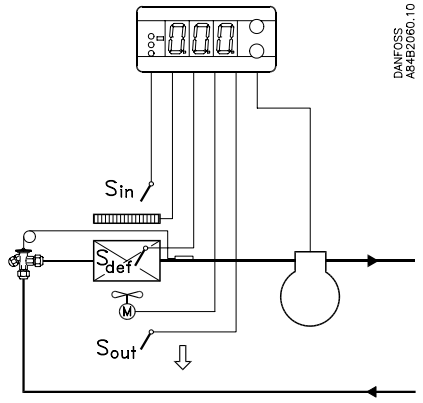
INSTRUCTIONS

EKC 201 -
with double thermostat

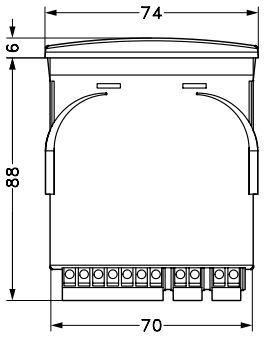
Electronic Refrigeration

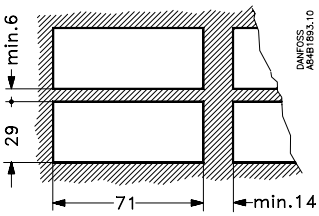
084R9688

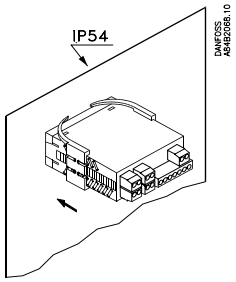
Principle
Prinzip
Principe



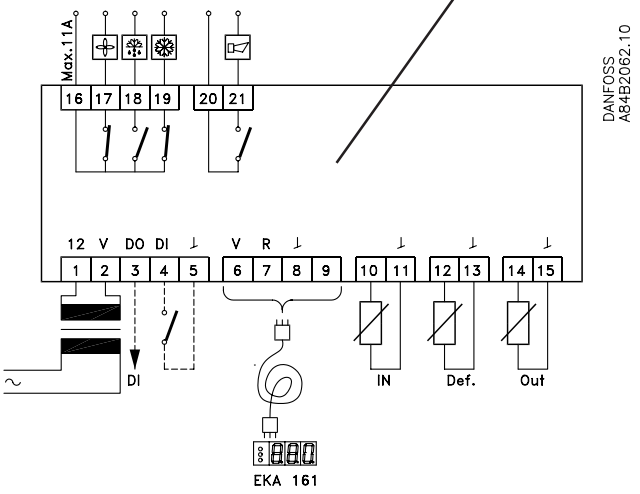
S:
Pt 1000 /
PTC 1000/25°C



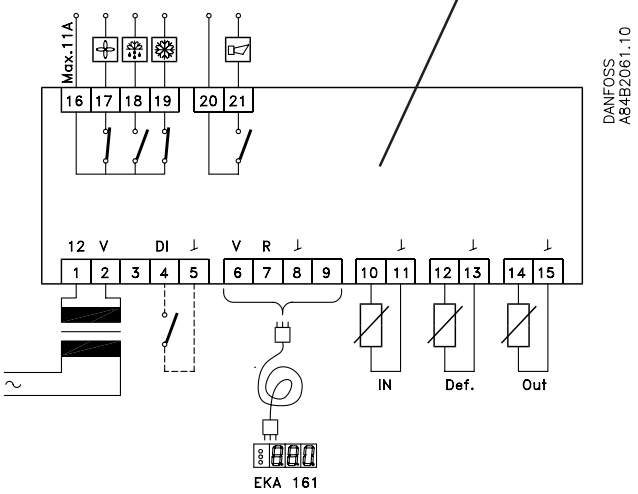




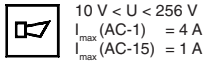
084B7057



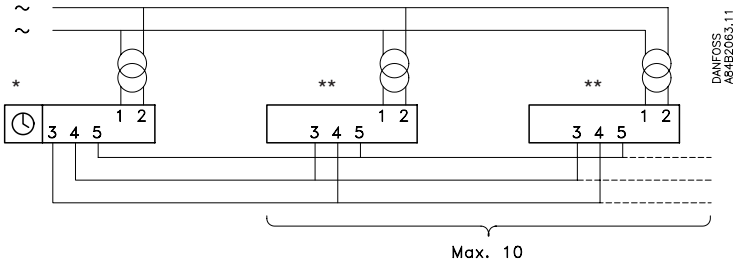
084B7058



$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

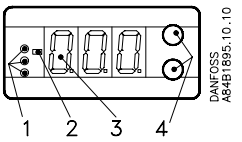
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

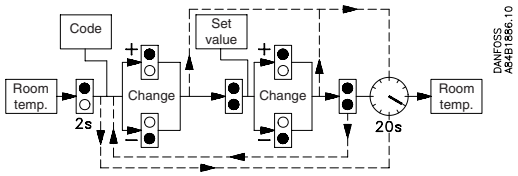
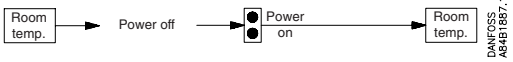
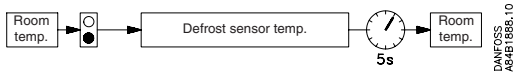
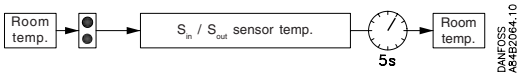
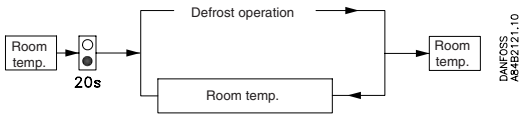
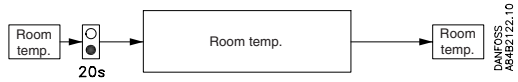
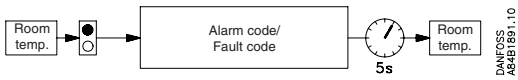
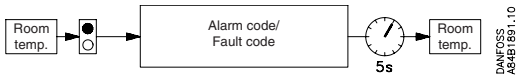
Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

What to do	Initial controller setup	Operating the two pushbuttons Display readout	Resulting controller setup
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

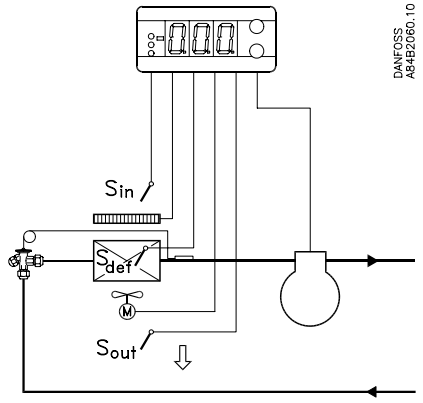
INSTRUCTIONS

EKC 201 -
with double thermostat

Electronic Refrigeration

084R9688

Principle
Prinzip
Principe



S:
Pt 1000 /
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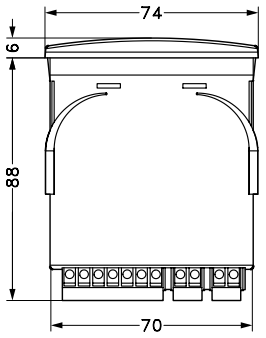

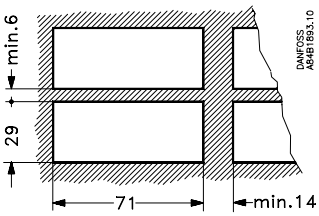

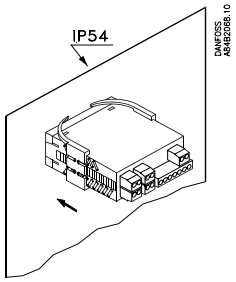

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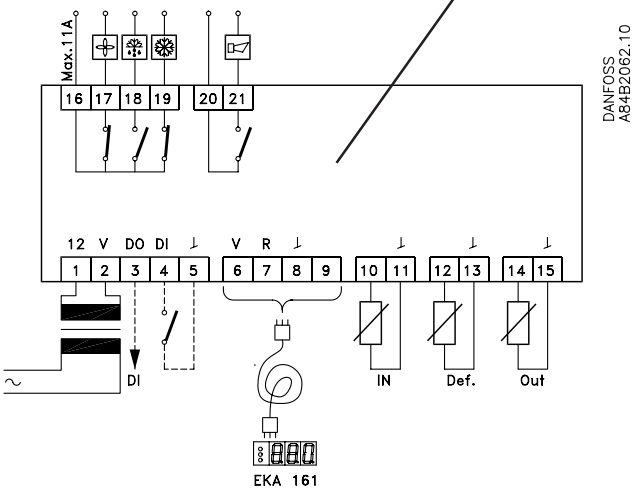

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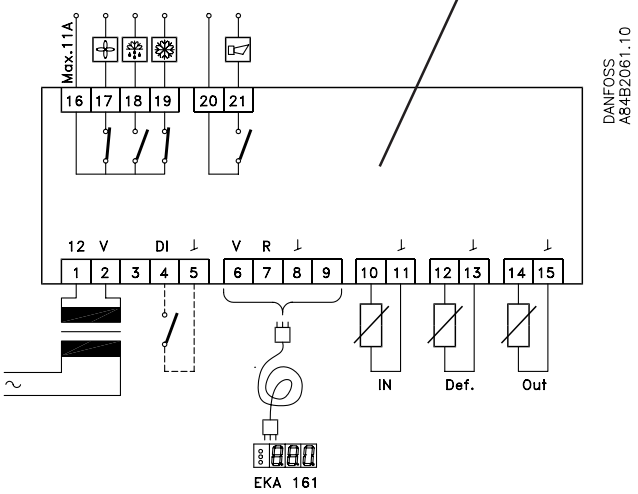

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12 V +/- 15%, 50/60 Hz / d.c.
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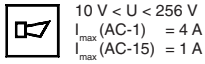
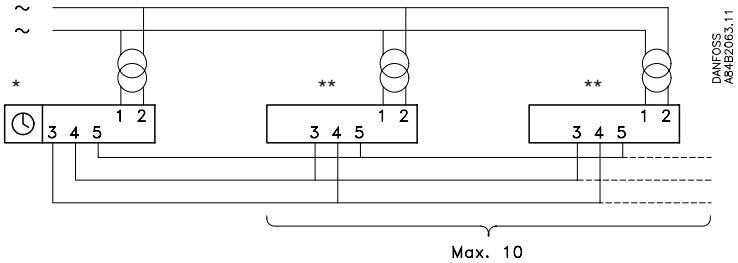


Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

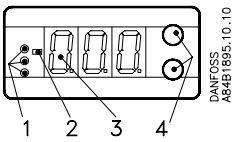
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



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2. Minus sign
3. Display
4. Keys for programming and setting
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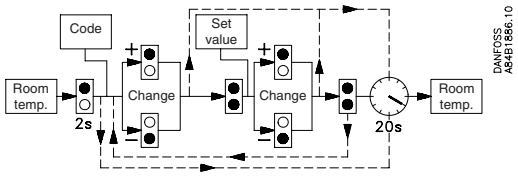
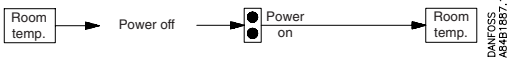
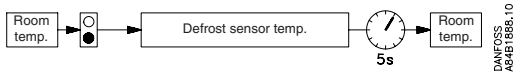
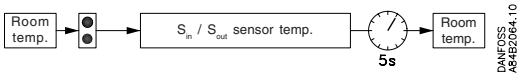
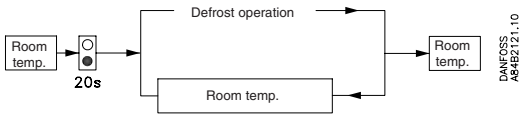
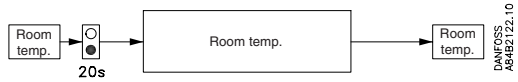
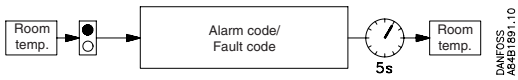
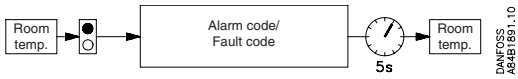
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

