ALR 20/A Ex relay

Installation and operating instructions

50/60 Hz

ALR 20/A Ex relay

http://net.grundfos.com/qr/i/99421246

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GRUNDFOS

English (GB) Installation and operating instructions

Original installation and operating instructions

These installation and operating instructions describe Grundfos ALR 20/A Ex relay and AL05 Ex sensor.

Sections 1-6 give the information necessary to be able to unpack, install and start up the product in a safe way.

Sections 7-10 give important information about the product, as well as information of service and disposal of the product.

CONTENTS

		Page
1.	**General information**	**2**
1.1	Hazard statements	2
1.2	Notes	2
2.	**Receiving the product**	**3**
3.	**Installing the product**	**3**
3.1	Mechanical installation	3
3.2	Electrical connection	4
4.	**Starting up the product**	**6**
5.	**Operating the product**	**6**
6.	**Storing the product**	**6**
7.	**Product introduction**	**6**
7.1	Product description	6
7.2	Applications	6
7.3	Intended use	6
7.4	Approvals	7
7.5	Nameplate	7
8.	**Servicing the product**	**7**
8.1	Replacing the product	7
9.	**Technical data**	**8**
9.1	Operating conditions of ALR 20/A Ex	8
9.2	Electrical data of ALR 20/A Ex	8
9.3	Dimensions and weights	8
10.	**Disposal**	**8**

Read this document and the online version of the installation and operating instructions before installing the product. Installation and operation must comply with local regulations and accepted codes of good practice.

1. General information

1.1 Hazard statements

The symbols and hazard statements below may appear in Grundfos installation and operating instructions, safety instructions and service instructions.

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious personal injury.

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious personal injury.

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate personal injury.

The hazard statements are structured in the following way:

SIGNAL WORD

Description of hazard

Consequence of ignoring the warning.

- Action to avoid the hazard.

1.2 Notes

The symbols and notes below may appear in Grundfos installation and operating instructions, safety instructions and service instructions.

Observe these instructions for explosion-proof products.

A blue or grey circle with a white graphical symbol indicates that an action must be taken.

A red or grey circle with a diagonal bar, possibly with a black graphical symbol, indicates that an action must not be taken or must be stopped.

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

Tips and advice that make the work easier.

2. Receiving the product

When receiving the product, check the following points:

- the product is as ordered.
- the product is suitable for the actual supply voltage.
- the product has not been damaged during transportation.

3. Installing the product

The ALR 20/A Ex must only be used together with leakage sensor type AL05 Ex.

Installation must be carried out by qualified persons only.

CAUTION

Electric shock

Minor or moderate personal injury

- Switch off the power supply before you start any work on the product.
- Make sure that the power supply cannot be accidentally switched on.

3.1 Mechanical installation

The ALR20/A Ex relay itself is not explosion protected and it is forbidden to install it in a potentially explosive environment.

The ALR20/A Ex must be connected to the explosion-proof leakage sensor type AL05 Ex so that they form a function unit where the ALR 20/A Ex is part of the explosion protection of the sensor.

The AR 20/A Ex must be installed in a way that the minimum protection class of IP54 is fulfilled according to EN 60529.

The ambient temperature of the installation site must not exceed 40 °C.

During installation the sensitivity of the seal monitoring is defined by the setting of the switch point. In addition, this setting eliminates disturbing effects such as cable length to the sensor, type of gear oil, ambient temperature, etc.

The ALR 20/A Ex can be fitted on DIN EN-mounting rail TS 35 on side-by-side with 10 mm clearance.

The ALR 20/A Ex must be installed in the control cabinet:

1. Slide the ALR 20/A Ex onto a rail to the correct position.

   ALR 20/A Ex is equipped with a mounting bracket that fits only to 35 mm width mounting rail.

2. Connect the wires according to the instructions in section *3.2 Electrical connection*.
3. Carry out the electrical connection. See also section *9. Technical data*.

3.2 Electrical connection

CAUTION

Electric shock

Minor or moderate personal injury
- Switch off the power supply before you start any work on the product.
- Make sure that the power supply cannot be accidentally switched on.

- A fuse has to be integrated into the power supply circuit. Use a 250 V AC, 0.032 A fine-wire fuse (slow-acting) in accordance with IEC 60127.
- The whole cabinet, which the ALR 20/A Ex and its fuse is part of, must be equipped with a circuit breaker according to IEC 60947-2 or an equipment switch according to IEC 60947-3.

Carry out the electrical connections according to local regulations.

For all electrical connections see fig. 1.

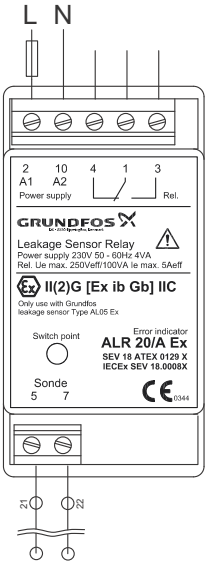

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Fig. 1 Electrical connections

Terminal	Function
2 (A1)	Power supply (L - phase)
10 (A2)	Power supply (N - neutral)
1-3; 1-4	Relay outputs
5-7 (clamp light blue)	Sensor

3.2.1 Connection of main power supply

The power supply has to be connected with terminal 2 and 10 according to the label on the cover. Use adequate wires for main power supply.

