



System Manager Type AK-SM 350

The AK-SM 350 is a combined data collection and monitoring unit for use in refrigeration plant in small supermarkets.

The AK-SM 350 is used to record the temperature in the various refrigeration applications, store this data and then present it as documentation in compliance with regulatory requirements.

Along with recording temperatures, there are alarm limit settings and the unit will emit an alert if a threshold value is exceeded. The alarm is presented on the display and it can be sent to an external alarm destination such as a mobile phone or a service company.

The unit is positioned centrally in the supermarket, and the userfriendly interface makes it easy to follow the different temperature readings. With just a few pushes of the buttons, graphs of the different temperature sequences can be brought up, and in the event of an alarm, the cause can be read from the display.



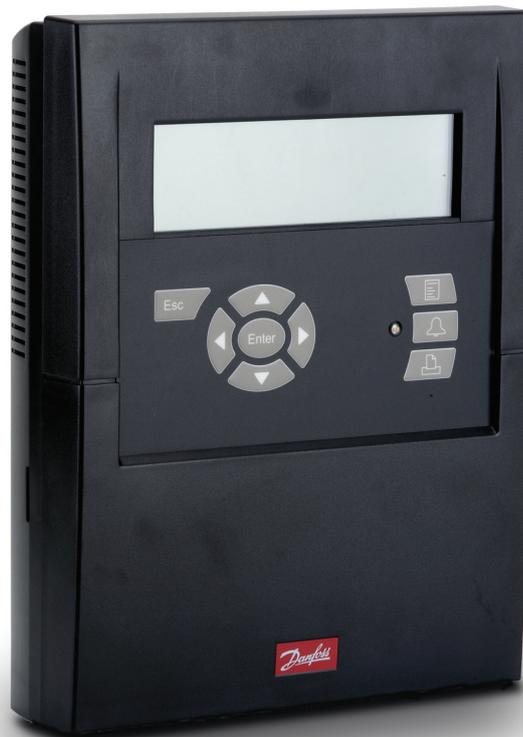
Danfoss ADAP-KOOL® offers a totally flexible system for all food retailers featuring a wide range of adaptive products



AK-SM 350 - System Manager

The unit is a combined monitoring unit and data collection unit for smaller refrigeration installations.

- Corner shops
- Smaller supermarkets
- Restaurants
- Food manufacturers



Functions

The monitoring unit can monitor up to 65 measurements.

They can originate from:

- up to 16 direct connections from sensors or switch functions
- signals from separate refrigeration controllers, EKC and AK types, via data communication
- signals from connections on the expansion module m2+ and from gas detectors.
- Pulse counting function for energy display
- All defined points can be recorded and saved with the set time intervals.
- The values can be viewed on the display and retrieved by connecting a printer or connecting a PC or modem.

Advantages

Compact unit for registering temperatures

- Collects temperature data to present to authorities
- Alarm function
 - Local alarm or via modem/IP
 - Alarm at deviations in temperature
 - Alarms when doors to cold storage rooms and freezer rooms are open
- Text describing the measuring area can be added to the measuring points

Technical data and ordering

Technical data

Supply	115 V/230 V +10/-15%, 50/60 Hz, 10 VA	
Connection	PT 1000 ohm at 0°C or PTC 1000 ohm at 25°C or NTC 5000 ohm at 25°C or Termistor (-80 to 0, -40 to 40 or 0 to 100°C) Digital On/Off signal or Standard 0 - 10 V /4 - 20 mA signal	
Display	Graphic LCD, 240 x 64	
Direct measuring points	16	
Total number of points	65	
Measuring range, general	-60 to +50°C	
Measuring accuracy at Pt 1000	Resolution 0.1 K Accuracy: +/- 0.5 K	
Measuring interval	15, 30, 60, 120 or 240 minutes	
Data capacity	55 log points, every 15 min. for 1 year	
Battery backup	Button cell for clock function	
Power supply for e.g. pressure transmitter	5 V max. 50 mA 12 V max. 50 mA	
Pulse counter inputs for output reading	Acc. to DIN 43864. (Only for inputs 1 and 2)	
Printer connection	HP PCL-3, Parallel	
Modem connection	RJ 45	
TCP/IP connection	RJ 45	
PC connection	RJ 45	
Data communication	RS232, RS 485 (LON), RS 485 (MOD-bus), RS 485 (TP) (TP= Third Party)	
Relays	Quantity	2
	Max. load	24 V a.c. or 230 V a.c. I _{max} (AC-1) = 5 A I _{max} (AC-15) = 3 A
Enclosure	IP 20	
Ambient environmen	0 to 50°C, during operation -20 to +70°C, during transport 20-80% RH, Non-condensed No shock loads/vibrations	
Approvals	EN 60730-1 and EN 60730-2-9 EN 50081-1 and EN 50082-1	
Weight	1.6 Kg	

