TC-ECF1310-A/P EC FAN CONTROLLER MANUAL

DATASHEET-OPERATIONAL GUIDE.

En-GB METRIC. A Series

T R A N S M O N K simply precise.



The controller is designed/programmed to control EC-fan speed any other applications with an analog (0-10 VDC / 0-20 mA / PWM) signal. It is developed to control equipment that needs a stepless control signal. The supply voltage for this controller is within the range 0-10 VDC. The output voltage is adjusted from 0 to 10 by manual feed buttons. It is also equipped to take feedback from fan and display it on screen. Any change in feedback can be directly shown with display screen. It is provisioned to work with differential transmitter to set alarming pressure which generate pre-indication/alarm for any blockage/choking in filter

#### Key feature

- 1.3-inch OLED Screen with fan parameter display
- Variable stepless speed can be achieved
- Insert Mounting
- User-friendly 3 button interface
- Remote (RF) based control (Model number selection TC-ECF13-A/PRF)
- Modbus RTU (RS485) communication for integration with BMS (Model number selection TC-ECF13-A/PRS)
- Lock min and max RPM

#### **Technical parameters**

- Supply input: 10-12V DC
- 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 :0-25mm

### **Display parameters**

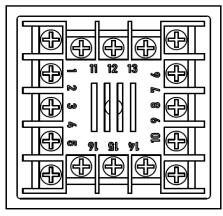
- RPM
- Flow % in case of fan
- Controlling volt
- Pressure

# **General Technical data**

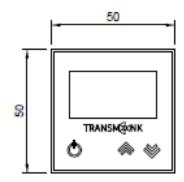
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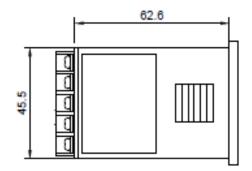
#### Wiring Connection

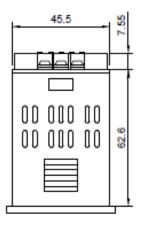
Pin 1- Pressure transmitter(+)	Pin 6- GND
Pin 2-A(Modbus +)	Pin 7-0 to 10V
Pin 3-B(Modbus -)	Pin 8-tach input
Pin 4-NO (normally op)	Pin 9- +10V(supply)
Pin 5-Common	Pin 10- Pressure transmitter(-)



#### **Dimensional details**







### **General Technical data**

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#### **Operating Instructions**

Keys

On/off Button/menu toggle Increase value (up keys) Decrease value (down keys)

Display Fan RPM Flow % Controlling Volt Menu- Min, Max, Alarm Remote Update process

Setting Minimum and Maximum speed /voltage in controller and alarm for critical pressure across filter

Initiating process: Press  $\wedge$  (up) and  $\vee$  (down) keys together to enter in settings, it has two parameters Min voltage and Max Voltage. Use 0 to toggle between minimum and maximum voltage. To set Minimum and maximum voltage use up  $\wedge$  /down $\vee$  keys and leave it for 20 sec, after 20 sec controllers will accept the parameters and come out automatically from the setting.

Example: Suppose fan need to be run at minimum speed of 20% irrespective of other parameters. To set this once we press both up and down keys it will enter and show min voltage, there will be default value (consider it shows 0V), then press up keys and increase value to 2V and leave it for 20 sec. After 20 sec fan will be locked for 20% minimum speed.

To set Alarm for filter pressure again use Initiating process by pressing  $\approx$  and  $\geq$  button of controller and use power button to toggle between Min, Max and ALARM setting after reaching to ALARM set the required value up to 25mm.

# **General Technical data**

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### Pairing process for remote

To pair new remote, first controller needs to be shut down by pressing 0 button, once process is off press it again and hold 0 key for a few second after this display will show a message for "Remote Update process". After this step controller will display following instruction which need to be followed.

- Controller will show" PRESS UP KEY" message
- Press and hold the 🛠 (UP) key present on controller for 3 to 4 sec and wait to beep the buzzer once.
- After the beep  $Press \triangle$  (UP) Key on the remote.
- Again, press and hold the  $\bigstar$  (UP) arrow key on controller for 1 sec.
- Controller will show "PRESS ON/OFF KEY" message
- Press the 🗌 (power)middle key of remote controller followed by 2 beeps
- Again, press and hold the  $\bigstar$  (UP) arrow key on controller for 1 sec.
- Controller will show "PRESS DOWN KEY" message
- Press  $\nabla$  (down)key of remote controller followed by 3 beeps.
- Controller will show"SUCCESSFULL" message
- New Remote pairing with controller is done.

#### Factory reset process

- Shut down the controller with power button
- Then press UP  $\,$  and DOWN $\,$  button together in controller
- Again restart controller using main power.

Now display will show a message "controller memory clear

#### Note:

If Controller completed the factory reset procedure, then following parameters need to be set again.

- Remote pairing
- Minimum and maximum voltage set
- Pressure set point for alarm

# **General Technical data**

