



Electric duct heater

Batterie terminale électrique pour gaine

Elektro-Heizregister für Lüftungssysteme

Batería eléctrica para conducto circular



Electric heaters are designed to heat clean air in ventilation systems. Casing is made from aluzinc coated steel which is high temperature proof. Heating elements tube is made from stainless steel AISI 304. In heaters are installed 2 protection thermostats, screw terminals for easy connection. Casing is with rubber seals for duct connection. Heaters can be installed vertically or horizontally. Maximum output air temperature 50°C.



Sie finden bei den Lüftungssystemen Verwendung. Das runde Gehäuse der Kanal-Erwärmungseinrichtung ist aus mit Aluzink beschichtetem Stahlblech hergestellt, und das Spiralheizelement - aus rostfreiem Stahl AISI 304. Die Erwärmungseinrichtungen mit einer Leistung von 0,3 kW bis 2,4 kW können in jeder beliebigen Stellung montiert werden. Die 3-12 kW-Erwärmungseinrichtungen dürfen nicht so montiert werden, dass der Stromanschlusskasten nach unten gerichtet ist. Die Luftstromgeschwindigkeit durch die Erwärmungseinrichtung darf nicht geringer als 1,5 m/s sein. Die Maximaltemperatur der erwärmten Luft 50°C.



Les batteries terminales électriques pour gaine sont destinées au réchauffement de l'air propre dans les systèmes de ventilation. L'enveloppe est réalisée à partir de fer-blanc et recouverte de AlZn avec une surface résistante aux températures élevées. Le tube des éléments de chauffage est fabriqué en acier inoxydable AISI 304. Deux thermoprotecteurs et des bornes de jonction électrique sont montées dans les batteries électriques. L'enveloppe est avec une étanchéité en caoutchouc en montage direct sur le conduit d'air. Les batteries électriques peuvent être montées horizontalement et verticalement. Température maximale de l'air réchauffé : 50°C.



Las baterías eléctricas para conductos circulares están diseñadas para calentar el aire fresco en sistemas de ventilación. El cuerpo está hecho de acero recubierto aluzinc que es resistente a altas temperaturas. Los tubos de calefacción están hechos de acero inoxidable AISI 304. El calentador incorpora dos protecciones térmicas y terminales de fácil conexión. La envoltura lleva a ambos lados, juntas tóricas de goma para la conexión al conducto. Montaje horizontal o verticalmente. Temperatura máxima del aire caliente 50°C.

## Accessories

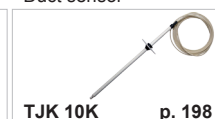
Controller for electrical heater

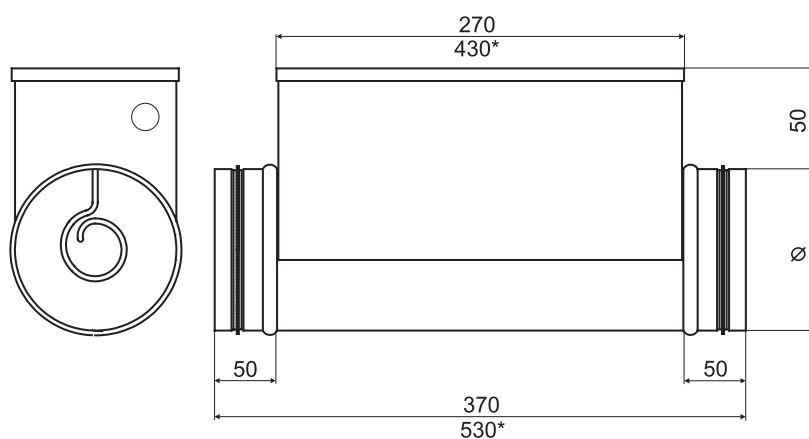


Controller for electrical heater



Duct sensor





All dimensions in mm  
\* Dimensions of 12 kW heaters

## Technical data

Type	Diameter [mm]	Min. airflow [m³/h]	Voltage V/50Hz]	Power [kW]	Nominal current, I <sub>n</sub> [A]
EKA 100	100	40	1~ 230	0,3/0,6/0,9/1,2	1,4/2,8/4,1/5,5
EKA 125	125	70	1~ 230	0,3/0,6/0,9/1,2/1,5/1,8	1,4/2,8/4,1/5,5/6,8/8,2
EKA 160	160	110	1~ 230	1,2/2,0/2,4	5,5/9,1/10,9
			2~ 400	3,0/5,0/6,0	7,9/13,2/15,8
			3~ 400	6,0	8,7
EKA 200	200	170	1~ 230	1,2/2,0/2,4	5,5/9,1/10,9
			2~ 400	3,0/5,0/6,0	7,9/13,2/15,8
			3~ 400	6,0	8,7
EKA 250	250	270	1~ 230	1,2/2,0/2,4	5,5/9,1/10,9
			2~ 400	3,0/5,0/6,0	7,9/13,2/15,8
			3~ 400	6,0/9,0	8,7/13,0
EKA 315	315	415	1~ 230	1,2/2,0/2,4	5,5/9,1/10,9
			2~ 400	3,0/5,0/6,0	7,9/13,2/15,8
			3~ 400	6,0/9,0/12,0	8,7/13,0/17,3
EKA 400	400	690	2~ 400	3,0/5,0/6,0	7,9/13,2/15,8
			3~ 400	6,0/9,0/12,0	8,7/13,0/17,3
EKA 500	500	1060	2~ 400	3,0/5,0/6,0	7,9/13,2/15,8
			3~ 400	6,0/9,0/12,0/15,0	8,7/13,0/17,3/21,6

Electrical heaters conforms to requirements of standards IEC 60335-2-30 : 1996, LST EN 600335-2-30 : 1999, LST EN 61010-1+A2 : 2000, LST EN 50081-2 : 1995, LST EN 55011 : 1999+A1 : 2001 and carries CE mark.

