

Specifiche Tecniche



Technical Specifications

Alimentazione

- Valori nominali 24-240 Vca-cc
- Vcc con polarità invertibili

Ingressi

- 8 ingressi RTD Pt100 a tre fili (sezione max 1,5 mm²)
- Collegamenti su morsettiere estraibili
- Canali ingresso protetti contro i disturbi elettromagnetici
- Compensazione cavi per sonde fino a 500 m (1 mm²)

Uscite

- 2 relè di allarme (ALARM-TRIP)
- 2 relè di gestione ventilazione (FAN1 e FAN2)
- 1 relè guasto sonde o anomalia funzionamento (FAULT)
- Relè di uscita con contatti da 10A-250 Vca-res COSΦ=1
- Uscita RS485 Modbus RTU
- Uscita 4.20mA optoisolata

Test e prestazioni

- Costruzione in accordo alle normative CE
- Protezione contro disturbi elettromagnetici CEI-EN61000-4-4
- Rigidità dielettrica: 1500 Vca per 1 minuto tra relè di uscita e sonde, relè e alimentazione, alimentazione e sonde
- Precisione: ± 1% vfs, ± 1 digit
- Temperatura di lavoro: da -20°C a +60°C
- Umidità ammessa: 90% senza condensa
- Contenitore in NORYL UL 94V0 autoestinguente
- Frontale in policarbonato IP65
- Assorbimento: 7.5VA
- Memoria dati: 10 anni minimo
- Linearizzazione digitale segnale sonde
- Circuito di autodiagnosi
- Opzione: tropicalizzazione

Visualizzazione e gestione dati

- 2 display da 13 mm a 3 cifre per visualizzare temperature, messaggi e canali
- 3 led per visualizzare lo stato degli allarmi del canale selezionato
- 2 led per visualizzare lo stato di FAN1 e FAN2
- Controllo temperatura da 0°C a 240°C
- 1 soglia di ALARM per ogni canale
- 1 soglia di TRIP per ogni canale
- 2 soglie ON-OFF ventilazione FAN1 e FAN2 in comune per tutti i canali abilitati
- Diagnostica delle sonde (Fcc-Foc-Fcd)
- Diagnostica memoria dati (Ech)
- Accesso alla programmazione tramite tastiera frontale
- Uscita automatica dalla programmazione, visualizzazione e test relè dopo 1 min. di inattività
- Segnalazione di errata programmazione
- Selezione tra scansione automatica canali, canale più caldo o scansione manuale
- Memoria max. temp. raggiunte dai canali e stato degli allarmi
- Tasto frontale per il reset degli allarmi
- Funzione Voting
- Funzione Fail Safe

Dimensioni

- 100 x 100 mm DIN 43700 prof. 131 mm (compreso morsettieria)
- Foro pannello 92 x 92 mm

Opzioni

- Versione Basic senza uscite RS485 e 4.20mA

Power Supply

- Rated values 24-240 Vac-dc
- Vdc with reversible polarities

Inputs

- 8 inputs RTD Pt100 3 wires (max section 1.5 mm²)
- Removable rear terminals
- Input channels protected against electromagnetic interference
- Sensor length cable compensation up to 500 m (1 mm²)

Outputs

- 2 alarm relays (ALARM-TRIP)
- 2 alarm relays for fan control (FAN1 and FAN2)
- 1 alarm relay for sensor fault or working anomaly (FAULT)
- Output contacts capacity: 10A-250 Vac-res COSΦ=1
- Modbus RTU RS485 output
- Optically isolated 4.20mA output

Tests and performances

- Assembling in accordance with CE rules
- Protection against electromagnetic noises CEI-EN61000-4-4
- Dielectric strength: 1500 Vac for 1 minute from relays to sensors, relays to power supply, power supply to sensors
- Accuracy: ± 1% full scale value ± 1 digit
- Ambient operating temperature: from -20°C to +60°C
- Humidity: 90% non-condensing
- Self-extinguishing housing NORYL UL 94V0
- Frontal in polycarbonate IP65
- Burden: 7.5VA
- Data storage: 10 years minimum
- Digital linearity of sensor signal
- Self-diagnostic circuit
- Option: tropicalization

