, hP, hi, L, E1, E2, E3, etc.

MENÚ INFO

Las informaciones disponibles en el menú Info son:

Table with 2 columns: Abbreviation and Description. Includes terms like t i, t c, t 3, cnd, loc, etc.

*: se visualizan sólo si están habilitadas (ver §Parámetros de Configuración) **: se visualizan sólo si ACC > 0

Acceso al menú y visualización de las informaciones.

- Pulse y suelte inmediatamente el botón [i].
Con los botones [v] o [a] seleccione el dato que debe visualizar.
Pulse el botón [i] para visualizar el valor.
Para salir del menú, pulse el botón [o] o espere 10 segundos.
Reajuste de las memorizaciones THI, TLO, CND
Con los botones [v] o [a] seleccione el dato que debe reajustar.
Visualice el valor con el botón [i].
Manteniendo pulsado el botón [i] pulse el botón [o].

SETPOINT: visualización y modificación

- Pulse el botón [i] durante medio segundo como mínimo para visualizar el valor del setpoint.
Manteniendo pulsado el botón [i] utilice los botones [v] o [a] para configurar el valor deseado (la regulación está comprendida dentro del límite mínimo SPL y máximo SPH).
Al soltar el botón [i] el nuevo valor será memorizado.

STAND-BY

Pulsando durante 3 segundos el botón [o], es posible conmutar el estado del regulador entre las sfunciones de las salidas y standby (sólo con SB=YES).

BLOQUEO DEL TECLADO

El bloqueo de los botones impide la ejecución de operaciones indeseables, potencialmente perjudiciales, que podrían activarse si el regulador funcionara en lugares abiertos al público. Para inhibir todos los mandos del teclado, configure LOC=YES en el menú INFO. Para restablecer la función normal, programe nuevamente LOC=NO

SELECCIÓN DEL SEGUNDO GRUPO DE PARÁMETROS

Es posible seleccionar los parámetros de regulación entre dos grupos diferentes preprogramados para adaptar en pocos segundos los parámetros fundamentales del regulador a las diferentes exigencias. El paso del Grupo I al Grupo II puede hacerse MANUALMENTE pulsando durante 2 segundos el botón [M] con IISM=MAN, AUTOMÁTICAMENTE en el momento de la detección de condiciones de uso muy duras con IISM=HDD, al cerrarse la ENTRADA AUXILIAR DI2 con IISM=DI2. Si IISM=NON el paso al grupo II se suspenderá. La activación del Grupo II es señalada por el encendido del LED colocado en el regulador.

DESESCARCHE

Desescarche automático. Un desescarche se activa automáticamente cuando el timer interior alcanza el tiempo configurado en el parámetro DFT.
Desescarche temporizado. Con DFM=TIM el aumento del timer es continuo y los desescarches se llevan a cabo con intervalos regulares.
Desescarche optimizado. Con DFM=FRO el timer aumenta sólo al producirse las condiciones para que forme escarcha en el evaporador.
Desescarche sincronizado. Con DI2=DSY y utilizando más de una unidad AD2-28 conectadas como en la fig. 3 (ver la tabla de los parámetros), el desescarche se realiza de una manera sincronizada en todas las unidades conectadas.
Memorización cuenta: Al encenderse el instrumento, si DFB=YES, el timer de desescarche comenzará la cuenta desde el tiempo acumulado antes del apagado.
Desescarche manual o a distancia. Se puede poner en marcha el desescarche manualmente, manteniendo pulsado el botón [o] durante 2 segundos; el desescarche se puede activar a distancia, si DI2=RDS, a través del cierre del contacto auxiliar DI2.
Tipo de desescarche. Una vez comenzado un desescarche, las salidas Compresor y Desescarche se controlan según el parámetro DTY.
Fin del desescarche. La duración efectiva del desescarche depende de una serie de parámetros.
Fin por tiempo: T2=NO y T3 diferente de 2EU: la temperatura del evaporador no es monitorizada y el desescarche siempre durará un tiempo equivalente a DTO.
Monitorización de la temperatura en un evaporador: T2=YES y T3 diferente de 2EU: Si la sonda T2 alcanzara la temperatura DLI dentro del tiempo DTO, el desescarche terminará antes.
Monitorización de la temperatura en dos evaporadores: T2=YES, T3=2EU, OAU=2EU. Esta modalidad está destinada al control independiente de dos evaporadores y prevé el apagado individual del calentamiento del evaporador que alcance primero la temperatura DLI esperando que, dentro del tiempo DTO, también el segundo alcance dicha temperatura.
Restablecimiento del ciclo termostático. Una vez concluido el desescarche, si DRN es mayor que 0, todas las salidas quedarán apagadas durante DRN minutos para permitir una fusión completa del hielo y la eliminación del agua que se haya formado.
Además, si la sonda T2 estuviera activa (T2=YES), los ventiladores arrancarán cuando el evaporador tenga una temperatura inferior a FDD; sin embargo, si la sonda T2 no estuviera activa (T2=NO) o, después de la conclusión del desescarche, dicha condición no se produjera dentro del tiempo FTO, transcurridos FTO minutos, los ventiladores se activarán igualmente.
Atención: si DFM=NO o C-H=HEA, todas las funciones de desescarche estarán inhibidas; si DFT=0, se desactivarán las funciones de desescarche automático. Durante una alarma de Alta Presión, el desescarche quedará suspendido; Durante un desescarche la alarma de alta temperatura quedará suspendida.