Type	Accessories		
	EKR 6.1	EKR 15.1	TJK 10K
EKA 100	+	-	+
EKA 125	+	+	+
EKA 160	+	+	+
EKA 200	+	+	+
EKA 250	+	+	+
EKA 315	+	+	+
EKA 400	+	+	+
EKA 500	+	+	+

## Overheat protection

All EKA duct heaters has two-stage overheat protection: the first stage switches on when the temperature reaches 50°C (resets automatically), the second stage switches on when the temperature reaches 100°C (is reset manually with pushbutton on the casing).

EKA has no internal temperature controller. External heating controllers EKR are used in this case. Heaters with internal temperature

controller (EKA...NV, EKA...NI and EKA...NIS) have this controller.

## EKA ...NV

### Heaters with integrated temperature controller, temperature setpoint internal

Heaters EKA ...NV with integrated temperature control contains temperature regulator which works by algorithm impulse/pause, that enables fine temperature control. Regulator controls load by triacs without moving parts, witch causes no-noise commutation. Potentiometer is used to set temperature. Manual termocontact restoration button and temperature setpoint are located on the

case of a heater.

The duct temperature sensor is needed.

## EKA ...NI

### Heaters with integrated temperature controller, temperature setpoint external

Heaters EKA ...NI with integrated temperature control, contains temperature regulator which works by algorithm impulse/pause, that enables fine temperature control. Regulator controls load by triacs without moving parts, which causes no-noise commutation. External temperature setpoint must be connected separately. The button of manual restoration located on the case of a heater.

The duct temperature sensor and potentiometer is needed.

## EKA ...NIS

### Heaters with integrated temperature controller, external control signal

Heaters EKA ...NIS with integrated temperature control, contains temperature regulator which works by algorithm impulse/pause, that enables fine temperature control. Regulator controls load by triacs without moving parts, which causes no-noise commutation. The button of manual restoration located on the case of a heater. The external control signal (0-10V) is needed. The ratio between

On-time and Off-time is varied 0-100% to suit the prevailing heat demand.

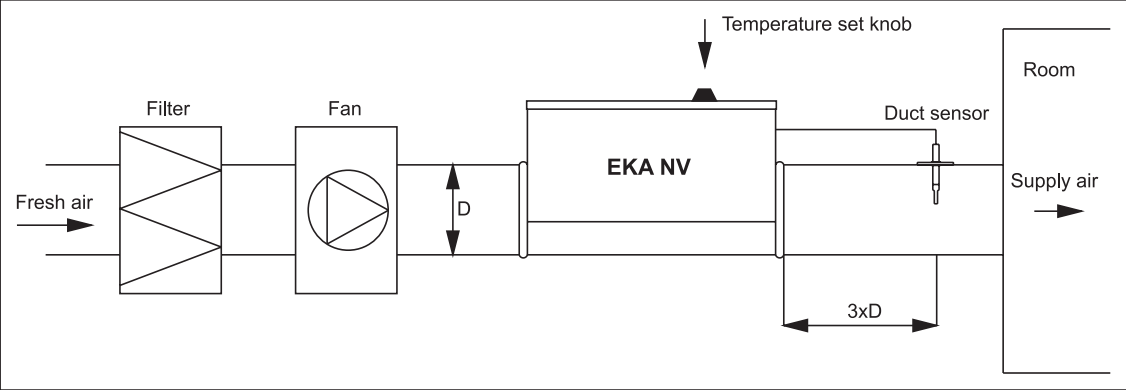
## Temperature regulator EKR-K...

Temperature controller EKR-K... is installed into electrical heaters EKA -NV, -NI, -NIS

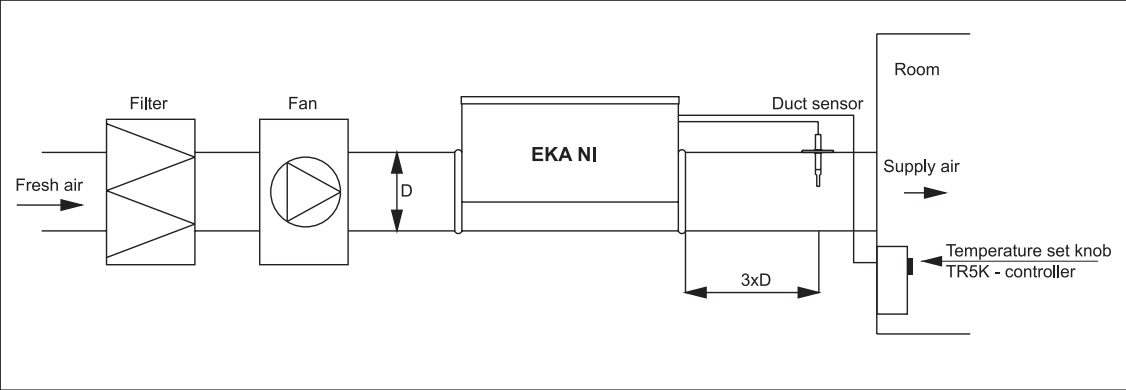
Voltage:	1 phase - 230V
	2 phase - 400V
	3 phase - 400V
Ambient temperature:	0 - 40°C
Humidity:	max 80%
Adjustment range of temperature:	0 - 30°C.
Temperature is adjusted by:	internal or external potentiometer.
Input signal for temperature control:	0...10V DC.

The PCB is equipped with internal fuses F1 and F2 on 50 mA. Their applicability, to protect PCB from the increased current.

EKA NV connection diagram



EKA NI connection diagram



EKA NIS connection diagram

