

DIT-IR Infrared Interface Module

Installation and operating instructions



Original installation and operating instructions

CONTENTS

	Page
1. Symbols used in this document	2
2. General information	2
2.1 Delivery contents	2
2.2 Application	2
2.3 Avoidance of danger	2
2.4 Nameplate	3
3. Construction and function	3
3.1 System overview	3
3.2 Installation and operating instructions	3
3.3 Keypad overview	3
3.4 LED indicators	3
3.5 DIT-IR power supply	3
3.6 DIT-IR connection	4
4. Installation of the device driver and data acquisition software	4
4.1 Driver installation	4
4.2 Software installation	5
5. Start the application	5
5.1 Data transmission	5
5.2 Serial interface mode	5
5.3 PC interface mode	6
6. Disposal	7

**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. 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. General information

These installation and operating instructions contain all information important for users of the DIT-IR infrared interface module.

Should you require further information, or should you encounter problems that are not described in sufficient depth in this manual, please contact Grundfos.

2.1 Delivery contents

Carefully inspect all items to ensure that every part of the list below is present and no visible damage has occurred during shipment.

If there is any damage or missing items, please contact your local distributor immediately.

A DIT-IR standard delivery comprises:

- 1 DIT-IR module in a plastic case
- 4 batteries (type AA/LR6)
- 1 USB cable
- 1 screwdriver with clip, red
- 1 installation and operating instructions
- 1 certificate of compliance.

2.2 Application

The DIT-IR infrared interface module is suitable for transferring data from a DIT-L or DIT-M photometer to a PC.

2.3 Avoidance of danger**Warning**

Do not open or dismantle the module!

Cleaning, maintenance and repair must only be carried out by authorised personnel!

If safe operation cannot be ensured any longer, the DIT-IR infrared interface module is to be taken out of service and safeguarded against unintentional operation. This is the case under the following circumstances:

- The DIT-IR module has visible damage.
- The DIT-IR module seems to be inoperative.
- After a long storage time under unfavourable circumstances.

2.4 Nameplate

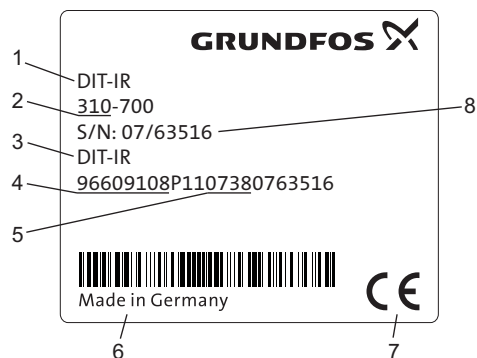


Fig. 1 Nameplate of DIT-IR

Pos.	Description
1	Type designation
2	Model
3	Product name
4	Product number
5	Year and week of production
6	Country of origin
7	Marks of approval, CE mark etc.
8	Serial number

3. Construction and function

3.1 System overview

The DIT-IR Infrared Interface Module receives data from a DIT-M or a DIT-L photometer and transmits them to one of the following interfaces:

- USB COM (PC)
- RS 232 connection (serial interface). All ASCII printers with serial interface can be used.

All interfaces can be connected at start-up. The interfaces can be selected by pressing the [Select] key of the DIT-IR. At start-up, the last selected interface is active.

3.1.1 System requirement for software installation

See also [4.2 Software installation](#).

Processor	Pentium® 4/M or equivalent
RAM	512 MB
Screen resolution	Min. 1280 x 1024 pixels
Operating system	Windows® XP, Windows Vista, Windows 7
Excel version*	Excel® 2003 or more recent
Disk space	90 MB

* If the installed Excel version is before 2003, or Excel is not installed, no Excel option will appear at software start.

3.2 Installation and operating instructions

These installation and operating instructions serve as a reference for DIT-IR users and also for device firmware updates. The user must have prior knowledge of using Windows based applications.

