

# DIGITAL INPUT OUTPUT

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User manual

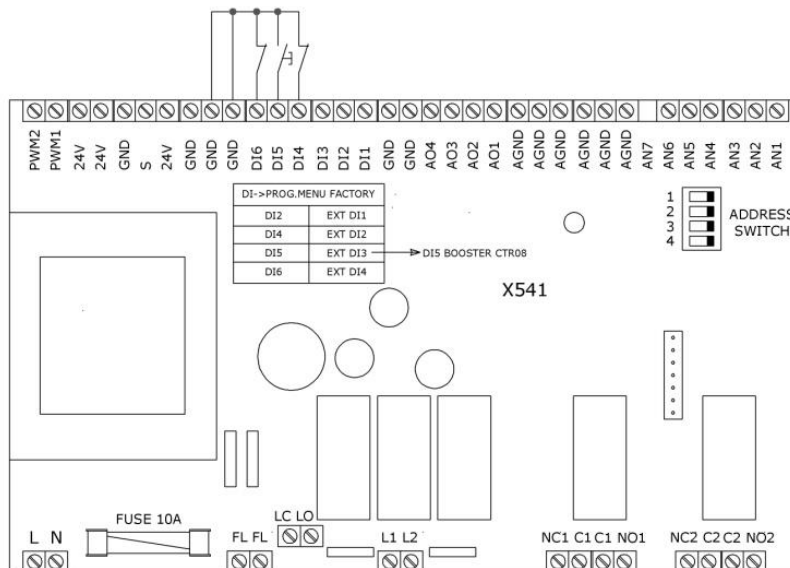
Nr. release: Rev. 01 13/02/19

Software version 4.24.0

## Ext. DI (Digital Input)

The EVO control has four digital inputs programmable from factory menu (pass 0342) . The incorrect programming of these may cause a malfunction of the unit. By programming these parameters, several functions can be implement as the result of the closing/opening of an external contact. The correspondence between control panel and physical terminals on card is indicated from the writing "on board" and correspond to:

CARD	CONTROL PANEL
DI2	EXTDI1 (not available for units with fans alarm)
DI4	EXTDI2
DI5	EXTDI3
DI6	EXTDI4



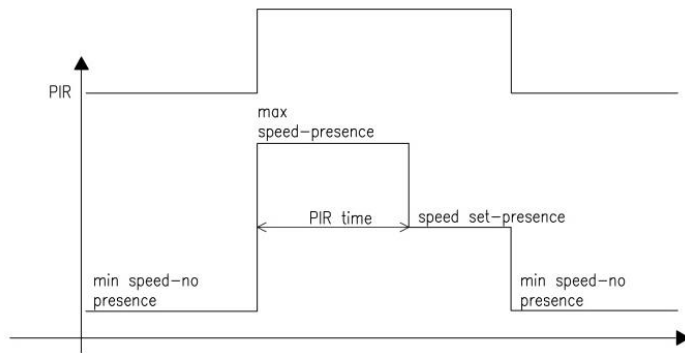
Digital Input with booster button

## unused

Unused digital input

## Pir

It is set whenever you want to use a presence detector to control the unit. If no presence is detect (contact NO)in the room you want to monitor, the system sets the fans to the minimum speed. When a presence is detect, the fans are set to the maximum speed for a time that can be set in the "installer" menu (PIR time). After the above-mentioned time has elapsed, the fans will work at the speed set in the main screen of the control panel, and then will return to the minimum speed when the presence is no longer detect.



### booster

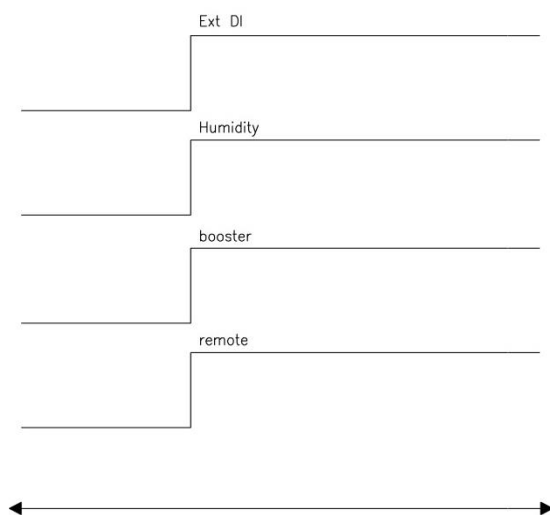
If selected, the digital input is used to force (through an impulse given by a button) the fans to work at the maximum speed for a time adjustable in the installer menu (boost min).

