

FEATURES

- K, J, T, S, E or T Thermocouple input
- LED display
- High accuracy and linearity
- HOLD function
- Conform to EMC standards - CE mark
- Large choice of power supply
- DIN 48 x 96 mm housing
- Low power consumption

APPLICATIONS

- Temperature measure and visualization in:
- Automation systems
 - Process controls



GENERAL INFORMATION

The DAT 804D is a digital thermometer suitable to measure a temperature signal coming from a thermocouple. The measure is visualized on a LED display. In the instrument are performed the functions of amplification, cold junction compensation, linearization and A/D conversion. To power the instrument the user can choose from various possibilities: 24Vdc isolated, 230Vac, 5Vdc etc... The set up of the instrument is particularly simple and cheap: the fixing system on panel (bracket type) and the simple connection system (screw terminal type) allows maximum simplicity and economy of installation. As option, it is available an analog signal output. The readout hold function activated by an external command and the low power consumption complete the instrument features and make it the ideal solution for measure and visualization applications in the industrial field. The instrument, conform to the 89/336 /EEC directives on electromagnetic compatibility, is housed in a case complying DIN 43700 standards.

TECHNICAL SPECIFICATIONS (Typical @ 25°C and in the nominal conditions)

Input

Input signal From K, J, S, N, e or T thermocouple (IEC 584)

Display

Display type High efficiency LED
Digit height 0.52"

Features

Reading accuracy 0.25 % of f.s.
Thermal drift 0.02 % of f.s. / °C
Response time 0.8 s (from 10 to 90 % of f.s.)
Electromagnetic Compatibility and Safety Conformity According to EN50081-2, EN50082-1 and EN61010-1

Environmental characteristics

Power supply voltage Standard: Option 00: 230Vac at 50 Hz - 1.5 VA
Opt. 01: 24 Vdc (1000V isolation from power supply) at 10mA
Opt. 02: 5Vdc at 100mA; Opt. 03: 120Vac at 50 Hz - 1.5 VA;
Opt. 04: 24Vac at 50 Hz - 1.5 VA; Opt. 05: 24 Vdc auxiliary output.

Operating temperature -10 ÷ 60 °C
Storage temperature -40 ÷ 110 °C
Relative humidity (non condensing) from 0 to 90 %
Weight 250 grams

OPERATING INSTRUCTIONS

Sensor: The instrument is designed to visualize a temperature measure detected by a thermocouple connected as illustrated in the wiring diagram. The instrument can be supplied for thermocouple K, J, S, N, E or T and the type desired must be indicated on the order.

Range: In the table below are illustrated the standard ranges; These ranges are normally sufficient to cover the most general requirements. However, on request, is possible to supply the instrument with a particular range, in order to obtain more accuracy or better resolution in a narrow range, or with a larger range than the standard.

The thermometers are supplied perfectly calibrated, however it is possible to make some little adjustment in field by using the two trimmers inside, after removing the front panel (see "Adjustments view").

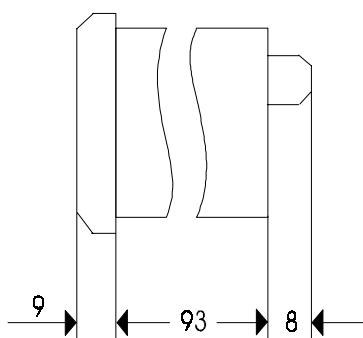
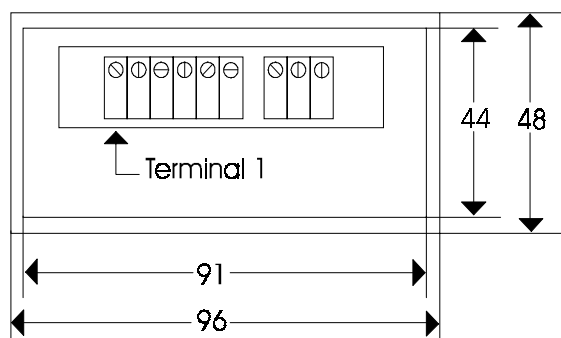
Power supply: In the figure and table below are illustrated the arrangements and the terminal designation in order to make the correct wiring. When utilizing instrument with option 02 a regulated power supply of 5Vdc $\pm 5\%$ is recommended and in any case avoid to exceed a value of 5.5Vd because permanent damage can arise to the instrument. The power consumption depend principally on the type of display selected and it is indicated in the "technical specifications".

24 Vdc auxiliary output: When ordered with Opt. 05, it is available between T4(V+) and T6(GND) terminals.

HOLD FUNCTION or ANALOG OUTPUT:

To activate this function, simply HOLD(T5) terminal must be connected to COM (T6) terminal. The same terminal T5, when you have requested option 07, provides the analog output: 4-20mA (opt. 07/A), 0-20mA (opt. 07/B), 0-10V (opt. 07/C).

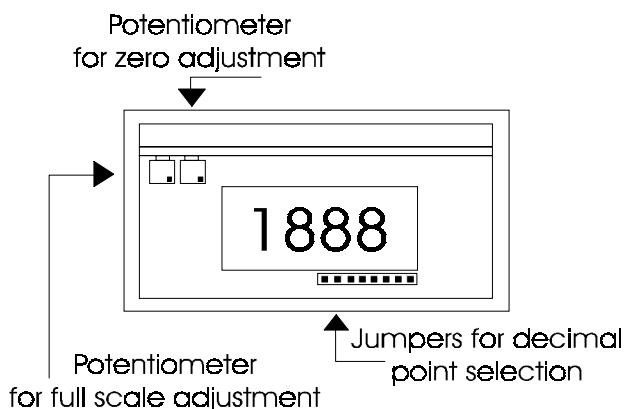
DIMENSIONS AND TERMINALS VIEW



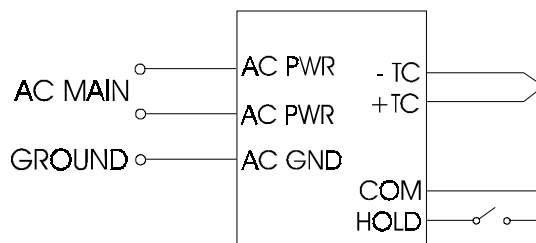
DAT 804 TERMINAL TABLE			
T1	N.C.	T6	COMMON
T2	- TC	T7	AC GND
T3	+TC	T8	AC POWER
T4	NC	T9	AC POWER
T5	HOLD		

NOTE: with option 07, the Analog Output is provided on T5 (HOLD) terminal

ADJUSTMENTS VIEW



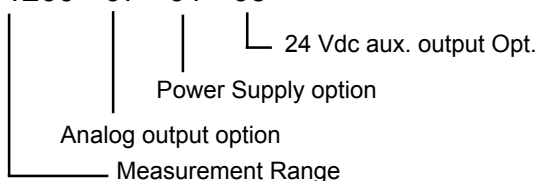
WIRING DIAGRAM



AVAILABLE RANGES						
RANGE	THERMOCOUPLE					
	K	J	E	S	T	N
0 ÷ 300						
0 ÷ 600						
0 ÷ 900						
0 ÷ 1200						
0 ÷ 1600						

HOW TO ORDER:

DAT 804 D K 0/1200 - 07 - 01 - 05



EDIT.10.00-REV.00