

DIP

Digital Indicators

Characteristics

Model DIP T:

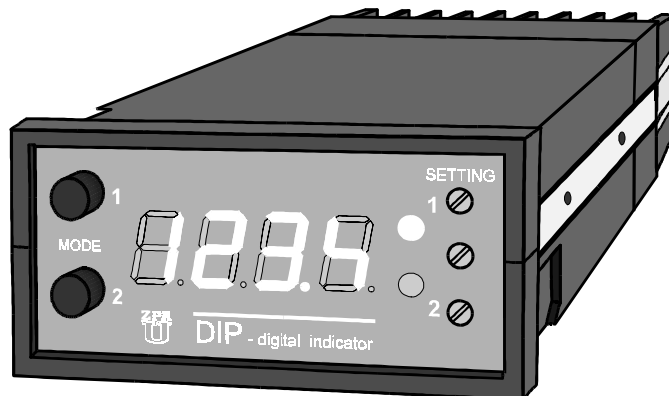
Input: 3 wire Pt100 sensor
 Ranges: - 10 + +40°C, - 50 + +200°C, 0 + 600°C

Model DIP 4:

Input: current loop 4 ÷ 20 mA,
 active/passive unipolar,
 input overcurrent protection

Indication: -1999 ÷ +1999 pre-set by the manufacturer
 0 ÷ 100% as a standard

Output: without outputs, 1 relay, 2 relays
 Supply: 230 V, 50 Hz
 Protection: IP40
 Mounting: panel mounting



Description

Digital indicators of DIP series are being offered as two models:
 - Model **DI T** for the indication of temperatures measured with 3 wire Pt100 sensor.

- Model **DI 4** for indication of any value transformed into a unified current signal 4 ÷ 20 mA.

A standard indication range of DIP 4 is 0.0 ÷ 100.0 (%). Indicator with arbitrary indication range within a band of -1999 ÷ +1999 including setting the position of decimal point can be supplied per special order. *This enables to display the numerical value of a physical variable transformed into current signal.*

For the evaluation of measured limit values the indicator can be equipped with two comparators that control output relays. When pressing the corresponding push button on the front panel, the instrument displays the pre-set limit value. This value can be continuously changed by turning the corresponding potentiometer. The closing of output relays is indicated by

a corresponding LED. When pressing both push buttons the instrument indicates output hysteresis.

Digital indicators **DIP .. - 1R..** with one output relay are suitable for two-state regulation with hysteresis within a range of 2÷100%. Hysteresis lower than 2 % is not recommended because it could impair output stability. These instruments can be supplied with relay characteristic of type **A** intended for double-mode control of maximum values (e.g. in cooling) or of type **B** for control of minimum values (e.g. in heating).

Indicators **DIP .. - 2R..** with two output relays enable us also to carry out a three-state regulation. Common hysteresis of both outputs is adjustable within 2 ÷ 10 % on the front panel.

Digital indicators **DIP T.. I** are equipped also with a transducer for transforming the value measured into output current signal 4 ÷ 20 mA.

Technical data - general

Indication:	3½ digits, red* LED display, 14 mm
Accuracy:	0.2 % +1 digit
Power supply:	230 V, 50 Hz
Power consumption:	4 VA
Protection:	external, recommended fuse 32 mA
Working conditions	temperature: - 20°C ÷ +60°C, humidity: ≤ 80%
Enclosure:	instrument: IP 40, terminal: IP 20
Dimensions:	96 x 48 x 149 mm
Weight:	0,4 kg
Mounting:	panel mounting, mounting hole: 92 x 44 mm

* Different display colour per special order

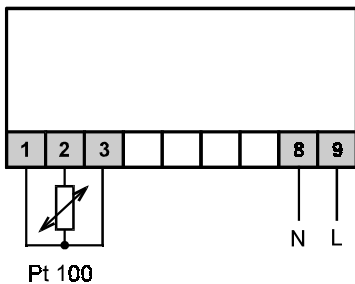
Due to continuous development the producer reserves the right to make minor changes without prior notice.

Technical data - model DIP T

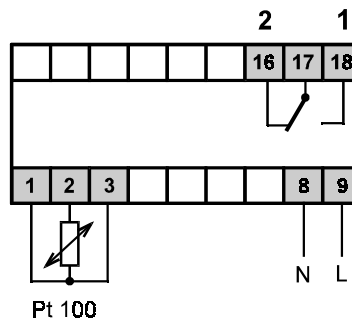
Instrument:	DIP T ... - 0R	DIP T ... - 1R..	DIP T ... - 2R
Input:	Pt100	Pt100	Pt100
Ranges / resolution :	-10°C ÷ +40°C / 0,1°C -50°C ÷ +200°C / 0,1°C 0°C ÷ 600°C / 1°C	-10°C ÷ +40°C / 0,1°C -50°C ÷ +200°C / 0,1°C 0°C ÷ 600°C / 1°C	-10°C ÷ +40°C / 0,1°C -50°C ÷ +200°C / 0,1°C 0°C ÷ 600°C / 1°C
Outputs:	-	1 x relay 250 V, 8 A	2 x relays 250 V, 8 A
Comparison accuracy:	-	0,5%	0,5%
Hysteresis:	-	2 ÷ 100% adjust. *	2 ÷ 10% adjust. *

* Minimum hysteresis for range 0 ÷ 600°C is 2 %. Hysteresis lower than 1 % od 2% may impair output stability.

