



Electric heaters ECH NI/NV/NIS



Steel cover with
aluzinc coating



Two-stage overheat
protection



EPDM gasket on
connection ports



Integrated
automatic

Description

ECH NI/NV/NIS is a series of electric duct heaters **with a built-in automation system containing a heater power controller**. The adjustment is performed by pulsation. The time between switching the heaters on and off is adjusted by the regulator to ensure that the set temperature is maintained. The NV/NI/NIS series differ in the way the target value is set:

NI – Temperature setpoint using potentiometer located on heater housing.

NV – Temperature setting using HR5K external setpoint.

NIS – Temperature set-point via external control signal 0-10V, e.g. signal from panel automation or BMS system.

ECH heaters are designed for installation in round ducts. They are available in typical ventilation diameters from 100 to 500 mm and power from 0.3 to 24.0 kW.

Each heater has a two-stage overheat protection:

I stage at 50°C - automatic reset. II stage at 100°C – manual reset required.

Usage

Duct heaters are used to heat clean air in domestic ventilation systems, especially in autumn and winter, as well as in industrial installations requiring a constant temperature of blown air.

ECH heaters also work as pre-heaters or secondary heaters, complementing installations based on ventilation units with heat recovery.

Design

The heater housing is made of steel sheet coated with a high-quality aluzinc coating, which guarantees high corrosion resistance. The connection ports are male and have an EPDM seal. The heating elements are made of AISI 304 stainless steel. The junction box has an IP44 protection class.

Technical specifications

Model	Diameter d [mm]	Min. air flow rate [m ³ /h]	Voltage [V/50Hz]	Power [kW]
ECH NV/NI/NIS 100	100	40	1~230	0.3, 0.6, 0.9, 1.2
ECH NV/NI/NIS 125	125	70	1~230	0.3, 0.6, 0.9, 1.2, 1.8, 2.4
ECH NV/NI/NIS 160	160	110	1~230 2~400 3~400	0.3, 0.6, 0.9, 1.2, 1.8, 2.4 3.0, 5.0, 6.0 6.0
ECH NV/NI/NIS 200	200	170	1~230 2~400 3~400	0.9, 1.2, 2.0, 2.4, 3.0 3.0, 5.0, 6.0 6.0
ECH NV/NI/NIS 250	250	270	1~230 2~400 3~400	1.2, 2.0, 2.4, 3.0 3.0, 5.0, 6.0 6.0, 9.0, 12.0
ECH NV/NI/NIS 315	315	415	1~230 2~400 3~400	1.2, 2.0, 2.4, 3.0 3.0, 5.0, 6.0 6.0, 9.0, 12.0
ECH NV/NI/NIS 400	400	690	1~230 2~400 3~400	3.0, 5.0, 6.0 3.0, 5.0, 6.0 6.0, 9.0, 12.0, 15.0, 18.0
ECH NV/NI/NIS 500	500	1060	2~400 3~400	3.0, 5.0, 6.0 6.0, 9.0, 12.0, 15.0, 18.0, 24.0