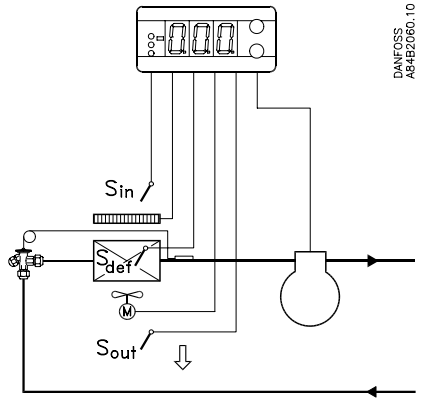
INSTRUCTIONS

EKC 201 -
with double thermostat

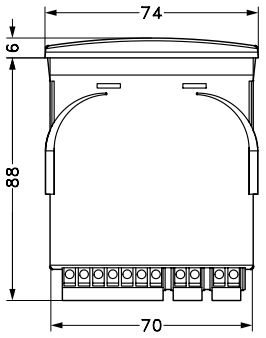
Electronic Refrigeration

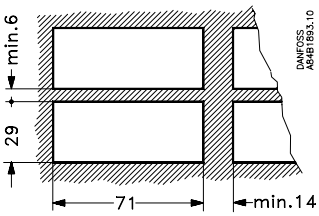
084R9688

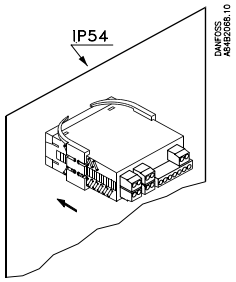
Principle
Prinzip
Principe



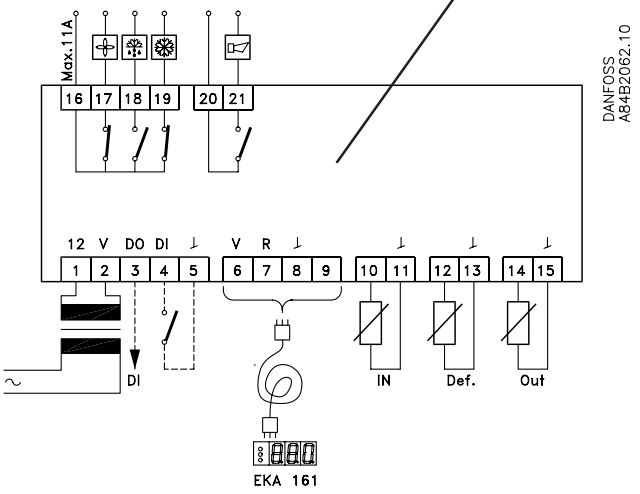
S:
Pt 1000 /
PTC 1000/25°C







084B7057



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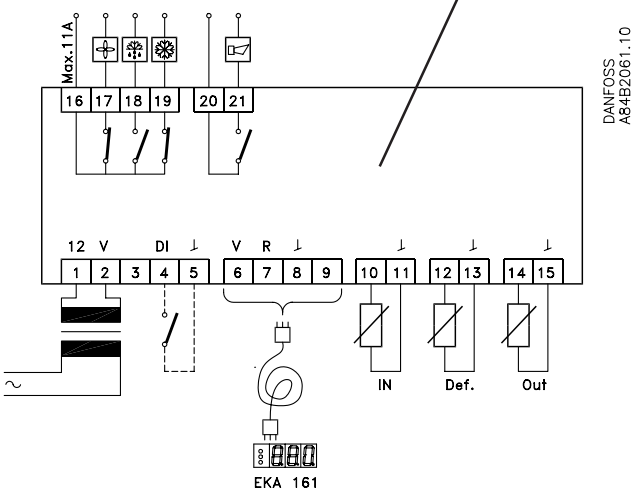
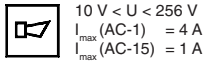
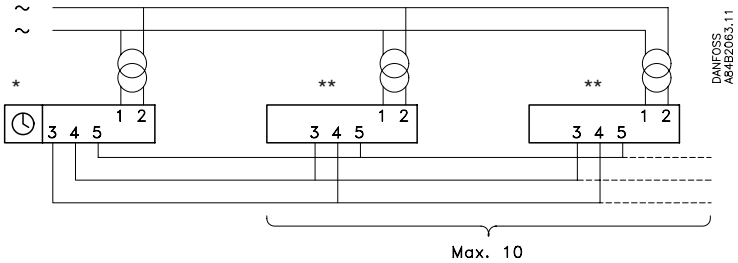


$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

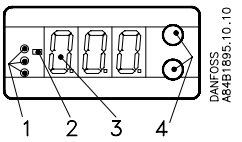
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

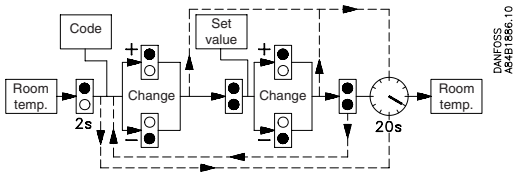
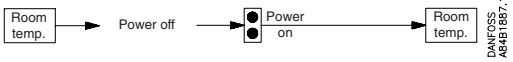
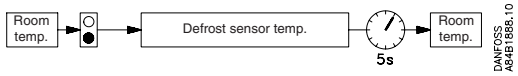
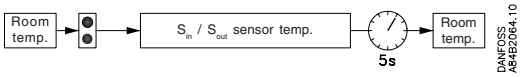
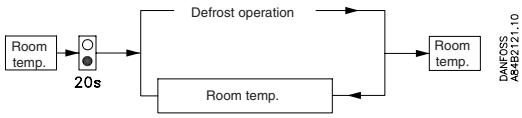
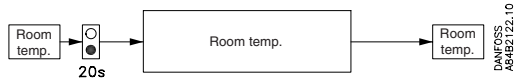
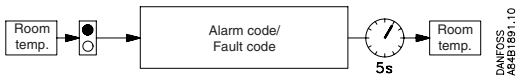
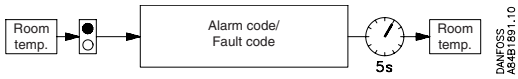
Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

What to do	Initial controller setup	Operating the two pushbuttons Display readout	Resulting controller setup
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

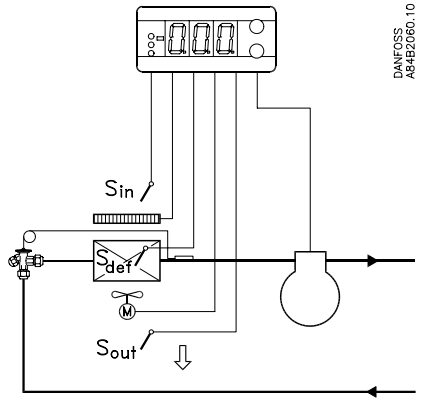
INSTRUCTIONS

EKC 201 -
with double thermostat

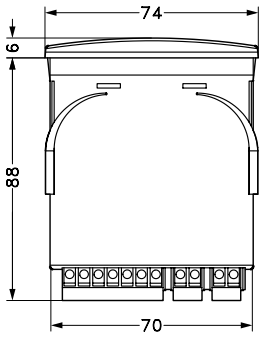
Electronic Refrigeration

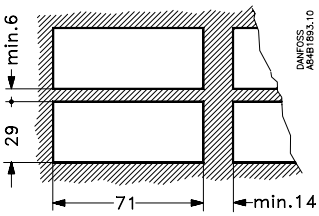
084R9688

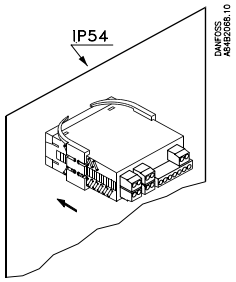
Principle
Prinzip
Principe



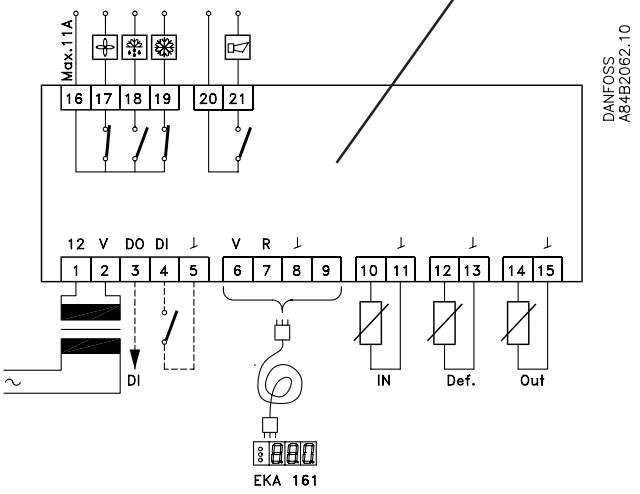
S:
Pt 1000 /
PTC 1000/25°C



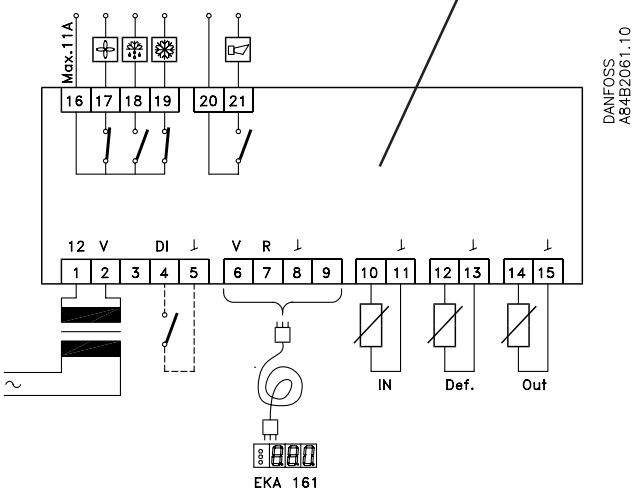




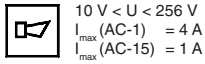
084B7057



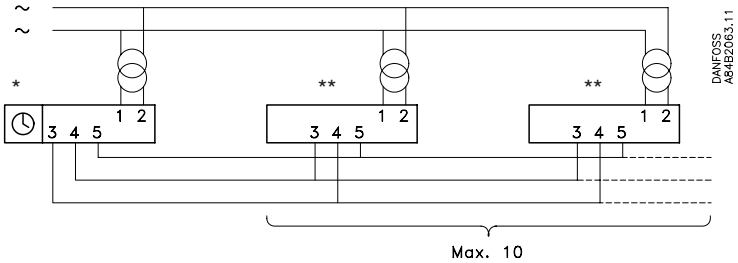
084B7058



$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

Installation
For panel mounting

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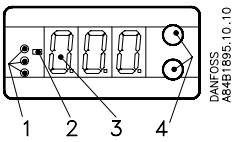
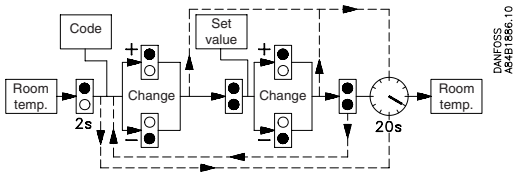
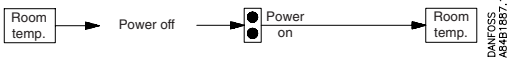
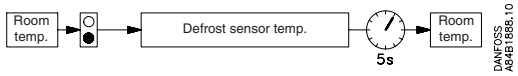
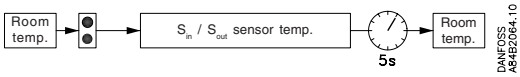
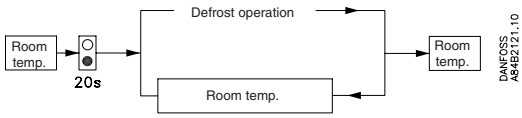
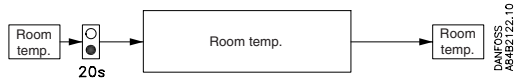
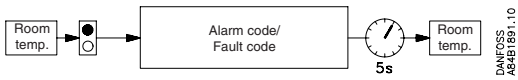
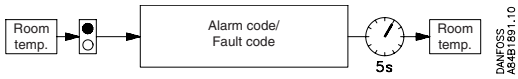
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

What to do	Initial controller setup	Operating the two pushbuttons Display readout	Resulting controller setup
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