3.3 Keypad overview

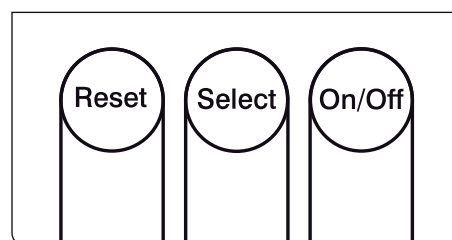


Fig. 2 DIT-IR keys

On/Off	Switches the module on and off
Select	For switching between the interface modes (scroll function)
Reset	Resets the DIT-IR board to default configuration

3.4 LED indicators

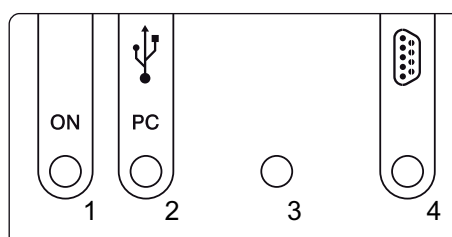


Fig. 3 DIT-IR keypad layout

1	Power indicator will be illuminated if the DIT-IR is running.
2	PC interface indicator will be illuminated, if the PC interface mode is selected, and the cable is connected with the PC. The LED flashes if the PC is not correctly connected.
3	USB interface and LED are not assigned.
4	Serial printer interface indicator will be illuminated, if the RS232 printer interface mode is selected. It will not check for the presence of a serial printer

3.5 DIT-IR power supply

The DIT-IR is powered by two optional sources:

- the USB-PC interface, if available
- 4 AA batteries, if the USB host power is not available.

If the DIT-IR is connected to the USB-PC interface, the batteries are not used. If the software is running, the power LED is illuminated. See fig. 3.

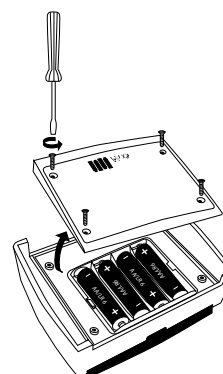


Fig. 4 DIT-IR battery compartment

Note

EC guideline 2006/66/EC requires users to return all used and worn-out batteries and accumulators. They must not be disposed of together with ordinary domestic waste.

3.6 DIT-IR connection

Place the DIT-IR as close as possible to the photometer.

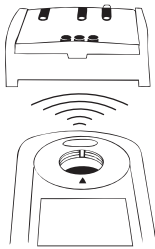


Fig. 5 DIT-IR connection

4. Installation of the device driver and data acquisition software

4.1 Driver installation

Note

Installation as described in this manual is based on a Windows XP platform. If you use another Windows operation system, please proceed analogously.

After the DIT-IR is connected to the USB interface for the first time, an installation assistant opens automatically. Make the selection shown below and click [Next].



Find the driver under "[CD drive name]:\inf" on the CD supplied. After inserting the CD and setting the following selection, start searching the CD by clicking [Next]:



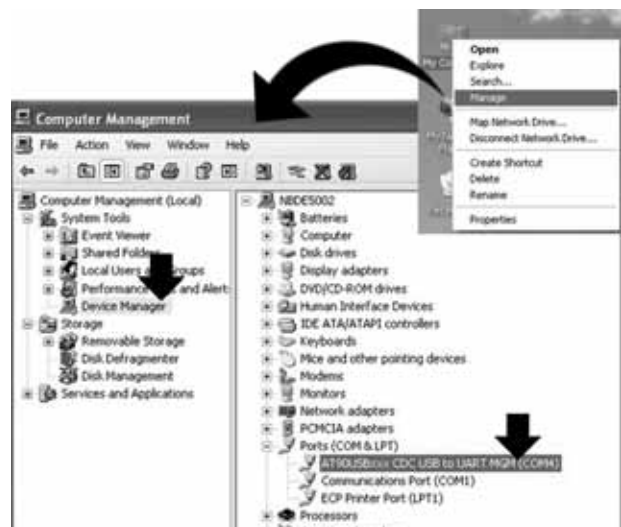
When the driver has been found, the message shown below appears. Confirm the installation by clicking [Continue Anyway].



The driver will be installed.

Complete the installation to close the installation assistant. Restart the PC.

A virtual COM port has been created. The address of the port can be seen in the device manager. It can be opened from the desktop as follows:



4.2 Software installation

If a previous DIT-IR software is installed on the PC, it is absolutely necessary to uninstall it first (National Instruments Software and Photometer Data Acquisition)!

Caution

The software for data acquisition and parameter setting can be found on the CD supplied.

Path to installation file: [CD drive name]:\setup.exe

If installation doesn't start automatically after inserting the CD, start the 'setup.exe' file by double-clicking.

After starting installation, the installation folder must be selected. It is recommended to confirm the suggested default folder by clicking [Next].



