

ROOM THERMOSTAT SERIES TFC100



TFC139

ESBE thermostat Series TFC100 consists of fan coil room thermostats for use in heating or cooling applications.

APPLICATION

The ESBE series TFC100 is a fan coil room thermostats for use in heating or cooling applications. The thermostats can be connected to 2-point or spring return actuator and fan.

VERSIONS

TFC139 is a fan coil thermostat for use in 4 pipes heating and cooling applications or 2 pipes heating or cooling applications, operating with 230V AC or 24V AC power supply. The thermostat has 0-10V heating signal output, 0-10V cooling signal output and 0-10V fan signal output. There are also 3 ON/OFF relay for controlling actuators or fan with 3 speeds motor. The regulating temperature range is between 5°C and 35°C and has 3 individual operating modes, comfort, economic or antifrost/Off. Heating or cooling mode can be set manually on the front cover, is set automatically or is set centralised. Fan speed can be manually or automatically set. The display shows for example status of the fan speed, activated mode and if heating or cooling is activated. Contact rating for the relay is 3(1)A@250V AC.

TECHNICAL DATA

Ambient temperature: _____ max. 40°C
 _____ min. 0°C
 Ambient humidity: _____ 20...80% RH non-condensating
 Setting range: _____ 5-35°C
 Sensor type: _____ NTC 10kΩ@25°C
 ErP Temperature controls class – TFC139: _____ V
 Energy efficiency contribution – TFC139: _____ 3%
 Enclosure rating: _____ IP30
 Contact rating: _____ see table
 Voltage – TFC139: _____ 230-15/+10%V AC, 50Hz or
 _____ 24-15/+10%V AC, 50Hz
 Power consumption – TFC139: _____ 1.2 VA
 Protection class: _____ II

Material
 Housing: _____ ABS + PC self-extinguishing VO

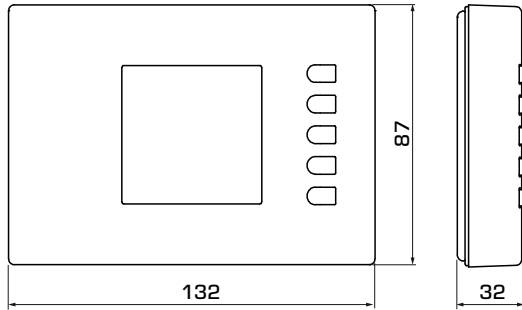
Conformities and certificates:

CE LVD 2014/35/EU
 EMC 2014/30/EU
 RoHS 2011/65/EU

SUITABLE ESBE ACTUATORS

Series	Control signal	ALG400	ARA600	90	ARC300	ARD100	ARD200	VZC/VZD	MBA100	ZRS100
TFC139	2-point 230V AC	ALG434	ARA6x5, ARA6x6	97, 98	ARC361	ARD155	ARD255	•	•	•
	2-point 24V AC	ALG436	ARA6x7, ARA6x8		ARC363	ARD157	ARD257			
	proportional 24V AC	ALG438	ARA639, ARA659	92P, 92P2, 92P4	ARC368, ARC369	ARD169	ARD269	•	•	•

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SERIES TFC100

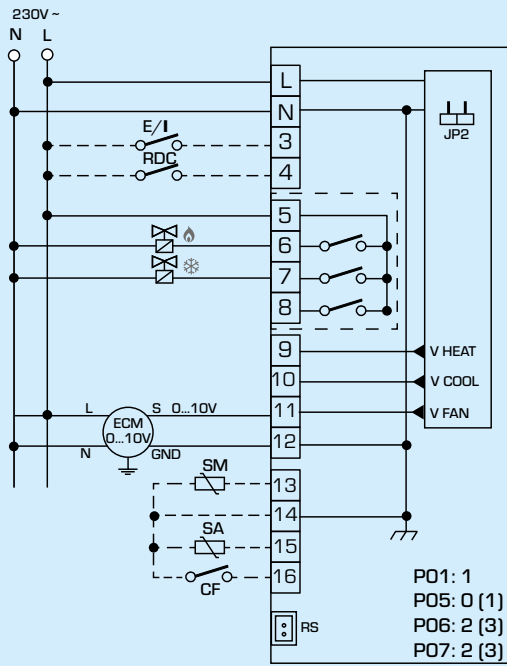
Art. No.	Reference	Application	Voltage	Contact rating	Setting range	Weight [kg]	Note
18004500	TFC139	Heating and cooling	230V AC/ 24V AC	3(1)A @ 250V AC	5-35°C	0,19	0-10V DC control signal

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WIRING

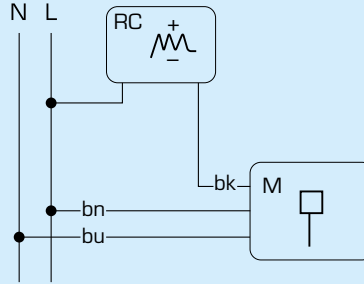
The wirings are typical examples of application; for further information, please check User instruction for all possibilities.



Wiring for two ON/OFF 230V AC actuators in 4 pipe system and proportional fan drive.