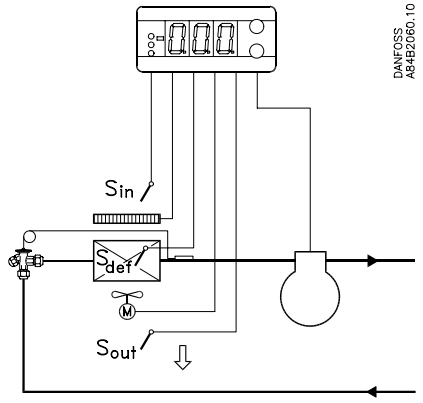
INSTRUCTIONS

EKC 201 -
with double thermostat

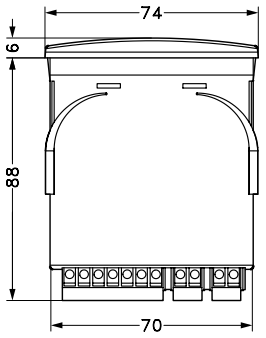
Electronic Refrigeration

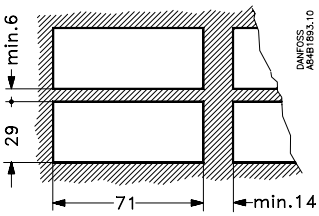
084R9688

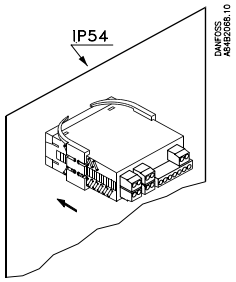
Principle
Prinzip
Principe



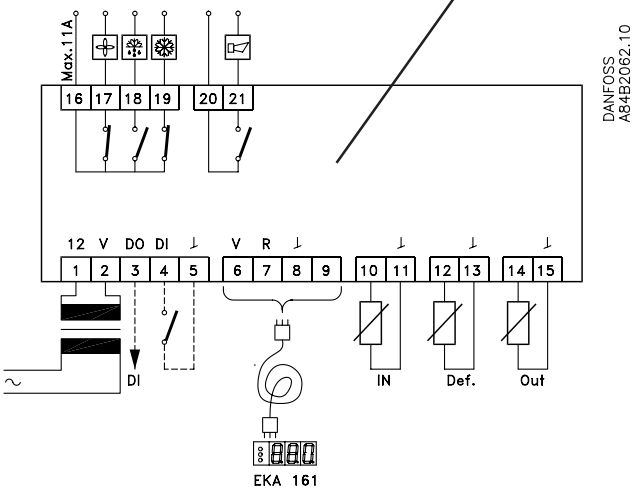
S:
Pt 1000 /
PTC 1000/25°C



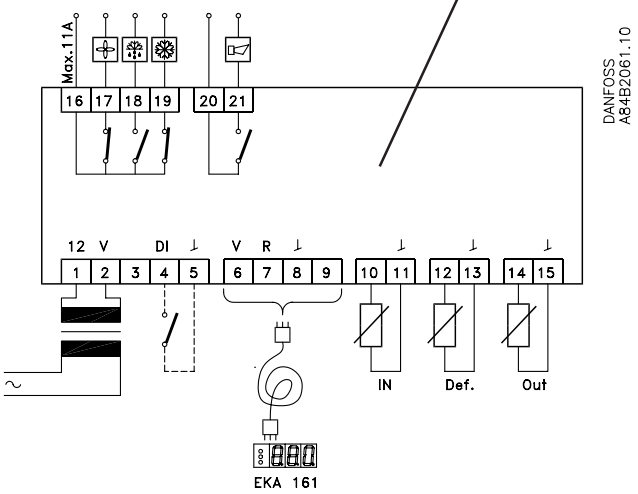




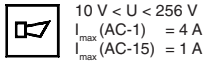
084B7057



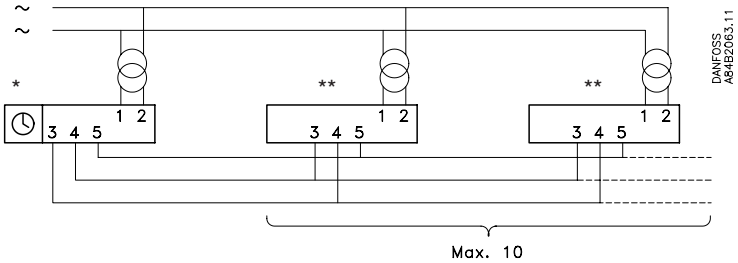
084B7058



$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

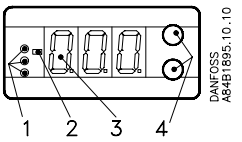
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

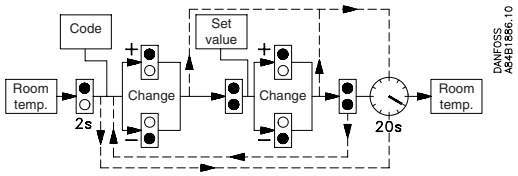
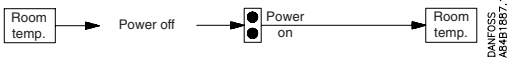
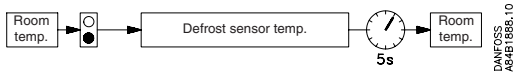
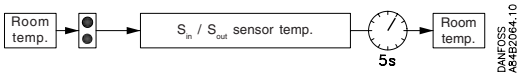
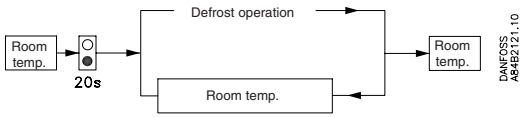
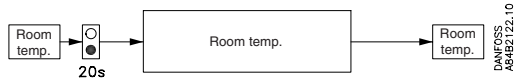
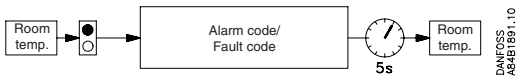
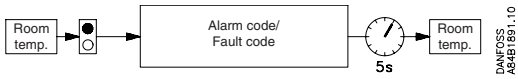
Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

What to do	Initial controller setup	Operating the two pushbuttons Display readout	Resulting controller setup
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

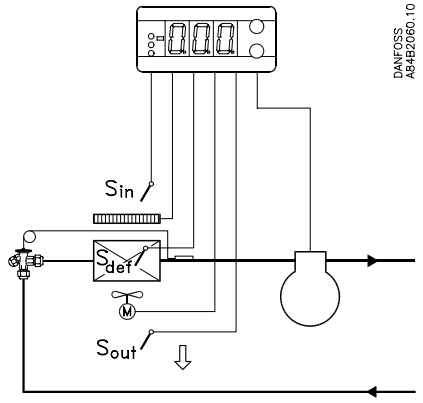
INSTRUCTIONS

EKC 201 -
with double thermostat

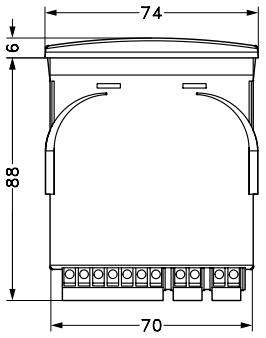
Electronic Refrigeration

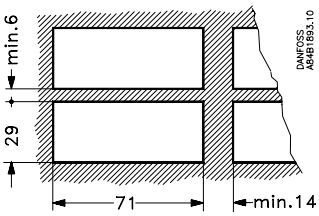
084R9688

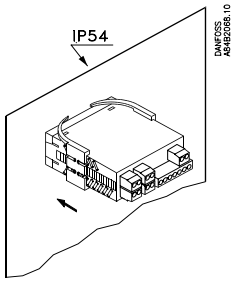
Principle
Prinzip
Principe



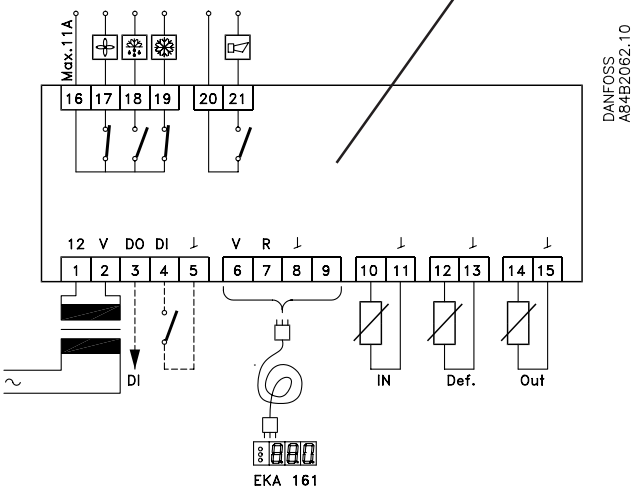
S:
Pt 1000 /
PTC 1000/25°C







084B7057



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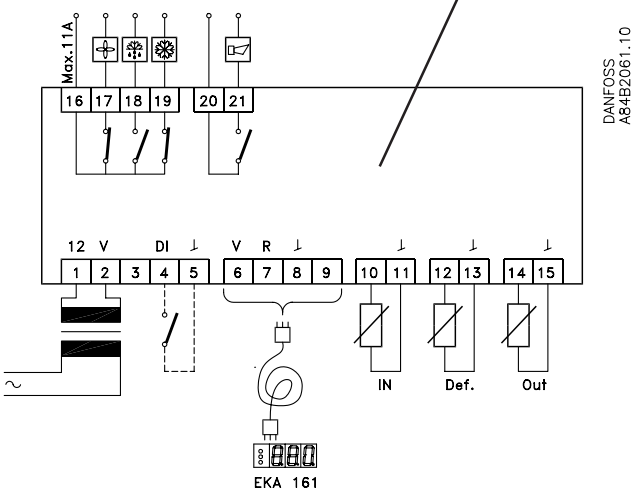
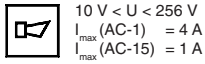
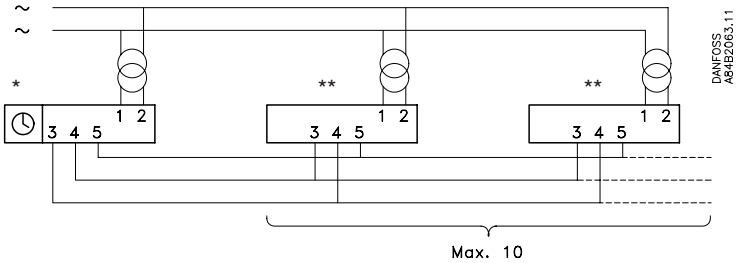


$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

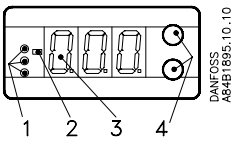
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

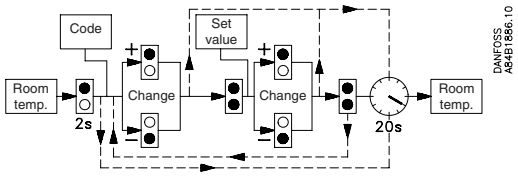
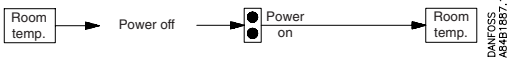
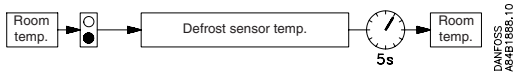
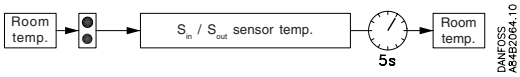
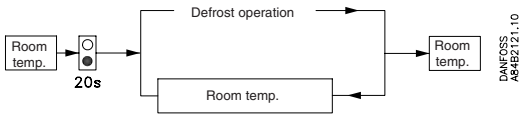
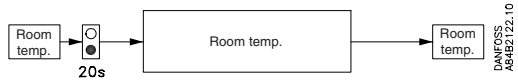
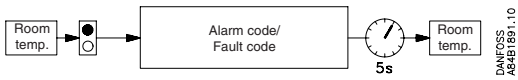
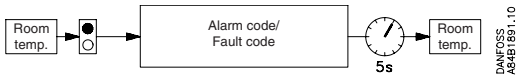
Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

What to do	Initial controller setup	Operating the two pushbuttons Display readout	Resulting controller setup
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