Accessories



PSH

Pressure switch
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TJK10K

Duct temperature sensor
page 173

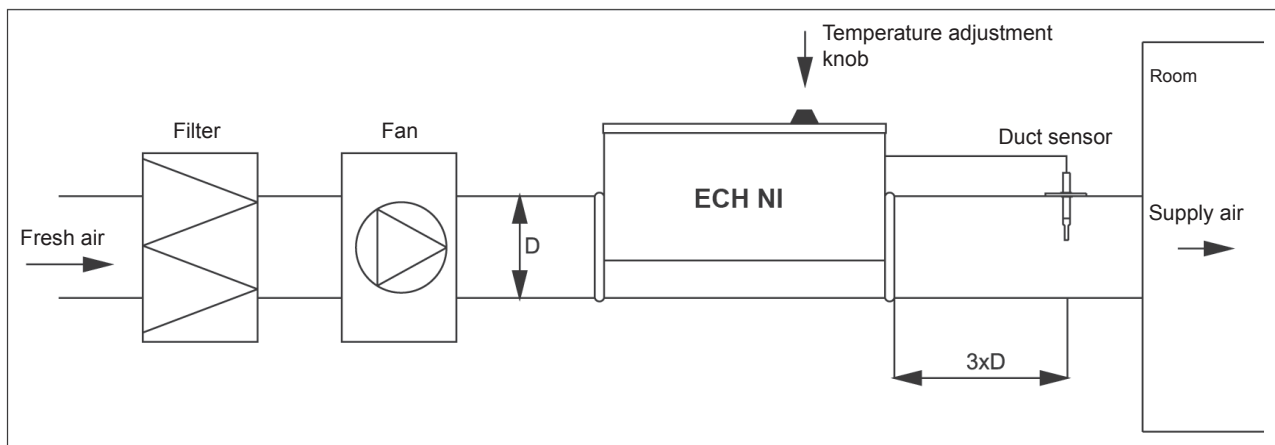


HR5K

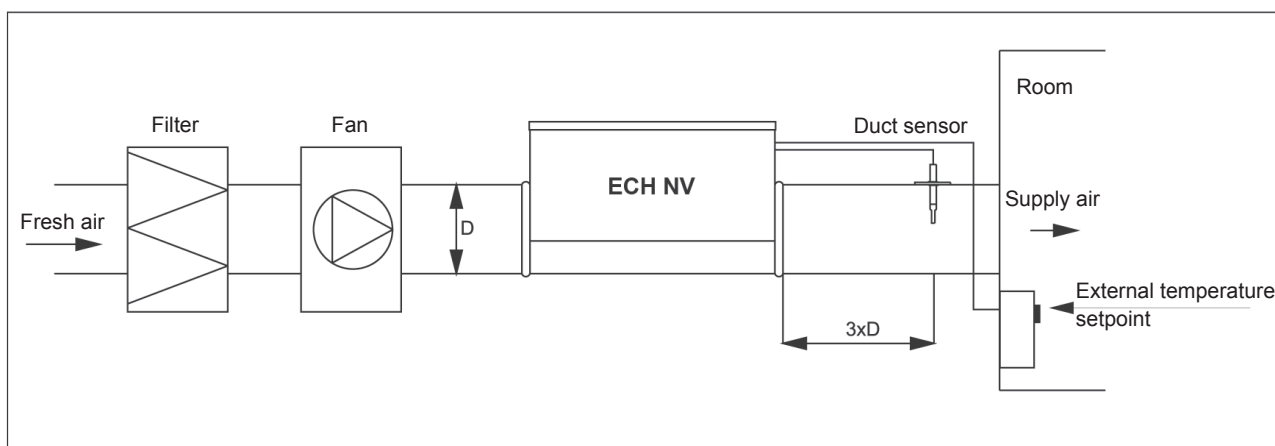
External temperature setpoint
page 174

Recommend install

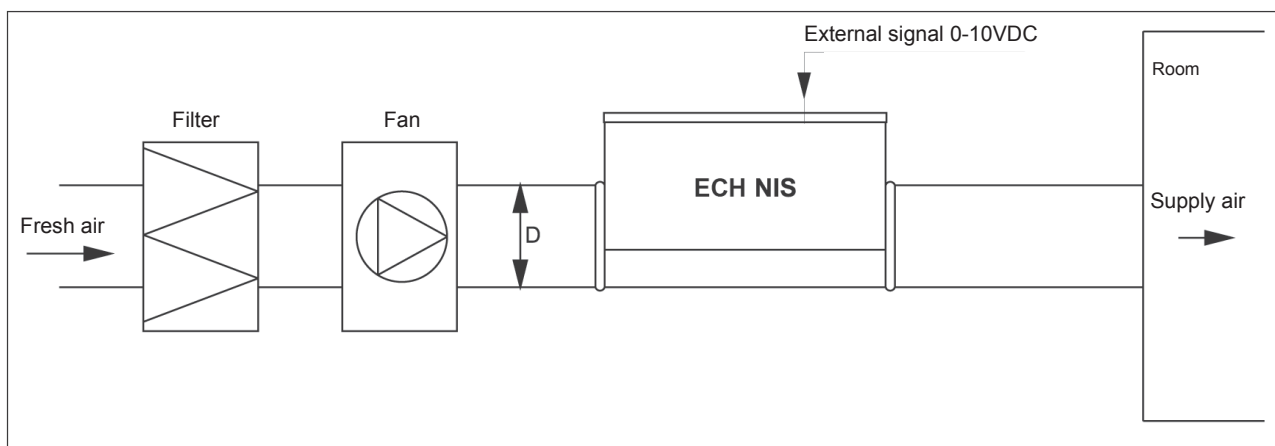
ECH NI



ECH NV



ECH NIS



Technical drawing, page 157

Nanograms for the heater selections, page 161