### remote

If selected, the digital input is used to force (through the opening of a contact) the fans to stop.

### humidity

If selected, the digital input is used to force the fans to work at the maximum speed if the humidity threshold detected by an NC connected humidistat is exceeded. When humidity returns below the humidistat threshold value, the fan speed will return to the value set in the control panel.



### Summer

If selected, the external contact NO connected to the digital input is used to notify the control of the season change: open = winter, closed = summer.

### fire

If selected, the external contact NO connected to the digital input is use to force the exhaust fan to work at the maximum speed and at the same time to switch off the delivery fan.

### w. frost

If selected, the digital input is use to implement an anti-frost protection of the water coil through a bulb thermostat. The latter will have to be position on the water coil return pipe, set on the temperature of 1°C and with an NC connection. If the detected temperature drops below the set value (and consequently the contact opens), the control will stop the fans and at the same time fully open the valve to let more hot water in.

### Ricircul

If selected, the external NO contact is used to force maximum recirculation (if installed) when the external contact connected to the digital input is closed.

### Dehumid

If selected, the external NO contact is used to force the dehumidify function (if present, otherwise not displayed).

### StopExt.

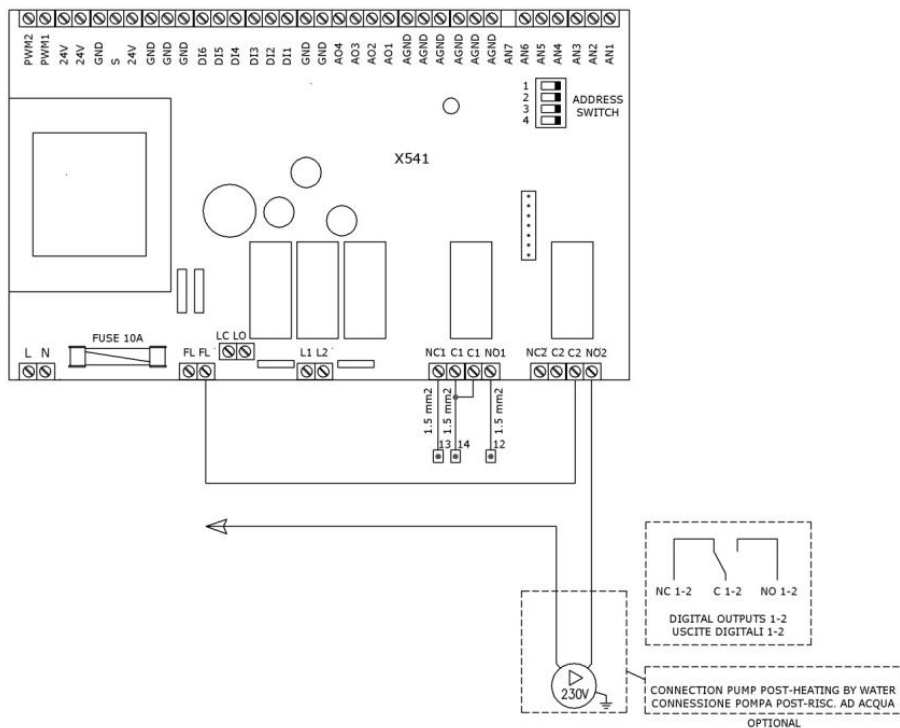
If selected, the external NO contact connected to the digital input is used to force the return fan off. At the same time the supply fan continues to run at the speed set by the main screen.

### MinSpeed

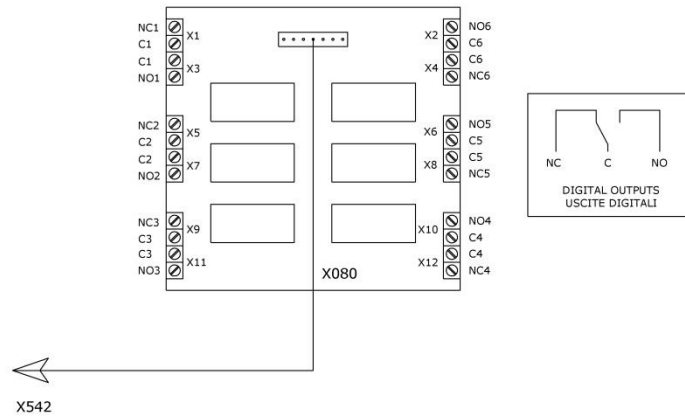
If selected, the external NO contact connected to the digital input is used to force the fan speed to the minimum. If the unit is off, it has no effect.

