

Remote indicator

Installation and operating instructions



English (GB) Installation and operating instructions

Original installation and operating instructions

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Warning

Prior to installation, read these installation and operating instructions. Installation and operation must comply with local regulations and accepted codes of good practice.

1. General notes

These installation and operating instructions contain all the information needed to assemble, commission and operate the remote indicator listed below.

If you require further information or should problems arise which are not described in detail in this manual, please contact your nearest Grundfos branch.

2. Safety

These instructions contain general information which should be observed when installing and operating the remote indicator. These instructions must therefore be read with care by technicians and appropriately trained specialists/operators before installation and commissioning and must always be available at the installation site.

2.1 Symbols used in this document



Warning

If these safety instructions are not observed, it may result in personal injury.



Caution

If these safety instructions are not observed, it may result in malfunction or damage to the equipment.



Note

Notes or instructions that make the job easier and ensure safe operation.

2.2 Qualification and training of staff

The staff responsible for operation and installation must be suitably qualified for this work. Areas of responsibility, levels of responsibility and staff supervision must be precisely defined by the person responsible for operations.

If staff do not have the necessary knowledge, they should be trained and instructed accordingly. The person responsible for operations is in charge of ensuring that the staff understand the content of these instructions.

2.3 Safety-conscious working

The safety notices in these instructions should be observed in the same way as statutory health and safety at work guidelines and the operating and safety notices provided by the person responsible for operations.

2.4 Safety notices relating to installation work

The person responsible for operations must ensure that all installation work is undertaken by authorised specialists who are appropriately trained by reading these instructions.

All safety and protection equipment must be put back into operation as soon as work is complete.



Warning

Repairs may only be undertaken by authorised and qualified staff.

3. Intended purpose

The remote indicator is an electronic device which indicates the switch position of the changeover switch and the status of the gas tank (with gas fill / without gas fill = empty).



Warning

Other applications are classed as non-approved, and are not permissible. GRUNDFOS accepts no liability for any damage resulting from incorrect use.

3.1 Application range and structure

The remote indicator is operated in conjunction with vacuum changeover switch U 189 for example. Once the supply tank has been emptied, the system switches to the gas supply in the reserve tank. This status is shown on the indicator device.

The remote indicator uses corresponding LEDs to indicate the statuses of the gas tank. If the yellow LED lights up, this indicates the active "Tank gas extraction" status. If the red LED lights up, this indicates the "Tank is empty" status.

The remote indicator housing is a wall-mounted device. The fixing accessories are included in the scope of delivery.

4. Installation



Warning

The device may only be installed and connected by a qualified specialist!

Repairs must only be carried out by authorised and qualified personnel!



Warning

Before assembling:

Switch off the supply voltage!

IP65 protection is only guaranteed when the terminal covers are closed and the relevant cable screwings or caps are fitted.

Caution

Select a mounting location where the housing will not be subjected to mechanical strain.

Do not throw or drop the remote indicator.

4.1 Unpacking

- Retain the packaging for future storage or return, or dispose of the packaging in accordance with local regulations.
- Fit the remote indicator as soon as possible after unpacking.

4.2 Storage

Keep the remote indicator in a dry, cool place.

4.3 Fitting wall-mounted housing

The drilling scheme for the remote indicator device can be found on the rear of the housing. Produce the four 6 mm $\varnothing$ holes as shown in the drilling scheme and insert the 6 dowel pins supplied.

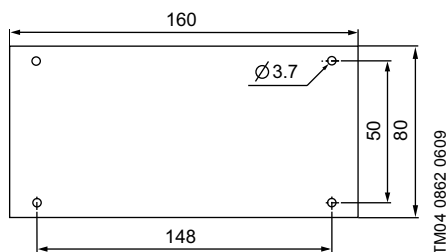


Fig. 1 Housing drilling scheme

Screw on the housing using the screws provided.

5. Electrical data

Mains connection	115 V, 50/60Hz
	230 V, 50/60 Hz
Power consumption	Max. 500 VA
Max. permissible load on the electrically isolated output contacts	250 V, 2 A, max. 250 VA
Electronic protection level	IP65

6. Commissioning



Warning

Disconnect the mains voltage before connecting the mains cable and relay contacts.

Observe the local safety regulations.

Protect the cable connections and plugs against corrosion and humidity.



Warning

Before connecting the power supply cable: Check that the mains voltage specified on the type plate corresponds to the local conditions. An incorrect mains voltage may destroy the device.