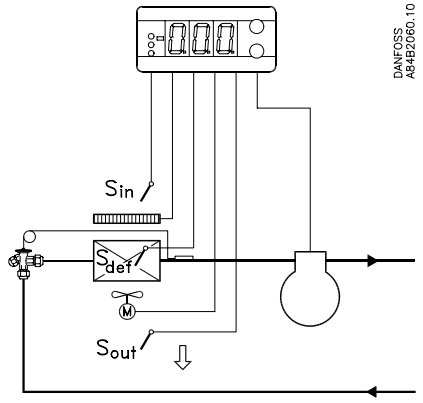
INSTRUCTIONS

EKC 201 -
with double thermostat

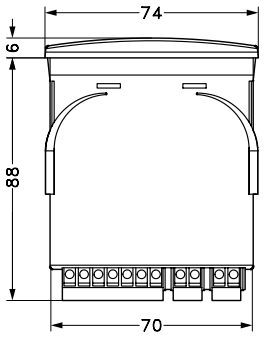
Electronic Refrigeration

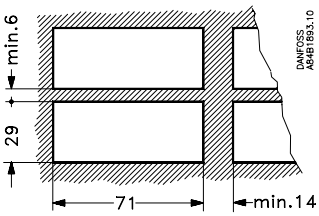
084R9688

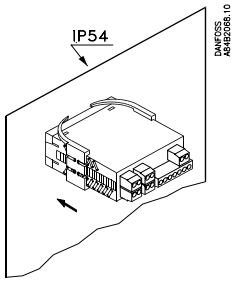
Principle
Prinzip
Principe



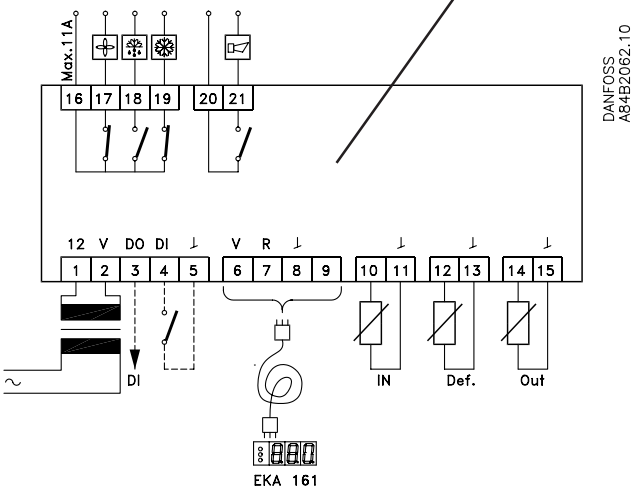
S:
Pt 1000 /
PTC 1000/25°C







084B7057



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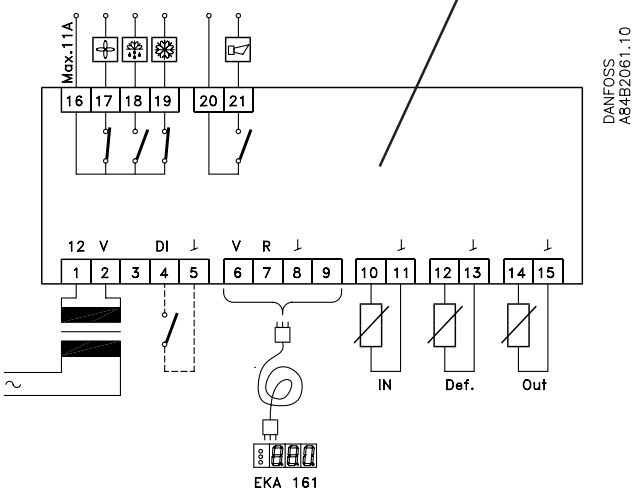

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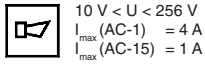
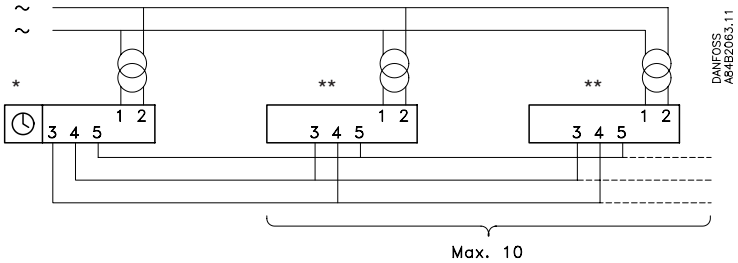
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
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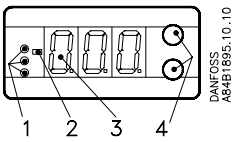
Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

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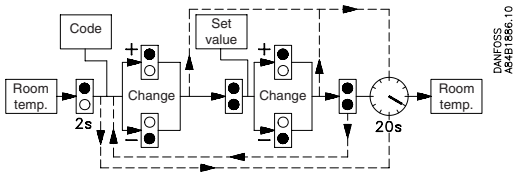
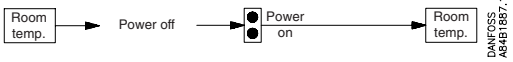
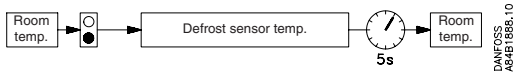
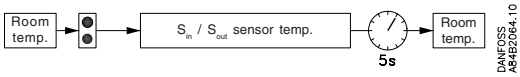
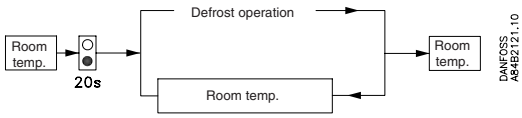
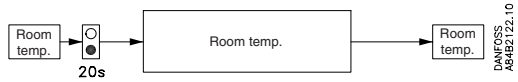
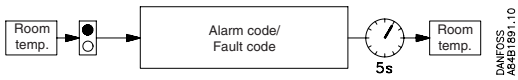
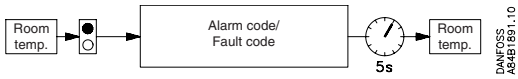
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

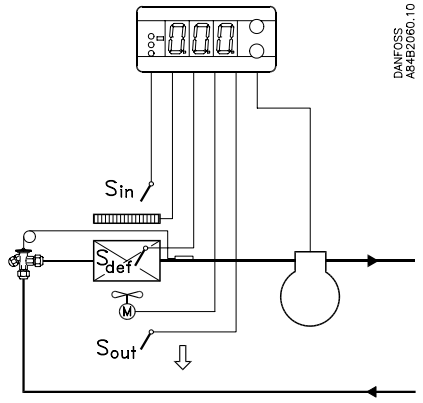
INSTRUCTIONS

EKC 201 -
with double thermostat

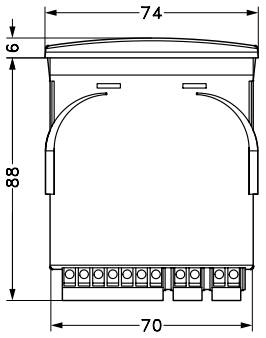
Electronic Refrigeration

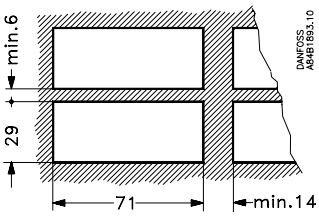
084R9688

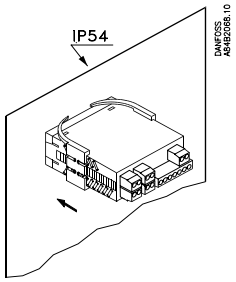
Principle
Prinzip
Principe



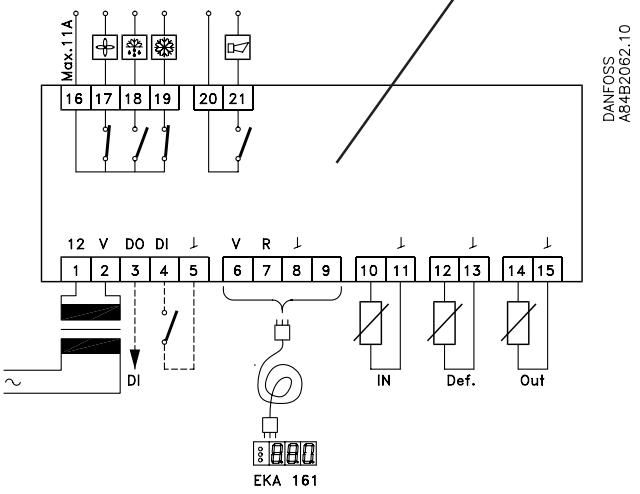
S:
Pt 1000 /
PTC 1000/25°C







084B7057



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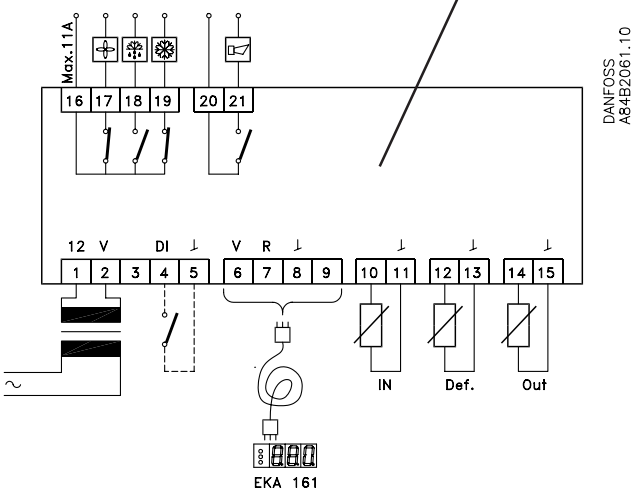
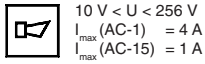
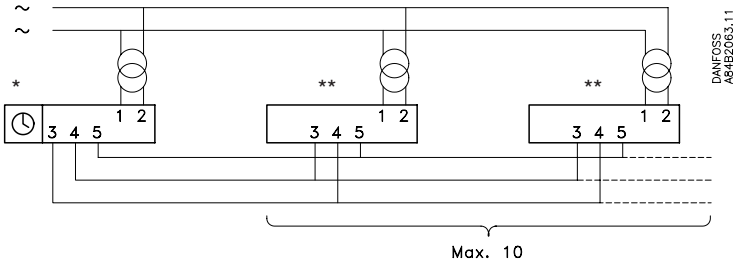


$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

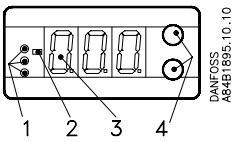
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

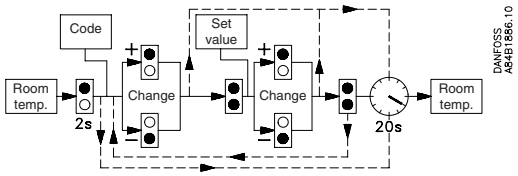
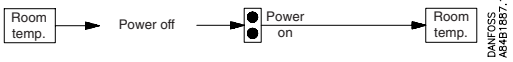
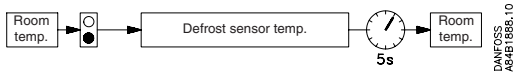
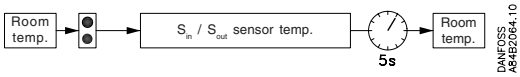
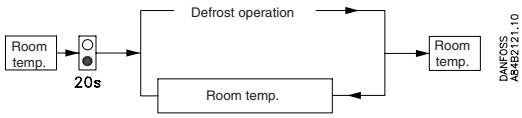
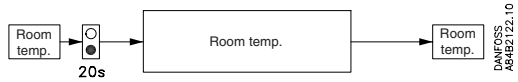
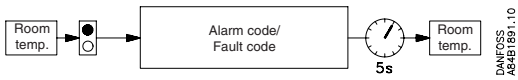
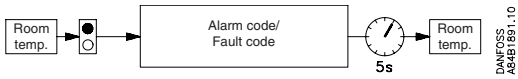
Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

What to do	Initial controller setup	Operating the two pushbuttons Display readout	Resulting controller setup
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