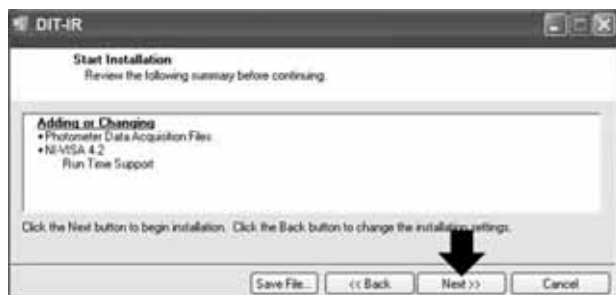
After confirmation, two software licence agreements appear that must be accepted.

Find other languages on the CD under "[CD drive name]:\licence\".

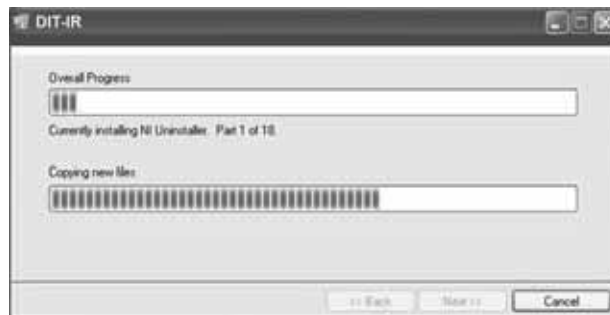
To continue, click [Next].



A summary of the programs to install appears. To start the installation, click [Next].



The software will be installed.



Complete the installation according to the menu navigation.

After the installation is completed, a restart is necessary. After the restart, the software can be used.

5. Start the application

Infrared data from the photometer will be received by DIT-IR at 9600 baud. The baud rate can be changed by the supplied software. See section [5.3.3 Configuration of the DIT-IR settings](#). When the unit is switched on, the last selected interface will be active.

5.1 Data transmission

Position the activated DIT-IR and the transmitting instrument, such as a photometer, in line of sight, face to face. See also fig. 5). Start print command at the transmitting instrument. The data will be sent to the DIT-IR module.

Note The DIT-IR does not support and will not indicate any printer-related errors (paper jam, paper tray empty, etc.).

5.2 Serial interface mode

To scroll until the serial interface mode is set, press the [Select] key. The LED in front of the DB9 connector will flash up to indicate the serial interface mode. All ASCII printers with serial interface can be used.

5.2.1 Connection to a serial printer

Connect the serial printer to the DB9 connection of the DIT-IR module. Use a cable with non-transposed conductors.

Pin assignment of the serial cable:

- Pole 2 is connected to pole 2 of the other DB9 connection
- Pole 3 is connected to pole 3 of the other DB9 connection
- GND (pole 5 to pole 5).

5.2.2 Interface parameter

Set the same baud rate on the photometer (see the photometer installation and operating instructions), the DIT-IR (see [5.3.3 Configuration of the DIT-IR settings](#)) and the serial printer (see manual).

5.3 PC interface mode

To scroll until the PC interface is set, press the [Select] key.

Note

The following screens show the data transmission from instrument DIT-M. For data transmission from DIT-L there can be some deviations.

5.3.1 Connection to a PC

Connect the PC and the DIT-IR module port with a USB cable.

5.3.2 Data transmission to a PC

See also section [5.1 Data transmission](#)

After software installation (section [4.2 Software installation](#)), a folder containing a software shortcut will automatically be generated on the desktop.

After the software has been started, the following option window appears. A user name can be entered, a language can be chosen and the type of data report required can be selected. Further the transmitting instrument type has to be selected.



If no DIT-IR is connected when the software is started, the operating interface with red status indication (1) and following status message (2) appears after clicking [OK].



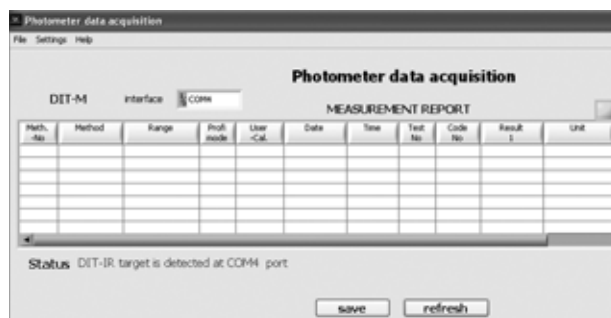
Connect the DIT-IR, and click [refresh].

After successful refresh the status indication (1) turns to green.

