Configuring a LS (Link to Signal) mode with EOLe3

| LS	Constant Airflow determined by a 0/10V signal (Link to Signal).
	The fan will discharge a certain amount of air 'y', linked to the value of a 0/10V sensor 'x', according to a linear equation of the type y=ax+b, were a and b are fixed parameters.
	Let's consider following example:
	A ventilation fan type DD 9-9 TAC is connected to a T° sensor (0V = -10°C, 10V = +40°C), and must discharge 1600 m³/h at 0°C and 600 m³/h at 21°C, with a linear relation in between these 2 values.
	A filter alarm must be triggered when the static pressure raises by 110 Pa at 1600 m³/h (system curve).
	The configuration is valid every day of the week.

Configuration with EOLe3:

In '*Fans - Create/Configure'*, select the fan to configure (example: fan #2):

o   Select the fan type in the scroll list. If you are connected to the network and "online", you can ask the program to '*detect*' automatically the connected fan type.

o   In '*Sensor specifications*' select the physical phenomena measured by the sensor (Temperature, Humidity, Airflow, Pressure…) as well as the unit to measure it (°C, Pa, …).
Type in the characteristics of the sensor connected. In our example: Temperature in °C, range from -10°C to +40°C.
NB: You may create a new type of sensor by entering in the '*Add-modify sensor type*' screen. To do this click on the button).

o   Type in the limits of the time ranges (in our example there is only one time range). Keep in mind that only a permanent network configuration can manage different time segment configurations.

o   Choose the LS mode in the scroll menu for the selected time segment.

o In the '*Relation Signal-Airflow (K3 open)*' frame, type the values defining the linear link between the airflow and the value measured by the sensor. In our example: 0°C ≡ 1600 m³/h and 21°C ≡ 600 m³/h. If necessary, do the same in the '*Relation Signal-Airflow (K3 closed)*' frame. This allows to change the parameters of the equation when K3 is closed. (No data in our example).

o Type in the values for the pressure alarm: setup in our example is 1600 m³/h, initial pressure = 90 Pa, and offset = 110 Pa).

o When all the data are introduced, click on 'Copy to Tuesday', then 'Copy to Wednesday' …. then 'Copy to Sunday'. The configuration will then be the same for each day.

o Send the selected time segment configuration to the control box, click on '*Send selected data*'.

o Click on '*Close*' to exit the screen

Wiring diagrams:

Schematic 1: One set of contacts and one 0-10V signal for one fan (CB)
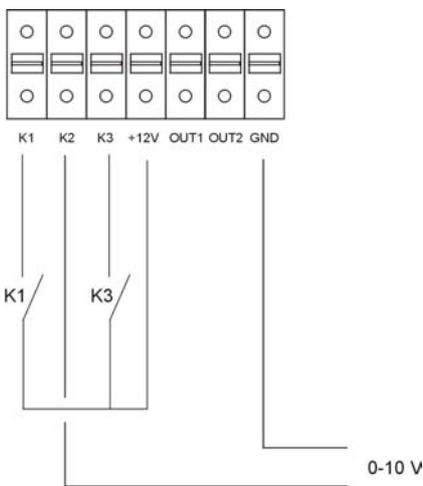
0-10 V

Schematic 2: One set of contacts and one 0-10V signal for several fans (CBs)
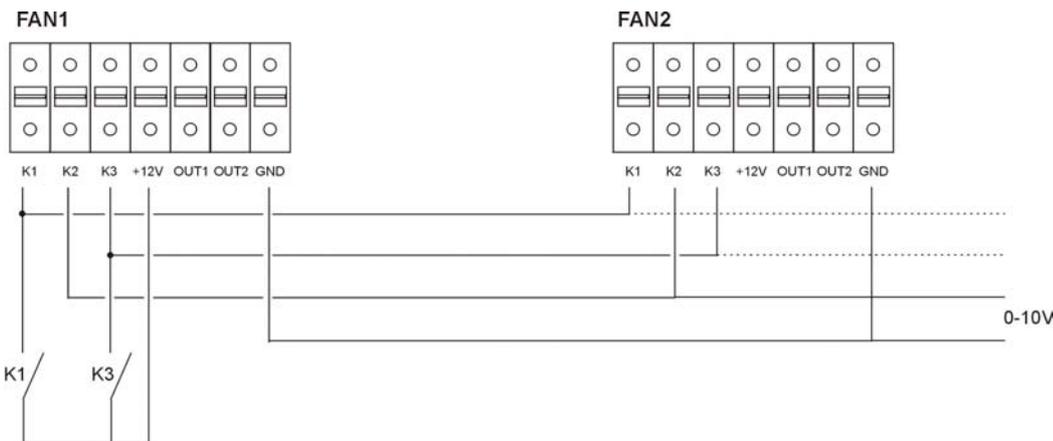
0-10V

K1 closed ⇨ softstart
K1 open ⇨ softstop
K2 ⇨ 0-10V signal
K3 closed ⇨ *% on K3* active
K3 open ⇨ *% on K3* inactive

Caution. K1/K2/K3: Use gold plated contacts.
Minimum input impedance = 150kΩ. Current < 0,5 mA. External signals: maximum impedance = 1500 Ω.