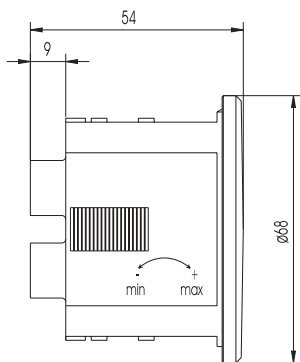




360 280 xx xx
360 281 xx xx
360 282 xx xx
360 283 xx xx
360 286 xx xx
360 287 xx xx

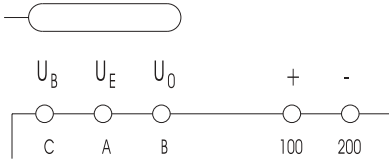
- (D)** Betriebsanleitung
LED-Rundinstrument
- (GB)** Operating instructions
LED round instrument
- (F)** Notice d'utilisation
Afficheur circulaire
- (I)** Istruzioni d'impiego
indicatore rotondo a LED

360 28x xx xx

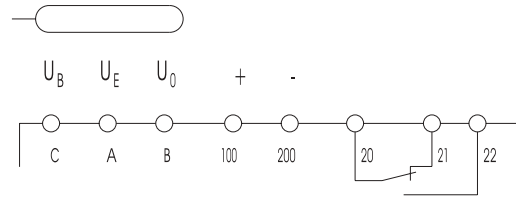


Datum: 23.09.2004

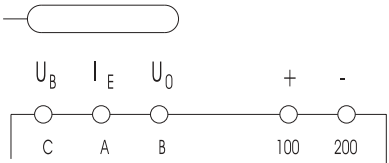
360 280 xx xx



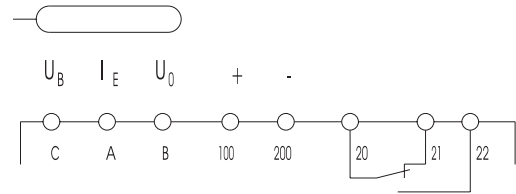
360 282 xx xx, 360 286 xx xx



360 281 xx xx



360 283 xx xx, 360 287 xx xx



1 Technical Specification

1.1 Terminal assignment

General

<i>Terminal</i>	<i>Assignment</i>
100	Supply voltage (+)
200	Ground, GND
A	Measured value from sensor
B	Ground for sensor
C	Supply voltage for sensor

Models 360 282 xx xx, 360 283 xx xx, 360 286 xx xx, 360 287 xx xx

<i>Terminal</i>	<i>Assignment</i>
20	Centre point of output relays
21	Break contact of output relays
22	Make contact of output relay

1.2 Type Name/Models

The following example and table explains the LED round instrument:

- Example:
- 360 280 GK CS
- 117 28a bc de

Wild card	Characteristic		Meaning
a)	Device type and supply voltage	0	Input: 0 ... 5 V; without relay; Supply voltage: 12 ... 24 V
		1	Input: 0 ... 20 mA; without relay; Supply voltage: 12 ... 24 V
		2	Input: 0 ... 5 V; with relay; Supply voltage: 24 V
		3	Input: 0 ... 20 mA; with relay; Supply voltage: 24 V
		6	Input: 0 ... 5 V; with relay; Supply voltage: 12 V
		7	Input: 0 ... 20 mA; with relay; Supply voltage: 12 V

Wild card	Characteristic		Meaning
b)	LED color	G	green
		R	red
		S	Special color
c	Housing shape	K	short design
d	Switch-on point of relais		see below
e	Switch-off point of relay		see below

Switch-on and switch-off point of relay

switching point B C D E F G H I J K L M

LED no. 2 3 4 5 6 7 8 9 10 11 12 13

switching point N O P Q R S T U V W X

LED no. 14 15 16 17 18 19 20 21 22 23 24

- ➔ Example
- ➔ 360 284 RK JT
- ➔ switch-on point = 10. LED
- ➔ switch-off point = 20. LED

1.3 Electrical and mechanical specifications

General

Supply voltage	see Type Name/Models
Current input	100 mA
Fuse supply voltage	1 A
Operating temperature	0 °C ... 50 °C
Transport and storage temperature	-25 °C ... 85 °C
Vibration and shock resistance	Oscillations: 10 ... 55 Hz, 1 mm Shock: 30 g / 11 ms Continuous shock: 10 g /16 ms
Protection type	IP 20 apart from front IP 67 on front

Models 360 282 xx xx, 360 283 xx xx, 360 286 xx xx, 360 287 xx xx

max. switching voltage relay output	250 V AC; 30 V DC
max. switching current relay output	3 A
max. breaking capacity relay output	750 VA or 90 W

2 Intended use

The LED round instrument serves to indicate the measuring signals of elobau level detectors and pressure sensors.

2.1 Standards and Directives

The LED round instrument complies with directive 89/336 EEC (EMC directive).

2.2 Safety/hazards

- Ensure that the LED round instrument is only installed and commissioned by trained and authorised personnel.
- Ensure that correct fuses are used (see Technical Specification).
- Operate LED round instrument only if it is completely undamaged.
- Ensure that all relevant regulations for the machine concerned are always followed.
- Ensure that all applicable European directives and national statutory requirements/directives are followed.

3 Function

General

The first LED lights up once:

- ➔ the supply voltage has been applied and the measuring signal is 0.

All other LEDs light up when:

- ➔ the measuring signal is increased. One LED is up to approx. 4% of the max. signal.

Models 360 282 xx xx, 360 283 xx xx, 360 286 xx xx,
360 287 xx xx

The switch-on point is above the switch-off point.

The relay picks up:

→ when the switch-on point is exceeded.

The relay releases:

→ when the level falls below the switch-off point.

The switch-on point lies below the switch-off point

The relay picks up:

→ when the level falls below the switch-on point.

The relay releases:

→ when the switch-off point is exceeded.

4 Mounting



Danger of electric shock

⇒ Ensure that the LED round instrument is only installed and commissioned by trained and authorised personnel.

- ⇒ Install LED round instrument in a 60 mm hole in the front cover.
- ⇒ Secure LED round instrument with clamping ring.
- ⇒ Connect LED round instrument (see Technical Specification).
- ⇒ Ensure that the correct fuses are used (see Technical Specification).

5 Commissioning



Danger of electric shock

- Ensure that the LED round instrument is only installed and commissioned by trained and authorised personnel.

- Apply the supply voltage.
- ➔ The first Led is illuminated if no measuring signal s applied yet.
- ➔ Once a measuring signal has been applied, the LEDs corresponding to the strength light up.

The LED round instrument is now operational.

5.1 Adjustment

To adjust the zero point and maximum value, two openings – containing compensating controllers – are located in the housing side.

To adjust the zero point:

- Apply lower calibration signal.
- Set zero point on compensating controller for zero point (zero or min).
- Repeat adjustment where necessary.

To adjust the maximum value:

- Apply upper calibration signal.
- Set maximum value on compensating controller for maximum value (volt or max).
- Repeat adjustment where necessary.

6 Maintenance

6.1 Measures

The LED round instrument requires no maintenance

6.2 Disposal

- ➔ Dispose of used parts and unwanted packaging in accordance to the regulations of the country in which the device is installed.

Datum: 23.09.2004

elobau 

elobau
Elektrobauelemente GmbH & Co. KG

Postfach 1265
88306 Isny/Allgäu
Germany

Werk:
Zeppelinstr. 44
88299 Leutkirch
Germany
Tel.: +49 75 61/970 - 0
Fax: +49 75 61/970 - 100
E-Mail: info@elobau.de
Web: www.elobau.de

 0123