### Ext. DO 1-2 (Digital Output)

The EVO controls as two digital outputs with free voltage contacts programmable. The output will change its status (enable) according to the function select. Only for unit with electronic fans, adding supplementary card X580, normally used to manage 3 speed fans, is possible to have 8 output.



Digital Output X541



Digital Output with X580

**Heat**

If selected, the digital output is enable when post-heating is enable. In this case, is use, for example, to enable a pump when post heating\cooling is installed. If the output 2 is use for a different function, which does not require 230V, remove wiring between dal FL-C2.



**no frost**

If selected, the digital output is enable when the anti-frost function is enable.

**CloseBy**

It indicates that you have selected the function of modulating bypass and thus is no longer available the second digital output.

### Fan 1-2

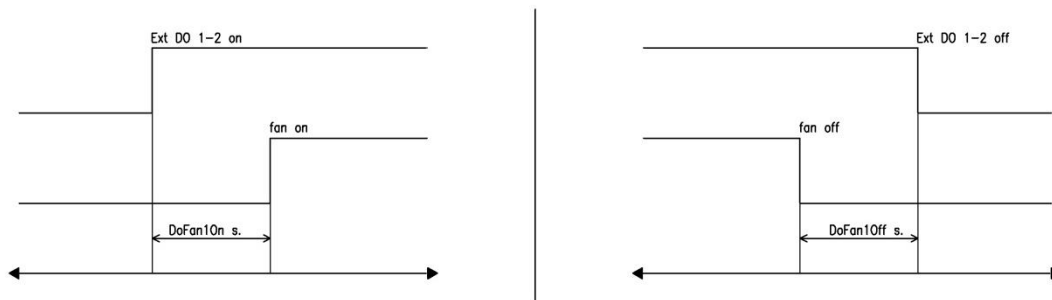
If selected, the digital output is activated \ deactivated concurrently with the fans switching on. Delay times modifiable are set by default between activation \ deactivation of different outputs for selecting Fan1 and Fan2. Delays can be useful when you want to control antifreeze dampers or a post resistance.

#### DoFan1-2On s.

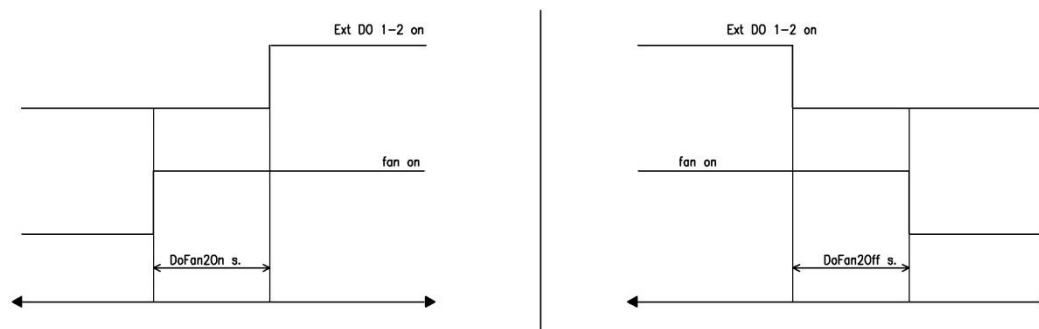
It is active only when the digital output is selected as "Do fan 1 or 2". It represents the delay time between the activation of the output and the switching on of the fans.

#### DoFan1-2Off s.

It is active only when the digital output is selected as "Do fan 1-2". It represents the delay time between the deactivation of the output and the switching off the fans.



Selection Fan1: Do1Fan1On =0010 sec; Do1Fan1Off =-10 sec



Selection Fan2: DoFan2On =-060 sec; Do2Fan2Off =0180 sec

### service

If selected, the digital output is enable with any alarm, except for the clogged filters alarm. The contact is usually positioned on 14-12 (C-NO), while it will go to 14-13 (C-NC) during an alarm.

### any alarm

If selected, the digital output is enable when any alarm is trigger. The contact is positioned on 14-12 (C-NO) when all is ok, while it will go to 14-13 (C-NC) during an alarm.

#### **auto cmp**

It can be used when a humidity\co2 sensor or an external signal is present. When selected, the output is enabled (switch from NC to NO) when the minimum threshold value set in the installer menu, (Auto1-2 On %\PPM\ext signal) is reached. The digital output, instead, will be disabled when the Auto1-2 Off %\PPM value is reached. AutoOn must be always greater then AutoOff , viceversa the contact works in opposite way.

#### **season**

If selected, the digital output is enabled according to the season set in the parameters menu.

#### **Dehumid**

If selected, the digital output is enabled according to the enabling of the dehumidify function (if present).