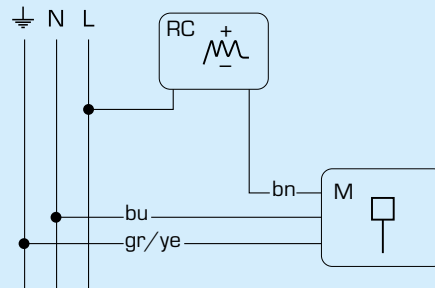
ELECTRICAL CONNECTION TO ESBE ACTUATORS

(230V ~)



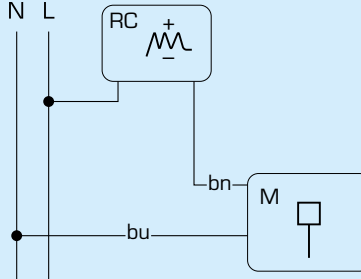
Series ARA600, 90, ARC300, VZC/VZD, MBA100

(230V ~)



Series ZRS100

(230V ~)



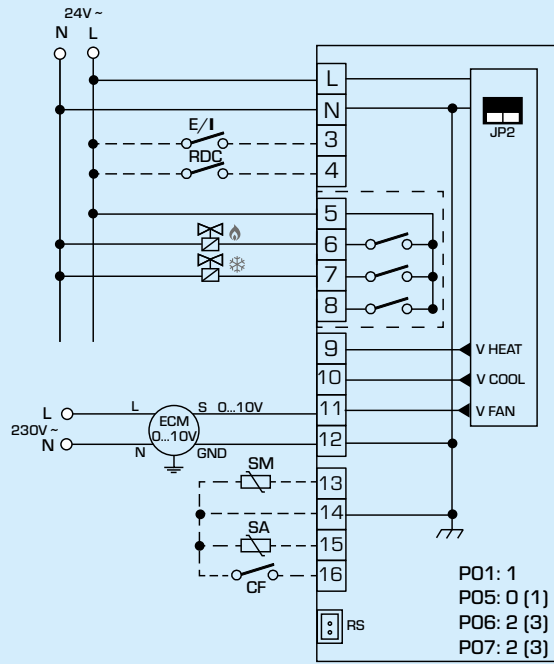
Series ARD100, ARD200, ALG400

ROOM THERMOSTAT SERIES TFC100

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WIRING

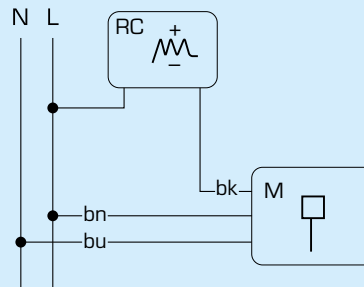
The wirings are typical examples of application; for further information, please check User instruction for all possibilities.



Wiring for two ON/OFF 24V AC actuators in 4 pipe system and proportional fan drive.

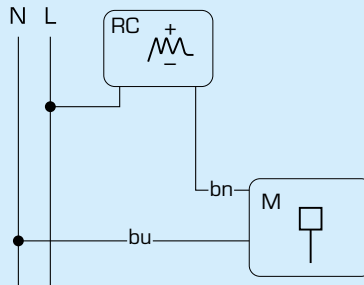
ELECTRICAL CONNECTION TO ESBE ACTUATORS

(24V ~)



Series ARA600, 90, ARC300

(24V ~)



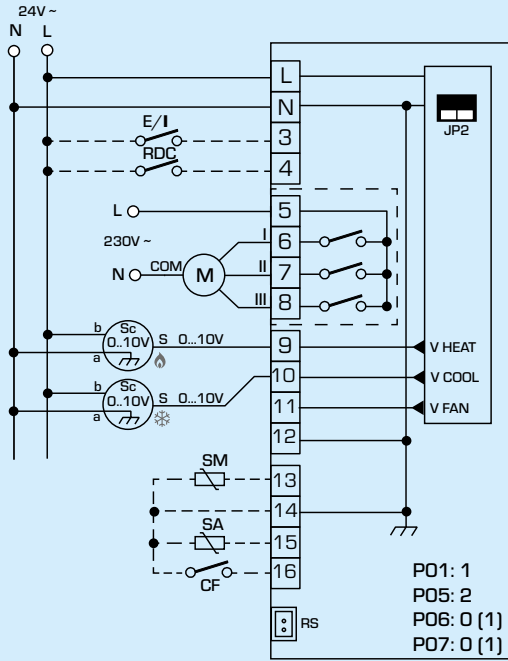
Series ARD100, ARD200, ALG400

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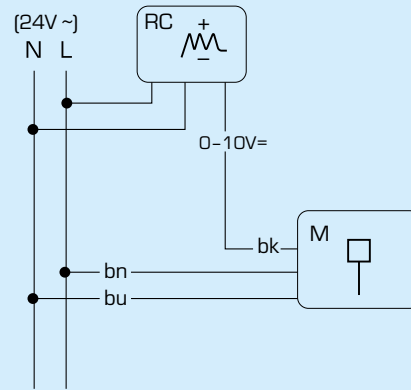
WIRING

The wirings are typical examples of application; for further information, please check User instruction for all possibilities.



Wiring example for two proportional (0-10V) 24V AC actuators in a 4 pipes system and one 230V AC three speed fan motor.

ELECTRICAL CONNECTION TO ESBE ACTUATORS



Series ARA600, 90, ARC300, ARD100, ARD200, ALG400