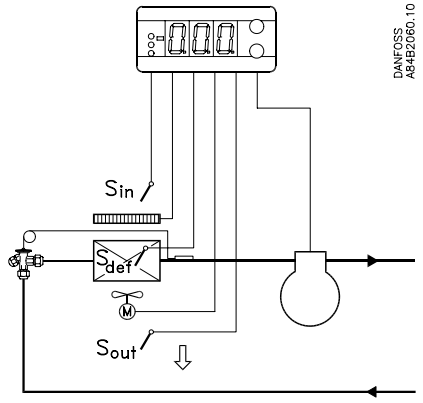
INSTRUCTIONS

EKC 201 -
with double thermostat

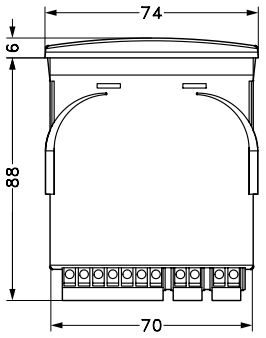
Electronic Refrigeration

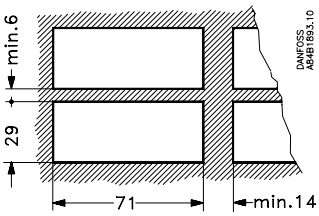
084R9688

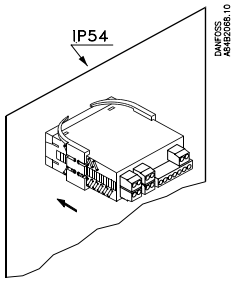
Principle
Prinzip
Principe



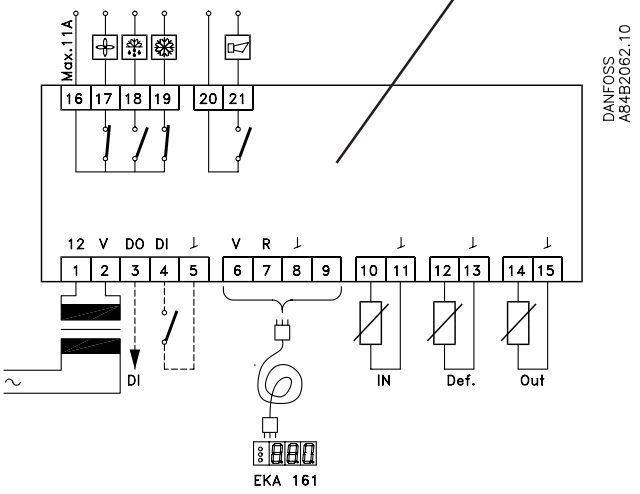
S:
Pt 1000 /
PTC 1000/25°C







084B7057



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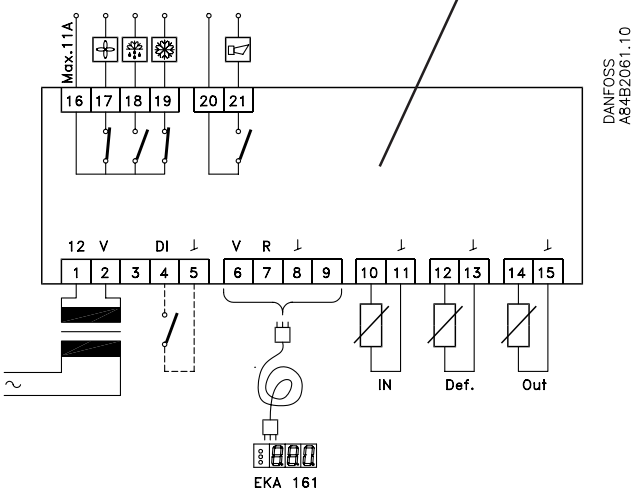
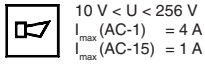
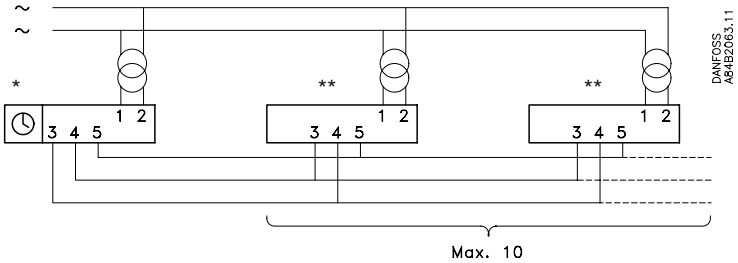


$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

Installation
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The controllers must be connected separately:
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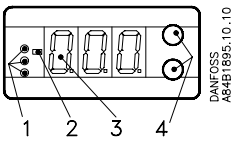
Operation



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   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
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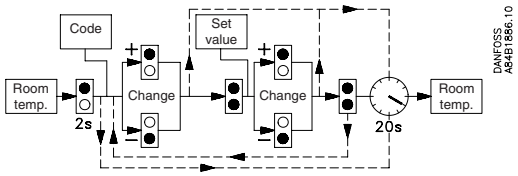
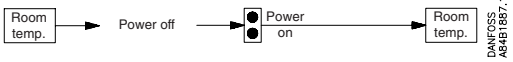
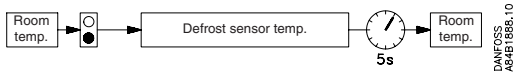
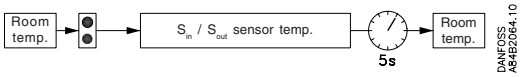
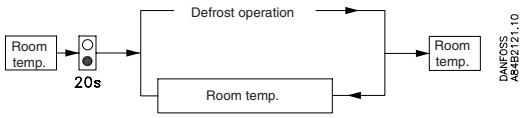
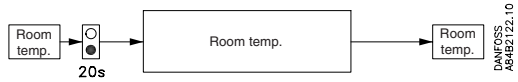
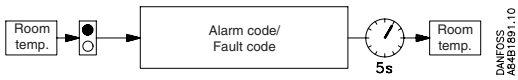
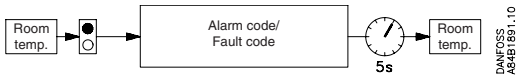
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

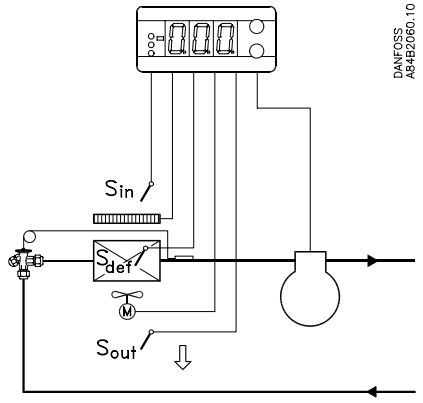
INSTRUCTIONS

EKC 201 -
with double thermostat

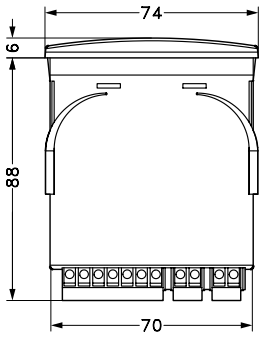
Electronic Refrigeration

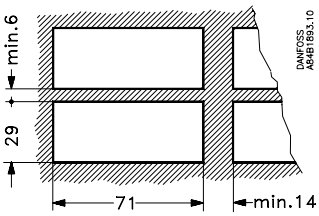
084R9688

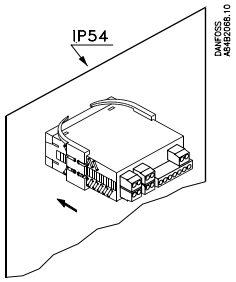
Principle
Prinzip
Principe



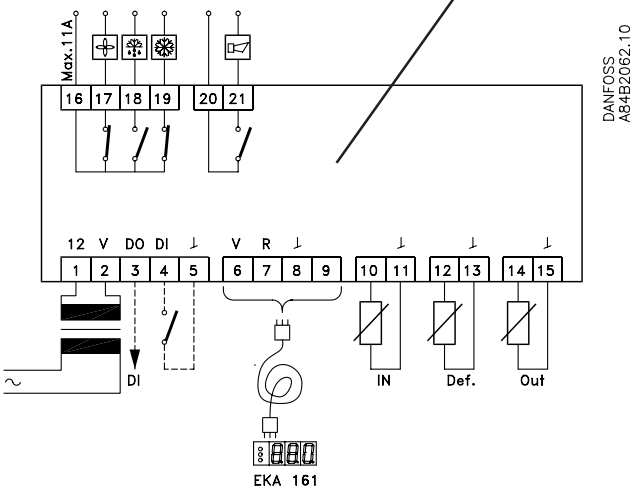
S:
Pt 1000 /
PTC 1000/25°C



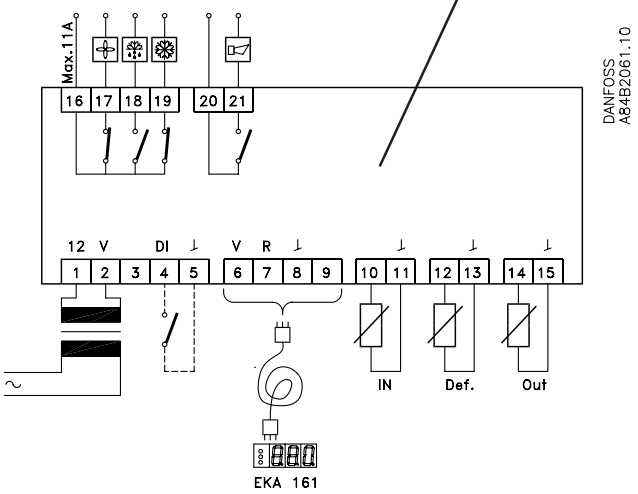




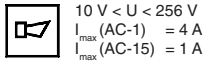
084B7057



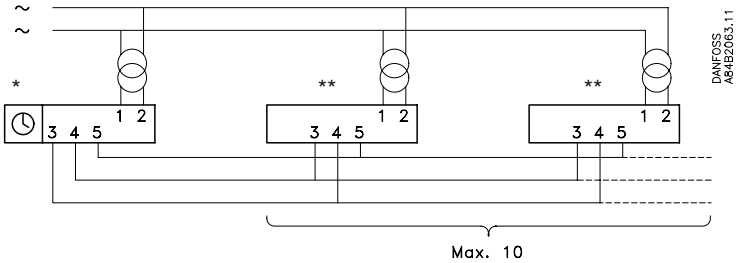
084B7058



$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

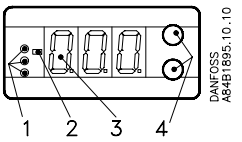
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

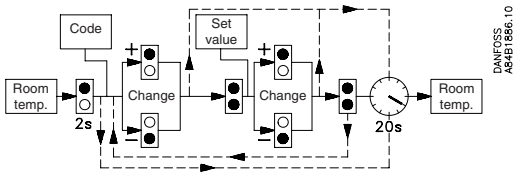
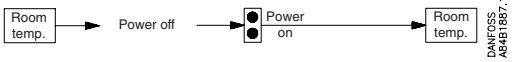
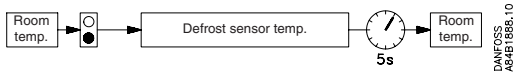
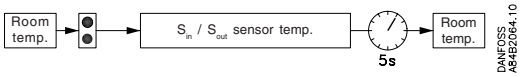
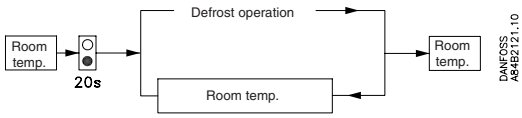
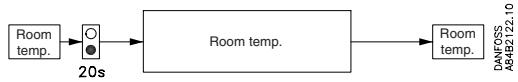
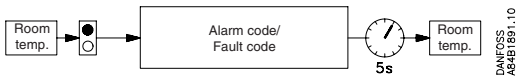
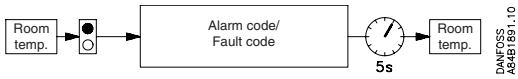
Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

What to do	Initial controller setup	Operating the two pushbuttons Display readout	Resulting controller setup
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

