

## Introduction of monitoring unit AK-LM 330

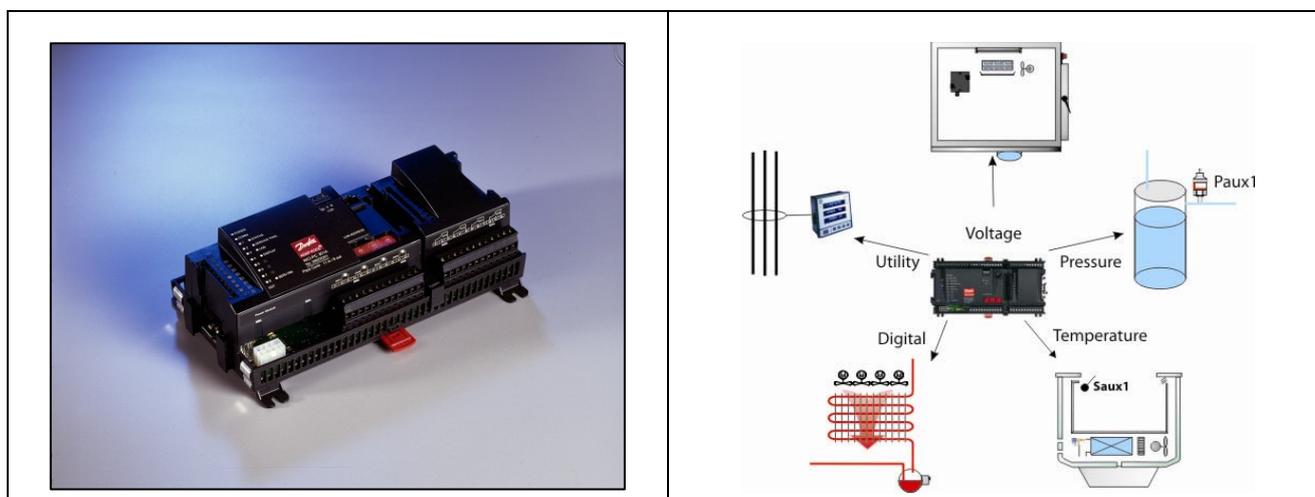
Information	Target Group	Subject
<input checked="" type="checkbox"/> Sales Info	<input checked="" type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Commercial refrigeration
<input checked="" type="checkbox"/> Product Info	<input checked="" type="checkbox"/> Technical	<input checked="" type="checkbox"/> Industrial refrigeration
<input type="checkbox"/> Application Info		
<input type="checkbox"/> OEM Info	For internal use only	

### Introduction:

The monitoring unit AK-LM 330 has been released with software version 1.20.

### Background:

AK-LM 330 is a versatile monitoring unit for monitoring of temperatures, pressures, voltage signals, on/off alarm signals and utility consumption. AK-LM 330 is built on the flexible AK2 hardware platform that makes it possible to adapt the unit to custom requirements. From a functional point of view AK-LM 330 replaces the existing AKL 111A although AK-LM 330 has LonWorks data communication.



### Main functions and features:

#### 10 General thermostat functions:

- Cut in and cut out temperature limits for optional relay
- High temp. alarm limit & delay
- Extended alarm delay during defrost
- Low temp. alarm limit & delay
- Optional DI inputs for defrost signal and/or alarm disable signal
- Custom alarm text for high and low temp. alarms

#### 5 General pressostat functions:

- Cut in and cut out pressure limits for optional relay
- High and low pressure alarm limits & delays
- Custom alarm text for high and low pressure alarms

5 General purpose voltage inputs:

- Scaling of readout at min and max volt signal
- Cut in and cut out values for optional relay
- Cut in and cut out delays on relay
- High and low alarm limits & delays
- Custom alarm texts for high and low alarms

16 General purpose digital alarm inputs:

- Monitoring of on/off alarm signals including alarm delay
- Custom alarm text
- Alternatively used as input for defrost or alarm disable signals for the thermostats
- Control of optional relay output
- Readout of ON time for the last 24h or in total
- Readout of no. of cycles for the last 24h or in total

4 utility meter functions that can be used for monitoring of utility consumption (electrical power, water, gas)

- Requires counter signals via AK-XM 107A
- Custom measuring unit can be set i.e. kwh, m3 etc.
- Pulse per unit and scaling factor for easy adaptation to utility meter output signal
- Readout of consumption per day, week and total
- For power consumption the actual load can be readout within a measurement period
- The measurement period can be defined via an external synch. signal or via a fixed time window

Alarm relays and alarm handling:

- One relay for high priority alarms
- One alarm relay for low to high priority alarms
- Mute alarms via display and via an optional digital input

Display functionality:

- 4 display connections for readout of measurement values
- Readout status values of all temperatures, pressures and on/off alarm status values
- Selectable primary readout per display
- Indication of alarms and readout of alarm codes
- Possible to select quick setup via display

AKA 245 system integration:

The AKM file supports the following features:

- 8 thermostats
- 2 pressostats
- 2 voltage inputs
- 8 DI alarm inputs
- 2 utility meters

Please notice that for the above functions it is possible to set all settings except for the Module and Point numbers in the IO configuration. So when using one of the predefined quick setups it will be possible to make a full commissioning of the AK-LM 330 from AKM (without using service tool).

AK-SM system integration:

No limitations – all features can be utilised and full commissioning of IO is possible.

**Code numbers:**

The following code numbers will apply for AK-LM 330:

<b>Controller</b>	<b>Language version</b>	<b>Code no.</b>
AK-LM 330	English, German, French, Dutch, Italian	080Z0170
	English, Spanish, Portuguese	080Z0171
	English, Danish	080Z0172
	English, Czech, Russian, Polish	080Z0173
	English, Chinese	080Z0174

**Literature & Documentation**

All literature is available on DILA  
Manual: Lit. no. RS8FR1xx  
AKM menu description: Lit. no. RC8CC1xx

A power point show and a hardware design guide is available from DE New products site:  
<http://portal.danfoss.net/RA/BE/DE/newpro/Pages/default.aspx>

**Delivery**

The new monitoring units will be introduced in running production as per week 33

**Questions**

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