PARÁMETROS DE CONFIGURACIÓN

- Para acceder al menú de configuración de los parámetros, pulse durante 5 segundos los botones [o] + [i].
Con los botones [v] o [a] seleccione el dato que debe modificar.
Pulse el botón [i] para visualizar el valor.
Manteniendo pulsado el botón [i] utilice los botones [v] o [a] para configurar el valor deseado.
Al soltar el botón [i] el nuevo valor será memorizado y se visualizará el parámetro siguiente.

Para salir del menú, pulse el botón [x] o espere 30 segundos.

Main parameter table with columns: PAR, RANGE, DESCRIPCIÓN. Includes parameters like SCL, SPL, SPH, SP, C-H, HYS, CRT, CT1, CT2, CSD, DFM, DFT, DFB, DLI, DTO, DTY, DPD, DRN, DDM, DDY, FID, FDD, FTO, FCM, FDT, FDH, FT1, FT2, FT3, ATM, ALA, AHA, ALR, AHR, ATI, ATD.

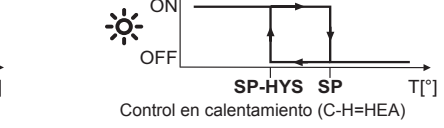


Table with columns: ADO, AHM, AHT, ACC, IISM, IISL, IISH, IISP, IIHY, IIFC, HDS, IIDF, SB, DS, DI2, LSM, OA1, OA2, 2CD, INP, OS1, T2, OS2, T3, OS3, TLD, SIM, ADR.

ESQUEMAS DE CONEXIÓN

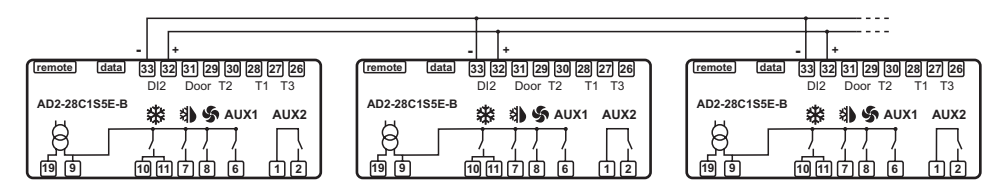
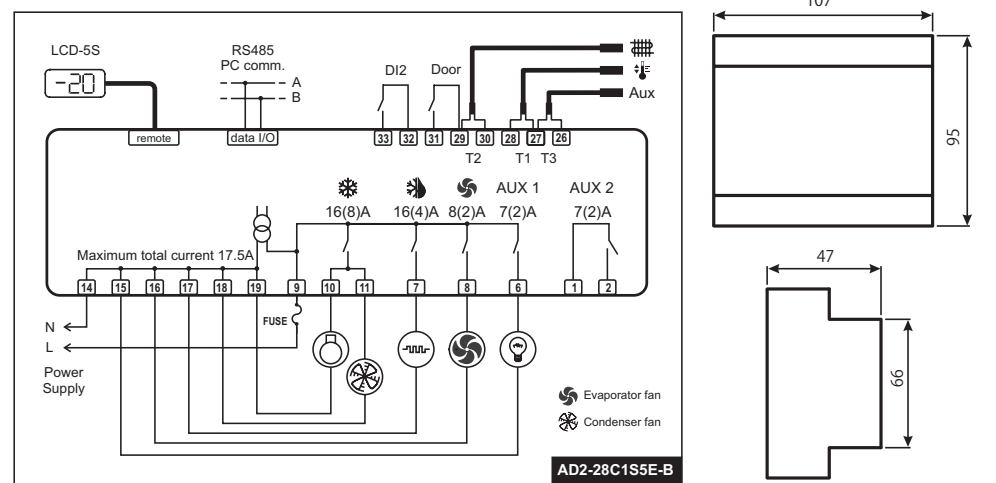


Fig3. Conexión para la sincronización del comienzo y del término de los desescarches



AD2-28



INSTRUCTIONS FOR USE / INSTRUCCIONES DE USO

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DATOS TÉCNICOS

Table with 2 columns: Alimentación and values for different models (AD2-28...D, AD2-28...E, AD2-28...U).

Potencia máxima salidas relés (240Vac)

Table with 3 columns: Component, AD2-28...S/T..., AD2-28...Q/R...

Entradas: NTC 10KQ@25°C, LAE Part No. SN4..., PTC 1000K@25°C, LAE Part No. ST1...

Rango de medición: -50...120°C, -55...240°F, -50 / -9.9 ... 19.9 / 80°C (solo con NTC10K)

Precisión de medición: <0.5°C en el rango de medición

Condiciones de funcionamiento: -10 ... +50°C; 15%...80% H.r.

CE - UL (Aprobaciones y Normativas de referencia)
EN60730-1; EN60730-2-9; EN55022 (Class B); EN50082-1
SDFY2.SA32385, UL 60730-1A

AD2-28 INSTRUCTIONS FOR USE / INSTRUCCIONES DE USO

0LAD2001-02