Option Excel

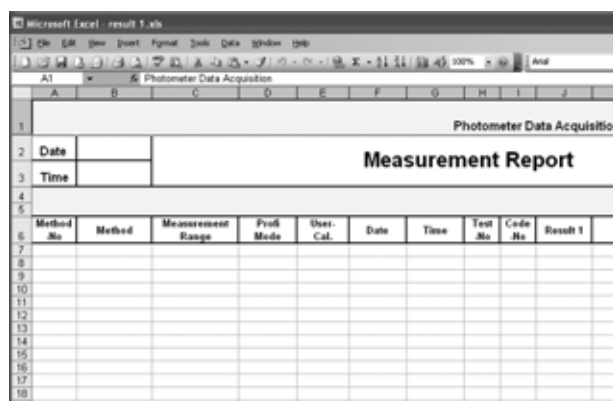
If the DIT-IR has been found, a window opens. Enter the file location and name. If an existing file is selected a new sheet will be added.

After confirming the location, the operating interface of the software opens:



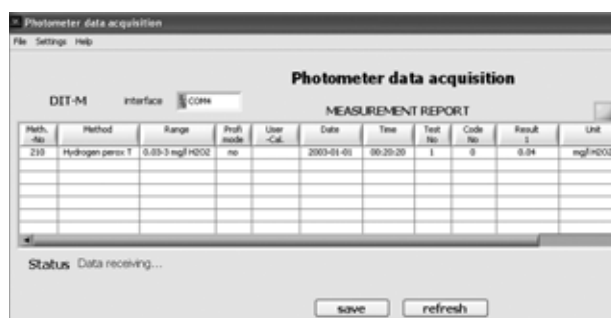
In this window, the transmitted data can be viewed and stored. DIT-IR settings can be changed. See section [5.3.3 Configuration of the DIT-IR settings](#).

Simultaneously, an Excel template (result template) opens automatically, using the chosen language. The transmitted data will be stored in this sheet.



If the print command on the photometer has been started, the transmitted data can be seen in the operating interface.

Data acquisition operating interface:



By clicking [save] the data and transfer details are stored in the Excel template:

Method No.	Method	Measurement Range	Profi-Mode	User-Cal.	Date	Time	Test No.	Code No.	Result 1	Unit
210	Hydrogen perox T	0.03-3 mg/l H2O2	no		01.01.03	02.20.20	1	0	0.04	mg/l

TM04 8179 2411

Option, note pad

After selecting the note pad mode, a window opens. Enter the file location and name of the data to be transmitted. If an existing file is selected the new data will be added to the existing data.

After confirmation of the file location, the operating interface opens:



TM04 1523 2411

In this window, the transmitted data can be viewed and stored. Settings of the DIT-IR can be changed. See section [5.3.3 Configuration of the DIT-IR settings](#).

If the print command on the photometer has been pressed, the transmitted data can be seen in the operating interface. Data acquisition operating interface:

Method No.	Method	Range	Profi-Mode	User-Cal.	Date	Time	Test No.	Code No.	Result 1	Unit
210	Hydrogen perox T	0.03-3 mg/l H2O2	no		2003-01-01	00:20:20	1	0	0.04	mg/l H2O2

TM04 1563 2411

The data will be stored automatically in the assigned location and named as a txt file.

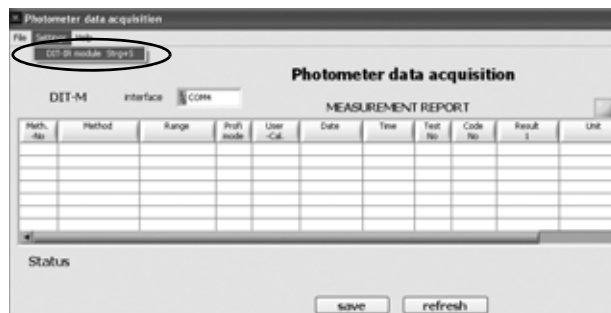
```

result.txt - Notepad
File Edit Format View Help
This record is created by Photometer Data acquisition software
Tested by:
Instrument: DIT-M
Record creation date: 15.06.2011
Record creation time: 16:09
-----
210 Hydrogen perox T
0.03-3 mg/l H2O2
Profi-Mode: no
2003-01-01 00:20:20
Test No.: 1
Code No.: 0
0.04 mg/l H2O2
  
```

TM04 8180 2411

5.3.3 Configuration of the DIT-IR settings

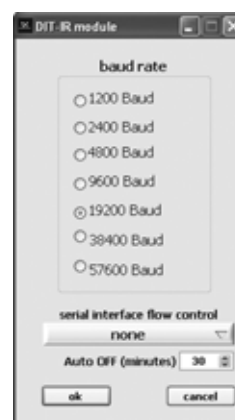
With the data acquisition software, various settings on the DIT-IR can be changed. The settings can be found under Settings > DIT-IR Module.



