



Electronic Refrigeration

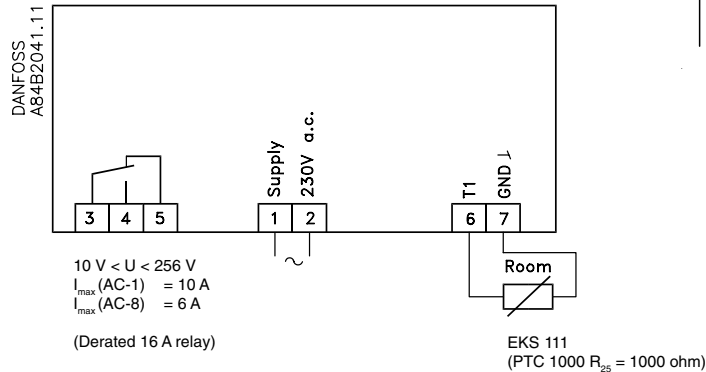
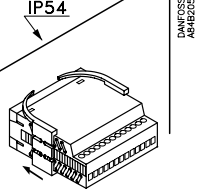
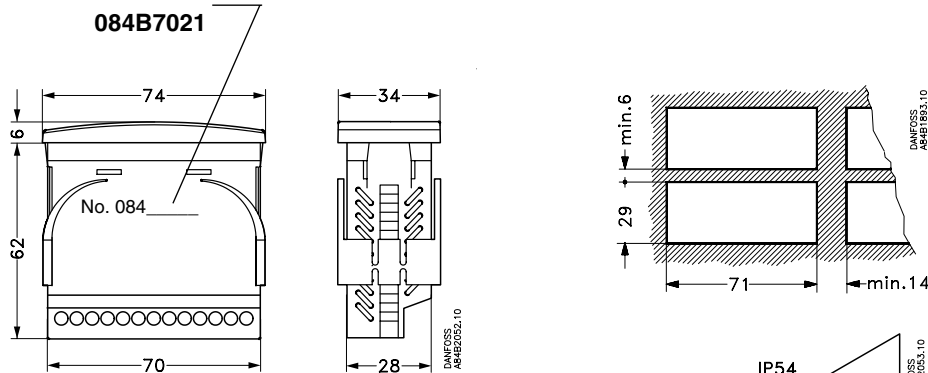
# INSTRUCTIONS

## EKC 101

### EKC 101

Code no. 084B7020  
084B7021

$t_{amb.} = -5 \rightarrow +55^{\circ}\text{C}$   
230 V a.c. 2.5 VA



### EKS 111

PTC 1000 / 25°C

Føleren må **ikke** anvendes til måling af værdier, som anvendes til:  
- Myndighedslog  
- Regulering af overhedning

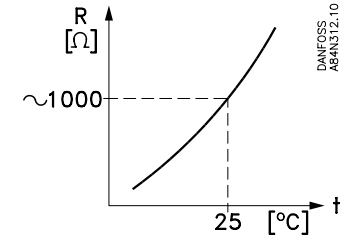
The sensor must **not** employed for measuring values used for:  
- food safety logs  
- regulation of superheat

Der Fühler darf in folgenden Fällen **nicht** zur Messung von Werten eingesetzt werden:  
- Warensicherheitslogs  
- Überhitzungsregelung

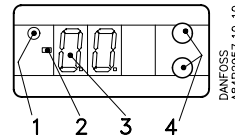
**Ne jamais** utiliser ce capteur pour le contrôle de valeurs utilisées pour:  
- sécurité aliments enregistrement  
- une régulation de surchauffe

El sensor no se debe utilizar en la medida de valores para:  
- registrar datos con fines sanitarios  
- regulación del recalentamiento

Il sensore **non** deve essere utilizzato per:  
- Registrazione dati sicurezza alimentare  
- Regolazione del surriscaldamento



R (Typ.) Ohm	Temp. °C	Error K	Temp. °F
1679	100	+/-3.5	212
1575	90		194
1475	80		176
1378	70		158
1286	60		140
1196	50	+/-1.3	122
1111	40		104
1029	30		86
990	25		77
951	20		68
877	10		50
807	0		32
740	-10		14
677	-20		-4
617	-30		-22
562	-40	+/-3.0	-40
510	-50		-58
485	-55		-67



