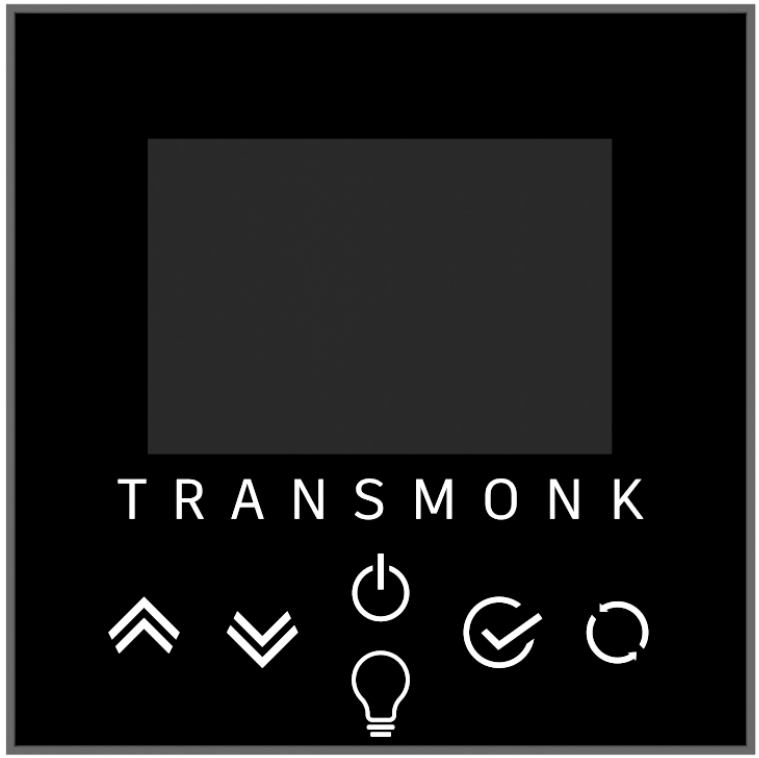
TC-ECF24230-A/P
EC FAN CONTROLLER
MANUAL

DATASHEET-
OPERATIONAL GUIDE.

En-GB
METRIC.
A Series



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The controller is designed/programmed to control EC-fan speed to maintain constant flow based on differential pressure sensor (0—10 VDC / 0—20 mA / PWM). The supply voltage for this controller is 230V AC 50-60Hz. The output voltage is adjusted from 0 to 10 automatically based on maximum and minimum speed required with respect to DP set points. It is also equipped to take feedback from fan and display it on screen. Any change in feedback and maintained pressure between filter inside can be directly shown with display screen.

Key feature

- 2.4-inch TFT Screen with fan parameter display
- Automatic variable stepless speed can be achieved
- Insert Mounting
- User-friendly 4 button interface
- Remote (RF) based control (Model number will be changed)
- Modbus RTU (RS485) communication for integration with BMS (Model number selection TC-ECF24-A/PRS)
- Lock min and max RPM

Technical parameters

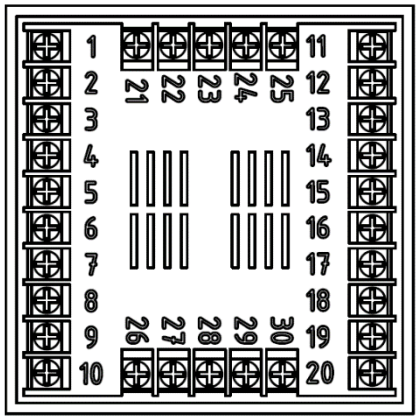
- Supply input: 230 V AC, 50-60Hz
- Variable output :0-10V
- Indoor use only
- Tech input for EC fan RPM
- Temp range 0-60 degree C
- Potential free contact 7amp (Relay)
- pressure range settable
- Auto reset setting to previous setting
- DP Sensor with digital output

Display parameters

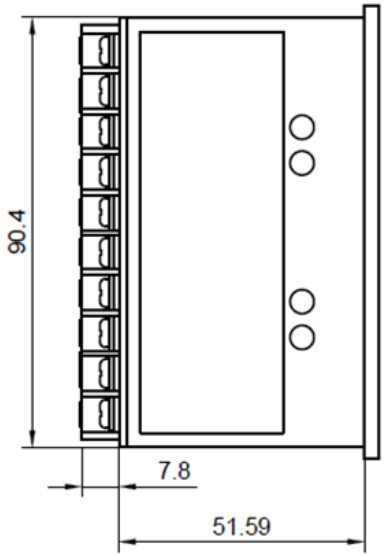
- RPM, Fan Set points
- Flow % in case of fan
- Controlling volt
- DP, set points
- Modbus parameters

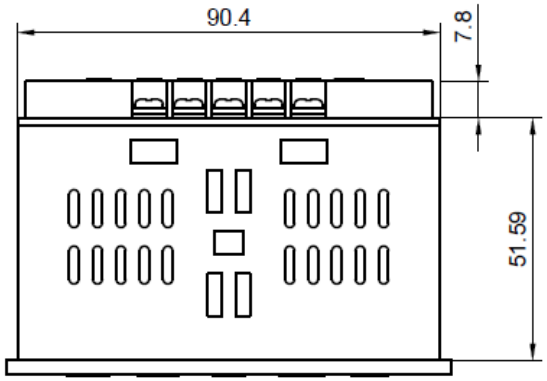
Wiring Connection

Pin 2- GND	Pin 11- Pressure sensor (-)
Pin 3-Tech input	Pin 12- Pressure sensor (+)
Pin 4-+10V	Pin 16-E
Pin 5-GND	Pin 17- Neutral
Pin 10- 0 to10V out	Pin 18- Line



Dimensional details





General Technical data

Operating Instructions

Keys

On/off Button/menu toggle 
Increase value (up keys) 
Decrease value (down keys) 
Toggle down the set point 
Toggle up the set point 

Display
Fan RPM
Flow %
Controlling Volt
DP- Min, Max set point
Set min and Max fan speed correspond to DP

Setting Minimum and Maximum speed /voltage in controller

Once the controller power up it will calibrate the pressure in 2-3 mint by its own and the same has been reflected in screen
This can be taken as reference point to set maximum pressure point and as the pressure increased to maximum fan speed will ramp up corresponding to maximum set value to maintain constant flow

Initiating process: Press  for few sec to enter into the setting, once entered you will find enclosed box around Min temp now to move down you can use same button and toggle to Min speed /Max speed.
Once the box reached is in Min speed use  (up) and  (down) keys to set parameters for Min voltage and Max Voltage.
To move up use keys  and move the square box to set min and max pressure range as per requirement, use  (up) and  (down) keys to set parameters for Min and Max DP.
After leaving for few second controller will accept new setting automatically

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Example: Suppose fan need to be run at predetermined flow and the same flow need to be maintained so we need to set the minimum pressure which fan will also take by default and then will set the maximum pressure so after this as the differential pressure increase due to chocking of filter fan will ramp up its speed in response to change of differential pressure

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