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ELECTRONIC ON - OFF DIFFERENTIAL THERMOSTAT

TED 786

DISCONTINUED PRODUCT

TO SEE A SUITABLE REPLACEMENT PRODUCT

- Power supply 220/240 Volt ac; IP 20 Protection
- Constructed in DIN 96 x 48 casing with undecal socket for panel or DIN rail mounting
- Control of differential between two temperatures with SPDT On-Off output

APPLICATION

The TED 786 electronic differential thermostat is designed for use in all circumstances where it is necessary to intervene in relation to the differential between two temperatures:
– Control of pump in solar plants
– Control of dynamic systems for heat recovery
– Control of calorifier pump in installations with wood-fired boilers.

OPERATION

Detector B1 measures the low temperature T1 and detector B2 measures the high temperature T2. TED 786 compares the two values, and, when the differential T2 - T1 exceeds the set value ΔT On (fig. 4.2), energises the output relay (contacts 11-9 open and 11-10 closed); it de-energises the relay (contacts 11-9 closed and 11-10 open) when the differential returns below the set value Δt Off (fig. 4.3).
The activation of the relay is indicated by the “On” LED on the facia (fig. 4.1).

CONSTRUCTION

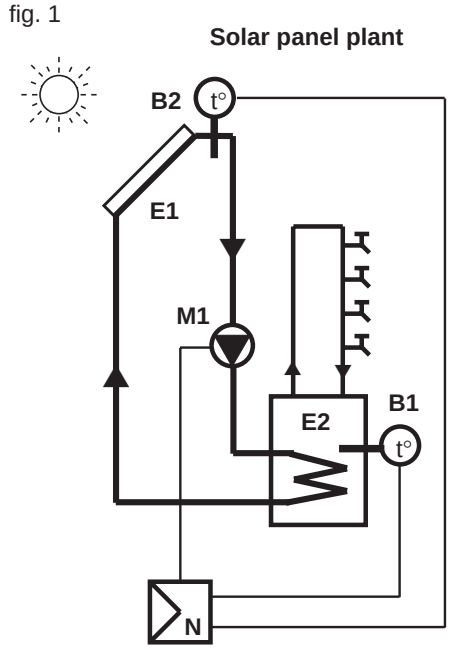
Constructed in DIN 96 x 48 casing with undecal socket for the electrical connections; IP 20 protection (fig.3).
The electronic unit is constructed according to Italian Electrotechnical Committee (CEI) specifications.
TED 786 is suitable for panel or DIN rail mounting inside a cabinet for electrical equipment.

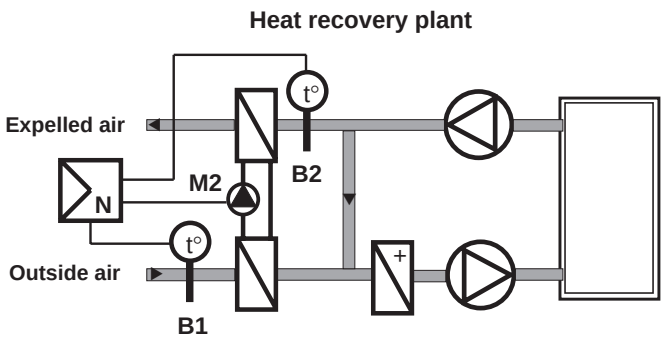
SUITABLE DETECTORS

Model	Description	Pocket	Data sh.
SCH 010	Surface detector	–	N 130
SIH 010	Immersion detector	1/2"x90 mm.	N 140
STA 010	Air duct detector	–	N 150
SAF 010	Cable-type detector	–	N 145
GIS 090	Pocket for SAF detector	1/2"x90 mm.	N 145
GIS 160	Pocket for SAF detector	1/2"x160 mm.	N 145
GIS 500	Pocket for SAF detector	1/2"x500 mm.	N 145

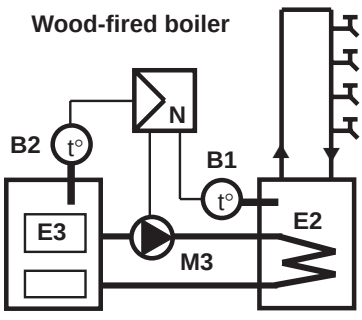
SCHEMATIC DIAGRAMS

fig. 1



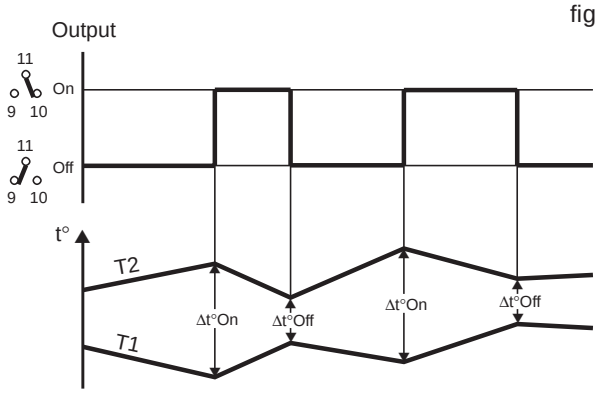


B1 – Low temperature detector
B2 – Hight temperature detector
E1 – Solar panels
E2 – Calorifier
E3 – Wood-fired boiler
M1 – Solar plant pump
M2 – Recovery pump
M3 – Boiler pump
N – TED 786 controller



