

## EKS / AKS, Temperature sensors

AKS temperature sensors are used for exacting applications within air-conditioning as well as commercial and industrial refrigeration applications.

The Pt 1000 sensor element meets the DIN/EN 60751 class B requirements and ensures an accurate and reliable temperature signal applicable for regulation, safety and data logging.

EKS temperature sensors are a family of cost efficient temperature sensors based on thermistors with NTC or PTC characteristics which are used with Danfoss EKC controllers.

### Features EKS / AKS

EN441 certified  
AK-HS 1000  
HACCP sensors



AKS21 sensor system for  
controlling extreme high and  
low temperatures

AKS 11 temperature sensor for  
reliable super heat control to  
optimize accuracy and process  
efficiency

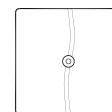
### Facts

- AKS 11 is designed for easy installation and optimized for demanding control functions like liquid injection control in evaporators where a reliable sensor is a must
- AKS 12 is the all-round cable temperature sensor to be used for plain temperature monitoring and control purposes
- AKS 21 is the ultimate sensor for  $-70 - 180\text{ }^{\circ}\text{C}$  anywhere in the refrigeration plant and is available in various designs (cable and B-head) and with various accessories like sensor pockets
- AK-HS 1000 is the first choice for a temperature sensor for monitoring and HACCP data logging. The sensor design makes it simulate a refrigerated product what enable a realistic temperature signal is transmitted to a HACCP data logger
- EKS comes with PTC  $1000\ \Omega$  (EKS 111), NTC  $5000\ \Omega$  (EKS 211), or NTC  $1000\ \Omega$  (EKS 221) with various cable lengths

## Technical data and ordering

### AK-HS - Temperature sensors for monitoring and data logging in HACCP systems

#### Ordering



Type	Signal	Temperature range [°C]	Measuring accuracy	Enclosure	Cable length [m]	Code no.
AK-HS 1000	Pt 1000	-30 – 50	EN 60751 Class B	IP 54	5.5	084N1007

### EKS - Temperature sensors for measuring air temperatures

PTC characteristics matches controllers types EKC 101, EKC 201, EKC 301, CC and AK.

NTC characteristics matches controllers, types EKC and CC.



Type	Signal	Temperature range [°C]	Sensor tube	Electrical connection	Cable length [m]	Code no.
EKS 111	PTC 1000	-55 – 100	Round	Cable with pins	1.5	084N1178
	PTC 1000	-55 – 100	Round	Cable with pins	3.5	084N1179
	PTC 1000	-55 – 100	Round	Cable with AMP-plug	1.5	084N1181
	PTC 1000	-55 – 100	Round	Cable with AMP-plug	3.5	084N1182
EKS 211	NTC 5000	-40 – 80	Round	Cable	1.5	084N1220
	NTC 5000	-40 – 80	Round	Cable	3.5	084N1221

May not be used for food safety logs and regulation of superheat

### EKS - Temperature sensors for measuring temperatures

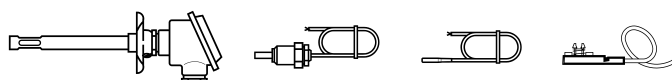
The sensor characteristics matches to OPTYMA room controllers and MCX unit controllers.

Type	Signal	Temperature range [°C]	Sensor tube	Electrical connection	Cable length [m]	Code no.
EKS 221	NTC 10000	-50 – 120	Round	Cable	3.5	084N3210
	NTC 10000	-50 – 120	Round	Cable	8.5	084N3209

Sensor house in thermo plastic rubber

### AKS - Temperature sensors for measuring temperature

Recommended for accurate temperature measurement in superheating, food safety logs and other important applications



Type	Signal	Measure range [°C]	Sensor tube	Electrical connection	Cable length [m]	Code no.
AKS 12	Pt 1000	-40 – 80	Round	Cable	1.5	084N0036
	Pt 1000	-40 – 80	Round	AMP plug	5.5	084N0045
AKS 11	Pt 1000	-50 – 100	Concave	Cable	3.5	084N0003
	Pt 1000	-50 – 100	Concave	Cable	5.5	084N0005
	Pt 1000	-50 – 100	Concave	Cable	8.5	084N0008
AKS 21A	Pt 1000	-70 – 180	Round	Cable	3.5	084N2007
	Pt 1000	-70 – 180	Round	Cable with AMP-plug	3.5	084N2008
	Pt 1000	-70 – 180	Round	Cable	2.0	084N2024
AKS 21M	Pt 1000	-70 – 180	Round	Cable	2.5	084N2003
AKS 21W	Pt 1000	-70 – 180	Sensor pipe	Cable	2.5	084N2017
AKS 21D	Pt 1000	-40 – 80	Channel bulb	Terminal socket Type B	–	084N2035