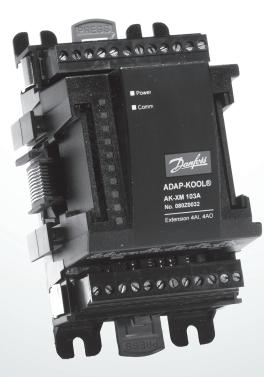




Technical Brochure

Extension module 4AI + 4AO AK-XM 103A

ADAP-KOOL[®] Refrigeration control systems



Dantoss

Introduction

Application

Function

The module contains:

voltage signals and contact signals.

The extension module should be used with a controller in the same serial connection if there is not enough connections on the controller itself.

• 4 analog inputs for temperature sensors, pressure transmitters,

• Four analogue outputs (0-10 V) for speed control of e.g. frequen-

Particular 10

Installation

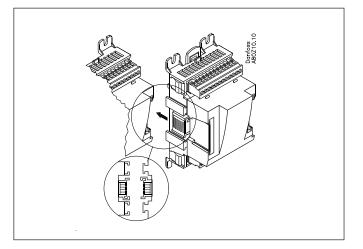
cy converters

• The module is connected to the plug from the previous module in the sequence.

Supply voltage

The supply voltage to the module comes from the previous module in the row.

Supply voltage to a pressure transmitter can be taken from either the 5 V output or the 12 V output depending on transmitter type.



Light-emitting diodes

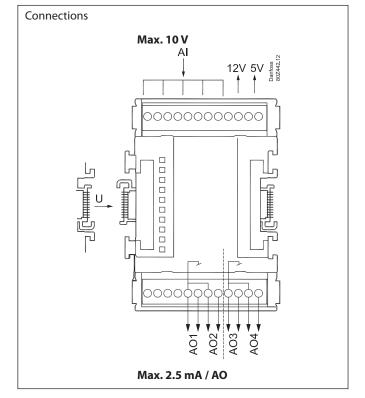
Only the two top LED's are used. They indicate the following: • Voltage supply to the module

• Communication with the controller is active (red = error)

Galvanic isolation

There are three groups, and the signals should not be mixed up: • Inputs and 5V and 12V supplies for the signals connected to the

- inputs and 5v and 12v supplies for the signals connected to t inputs.
- Output 1 and 2
- Output 3 and 4



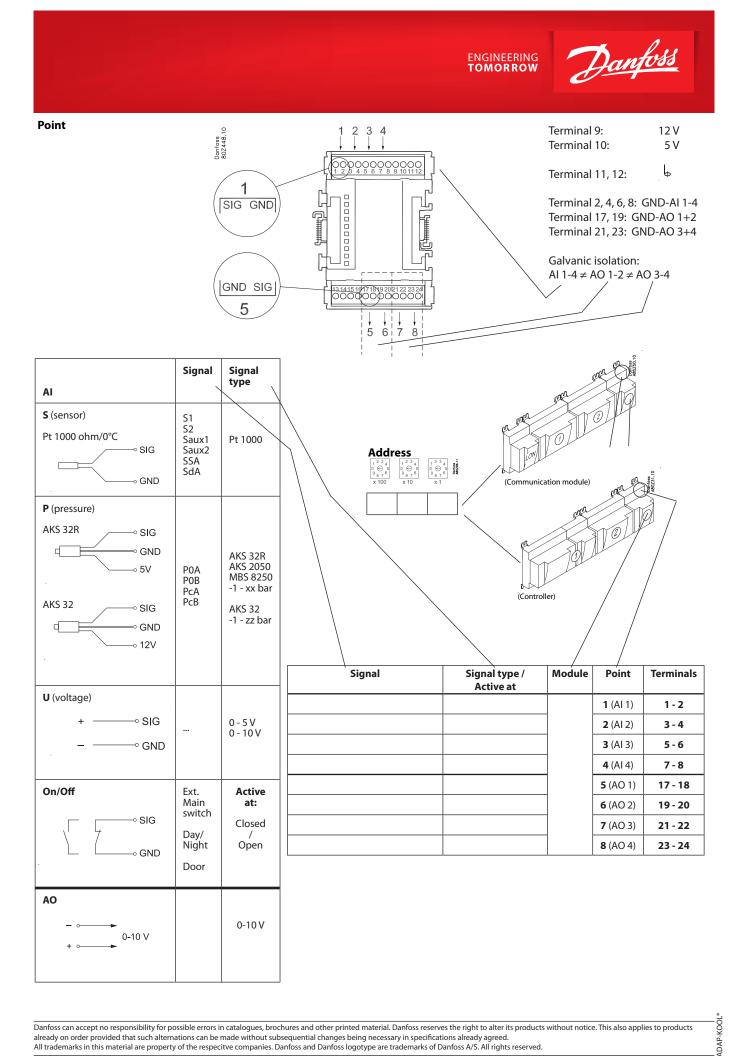
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Data

Supply voltage	Received from the AK controller, which the e	Received from the AK controller, which the extension module is connected to				
Power consumption	2 VA					
Analog inputs	Pt 1000 ohm /0°C	Resolution: 0,1°C Accuracy: +/- 0,5°C				
	Pressure transmitter type AKS 32R / AKS 32 (1-5 V)	Resolution 1 mV Accuracy +/- 20 mV				
	Voltage signal 0-10 V					
	Contact function (On/Off)	On at R < 20 ohm Off at R > 2K ohm (Gold -plated contacts not necessary)				
Analog outputs	Voltage signal	0-10 V				
	Max. load	l < 2.5 mA R > 4 Kohm				
Supply for pressure transmitters	5 V 12 V	Max. 25 mA Max. 100 mA				
Galvanic isolation	3 groups	AI 1-4 AO 1-2 AO 3-4				
Environment	During transport	-40 to 70°C				
	During operation	-20 to 55°C , 0 to 95% RH (non condensing) No shock influences / vibrations				
Enclosure	Material	PC / ABS				
	Density	IP10, VBG 4				
	Mounting	For mounting on panel wall or DIN rail				
Weight with screw terminals	Ca. 200 g					
Approvals	EU low voltage directive and EMC require- ments are complied with	LVD tested according to EN 60730 EMC tested Immunity according to EN 61000-6-2 Emission according to EN 61000-6-3				
	UL 916, cUL us	UL file number: E357029				
Dimensions						

Ordering

Туре	Application	Function		Code no.
AK-XM 103A	Extension module for control- ler in the AK-series		4 Analog outputs 0 -10 V d.c.	080Z0032



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