Displaying and data management

- 2 displays 13 mm with 3 digits for displaying temperatures, messages and channels
- 3 leds to display the state of the alarms of the selected channel
- 2 leds to display the state of FAN1 and FAN2
- Temperature monitoring from 0°C to 240°C
- 1 ALARM thresholds for each channels
- 1 TRIP thresholds for each channels
- 2 ON-OFF thresholds for FAN1 and FAN2 in common for all enabled channels
- Sensors diagnostic (Fcc-Foc-Fcd)
- Data storage diagnostic (Ech)
- Access to programming through front keyboard
- Automatic exit from relay programming, display and test after 1 minute's inactivity
- Incorrect programming warning
- Possibility of setting automatic channels scanning, hottest channel, manual scanning
- Maximum reached temperatures and alarm storage
- Frontal alarm reset push button
- Voting function
- Fail Safe function

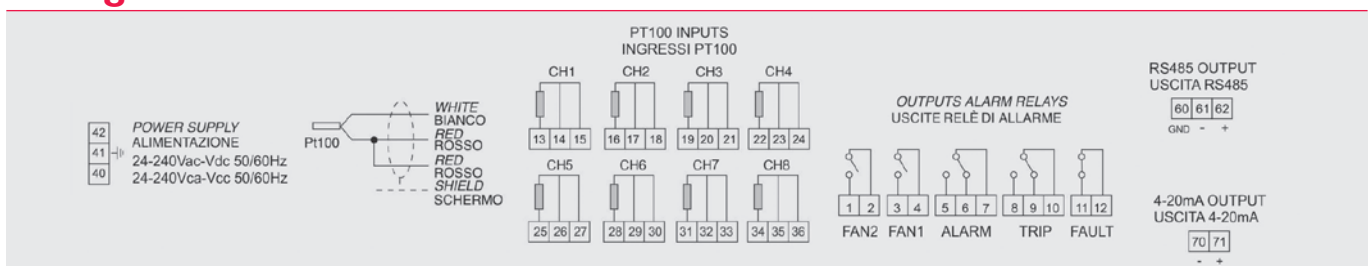
Dimensions

- 100 x 100 mm DIN 43700 depth 131 mm (terminals included)
- Panel cut-out 92 x 92 mm

Options

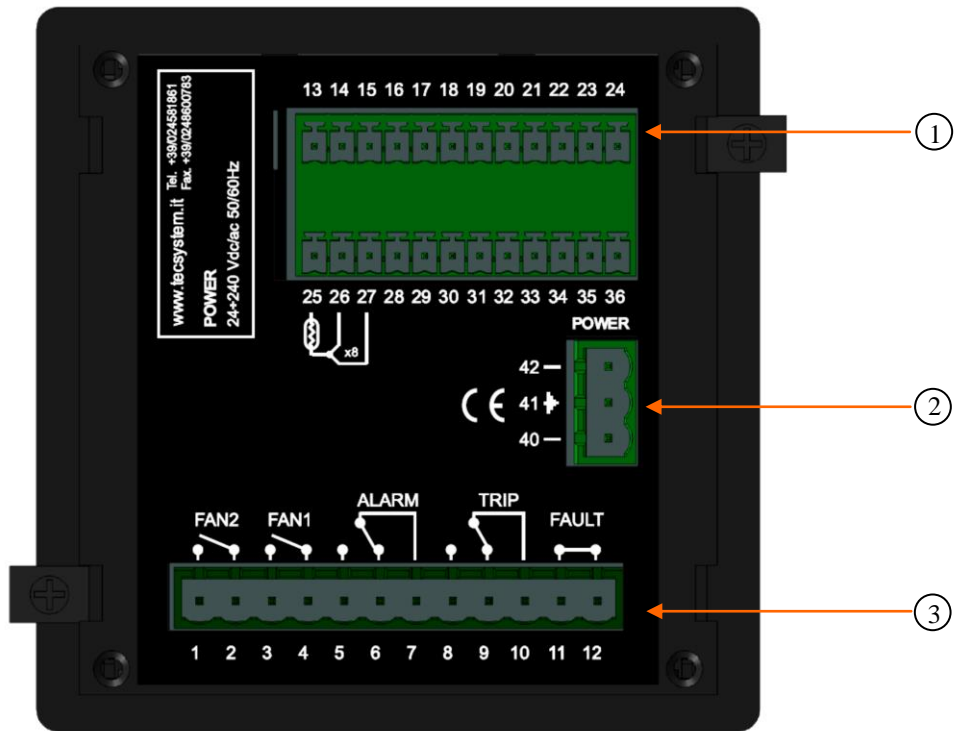
- Basic version without RS485 and 4.20mA outputs