TM04 8181 2411

A window opens where the baud rate, turn off time ("Auto OFF") and the transmission protocol can be set.

For any changes to the default settings, refer to the PC or device manuals. The turn-off time can be set between 1 and 120 minutes. The turn-off time is inactive if the DIT-IR is powered by the USB-PC connection.



TM04 8182 2411

6. 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.

Note

The 2006/66/EC guideline requires users to return all used and worn-out batteries and accumulators. They must not be disposed of in normal domestic waste.

Declaration of conformity

GB: EC Declaration of Conformity

We, Grundfos, declare under our sole responsibility that the products DIT-L, DIT-M and DIT-IR, to which this declaration relates, are in conformity with these Council directives on the approximation of the laws of the EC member states:

ES: Declaración CE de Conformidad

Nosotros, Grundfos, declaramos bajo nuestra entera responsabilidad que los productos DIT-L, DIT-M y DIT-IR, a los cuales se refiere esta declaración, están conformes con las Directivas del Consejo en la aproximación de las leyes de los Estados Miembros del EM:

IT: Dichiarazione di Conformità CE

Grundfos dichiara sotto la sua esclusiva responsabilità che i prodotti DIT-L, DIT-M e DIT-IR, ai quali si riferisce questa dichiarazione, sono conformi alle seguenti direttive del Consiglio riguardanti il riavvicinamento delle legislazioni degli Stati membri CE:

RU: Декларация о соответствии ЕС

Мы, компания Grundfos, со всей ответственностью заявляем, что изделия DIT-L, DIT-M и DIT-IR, к которым относится настоящая декларация, соответствуют следующим Директивам Совета Евросоюза об унификации законодательных предписаний стран-членов ЕС:

DE: EG-Konformitätserklärung

Wir, Grundfos, erklären in alleiniger Verantwortung, dass die Produkte DIT-L, DIT-M und DIT-IR, auf die sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EU-Mitgliedsstaaten übereinstimmen:

FR: Déclaration de Conformité CE

Nous, Grundfos, déclarons sous notre seule responsabilité, que les produits DIT-L, DIT-M et DIT-IR, auxquels se réfère cette déclaration, sont conformes aux Directives du Conseil concernant le rapprochement des législations des Etats membres CE relatives aux normes énoncées ci-dessous :

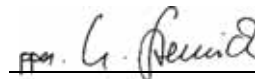
NL: EC Overeenkomstigheidsverklaring

Wij, Grundfos, verklaren geheel onder eigen verantwoordelijkheid dat de producten DIT-L, DIT-M en DIT-IR waarop deze verklaring betrekking heeft, in overeenstemming zijn met de Richtlijnen van de Raad in zake de onderlinge aanpassing van de wetgeving van de EG Lidstaten betreffende:

- EMC Directive (2004/108/EC).
Standard used: EN 61326-1: 2006, Class B
(DIT-M: Interference resistance Class A).
- RoHS Directives (2011/65/EU and 2015/863/EU).
Standard used: EN 50581:2012.

This EC declaration of conformity is only valid when published as part of the Grundfos installation and operating instructions.

Pfintzal, 1st March 2018



Ulrich Stemick
Technical Director
Grundfos Water Treatment GmbH
Reetzstr. 85, D-76327 Pfintzal, Germany

Person authorised to compile technical file and
empowered to sign the EC declaration of conformity.