To ensure electromagnetic compatibility (EMC):

Input and current output cables must be shielded. Connect the shielding to shield ground on one side.

Refer to the connection chart.

Lay input and mains cables in separate cable channels.

Caution

Before starting up the device:

When commissioning all the system's components must be ready for operation.

Follow the installation and operating instructions for the components used.

6.1 Installation



Warning

The remote indicator may only be fitted by a qualified specialist.

Please connect the remote indicator as shown in the equipment print-out for the PCB, see below.

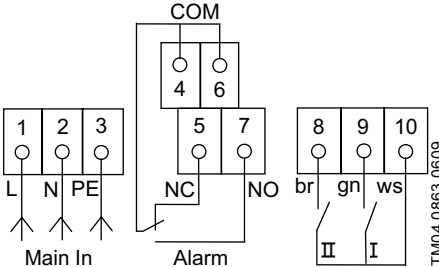


Fig. 2 PCB equipment print-out

Main In	=	Power supply
Alarm	=	Alarm signal
NC	=	Normally closed contact
NO	=	Normally open contact

Connect the power supply to terminal (Main In) numbers 1, 2 and 3 via the mains cable.

Connect the alarm signal to terminal numbers 4, 5 and 6 (NC contact) or terminal numbers 4, 6 and 7 (NO contact).

Connect the remote indicator's signal encoder to terminal numbers 8 (brown), 9 (green) and 10 (white).

Remote indicator	br = Brown	(8)	o-----o	br = Brown
	gn = Green	(9)	o-----o	gn = Green
	wh = White	(10)	o-----o	wh = White

Remote indicator's
signal encoder
(on changeover switch)

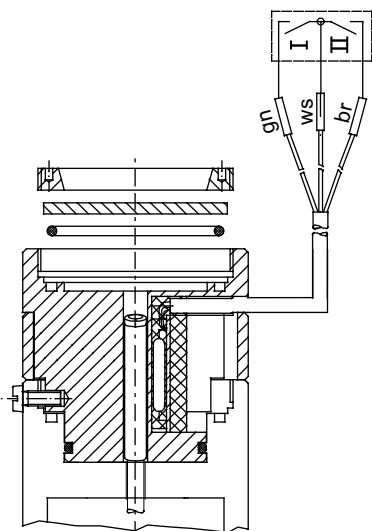


Fig. 3 Remote indicator's signal encoder (on changeover switch)

TM04 0864 0609

7. Operation and function

The remote indicator uses corresponding LEDs to indicate the statuses of the gas tank.

The active "Tank gas extraction" status is indicated by the yellow LED lighting up.

The "Tank empty" status is indicated by the red LED lighting up.

The switch positions for the remote indicator are described in section [7.2 Switch positions](#).

7.1 Symbols

The symbols for "Gas extraction", "Emptied tank" and the "Reset button" can be found on the housing. The Roman numerals I and II indicate the tank whose status is currently being indicated.

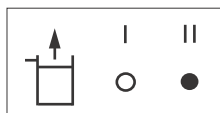


TM07 2506 3818

Fig. 4 Remote indicator housing

7.1.1 Gas extraction

If gas is being extracted from one of the two tanks, the yellow LED next to the symbol for "Gas extraction" lights up, in our example "Gas extraction from tank II".



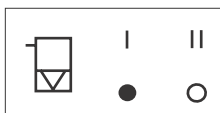
TM04 0866 0609

Fig. 5 Gas extraction symbol

If the yellow LED under "I" is active, then gas is being extracted from "Tank I".

7.1.2 Tank empty

If the red LED next to the "Empty tank" symbol lights up, in our example below "I", then "Tank I" has been emptied;



TM04 0867 0609

Fig. 6 "Emptied tank" symbol

If the red LED under "II" lights up, then "Tank II" has been emptied.

7.2 Switch positions

The switch positions and corresponding gas tank statuses are described below.

