

## Digitális Kijelzők

### Típus: DIP panelbe és DI sínre szerelhető

A két kijelző között három különbséget különíthetünk el: a fel vagy beszerelési módok között, a DI típusú kijelző nem szabványos, beállítható árambemenettel rendelhető, illetve a DIP T -hez egy plusz áramkimenet is kérhető.

A kijelzők két féle bemenettel rendelkezhetnek:

- Pt 100 számára 3 vezetékes kialakítással (DIP T, DI T)
- 4...20mA aktív vagy passzív unipoláris (DIP 4, DI 4)

A kijelzés szintén kétféle lehet:

-1999.....+1999 között a gyár által előre beállított értékek közötti

0....100% standard

3 1/2 digit, 14 mm-es piros LED

Kimenetnek két féle relé közül választhatnak:

- "A"-t hűtési rendszerekhez
- "B"-t a fűtési rendszerekhez

A készülékek lehetnek:

- kimenet nélküliek
- 1 relés kimenetű (A vagy B)
- 2 relés kimenetű (BA-standard, de választható más összeállítás is)

**Pontossága:** 0,2% + 1 digit

**Tápellátás:** 230 V AC

Teljesítménye: 4 VA

**Védettség:**

IP 40, IP 00 a sorkapcsoknál (DIP)

IP 20 (DI)

**Súly:** 0,4 kg

**Méret:**

96x48-149 mm (DIP),  
szerelési nyílás: 92x44 mm

106x90x58 mm (DI),  
TS 35-ös DIN sínre szerelendő

**Munkakörnyezet:**

hőmérséklet: -20...+60°C

páratartalom: ≤ 80%



# DIP

# Digital Indicators

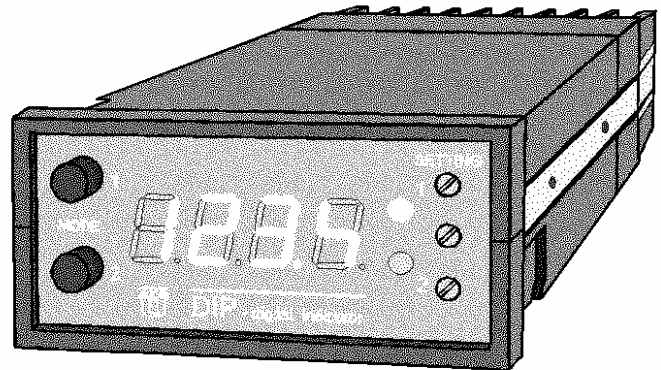
## Characteristics

### 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

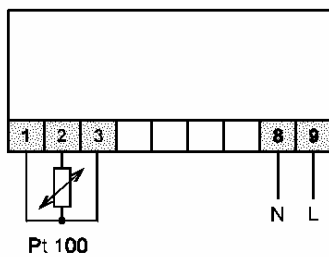
\* Different display colour per special order

**Technical data - model DIP T**

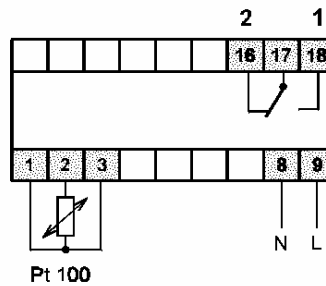
Instrument:	DIP T ... - 0R	DIP T ... - 1R..	DIP T ... - 2R
Input:	Pt100	Pt100	Pt100
Ranges / resolution	-10°C + +40°C / 0,1°C -50°C + +200°C / 0,1°C 0°C + 600°C / 1°C	-10°C + +40°C / 0,1°C -50°C + +200°C / 0,1°C 0°C + 600°C / 1°C	-10°C + +40°C / 0,1°C -50°C + +200°C / 0,1°C 0°C + 600°C / 1°C
Outputs:	-	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.