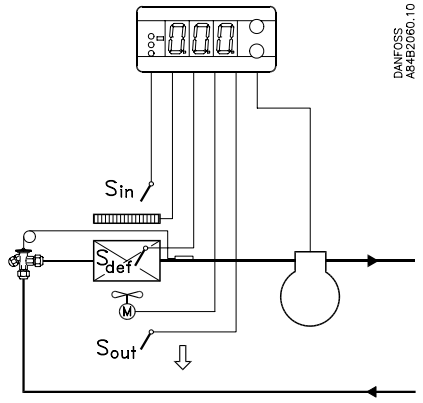
INSTRUCTIONS

EKC 201 -
with double thermostat

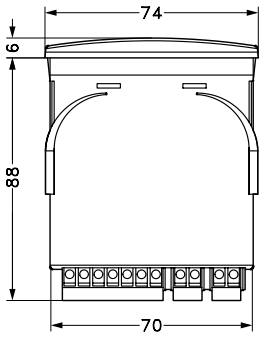
Electronic Refrigeration

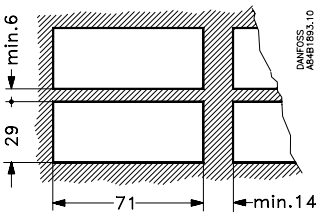
084R9688

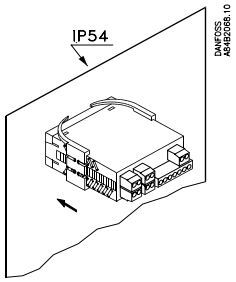
Principle
Prinzip
Principe



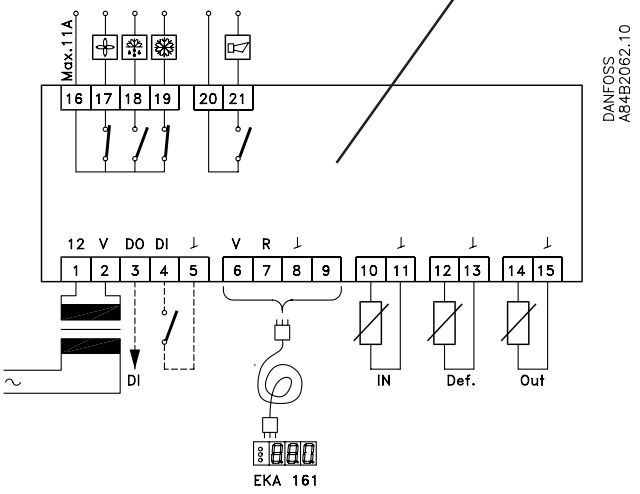
S:
Pt 1000 /
PTC 1000/25°C







084B7057



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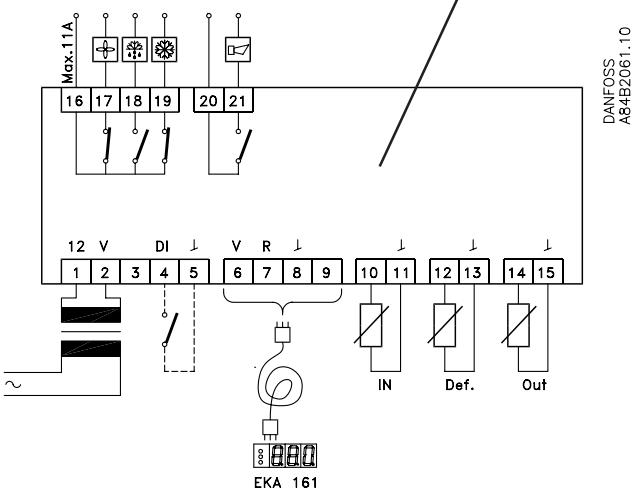
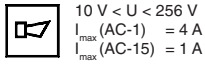
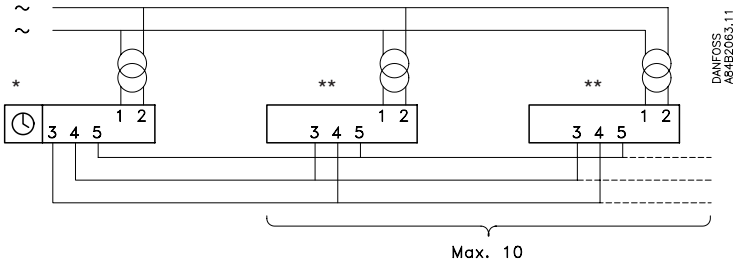


$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

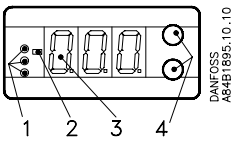
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

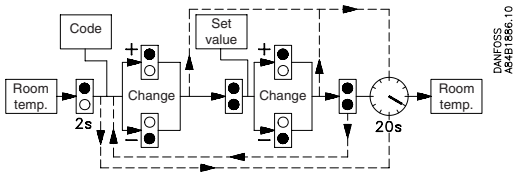
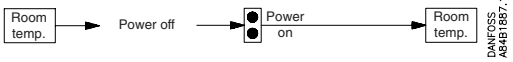
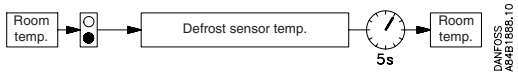
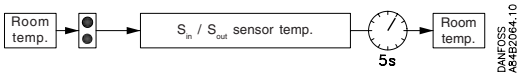
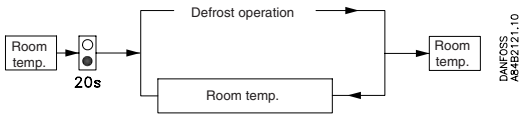
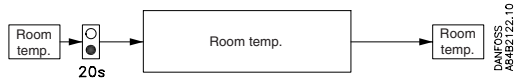
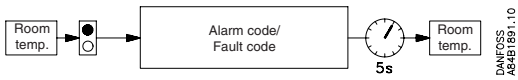
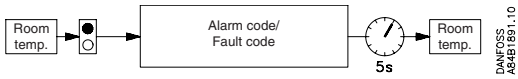
Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

What to do	Initial controller setup	Operating the two pushbuttons Display readout	Resulting controller setup
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

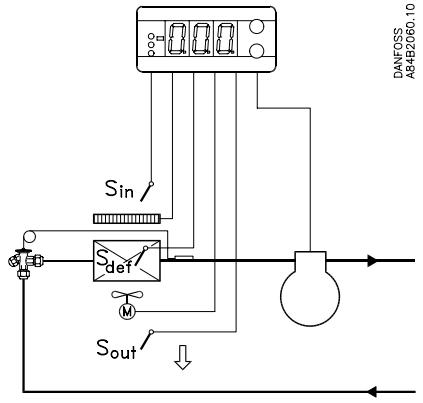
INSTRUCTIONS

EKC 201 -
with double thermostat

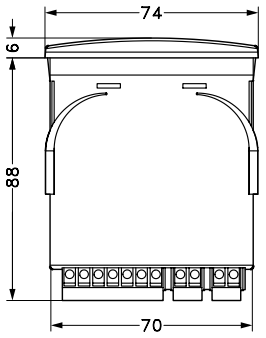
Electronic Refrigeration

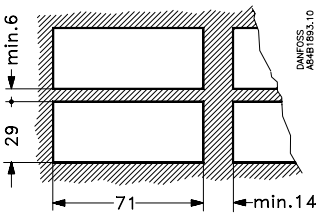
084R9688

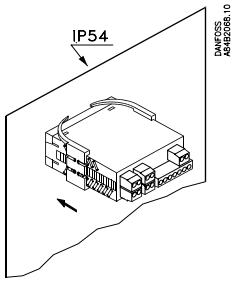
Principle
Prinzip
Principe



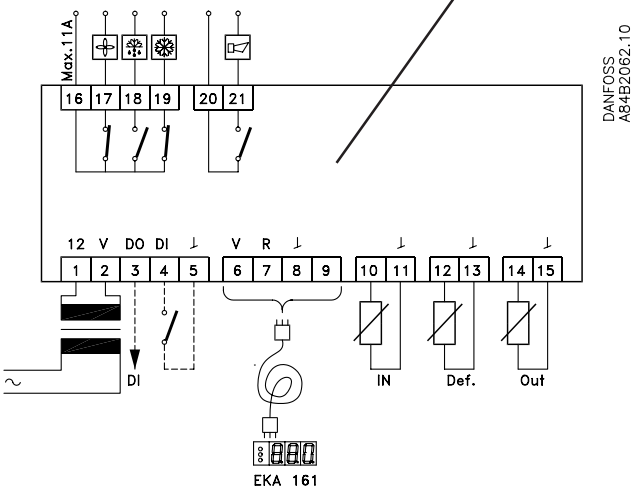
S:
Pt 1000 /
PTC 1000/25°C







084B7057



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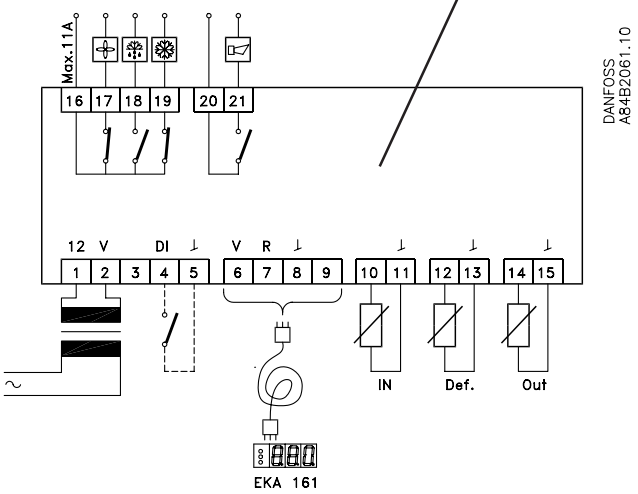
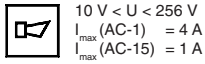
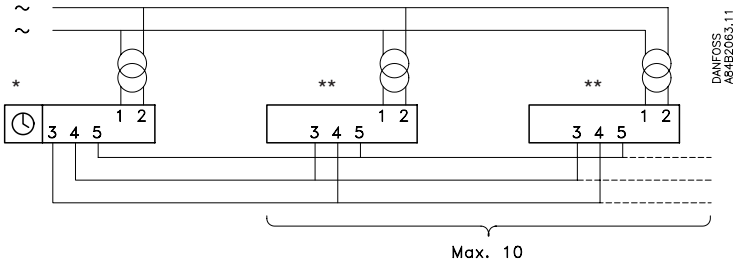


$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

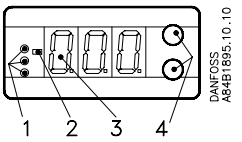
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

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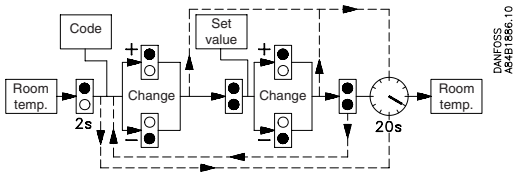
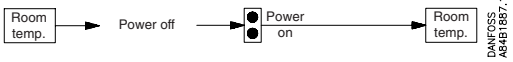
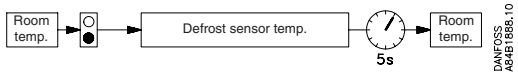
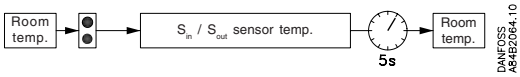
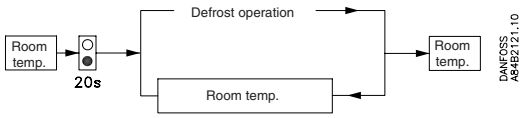
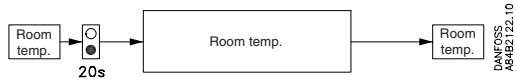
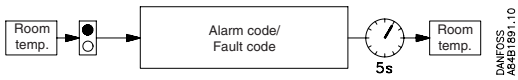
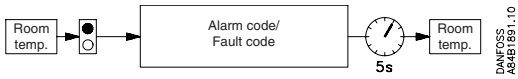
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