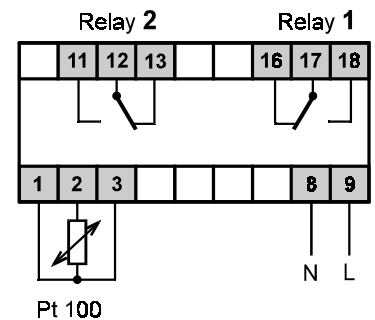
Indicators **DIP T .. -0R.I**, **DIP T .. -1R A.I**, **DIP T .. -1R B.I** and **DIP T .. -2R.I** are equipped with a transducer for the output current signal 4 ÷ 20 mA. Output is protected against overloading and short circuit.

Terminal wiring of DIP T


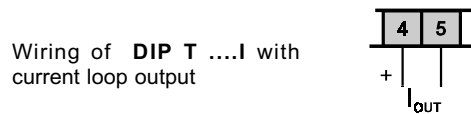
Wiring of **DIP T ... - 0R**



Wiring of **DIP T ... - 1R A(B)**



Wiring of **DIP T ... - 2R**



Wiring of **DIP TI** with current loop output

Technical data - model DI 4

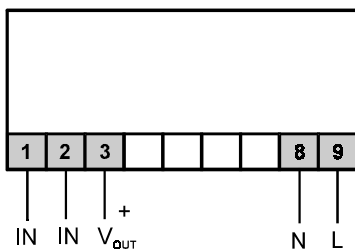
Instrument:	DIP 4 - 0R	DIP 4 - 1R A(B)	DIP 4 - 2R
Input:	current loop active / passive	current loop active / passive	current loop active / passive
Range:	4 ÷ 20 mA	4 ÷ 20 mA	4 ÷ 20 mA
Outputs:	-	1 x relay 250V, 8A	2 x relay 250V, 8A
Comparison accuracy:	-	0,5%	0,5%
Hysteresis:	-	2 ÷ 100% adjust.*	2 ÷ 10% adjust.*

Active current input is protected against overloading and short circuit. Transducer voltage supply: 24 V= non-stabilised, current limit: 25 mA.

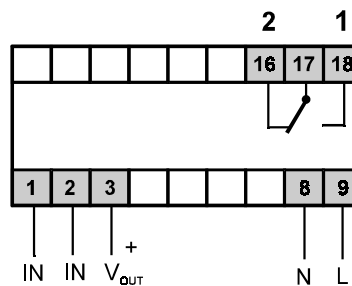
Passive current input is unipolar, protected against overloading (current limit: 25 mA).

Interruption of current loop is indicated by a value -25 % of the indication range, short circuit is indicated by a value +130 % of indication range,.

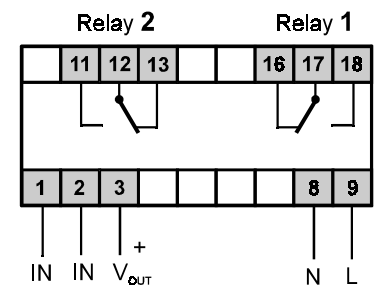
* Setting hysteresis lower than 2 % can impair output stability

Terminal wiring of DIP 4


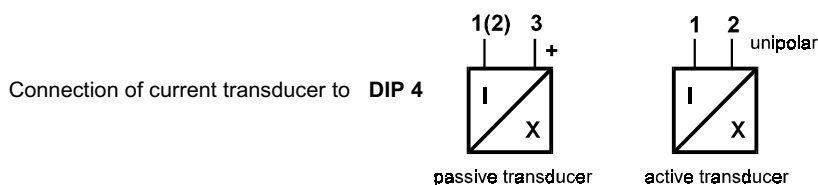
Wiring of **DIP 4 - 0R**



Wiring of **DIP 4 - 1R A(B)**



Wiring of **DIP 4 - 2R**



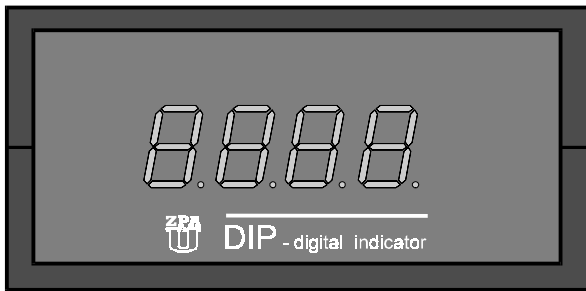
Connection of current transducer to **DIP 4**