Argentina

Bombas GRUNDFOS de Argentina S.A.
Ruta Panamericana km. 37.500 Centro Industrial Garin
1619 - Garin Pcia. de B.A.
Phone: +54-3327 414 444
Telefax: +54-3327 45 3190

Australia

GRUNDFOS Pumps Pty. Ltd.
P.O. Box 2040
Regency Park
South Australia 5942
Phone: +61-8-8461-4611
Telefax: +61-8-8340 0155

Austria

GRUNDFOS Pumpen Vertrieb Ges.m.b.H.
Grundfosstraße 2
A-5082 Grödig/Salzburg
Tel.: +43-6246-883-0
Telefax: +43-6246-883-30

Belgium

N.V. GRUNDFOS Bellux S.A.
Boomsesteenweg 81-83
B-2630 Aartselaar
Tel.: +32-3-870 7300
Télécopie: +32-3-870 7301

Belarus

Представительство ГРУНДФОС в Минске
220125, Минск
ул. Шафарнянская, 11, оф. 56, БЦ «Порт»
Тел.: +7 (375 17) 286 39 72/73
Факс: +7 (375 17) 286 39 71
E-mail: minsk@grundfos.com

Bosnia and Herzegovina

GRUNDFOS Sarajevo
Zmaja od Bosne 7-7A,
BH-71000 Sarajevo
Phone: +387 33 592 480
Telefax: +387 33 590 465
www.ba.grundfos.com
e-mail: grundfos@bih.net.ba

Brazil

BOMBAS GRUNDFOS DO BRASIL
Av. Humberto de Alencar Castelo Branco, 630
CEP 09850 - 300
São Bernardo do Campo - SP
Phone: +55-11 4393 5533
Telefax: +55-11 4343 5015

Bulgaria

Grundfos Bulgaria EOOD
Slatina District
Iztochna Tangenta street no. 100
BG - 1592 Sofia
Tel. +359 2 49 22 200
Fax. +359 2 49 22 201
email: bulgaria@grundfos.bg

Canada

GRUNDFOS Canada Inc.
2941 Brighton Road
Oakville, Ontario
L6H 6C9
Phone: +1-905 829 9533
Telefax: +1-905 829 9512

China

Grundfos Aldos
Dosing & Disinfection
ALLDOS (Shanghai) Water Technology Co. Ltd.
West Unit, 1 Floor, No. 2 Building (T 4-2)
278 Jinhu Road, Jin Qiao Export Processing Zone
Pudong New Area
Shanghai, 201206
Phone: +86 21 5055 1012
Telefax: +86 21 5032 0596
E-mail: grundfosaldos-CN@grundfos.com

China

GRUNDFOS Pumps (Shanghai) Co. Ltd.
10F The Hub, No. 33 Suhong Road
Minhang District
Shanghai 201106
PRC
Phone: +86-21 6122 5222
Telefax: +86-21 6122 5333

COLOMBIA

GRUNDFOS Colombia S.A.S.
Km 1.5 via Siberia-Cota Conj. Potrero Chico,
Parque Empresarial Arcos de Cota Bod. 1A,
Cota, Cundinamarca
Phone: +57(1)-2913444
Telefax: +57(1)-8764586

Croatia

GRUNDFOS CROATIA d.o.o.
Buzinski prilaz 38, Buzin
HR-10010 Zagreb
Phone: +385 1 6595 400
Telefax: +385 1 6595 499
www.hr.grundfos.com

GRUNDFOS Sales Czechia and**Slovakia s.r.o.**

Čapkovského 21
779 00 Olomouc
Phone: +420-585-716 111

Denmark

GRUNDFOS DK A/S
Martin Bachs Vej 3
DK-8850 Bjerringbro
Tlf.: +45-87 50 50 50
Telefax: +45-87 50 51 51
E-mail: info_GDK@grundfos.com
www.grundfos.com/DK

Estonia

GRUNDFOS Pumps Eesti OÜ
Peterburi tee 92G
11415 Tallinn
Tel: + 372 606 1690
Fax: + 372 606 1691

Finland

OY GRUNDFOS Pumput AB
Trukkikuja 1
FI-01360 Vantaa
Phone: +358-(0)207 889 500

France

Pompes GRUNDFOS Distribution S.A.
Parc d'Activités de Chesnes
57, rue de Malacombie
F-38290 St. Quentin Fallavier (Lyon)
Tél.: +33-4 74 82 15 15
Télécopie: +33-4 74 94 10 51

Germany

GRUNDFOS Water Treatment GmbH
Reetzstraße 85
D-76327 Pfalzthal (Söllingen)
Tel.: +49 7240 61-0
Telefax: +49 7240 61-177
E-mail: gwt@grundfos.com

Germany

GRUNDFOS GMBH
Schlüterstr. 33
40699 Erkrath
Tel.: +49-(0) 211 929 69-0
Telefax: +49-(0) 211 929 69-3799
E-mail: infoservice@grundfos.de
Service in Deutschland:
E-mail: kundendienst@grundfos.de