DANSK	ENGLISH	DEUTSCH	FRANCAIS	ESPAÑOL	ITALIANO
<b>Elektroniske regulator</b> EKC 101: Til indbygning i tavle.	<b>Electronic controller</b> EKC 101: For panel mounting	<b>Elektronische Regler</b> EKC 101: Für den Schalttafeleinbau.	<b>Régulateur électronique</b> EKC 101 : pour montage sur tableau	<b>Controlador electrónico</b> EKC 101: Para montaje en panel	<b>Controllore elettronico</b> EKC 101: Per montaggio su pannello
<b>Montering</b> Se side 1	<b>Installation</b> See page 1	<b>Montage</b> Siehe Seite 1.	<b>Montage</b> Voir page 1	<b>Instalación</b> Ver pagina 1	<b>Installazione</b> Vedi pag. 1
<b>El-tilslutning</b> Se side 1 samt el-diagram på apparatet.	<b>Electrical connection</b> See page 1 and electrical diagram on unit.	<b>Elektrischer Anschluß</b> Siehe Seite 1 sowie Schaltplan am Regler.	<b>Connexion électrique</b> Voir page 1 ainsi que le diagramme électrique sur l'appareil.	<b>Conexiónado eléctrico</b> Ver página 1 y diagrama eléctrico de la unidad	<b>Connessioni elettriche</b> Vedi pag. 1 e lo schema elettrico
<b>Betjening</b> 1. Lysdiode = relæ trukket 2. Minustegn. 3. Display. (Blinker når indstillingsværdien for rumtemperaturen vises). 4. Taster til programmering og indstilling (se programmeringsvejledning).	<b>Operation</b> 1. Light emitting diode = pull in relay 2. Minus sign 3. Display (Flashes when setting value for room temp. is displayed). 4. Keys for programming and setting (see programming instructions).	<b>Bedienung</b> 1. Leuchtdiode = Relais anziehen 2. Minuszeichen 3. Display (Blinkt, wenn der Einstellwert der Raumtemperatur angezeigt wird). 4. Tasten zur Programmierung und Einstellung (Siehe Programmierungsanleitung).	<b>Utilisation</b> 1. Diode lumineuse = relais fermé 2. Signe moins (-). 3. Affichage. (Clignote quand la température de réglage est atteinte). 4. Touches pour programmation et réglage (voir instructions de programmation).	<b>Operación</b> 1. LED Diodo luminoso = relé cerrado 2. Signo menos 3. Pantalla (Parpadea cuando se realiza el ajuste de la temperatura) 4. Botones de programación y ajustes (ver instrucciones de programación)	<b>Funzionamento</b> 1. LED luminoso = refrigerazione 2. Segno meno 3. Display (lampeggia durante l'impostazione temp. ambiente) 4. Tasti per programmare e tarare (vedi le istruzioni per programmazione)
<b>Programmering og indstilling</b> Se programmeringsvejledningen og indstillinger. Tryk på øverste tast i 2 s. Tryk på nederste tast i 2 s. Tryk på begge taster samtidigt.	<b>Programming and setting</b> see programming instructions and settings. Press upper key for 2 s. Press lower key for 2 s. Press both keys at the same time.	<b>Programmierung und Einstellung</b> Siehe Programmierungsanleitung und Einstellungen. Obere Taste für 2 s betätigen. Untere Taste für 2 s betätigen. Beide Tasten gleichzeitig betätigen.	<b>Programmation et réglage</b> Consulter les instructions de programmation et les réglages. Presser sur la touche supérieure pendant 2 sec. Presser sur la touche inférieure pendant 2 sec. Presser sur les deux touches en même temps.	<b>Programación y ajustes</b> Ver instrucciones de programación y ajustes Pulsar el boton superior durante dos segundos Pulsar el boton inferior durante dos segundos Pulsar los dos botones a la vez	<b>Programmazione e taratura</b> Vedi istruzioni per programmazione e taratura Premi il tasto superiore per 2 secondi Premi il tasto inferiore per 2 secondi Premi entrambi i tasti allo stesso tempo

# English

## Quick Guide

What to do	Initial controller setup	Operating the two pushbuttons What the controller does automatically	Resulting controller setup
Read or change room temp. setting	Normal operation Room temp. 1	DANFOSS AG4B1885.10	Normal operation Room temp. 2
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings	DANFOSS AG4B1886.10	Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings	DANFOSS AG4B1887.10	All parameter settings = factory settings
Manually start of a defrost operation	Normal operation	DANFOSS AG4B1889.11	Normal operation
Manually stop of a defrost operation	Defrost operation	DANFOSS AG4B1890.11	Normal operation

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## Controller application setting parameters

Code No.: 084B7020, SW = 1.2x., 084B7021, SW =

Setting and read-off parameters	Parameter codes	Min. value	Max. value	Factory setting <sup>3)</sup>	Actual setting
<b>Thermostat</b>					
Differential <sup>1)</sup>	r1	1 K	20 K	2 K	
Max. limitation of set temperature	r2	-59(1)°C	50(99)°C	50°C	
Min. limitation of set temperature	r3	-60(0)°C	49(99)°C	-60°C	
Adjustment of temperature indication	r4	-20 K	20 K	0.0 K	
<b>Compressor</b>					
Min. ON-time	c1	0 min	15 min	0 min	
Min. OFF-time	c2	0 min	15 min	0 min	
Cut-in frequency on sensor fault <sup>2)</sup>	c3	0 %	99 %	0 %	
<b>Defrost</b>					
Defrost stop temperature	d2	0°C	25°C/OFF	8°C	
Interval between defrost starts	d3	OFF	48 hour	8 hour	
Max. defrost duration	d4	0 min	99 min	45 min	
Delay of display view after defrost stop	d5	0 min	15 min	0 min	
Defrost after start-up	d6	OFF	ON	OFF	
<b>Miscellaneous</b>					
Delay of outputsignal after start-up	o1	0 min	15 min	0 min	
Access code	o5	OFF	99	OFF	
Refrigeration or heat (rE=refrigeration, HE = heat)	o7	rE	HE	rE	

Fault code display	
Fault in controller	Er
Disconnected room sensor	Er
Short-circuited room sensor	Er

( ) Values stated in parenthesis, are only possible if the setting o7 = HE.

<sup>1)</sup> Refrigeration (o7 = rE):

The relay closes when the room temperature exceeds the setting value and differential.

Heat (o7 = HE):

The relay closes when the room temperature drops to the setting value less the differential

<sup>2)</sup> The frequency is measured after approx. three days and nights operation after start of the plant (72 cyclings) otherwise:

ON-time = c3 × 20: 100 minutes

OFF-time interval 20 minus ON-time per minute

<sup>3)</sup> The factory setting has been indicated for standard units 084B7020 and 084B7021. See also page 1. If the code number is a different one, the factory setting will be changed as per agreement.