OPERATING DIAGRAMS

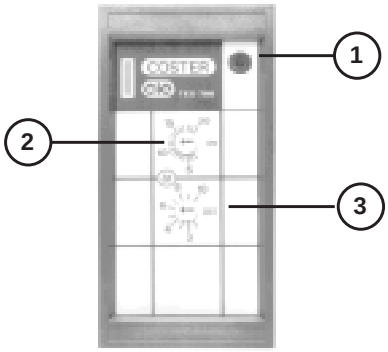
fig. 2



T1 – Low temperature measured by detector B1
T2 – High temperature measured by detector B2

FACIA

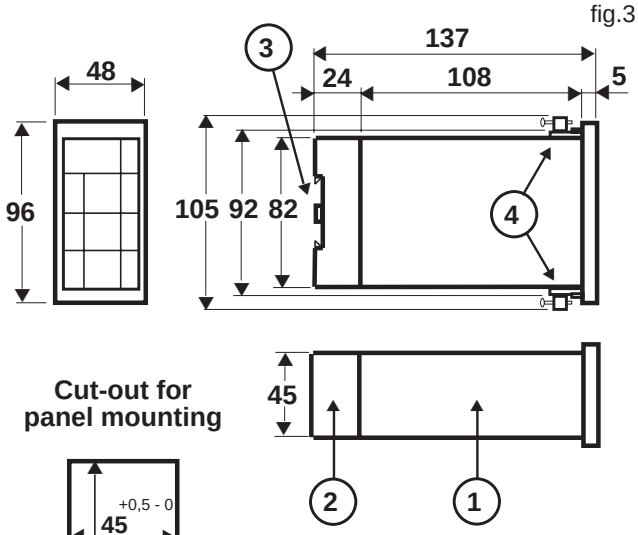
fig. 4



1 – On LED
2 – On differential
3 – Off differential

OVERALL DIMENSIONS

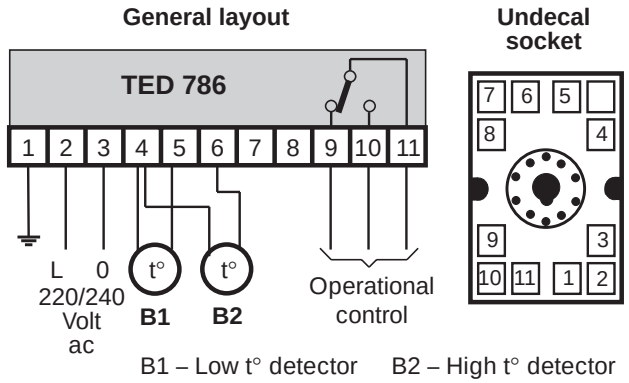
fig.3



1 – DIN 96 x 48 casing
2 – Undecal socket
3 – DIN rail attachment
4 – Fixing blocks

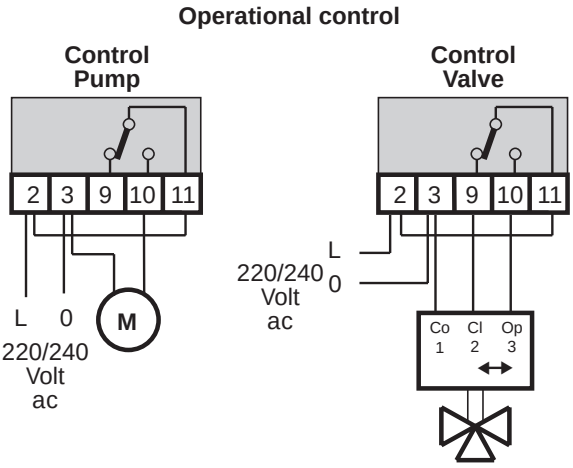
WIRING DIAGRAMS

fig. 5



B1 – Low t° detector B2 – High t° detector

Δt° actual > Δt° set : 11-10 closed ; 11-9 open
Δt° actual < Δt° set : 11-10 open ; 11-9 closed



TECHNICAL DATA

Power supply	220/240 Volt ac
Consumption	2 VA
Suitable detectors	NTC 10 kΩ
Output contact:	
– type	SPDT
– maximum voltage applicable	250 Volt c.a.
– maximum capacity	5 (1) A
Differential :	
– Δt° ON	3 to 20 °C
– Δt° OFF	1 to 10 °C
Room temperature:	
– operating	0 to 45 °C
– storage	– 20 to + 60 °C
Protection	IP 20
Weight	Kg. 0.360

ELECTRICAL CONNECTIONS

Connections are made using normal cables for low voltage. For connecting the detectors use cables having cores with a 1 mm² cross section for distances up to 500 metres.

COSTER
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