

Contact devices

Dial thermometers with contact devices are supplied with housing diameters of 100 mm and 160 mm.

Types:
 1. Standard contact type S
 2. Magnet contact type M
 3. Inductive contact type I

Front screen: Makrolan, with waterproofed adjusting lock and removable key.

Type of protection: IP 54

1. Standard contact:
 Operating voltage: max. 250 V (DC/AC);
 Switching capacity: max. 10 W / 18 VA
 Switching current: max. 0,7 A (resistive load)

Dial thermometers with standard contacts are used where a high contact load is not required and the appliances are not exposed to any severe vibrations. Opening and closing the contacts take place without delay at the set limit value. For this type of contact case filled with stabilizing liquid is not possible.

2. Magnet contact:
 Operating voltage: max. 250 V (DC/AC)⁴⁾
 Switching capacity: max. 30 W / 50 VA⁴⁾
 Switching current: max. 1 A (resistive load)

Dial thermometers with magnet spring contacts can be used under virtually all working conditions. The contacts are largely insensitive to vibration. Since, with this design, the magnetic force acts during the switching operation, this generally results in no chatter. We recommend that a relay also be used if a high control accuracy is required.

Switching functions

Circuit diagram ²⁾	type with no. ¹⁾		Switching functions Clockwise pointer movement ³⁾
	Standard contact	Magnet spring contact	
	S 1	M 1	Contact closes when limit value exceeded
	S 2	M 2	Contact opens when limit value exceeded
	S 12	M 12	1. Contact closes when ... 2. Contact opens when limit value exceeded
	S 21	M 21	1. Contact opens when ... 2. Contact closes when limit value exceeded
	S 11	M 11	1. Contact and 2. Contact close when limit value exceeded
	S 22	M 22	1. Contact and 2. Contact open when limit value exceeded



¹⁾ When ordering, please indicate the appropriate number (e.g. S 12 etc.)

²⁾ The contact ends or terminals are logically marked. Earth wires are always marked green/yellow.

³⁾ The switching function is reversed when the pointer moves in an anticlockwise direction.

⁴⁾ With oil filling: max. 220 V DC/AC and 20 W / 20 VA

3. Inductive contact (proximity) EEx ibllc T6

This proximity contact must always be used together with a transistor-relay. Depending on the application, controllers with intrinsically safe control circuits (flame-proof design) or non-intrinsically safe control circuits are to be used. In principle, the controllers should be installed outside the hazardous area. The NAMUR inductive contact is non-interacting, free of wear and maintenance, resistant to corrosion, and meets the highest requirements classification. The connection cable or cable outlet are blue as per regulations.



Switching function

Circuit diagram ²⁾	Type with no. ¹⁾	With clockwise pointer movement ³⁾ when limit value reached the control lug is led	Control current flows before or after the set limit value is exceeded
	I 1	out of the control head	after
	I 2	into the control head	before
	I 12	1. Contact = out of the control head 2. Contact = into the control head	1. = after 2. = before
	I 21	1. Contact = into the control head 2. Contact = out of the control head	1. = before 2. = after
	I 11	1. Contact = out of the control head 2. Contact = out of the control head	1. = after 2. = after
	I 22	1. Contact = into the control head 2. Contact = into the control head	1. = before 2. = before

¹⁾ When ordering, please indicate the appropriate number (e.g. I 11 etc.).

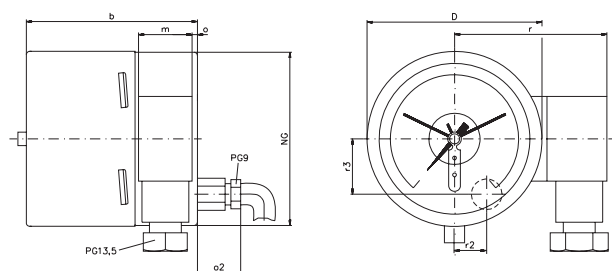
²⁾ The contact ends or terminals are logically marked. Earth wires are always marked green/yellow:

³⁾ The switching function is reversed when the pointer moves in an anticlockwise direction.

We reserve the right for technical modifications

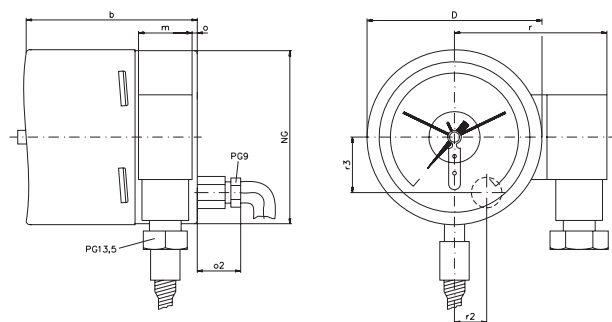
Dimensions of casing and electrical connection for contact devices

Type series 301 - 307

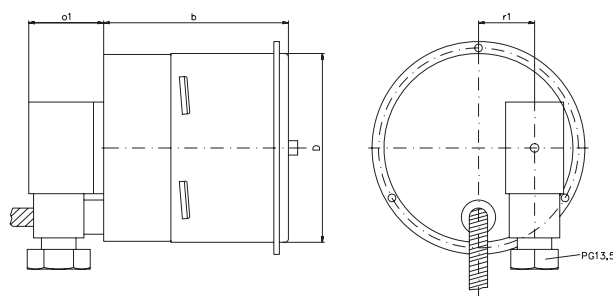


Dimensions (mm)								
Dia	b	D	m	o	o2	r	r2	r3
100	98,5	101	31	3	25	88	23	32
160	105	161	31	3,25	25	119	36	50

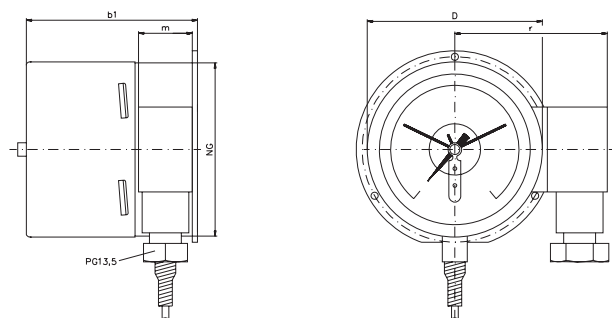
Type: 310



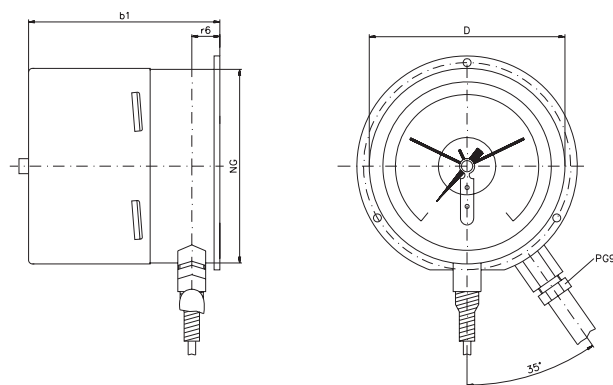
Type: 330



Type: 320 (cable terminal)



Type: 320 (cable)



Dimensions (mm)												
Dia	b	b1	D	m	o	o1	o2	r	r1	r2	r3	r6
100	98,5	102	101	31	3	40	25	88	30	23	32	14,5
160	105	109	161	31	3,25	40	25	119	55	36	50	14,5