Greece

GRUNDFOS Hellas A.E.B.E.
20th km. Athinon-Markopoulou Av.
P.O. Box 71
GR-19002 Peania
Phone: +0030-210-66 83 400
Telefax: +0030-210-66 46 273

Hong Kong

GRUNDFOS Pumps (Hong Kong) Ltd.
Unit 1, Ground floor
Siu Wai Industrial Centre
29-33 Wing Hong Street &
68 King Lam Street, Cheung Sha Wan
Kowloon
Phone: +852-27861706 / 27861741
Telefax: +852-27858664

Hungary

GRUNDFOS Hungária Kft.
Tópark u. 8
H-2045 Törökbálint,
Phone: +36-23 511 110
Telefax: +36-23 511 111

India

GRUNDFOS Pumps India Private Limited
118 Old Mahabalipuram Road
Thoraiakkam
Chennai 600 097
Phone: +91-44 4596 6800

Indonesia

PT. GRUNDFOS POMPA
Graha Intirub Lt. 2 & 3
Jln. Cililitan Besar No.454. Makasar,
Jakarta Timur
ID-Jakarta 13650
Phone: +62 21-469-51900
Telefax: +62 21-460 6910 / 460 6901

Ireland

GRUNDFOS (Ireland) Ltd.
Unit A, Merrywell Business Park
Ballymount Road Lower
Dublin 12
Phone: +353-1-4089 800
Telefax: +353-1-4089 830

Italy

GRUNDFOS Pompe Italia S.r.l.
Via Gran Sasso 4
I-20060 Truccazzano (Milano)
Tel.: +39-02-95838112
Telefax: +39-02-95309290 / 95838461

Japan

GRUNDFOS Pumps K.K.
1-2-3, Shin-Miyakoda, Kita-ku
Hamamatsu
431-2103 Japan
Phone: +81 53 428 4760
Telefax: +81 53 428 5005

Korea

GRUNDFOS Pumps Korea Ltd.
6th Floor, Aju Building 679-5
Yeoksam-dong, Kangnam-ku, 135-916
Seoul, Korea
Phone: +82-2-5317 600
Telefax: +82-2-5633 725

Latvia

SIA GRUNDFOS Pumps Latvia
Deglava biznesa centrs
Augusta Deglava ielā 60, LV-1035, Rīga,
Tālr.: + 371 714 9640, 7 149 641
Fakss: + 371 914 9646

Lithuania

GRUNDFOS Pumps UAB
Smolensko g. 6
LT-03201 Vilnius
Tel: + 370 52 395 430
Fax: + 370 52 395 431

Malaysia

GRUNDFOS Pumps Sdn. Bhd.
7 Jalan Peguam U1/25
Glenmarie Industrial Park
40150 Shah Alam
Selangor
Phone: +60-3-5569 2922
Telefax: +60-3-5569 2866

Mexico

Bombas GRUNDFOS de México S.A. de C.V.
Boulevard TLC No. 15
Parque Industrial Stiva Aeropuerto
Apodaca, N.L. 66600
Phone: +52-81-8144 4000
Telefax: +52-81-8144 4010

Netherlands

GRUNDFOS Netherlands
Veluwezoom 35
1326 AE Almere
Postbus 22015
1302 CA ALMERE
Tel.: +31-88-478 6336
Telefax: +31-88-478 6332
E-mail: info_gnl@grundfos.com

New Zealand

GRUNDFOS Pumps NZ Ltd.
17 Beatrice Tinsley Crescent
North Harbour Industrial Estate
Albany, Auckland
Phone: +64-9-415 3240
Telefax: +64-9-415 3250

Norway

GRUNDFOS Pumper A/S
Strømsveien 344
Postboks 235, Leirdal
N-1011 Oslo
Tlf.: +47-22 90 47 00
Telefax: +47-22 32 21 50

Poland

GRUNDFOS Pompy Sp. z o.o.
ul. Klonowa 23
Baranowo k. Poznania
PL-62-081 Przeźmierowo
Tel: (+48-61) 650 13 00
Fax: (+48-61) 650 13 50

Portugal

Bombas GRUNDFOS Portugal, S.A.
Rua Calvet de Magalhães, 241
Apartado 1079
P-2770-153 Paço de Arcos
Tel.: +351-21-440 76 00
Telefax: +351-21-440 76 90

Romania

GRUNDFOS Pompe România SRL
Bd. Biruintei, nr 103
Pantelimon county Ilfov
Phone: +40 21 200 4100
Telefax: +40 21 200 4101
E-mail: romanian@grundfos.ro