7.2.1 Gas extraction from tank I

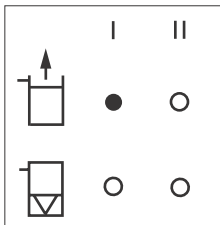


Fig. 7 Yellow LED I lit up, red LED is dark

7.2.2 Gas extraction from tank I I

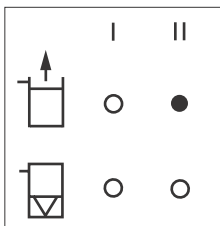


Fig. 8 Yellow LED II lit up, red LEDs are dark

7.2.3 Gas extraction from tank I - tank II emptied

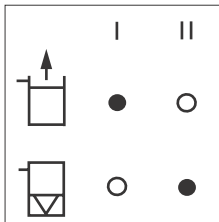


Fig. 9 Yellow LED I lit up, red LED II is dark

7.2.4 Gas extraction from tank II - tank I emptied

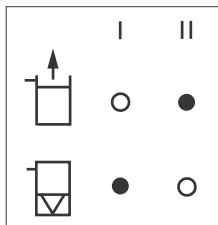


Fig. 10 Yellow LED II lit up, red LED I is dark

7.2.5 Tanks I + II emptied

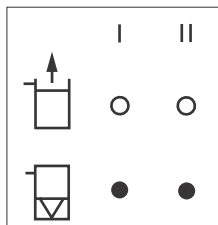


Fig. 11 Red LED I + LED II lit up, yellow LEDs are dark.

7.3 Changing tanks

Once a new tank has been connected, the remote indicator must be informed that the empty tank has been replaced by a full one.

To do this, press the reset button and keep held down until the red LED goes out. This may take several seconds. The "Tank changed" information is therefore transferred to the remote indicator.



Fig. 12 Reset button

8. Maintenance

Note The remote indicator requires no maintenance.

9. Disposal

This product or parts of it must be disposed of in an environmentally sound way. Use appropriate waste collection services. If this is not possible, contact the nearest Grundfos company or service workshop.

Declaration of conformity

GB: EU declaration of conformity

We, Grundfos, declare under our sole responsibility that the product Remote indicator 332, to which the declaration below relates, is in conformity with the Council Directives listed below on the approximation of the laws of the EU member states.

DE: EU-Konformitätserklärung

Wir, Grundfos, erklären in alleiniger Verantwortung, dass das Produkt Remote indicator 332, auf das sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EU-Mitgliedsstaaten übereinstimmt.

PL: Deklaracja zgodności UE

My, Grundfos, oświadczamy z pełną odpowiedzialnością, że nasz produkt Remote indicator 332, którego deklaracja niniejsza dotyczy, jest zgodny z następującymi dyrektywami Rady w sprawie zbliżenia przepisów prawnych państw członkowskich.

RU: Декларация о соответствии нормам ЕС

Мы, компания Grundfos, со всей ответственностью заявляем, что изделие Remote indicator 332, к которому относится нижеприведённая декларация, соответствует нижеприведённым Директивам Совета Евросоюза о тождественности законов стран-членов ЕС.

CZ: Prohlášení o shodě EU

My firma Grundfos prohlašujeme na svou plnou odpovědnost, že výrobek Remote indicator 332, na který se toto prohlášení vztahuje, je v souladu s níže uvedenými ustanoveními směrnice Rady pro sblížení právních předpisů členských států Evropského společenství.

FR: Déclaration de conformité UE

Nous, Grundfos, déclarons sous notre seule responsabilité, que le produit Remote indicator 332, auquel se réfère cette déclaration, est conforme aux Directives du Conseil concernant le rapprochement des législations des États membres UE relatives aux normes énoncées ci-dessous.

RO: Declarația de conformitate UE

Noi Grundfos declarăm pe propria răspundere că produsul Remote indicator 332, la care se referă această declarație, este în conformitate cu Directivele de Consiliu specificate mai jos privind armonizarea legilor statelor membre UE.

TR: AB uygunluk bildirgesi

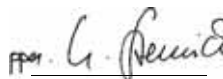
Grundfos olarak, aşağıdaki bildirim konusu olan Remote indicator 332 ürünlerinin, AB üye ülkelerinin direktiflerinin yakınlaştırılmasıyla ilgili durumun aşağıdaki Konsey Direktifleriyle uyumlu olduğunu ve bununla ilgili olarak tüm sorumluluğun bize ait olduğunu beyan ederiz.

- Low Voltage Directive (2014/35/EU)*. Standards used: EN 61010-1:2011-07.
- EMC Directive (2014/30/EU). Standards used: EN 61326-1:2013, EN 61000-3-2:2015, EN 61000-3-3:2014.
- RoHS Directives (2011/65/EU and 2015/863/EU). Standard used: EN 50581:2012

* Only for products with operating voltage > 50 VAC or > 75 VDC.

This EC declaration of conformity is only valid when published as part of the Grundfos installation and operating instructions (publication number 95715485).

Pfintzal, 1st March 2018



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95715485 0419
ECM: 1243243

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