Collegamenti elettrici | Electrical connections



ELECTRICAL CONNECTIONS

NT538 BASIC

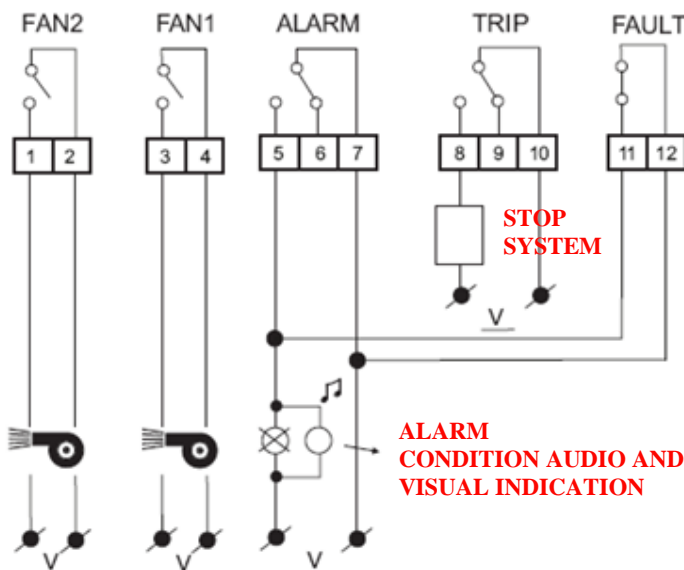


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1)	Pt100 sensors (white-red-red)	3)	Relays (FAN2-FAN1-ALARM-TRIP-FAULT)
2)	Supply 24-240Vac-dc 50/60Hz.		

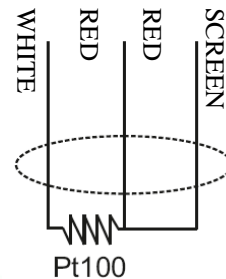
Note: relay contact image in non-alarm condition, with the exception of the FAULT relay that opens: contacts 11-12 open (NO) contacts 11-12 closed (NC) fault condition identification. Read the Alarms and Ventilation paragraph on page 13 and see the opening of the fault contact.