3.2.2 Connection of relay contacts

A change-over switch acts as output signal. According to the marking the maximum switching current is 5 A.

Relay outputs

Operation	Relay function
No leakage detected	Relay contact 1-4 closed
	Relay contact 1-3 open
Leakage detected	Relay contact 1-4 open
	Relay contact 1-3 closed

3.2.3 Leakage sensor connections

If the feed cable is being extended, follow the ATEX-directives, standards EN 60079-11 and EN 60079-14 to maintain the intrinsic safe circuit.

For intrinsically safe and nonintrinsically safe circuits the clamp connections must be separated and marked unmistakably. The operator has to make sure that all installation works are done in conformity with the relevant standards.

The sensor cable leads 21 and 22 have to be connected to the light blue terminal 5 and 7. For additional extension a screened cable should be used. The maximum length of the cable from ALR 20/A Ex to leakage sensor is 50 m.

As an alternative to forward the signal over longer distances (> 50 m), use the potential-free outputs (terminal 1 and 4).

3.2.4 Setting the switch point

CAUTION

Electric shock

Minor or moderate personal injury

- When the power supply is on, the settings of the switch point must only be conducted with suitable and isolated tool.

The switch point has to be set after every connection or re-connection of the leakage sensor to the ALR 20/A Ex.

Proceed as follows, see fig. 3:

1. Turn the adjusting screw (2) on top of the ALR 20/A Ex housing counter clockwise until the indicator light (4) is on (indicator light signalling a fault).
2. Turn the adjusting screw (2) slowly in the opposite direction until the indicator light (4) is off.
3. Continue turning the adjusting screw (2) approximately a quarter (from 60 ° to 90 °) in the same direction as under step 2.

3.2.5 Testing the leakage sensor

Two wires lead from ALR 20/A Ex to the sensor; they supply the sensor and also lead a variable current signal, depending on the amount of water in the gear oil. This current measured by the ALR 20/A Ex decreases as the amount of water in the oil increases and it will be compared with a manually adjustable switch point. If the limit of this switch point is exceeded, the relay will switch to "error" mode.

Also, in case of a short circuit or a cable break the relay will automatically switch to "error" mode.

Testing with connected ALR 20/A Ex

In order to test the status or the functionality of the leakage sensor and the ALR 20/A Ex, the current flowing through the sensor must be measured. See fig. 2.

The table below helps to make a conclusion depending on the current measured:

Current [mA]	Meaning	Cause	Relay status
< 0.5	No floating current	Break of power cable	Error
0.5 - 5	Low current	Sensor detects water in oil	Error
5-11	Normal current	Sensor detects few water or no water in oil	*
> 11	Too high current	Short circuit in power cable	Error

* Depending on switch point setting

Fig. 2 Wiring for testing with ALR 20/A Ex

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4. Starting up the product

Startup must be carried out by authorised persons only.

Switch on the power supply and check that the signal is as expected, 5 mA for 0 % water. If the signal is ok, the system is ready for operation.

5. Operating the product

For operation, supply the indicated voltage to the ALR 20/A Ex relay. To integrate the ALR 20/A Ex relay into the motor control, use the switching contacts (1, 3, 4). During normal operation the intern relay turns on and off and controls the pins 1, 3 and 4.

In case of a fault, if water is detected in the oil, cable break of the switch, short circuit of the cable or power failure, the relay is activated and controls the pins 1, 3 and 4.

A device fault is indicated by an illuminating diode on the front panel of the ALR 20/A Ex, see fig. 3, pos. 4. It is possible to draw an external fault signal over pins 1 and 3 (closed in case of fault).

As soon as the reason for the fault is eliminated, the product restarts automatically and returns to normal operation. Non-automatic restart of the motor must be made by settings in the control.

6. Storing the product

Moisture inside the packaging can damage the electrical connections.

Store the product in the original packaging to protect the product against moisture and heat.

Storage temperature: -20 to +40 °C.

After long periods of storage, carry out a visual inspection of the product to make sure there is no moisture inside the packaging.

7. Product introduction

7.1 Product description

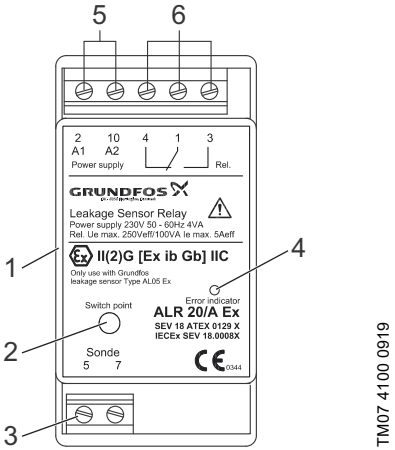

Fig. 3 ALR 20/A Ex relay

Pos.	Designation
1	ALR 20/A Ex housing
2	Adjusting screw (Switch point)
3	Leakage sensor connections
4	Indicator light (Error indicator)
5	Power supply connections (L, N)
6	Relay connections

7.2 Applications

The leakage sensor relay ALR 20/A Ex functions together with the leakage sensor AL05 Ex as a leakage detection system for a submerged mixer, flowmaker or recirculation pump.