Additional information!
Manual: RS8EF

Ordering

Type	Measuring points	Description	Language	Code No.
AK-SM 350	16	With inputs for PT 1000 ohm & PTC 1000 ohm	English, German, French, dutch, Italian	080Z8500
			English (UK), Spanish, Portuguese, English (US)	080Z8502
			English, Danish, Swedish, Finnish	080Z8503
m2+	16			080Z8005

Accessories

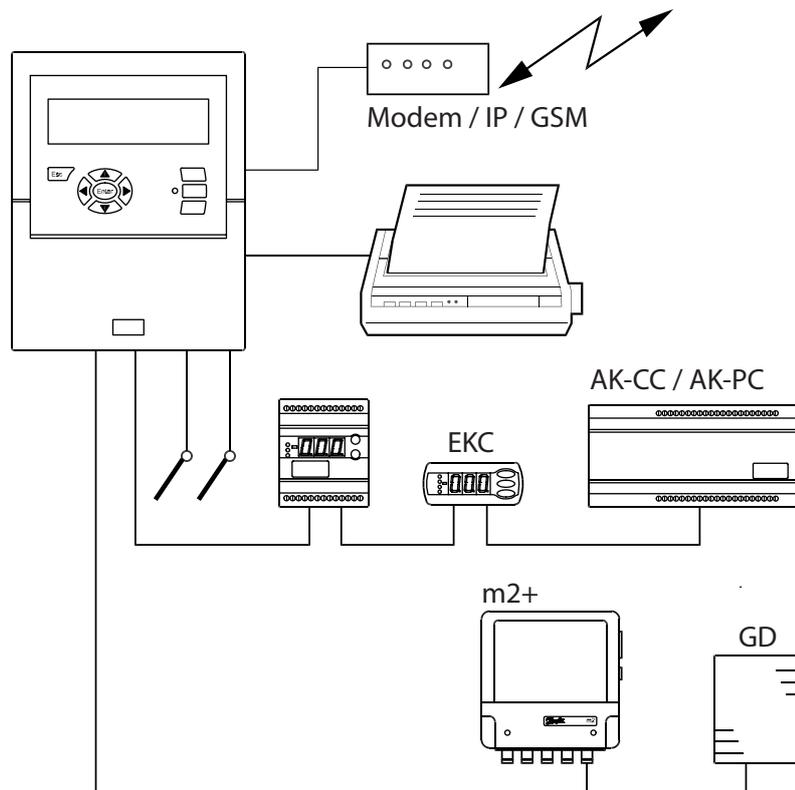
Printer cable 3 m (parallel)		080Z8401
Cable for PC (see also AK-ST 500 literature)	RJ 45 - Com port	080Z0262

Important: Installation of data communication cables and repeaters must comply with the requirements contained in the document:
Data communication between ADAP-KOOL® Refrigeration system controls.
Number = RC8AC.

Quality in everything we do

AK-SM 350 are part of the Danfoss ADAP-KOOL® programme, which covers a wide range of electronic controls, sensors and transmitters used in refrigeration systems. Our production utilises state-of-the-art technology and every product is thoroughly tested in accordance with the most demanding standards.

If the product you are looking for is not mentioned in this leaflet or if you have special requirements, Danfoss partner wholesalers or our local Danfoss team can offer you help and guidance and will do their utmost to fulfill your needs.



Other products from Danfoss ADAP-KOOL®

Compressor and Condenser Controls	Speed Control of Compressor and Condenser	Evaporator Controls	Wireless Temperature Monitoring	System Management