Russia

ООО Грундфос Россия
ул. Школьная, 39-41
Москва, RU-109544, Russia
Тел. (+7) 495 564-88-00 (495) 737-30-00
Факс (+7) 495 564 8811
E-mail grundfos.moscow@grundfos.com

Serbia

Grundfos Srbija d.o.o.
Omladinskih brigada 90b
11070 Novi Beograd
Phone: +381 11 2258 740
Telefax: +381 11 2281 769
www.rs.grundfos.com

Singapore

GRUNDFOS (Singapore) Pte. Ltd.
25 Jalan Tukang
Singapore 619264
Phone: +65-6681 9688
Telefax: +65-6681 9689

Slovakia

GRUNDFOS s.r.o.
Prievozská 4D
821 09 BRATISLAVA
Phona: +421 2 5020 1426
sk.grundfos.com

Slovenia

GRUNDFOS LJUBLJANA, d.o.o.
Leskoškova 9e, 1122 Ljubljana
Phone: +386 (0) 1 568 06 10
Telefax: +386 (0) 1 568 06 19
E-mail: tehnika-si@grundfos.com

South Africa

Grundfos (PTY) Ltd.
16 Lascelles Drive, Meadowbrook Estate
1609 Germiston, Johannesburg
Tel.: (+27) 10 248 6000
Fax: (+27) 10 248 6002
E-mail: lgradidge@grundfos.com

Spain

Bombas GRUNDFOS España S.A.
Camino de la Fuenteclilla, s/n
E-28110 Algete (Madrid)
Tel.: +34-91-848 8800
Telefax: +34-91-628 0465

Sweden

GRUNDFOS AB
Box 333 (Lunnagårdsgatan 6)
431 24 Mölndal
Tel.: +46 31 332 23 000
Telefax: +46 31 331 94 60

Switzerland

GRUNDFOS Pumpen AG
Bruggacherstrasse 10
CH-8117 Fällanden/ZH
Tel.: +41-44-806 8111
Telefax: +41-44-806 8115

Taiwan

GRUNDFOS Pumps (Taiwan) Ltd.
7 Floor, 219 Min-Chuan Road
Taichung, Taiwan, R.O.C.
Phone: +886-4-2305 0868
Telefax: +886-4-2305 0878

Thailand

GRUNDFOS (Thailand) Ltd.
92 Chaloen Phrakiat Rama 9 Road,
Dokmai, Pravej, Bangkok 10250
Phone: +66-2-725 8999
Telefax: +66-2-725 8998

Turkey

GRUNDFOS POMPA San. ve Tic. Ltd. Sti.
Gebze Organize Sanayi Bölgesi
İhsan dede Caddesi,
2. yol 200. Sokak No. 204
41490 Gebze/ Kocaeli
Phone: +90 - 262-679 7979
Telefax: +90 - 262-679 7905
E-mail: satis@grundfos.com

Ukraine

Бізнес Центр Європа
Столичне шосе, 103
м. Київ, 03131, Україна
Телефон: (+38 044) 237 04 00
Факс.: (+38 044) 237 04 01
E-mail: ukraine@grundfos.com

United Arab Emirates

GRUNDFOS Gulf Distribution
P.O. Box 16768
Jebel Ali Free Zone
Dubai
Phone: +971-4- 8815 166
Telefax: +971-4-8815 136

United Kingdom

GRUNDFOS Pumps Ltd.
Grovebury Road
Leighton Buzzard/Beds. LU7 4TL
Phone: +44-1525-850000
Telefax: +44-1525-850011

U.S.A.

GRUNDFOS Pumps Corporation
9300 Loiret Blvd.
Lenexa, Kansas 66219
Phone: +1-913-227-3400
Telefax: +1-913-227-3500

Uzbekistan

Grundfos Tashkent, Uzbekistan The
Representative Office of Grundfos
Kazakhstan in Uzbekistan
38a, Oybek street, Tashkent
Телефон: (+998) 71 150 3290 / 71 150 3291
Факс: (+998) 71 150 3292

Addresses revised 15.01.2019

95727442 0419
ECM: 1260226

Trademarks displayed in this material, including but not limited to Grundfos, the Grundfos logo and "be think innovate" are registered trademarks owned by The Grundfos Group. All rights reserved. © 2019 Grundfos Holding A/S. all rights reserved.