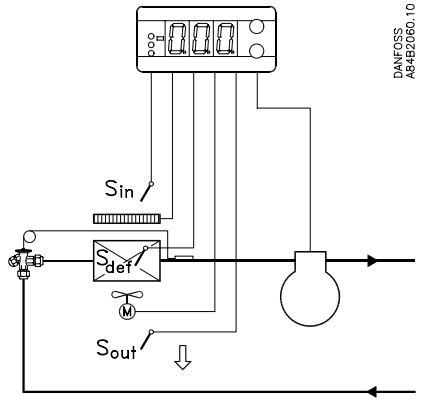
INSTRUCTIONS

EKC 201 -
with double thermostat

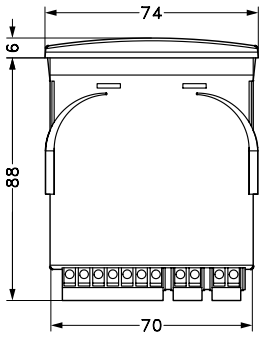
Electronic Refrigeration

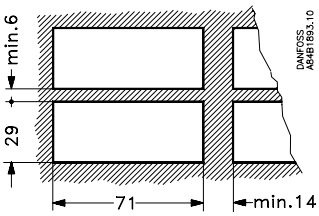
084R9688

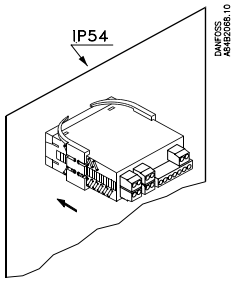
Principle
Prinzip
Principe



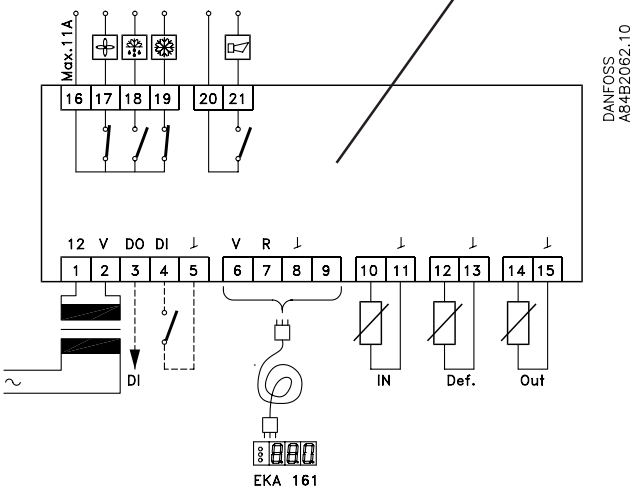
S:
Pt 1000 /
PTC 1000/25°C







084B7057



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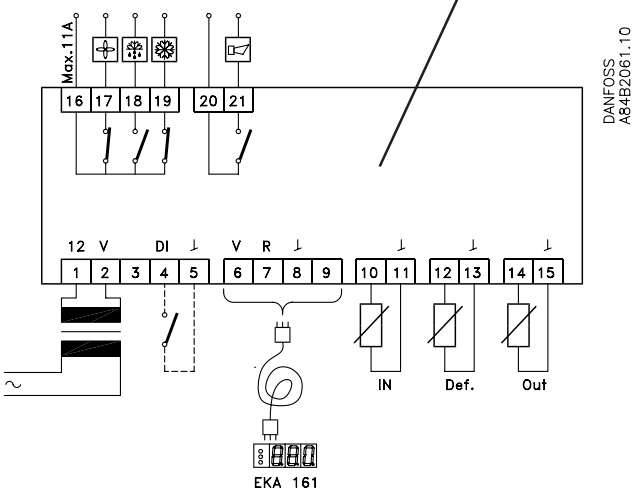
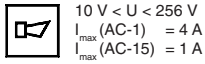
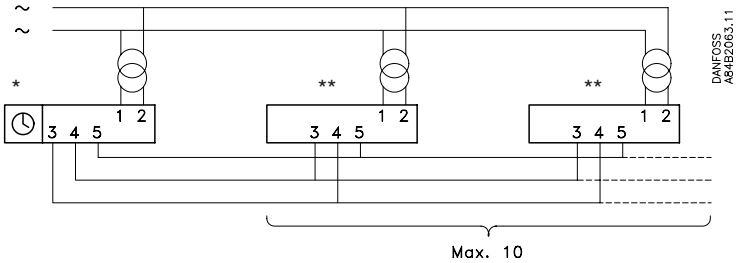


$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

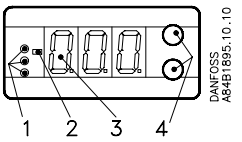
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

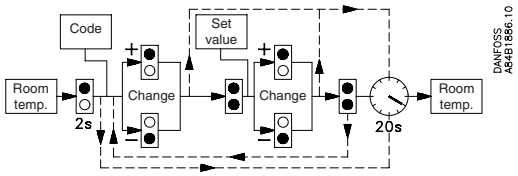
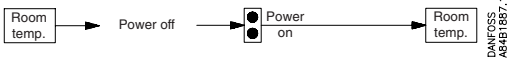
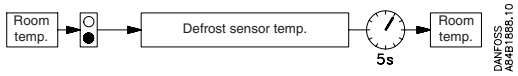
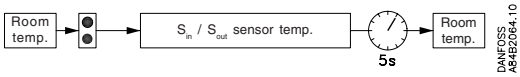
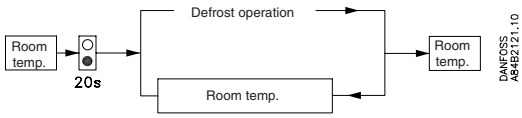
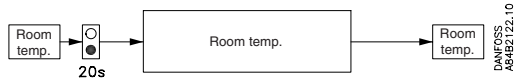
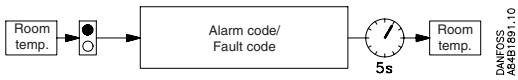
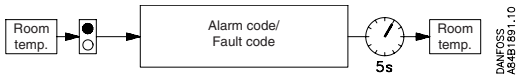
Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

What to do	Initial controller setup	Operating the two pushbuttons Display readout	Resulting controller setup
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

INSTRUCTIONS

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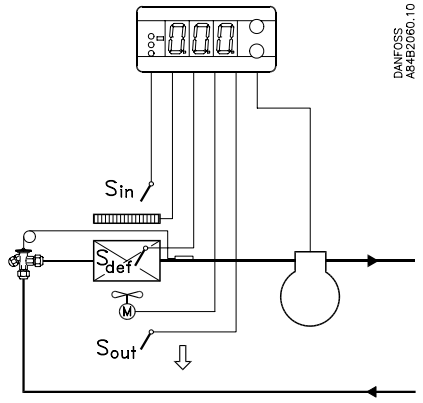
with double thermostat

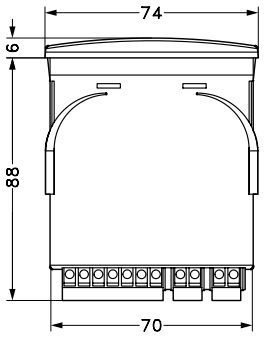
Electronic Refrigeration

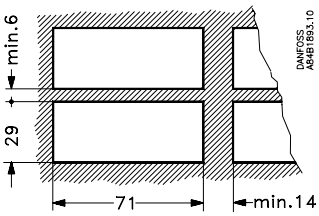
084R9688

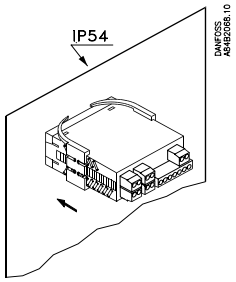
Principle
Prinzip
Principe



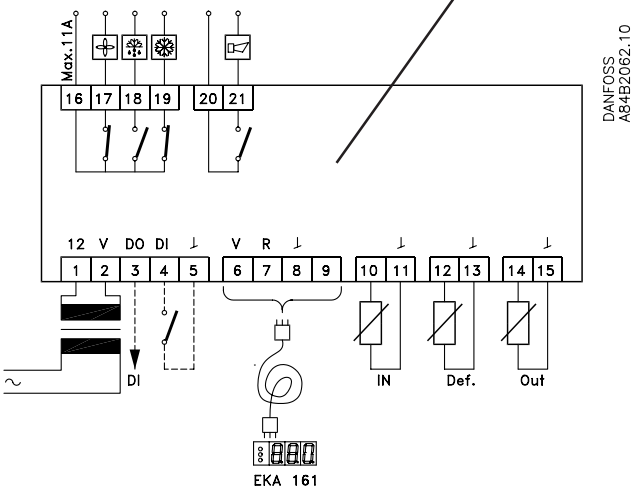
S:
Pt 1000 /
PTC 1000/25°C







084B7057



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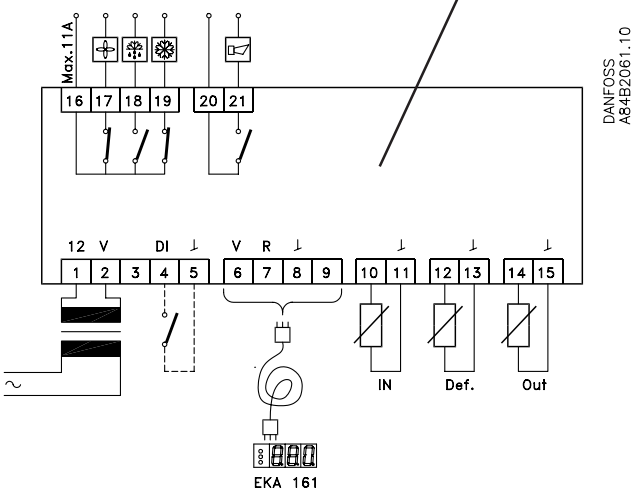

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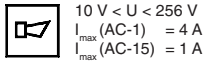
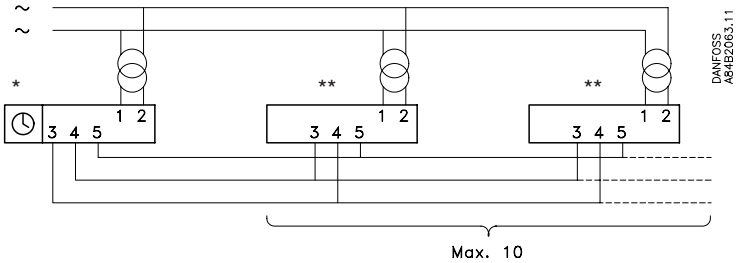
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



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Hauptgerät
Commande

** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
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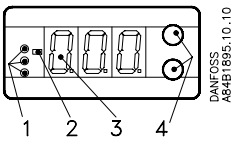

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   = defrost
   = fan running
   Flashes slowly at setting
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2. Minus sign
3. Display
4. Keys for programming and setting
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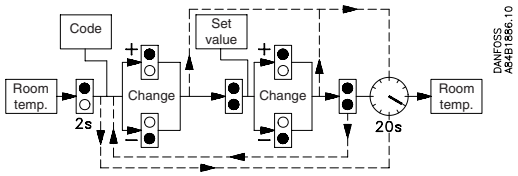
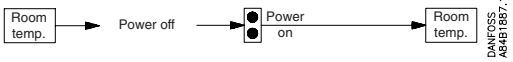
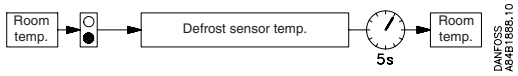
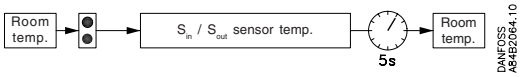
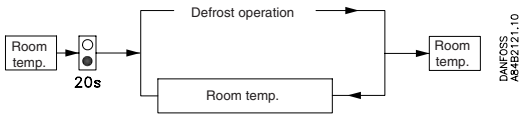
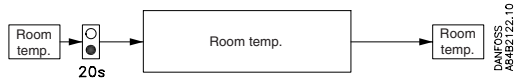
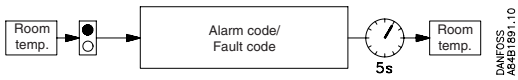
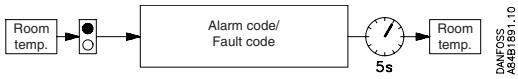
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						

