

## N-KBD

### N-KBD ultrasonic-duct air humidifier + AquaDrain

*As a built-in humidifier for air ducts and air-conditioning system the AIRWIN N-KBD meets all efficiency requirements, because it humidifies the air in an energy-saving and hygienically safe way and refreshes it.*



***Progressive technology - hygienically impeccable - extremely economical***

Atomisation by ultrasound has become more and more important in the last few years and new fields of application have opened up. In the sectors of trade, service and industry humidification has become a decisive part of optimal air-conditioning. In these sectors technical processes and storage of perishable goods demand humidification within close tolerance limits.

Electrical industry and data processing spaces, purity space technology and laboratories, hospitals, printing houses, cheese factories, museums, leather and textile industries, administration offices etc.; AIRWIN-humidifiers are used there with great success!

Progressive technology makes universal application and economical operation possible - only ~52W/h of electrical power input for 1kg of humidity. AIRWIN-humidifiers are particularly suitable for simultaneous humidification and cooling. For these applications much more electrical energy (up to 93%) can be saved compared with isothermal humidification systems (e.g. steam humidifiers).

Mineral deposits are prevented by the use of fully demineralised water.

**THE HUMIDIFICATION SYSTEM OF THE FUTURE**

## TECHNICAL DATA

Specifications		N-KBD6	N-KBD12	N-KBD18	N-KBD24	N-KBD30	N-KBD36	N-KBD42
Humidifier output *	kg/h	3.6	7.2	10.8	14.4	18.0	21.6	25.2
US-transducer	unit	6	12	18	24	30	36	42
Power consumption	VA	185	375	555	735	915	1.095	1.275
Power supply								
Humidifier	U				48V/50Hz			
Transformer	U				230V/50Hz			
Dimensions								
height	mm				177.5			
depth	mm				260.5			
length	mm	285	435	585	735	885	1035	1185
Weight	kg	6	7.7	9.5	11.7	13.7	15.2	17.2

## OPERATION

Water is atomised into aerosols of  $\sim 1\mu\text{m}$  by ultrasonic vibrations of 1.7 MHz. The air flow in the air duct transports the aerosol mist out of the humidifier into the air duct. There it is soon absorbed as humidity by the air.

## EQUIPMENT DESCRIPTION

The AIRWIN N-KBD is made of non-corrosive high-quality steel. It is ready for operation. Only water and electrical energy lines have to be connected at the place of installation.

Safety equipment includes thermal protection, overflow and dry-running protection and protection against voltage peaks. For the connection to BMS (building management system) or similar systems the N-KBD is equipped with a corresponding potential-free exit.

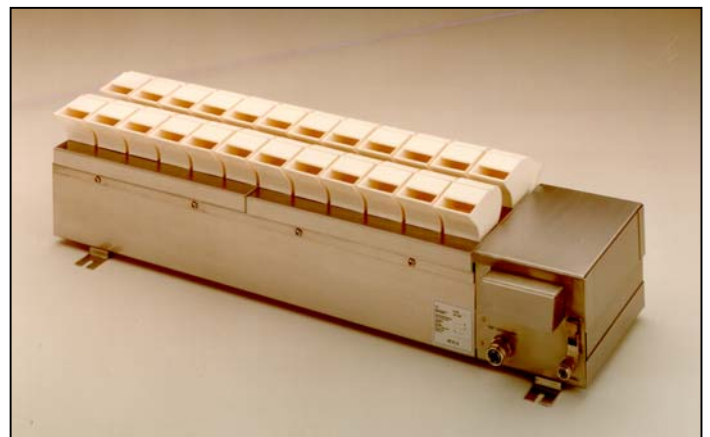
## CONTROL

AIRWIN ultrasonic humidifiers are controllable without starting delay or overrun.

- two-stage control with 1-step hygrostat
- two-stage control with 2-step hygrostat.
- continuous control with built-in signal adapter

## ACCESSORIES

- hygrostat
- transformers (for single humidifiers or humidifier groups)



## HYGIENE

**AquaDrain** flushes the water supply line, empties the water reservoir of the N-KBD in cycles as well as the water reservoir after short periods of "non-humidification" and power failures.

AquaDrain is a programme developed by BOGA GMBH, which guarantees hygienic safety in connection with the benefits of high frequency ultrasound for germ control.

Many different models of the ultrasonic humidifiers AIRWIN are available for various applications.

Subject to technical changes / date of issue  
04.2005

## Distribution and Service

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