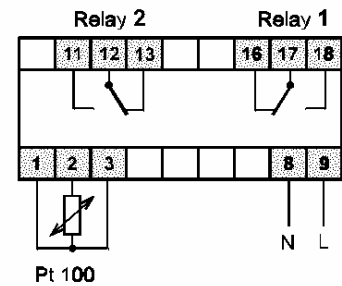
**Terminal wiring of DIP T**



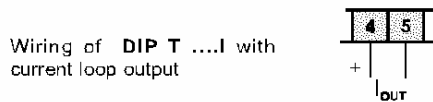
Wiring of DIP T ... - 0R



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



Wiring of DIP T ... - 2R



**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.*

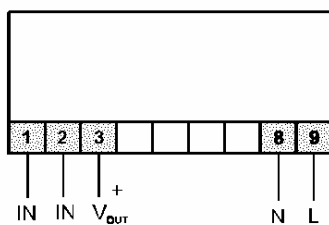
Active current input is protected against overloading and short circuit. Transducer voltage supply: 24 V= non-stabilised, current limit: 25 mA.

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

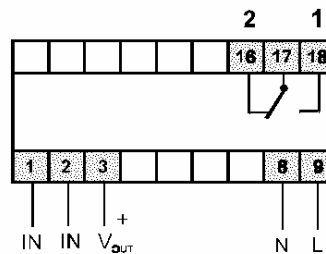
Interruption of current loop is indicated by a value -25 % of the indication range, short circuit is indicated by a value +130 % of indication range,.

\* Setting hysteresis lower than 2 % can impair output stability

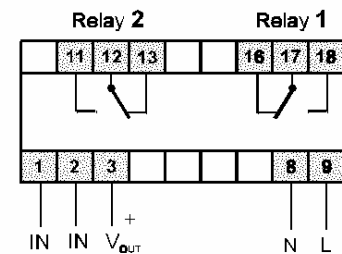
**Terminal wiring of DIP 4**



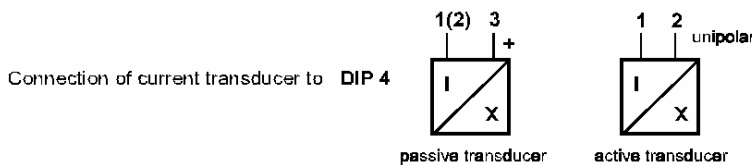
Wiring of DIP 4 - 0R



Wiring of DIP 4 - 1R A(B)

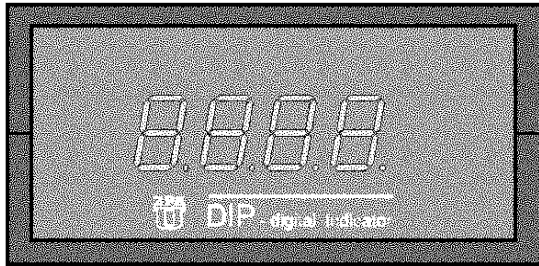


Wiring of DIP 4 - 2R

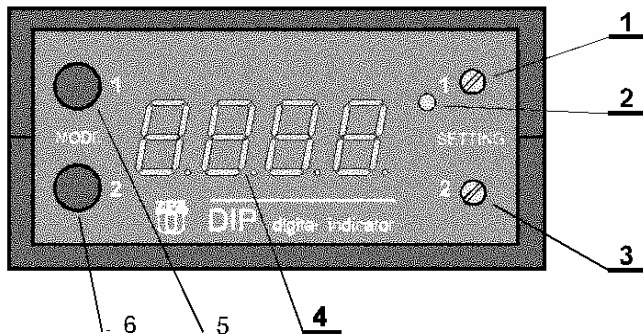


**Front panel description**

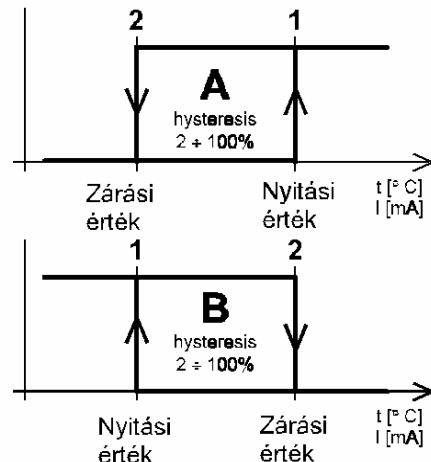
DIP T ... - DR, DIP T ... - DR.I  
DIP 4 - DR