RELAY CONNECTION EXAMPLE



**ALARM
CONDITION AUDIO AND
VISUAL INDICATION**

Pt100 CONNECTION EXAMPLE



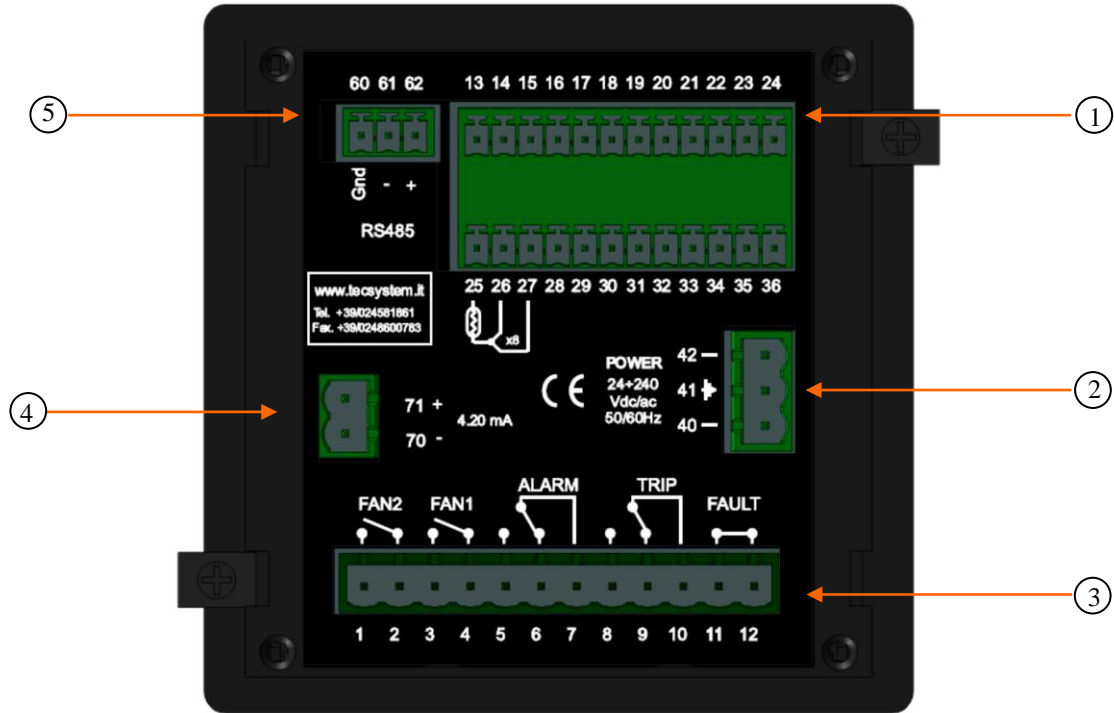
Note: before connecting the sensors to the control unit, read the Measurement signal transfer paragraph on page 16.

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Output relay with 10A-250Vac-res COS Φ =1 contacts.

ELECTRICAL CONNECTIONS

NT538 AD

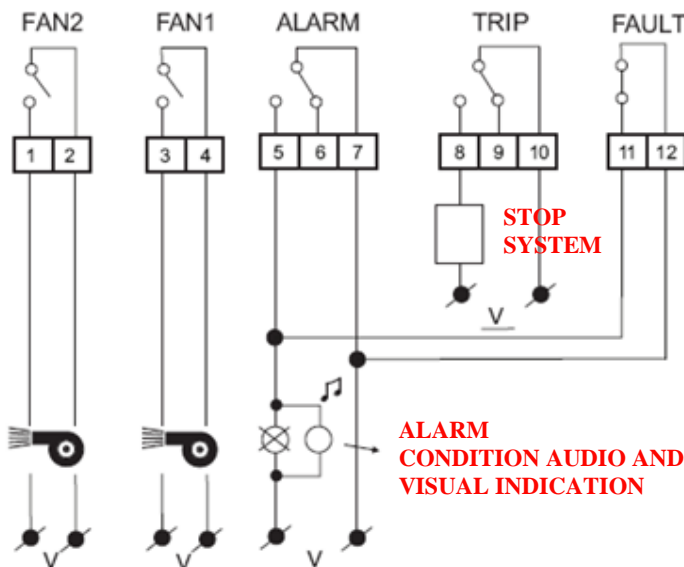


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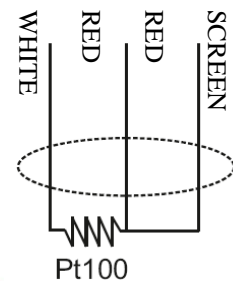
1)	Pt100 sensors (white-red-red)	3)	Relays (FAN2-FAN1-ALARM-TRIP-FAULT)
2)	Supply 24-240Vac-dc 50/60Hz.	4)	Output 4.20 mA
5)	Modbus RTU RS485 output		

Note: relay contact image in non-alarm condition, with the exception of the FAULT relay that opens: contacts 11-12 open (NO) contacts 11-12 closed (NC) fault condition identification. Read the Alarms and Ventilation paragraph on page 13 and see the opening of the fault contact.

RELAY CONNECTION EXAMPLE



Pt100 CONNECTION EXAMPLE



Note: before connecting the sensors to the control unit, read the Measurement signal transfer paragraph on page 16.

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Output relay with 10A-250Vac-res $\text{COS}\Phi=1$ contacts.