passive transducer active transducer

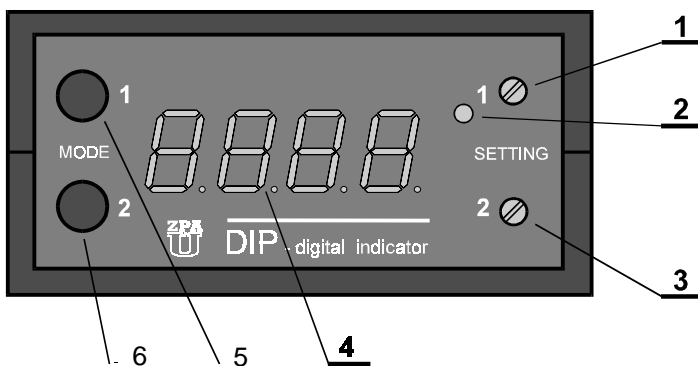
Due to continuous development the producer reserves the right to make minor changes without prior notice.

Front panel description

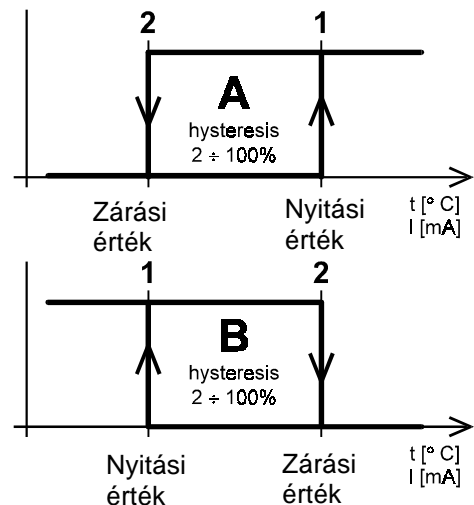
DIP T ... - 0R, DIP T ... - 0R.I
DIP 4 - 0R



DIP T ... - 1R A, DIP T ... - 1R B,
DIP T ... - 1R A.I, DIP T ... - 1R B.I
DIP 4 - 1R A, DIP 4 - 1R B

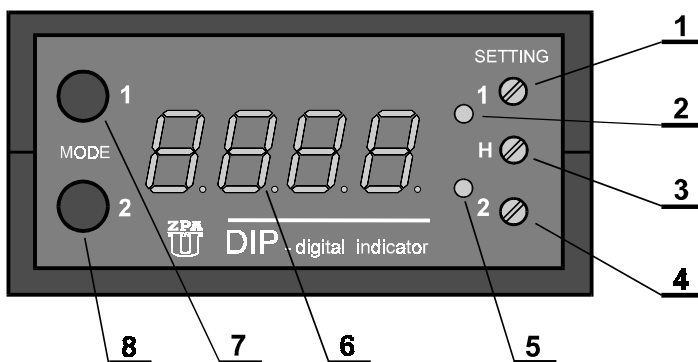


- 1 - Kimentí relé záró érték beállítása
- 2 - A relé zárt állapotának jelzése
- 3 - Kimentí relé nyitó érték beállítása
- 4 - 3 1/2 digites, piros LED-es kijelzés, 14 mm
- 5 Nyomja meg, hogy láthassa a relé zárási értékét

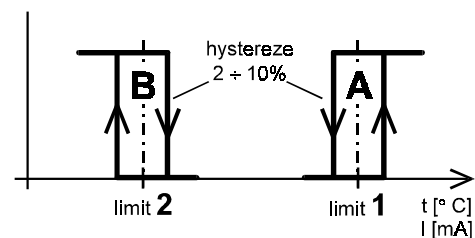


- 6 - Nyomja meg, hogy láthassa a relé nyitási értékét
- * Mindkét gombot egyszerre megnyomva, a kijelzőn megjelenik a két beállított érték közötti differencia.