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



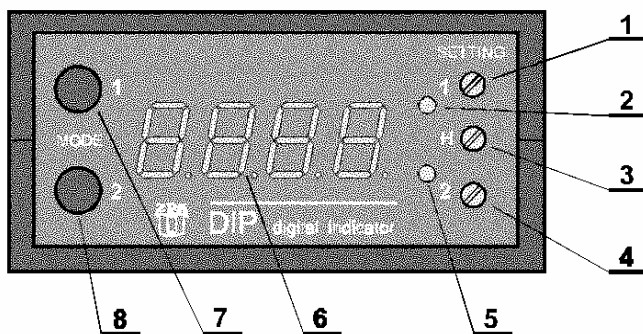
- 1 - Kimentí relé záró érték beállítása
- 2 - A relé zárt állapotának jelzése
- 3 - Kimentí relé nyitó érték beállítása
- 4 - 3 1/2 digit, piros LED-es kijelzés, 14 mm
- 5 - Nyomja meg, hogy láthassa a relé zárási értékét



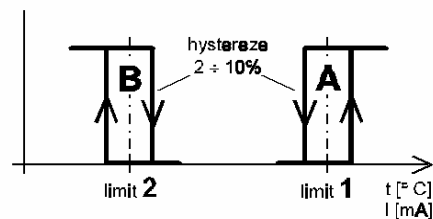
6 - Nyomja meg, hogy láthassa a relé nyitási értékét

\* 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  $2 \div 10\%$
- 4 - Setting the limit for relay 2 closing
- 5 - Indication of relay 2 closing
- 6 - 3 1/2 digits, red LED display, 14 mm

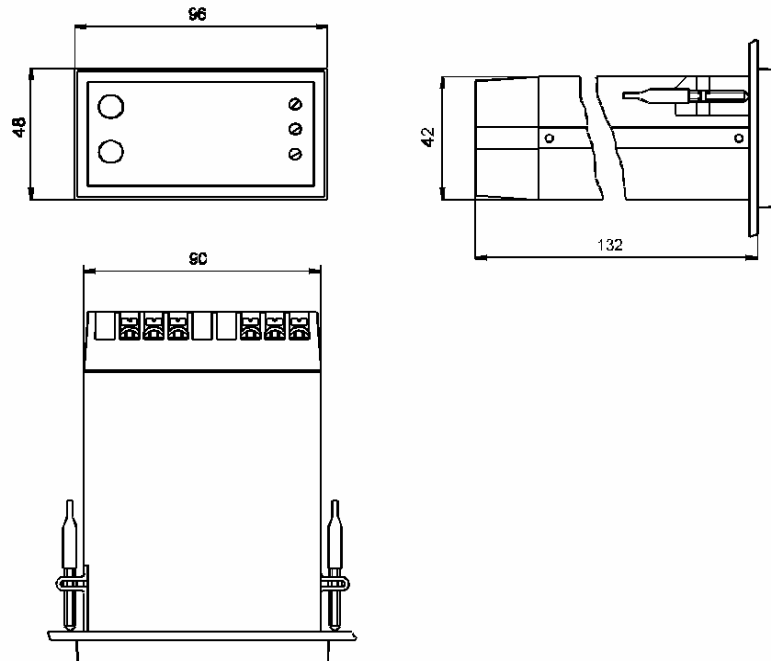


Note: This indicator can be supplied per special order with hysteresis characteristics orientated in the same way (type AA or BB).

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