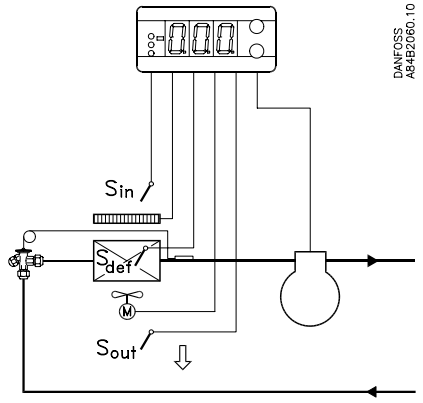
INSTRUCTIONS

EKC 201 -
with double thermostat

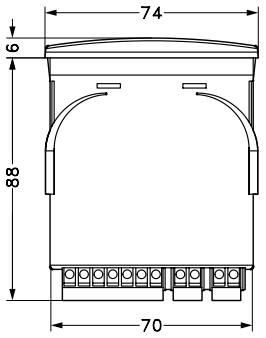
Electronic Refrigeration

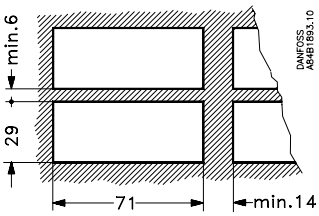
084R9688

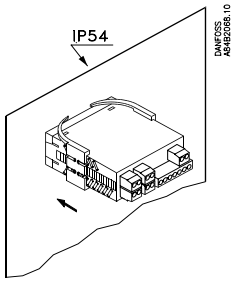
Principle
Prinzip
Principe



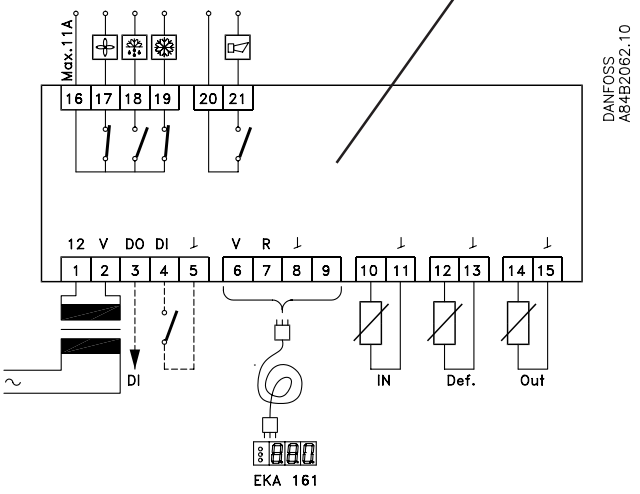
S:
Pt 1000 /
PTC 1000/25°C



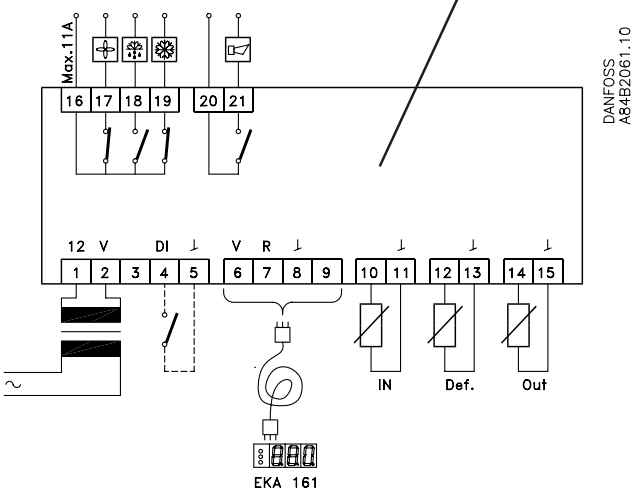




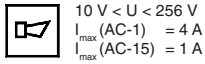
084B7057



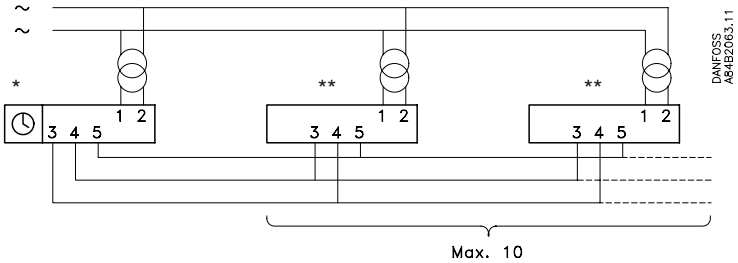
084B7058



$t_{amb.}$ = 0 → +55°C
12 V +/- 15%, 50/60 Hz / d.c.
2.5 VA



Application example
Anwendungsbeispiel
Application exemple



* Main controller
Hauptgerät
Commande

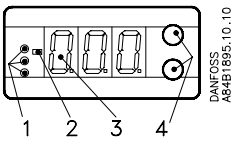
** secondary controller
Folgegerät
Récepteur

Common defrost start / Common start after defrost
Gemeinsamer Abtau anlauf / Gemeinsamer Anlauf nach Abtauung
Enclenchement dégivrage commun / remise en route après dégivrage

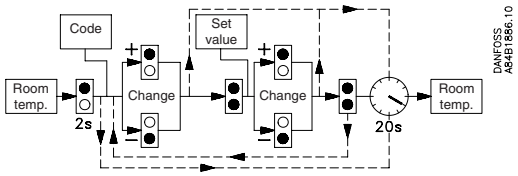
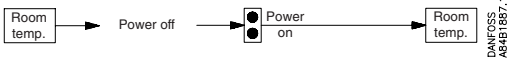
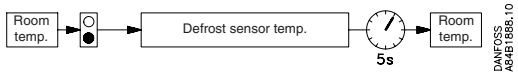
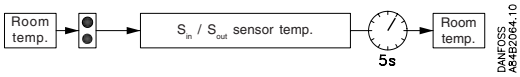
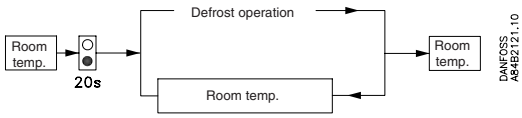
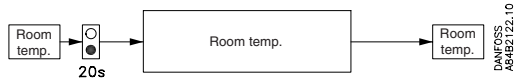
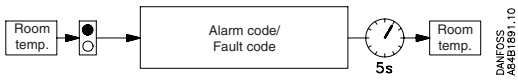
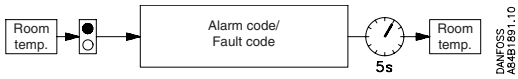
Installation
For panel mounting

Electrical connection
The controllers must be connected separately:
transformer of min. 3 VA.

Operation



1. Light emitting diode
   = refrigeration
   = defrost
   = fan running
   Flashes slowly at setting
   Flashes fast at alarm
2. Minus sign
3. Display
4. Keys for programming and setting
   Press upper key for 2 s.
   Press lower key for 2 s.
   Press both keys at the same time.

What to do	Initial controller setup	Operating the two pushbuttons Display readout	Resulting controller setup
Read or change parameter codes and settings	Normal operation (or alarm) Unknown codes and settings		Normal operation (or alarm) Known codes and settings
Re-establish all factory settings	Unknown settings		All parameter settings = factory settings
Read defrost sensor temp.	Normal operation or alarm		Normal operation
Read the other sensor temp.	Normal operation or alarm		Normal operation
Manually start of a defrost operation	Normal operation		Normal operation
Manually stop of a defrost operation	Defrost operation		Normal operation
Reset alarm relay	Alarm relay activated		Alarm relay not activated
Read codes cause of alarm mode	Alarm relay not activated		Alarm

- Room temp. = S_{out} or S_{in}
- The compressor relay closes when the room temperature exceeds the setting value and differential.

Fault code display		Alarm code display		Status code display	
E1	Fault in controller	A5	Information. Parameter o16 has expired	S1	Waiting for end of the coordinated defrost
E4	S_{def} Disconnected	A6	High temperature alarm (S_{out})	S2	On-time min.
E5	S_{def} Short-circuited	A7	Low temperature alarm (S_{out})	S3	Restart time
E6	Fault in Real time clock	A8	High temperature alarm (S_{in})	S4	Drip-off time
E7	S_{out} Disconnected	A9	Low temperature alarm (S_{in})	S6	Day operation (S_{out} control)
E8	S_{out} Short-circuited			S7	Night operation (S_{in} control)
E9	S_{in} Disconnected				
E10	S_{in} Short-circuited				

Further information: Manual RS.8A.J

Settings

Code no. 084B7057, 084B7058

Parameter Name	Display	Min. value	Max. value	Unit	Factory settting	Actual setting
Thermostat						
Cutout value S_{out}	Out	-50	50	°C (°F)	3.0°C	
Cutout value S_{in}	In	-50	50	°C (°F)	3.0°C	
Temperature unit	r05	°C	°F		°C	
Differential S_{out}	r07	0.1	20	K	2.0	
Differential S_{in}	r08	0.1	20	K	2.0	
Correction of signal from S_{out}	r09	-20	20	K	0.0	
Correction of signal from S_{in}	r10	-20	20	K	0.0	
Alarm						
Temperature alarm delay	A03	0	90	Min.	10	
Upper deviation for S_{out} (above cutout value + diff.)	A05	0	50	K	10	
Lower deviation for S_{out} (below cutout value)	A06	-50	0	K	-10	
Upper deviation for S_{in} (above cutout value + diff.)	A07	0	50	K	10	
Lower deviation for S_{in} (below cutout value)	A08	-50	0	K	-10	
S_{in} Alarm offset during night	A09	-50	50	K	10.0	
Compressor						
Min. ON-time	c01	0	15	Min.	0	
Min. OFF-time	c02	0	15	Min.	0	
Cutin frequency on sensor fault *1)	c03	0	100	%	50	
Defrost						
Compressor ON during defrost	d01	No	Yes		No	
Defrost stop temperature	d02	0	25	°C (°F)	10	
Interval between defrost starts	d03	OFF	48	Hour	8	
Max. defrost duration	d04	0	180	Min.	45	
Defrost time delay (after power up)	d05	0	60	Min.	0	
Drip-off time	d06	0	20	Min.	0	
Fan start delay after defrost	d07	0	20	Min.	0	
Fan start temperature (>25°C=OFF)	d08	-25	26	°C (°F)	25	
Fan cutin during defrost	d09	No	Yes		No	
Defrost sensor *2)	d10	Out	Def		Out	
Temperature alarm delay after defrost	d11	0	200	Min.	90	
Delay of display view after defrost	d12	0	30	Min.	1	
Defrost at power up	d13	No	Yes		No	
Realtime Clock						
1. Defrost start. Hour	t01	OFF	23	Hour	OFF	
1. Defrost start. Minute	t11	0	59	Min.	0	
2. Defrost start. Hour	t02	OFF	23	Hour	OFF	
2. Defrost start. Minute	t12	0	59	Min.	0	
3. Defrost start. Hour	t03	OFF	23	Hour	OFF	
3. Defrost start. Minute	t13	0	59	Min.	0	
4. Defrost start. Hour	t04	OFF	23	Hour	OFF	
4. Defrost start. Minute	t14	0	59	Min.	0	
5. Defrost start. Hour	t05	OFF	23	Hour	OFF	
5. Defrost start. Minute	t15	0	59	Min.	0	
6. Defrost start. Hour	t06	OFF	23	Hour	OFF	
6. Defrost start. Minute	t16	0	59	Min.	0	
Setting af hours	t07	0	23	Hour		
Setting of minutes	t08	0	59	Min.		
Fan						
Fan stop on compressor cut out	F01	No	Yes		No	
Fan stop delay	F02	0	15	Min.	0	
Miscellaneous						
Delay of output signal after start-up	o01	0	600	Sec.	5	
Digital input control *3)	o02	OFF	5		OFF	
Network address (range = 0-60)	o03	0	990		0	
LON service pin	o04	OFF	ON		OFF	
Access code	o05	OFF	100		OFF	
Used sensor type	o06	Pt	Ptc		Pt	
Digital output control *4) ONLY 084B7057)	o13	OFF	2		OFF	
Active sensor	o14	Aut	Out		Out	
Display step = 0.5 (normal = 0.1/ Pt sensor)	o15	No	Yes		No	
Max. standby time after coordinated defrost	o16	1	30	Min.	20	
Display sensor *5)	o17	Aut	In		In	
Manual control of outputs *6)	o18	OFF	5		OFF	
Comments						
*1) After start-up and throughout three days and nights this value is used by the controller. Afterwards the controller is capacble by itself to calculate the average value of previous cut-in times.						
*2) Out=S_{out} sensor used. Def=S_{def} sensor used						
*3) OFF=Not used, 1=Bus, 2=Defrost, 3=Night Cover, 4=Main switch, 5=Secondary controller Defrost In						
*4) OFF=Not used, 1=Main controller Defrost Out, 2=Secondary controller Defrost Out						
*5) 'Aut'=Automatic Day/Night switch, 'Out'=S_{out} is displayed, 'In'=S_{in} is displayed						
*6) OFF=output not forced, 1=Comp On, 2=Def On, 3=Fan On, 4=Alarm On, 5=Dig On When manual control is finished, the settting must be changed to OFF.						