DIP T ... - 2R, DIP T ... - 2R.I
DIP 4 - 2R



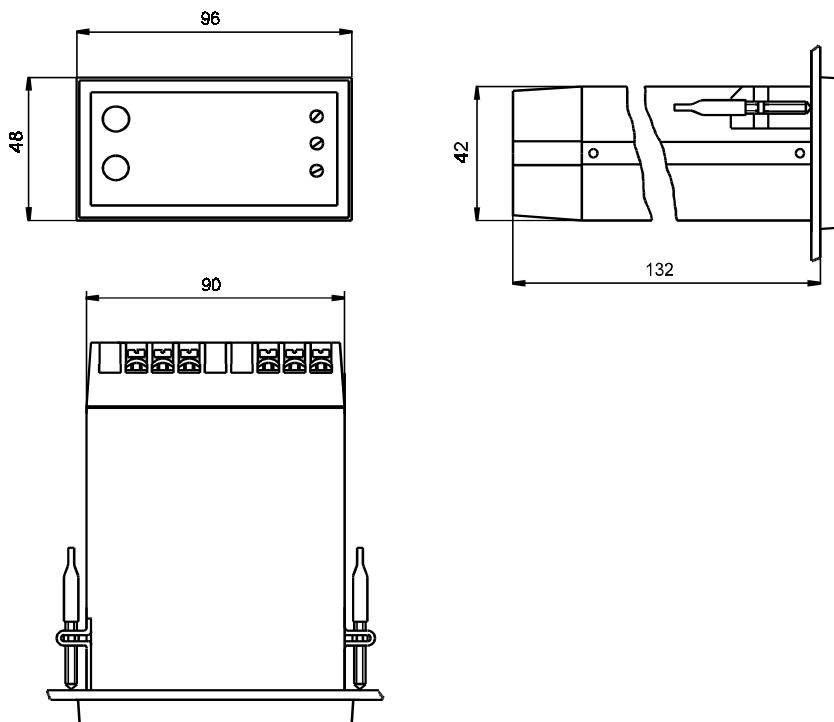
- 1 - Setting the limit for relay 1 closing
- 2 - Indication of relay 1 closing
- 3 - Setting the hysteresis of outputs within the band 2 ± 10 %
- 4 - Setting the limit for relay 2 closing
- 5 - Indication of relay 2 closing
- 6 - 3 1/2 digits, red LED display, 14 mm



Note: This indicator can be supplied per special order with hysteresis characteristics orientated in the same way (type AA or BB).

- 7 - Push button for the indication of the setting of closing limit (1) of output relay*
- 8 - Push button for the indication of the setting of opening limit (2) of output relay *

* When pressing both push buttons simultaneously, the device indicates the output hysteresis that can be then changed by the potentiometer marked H. Hysteresis characteristics are symmetrical with respect to the pre-set limits!

Dimensions

Ordering information

part number	type	name	
40 07032 901013	DIP T -10/40 - 0R	Digital temperature indicator, range -10°C to +40°C	
40 07032 901014	DIP T -10/40 - 1R A	„	range -10°C to +40°C, 1 output relay - type A
40 07032 901114	DIP T -10/40 - 1R B	„	range -10°C to +40°C, 1 output relay - type B
40 07032 901015	DIP T -10/40 - 2R	„	range -10°C to +40°C, 2 output relays
40 07032 901007	DIP T -50/200 - 0R	range -50°C to +200°C	
40 07032 901008	DIP T -50/200 - 1R A	„	range -50°C to +200°C, 1 output relay - type A
40 07032 901108	DIP T -50/200 - 1R B	„	range -50°C to +200°C, 1 output relay - type B
40 07032 901009	DIP T -50/200 - 2R	„	range -50°C to +200°C, 2 output relays
40 07032 901010	DIP T 0/600 - 0R	„	range 0°C to 600°C
40 07032 901011	DIP T 0/600 - 1R A	„	range 0°C to 600°C, 1 output relay - type A
40 07032 901111	DIP T 0/600 - 1R B	„	range 0°C to 600°C, 1 output relay - type B
40 07032 901012	DIP T 0/600 - 2R	„	range 0°C to 600°C, 2 output relays
40 07032 901001	DIP 4 - 0R	Digital indicator	
40 07032 901003	DIP 4 - 1R A	Digital indicator,	1 output relay - type A
40 07032 901103	DIP 4 - 1R B	„	1 output relay - type B
40 07032 901005	DIP 4 - 2R	„	2 output relays

Caution!

When so ordered, the temperature digital indicators **DIP T ..** can be equipped with current output transforming the temperature measurement range into 4 - 20 mA (DIP T...I). This requirement must be explicitly given in the order.

Indicators DI .. - 2R.. with two relay outputs can be supplied per special order with hysteresis characteristics orientated in the same way (AA or BB).

Standard indication range of **DIP 4** instruments is 0.0 ÷ 100.0 (%). A different indication range (possible band: -1999 to + 1999) or a different position of decimal point if required must be specified in the order (example: Digital indicator DIP 4 - 2R, order number 40 07031 901005, indication range -5.00 to 18.00).

All **DIP** models can be supplied also with green or yellow display. If required, this change must be specified in the order.