The ALR 20/A Ex is installed outside of the wet area, the leakage sensor AL05 Ex is installed in a submerged mixer, flowmaker or recirculation pump, and wired to the ALR 20/A Ex.

In case of defective sealing, the penetrating water is detected by the sensor and further damages can be avoided.

7.3 Intended use

The ALR 20/A Ex is used together with the leakage sensor AL05 Ex to monitor the sealing of a submerged mixer, flowmaker or recirculation pump.

7.4 Approvals

The product has been tested by Eurofins.

7.4.1 Ex approval standards

Leakage sensor relay ALR 20/A Ex marking

Ⓔx II (2)G [Ex ib Gb] IIC

Leakage sensor AL05 Ex marking

Ⓔx II 2G Ex db ib IIC T4 Gb

IECEx certificate No: IECEx SEV 18.0008X

Standards: IEC 60079-0:2017, IEC 60079-1:2014, IEC 60079-11:2011

Directive/ standard	Code	Description
ATEX	Ⓔx	Marking of explosion protection
	II	Equipment group according to the ATEX directive, defining the requirements applicable to the equipment in this group
	2	Equipment category according to the ATEX directive, defining the requirements applicable to the equipment in this category
	G	Explosive atmospheres caused by gases, vapours or mists
Harmonised European standard	Ex	The equipment conforms to the harmonised European standard.
	db	Leakage sensor can be part of flameproof enclosure according to EN 60079-1
	ib	Intrinsic safety according to EN 60079-11.
	IIC	Classification of gases, see EN 60079-0. Gas group C.
	T4	Maximum surface temperature is 135 °C
	Gb	Equipment protection level. This product is suitable for zone1 or zone 2

7.5 Nameplate

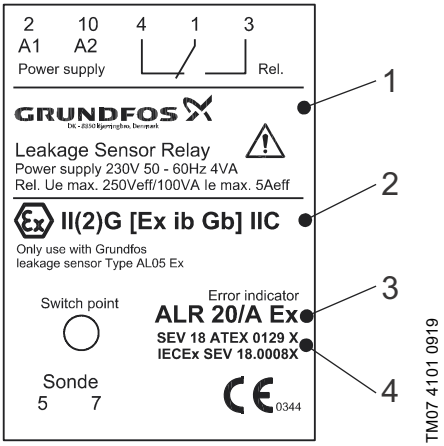

Fig. 4 Nameplate of ALR 20/A Ex relay

Pos.	Description
1	Manufacturer
2	Ex description
3	Type identification
4	Certificate number ATEX/IECEx

8. Servicing the product

The ALR 20/A Ex requires no maintenance. It may only be cleaned with a dustless cloth.

8.1 Replacing the product

Replace the ALR 20/A Ex in case of a fault.

See section *3. Installing the product*.

WARNING

Electric shock

Death or serious personal injury

- Switch off the power supply before you start any work on the product.
- Make sure that the power supply cannot be accidentally switched on.

9. Technical data

9.1 Operating conditions of ALR 20/A Ex

9.1.1 Ambient temperature

-20 to +40 °C

9.1.2 Relative humidity

Max. 95 % (no condensation)

9.1.3 Installation altitude

Maximum 2000 m above sea level

9.2 Electrical data of ALR 20/A Ex

9.2.1 Nominal operating voltage

230 V AC

9.2.2 Permitted voltage tolerance

-15 to +10 %

9.2.3 Frequency

50-60 Hz

9.2.4 Power input

Approximately 4 VA

9.2.5 Power transformer

According to EN 61558-1/EN 61558-2-6, must be short-circuit proof: VDE, SEV mark of conformity.

9.2.6 On time

100 %

9.2.7 Air gaps and leakage distance

Mains/relay output, according to EN 60664-1

Leakage distance: 12 mm

9.2.8 Overvoltage category

Category II

9.2.9 Rating surge voltage

4 kV

9.2.10 Interference emission

According to EN 61000-6-4

9.2.11 Immunity to interference

According to EN 61000-6-2

9.2.12 Relay output

1 change-over switch, potential-free

9.2.13 Insulation test voltage

Inductor contact 5 kV AC

Surge 10 kV (1.2 × 50 µs)

9.2.14 Maximum switching voltage

250 V AC / 24 V DC

9.2.15 Maximum switching current

5 A

9.2.16 Maximum switching capacity

100 VA / 100 W

9.2.17 Electrical life cycle

100 000 switching cycles at maximum load

9.2.18 Mechanical life cycle

20 000 000 switching cycles

9.2.19 Connections

Conductor cross-section stranded wire 2.5 mm^2, single-wired 4 mm^2

9.2.20 Enclosure class

IP20 according to EN 60529.

In order to meet the requirements of Pollution Degree 2, install ALR 20/A Ex in a protected environment with enclosure class IP54 or better, according to IEC 60529. The cabinet must be of a flame-retardant material.

9.2.21 Leakage sensor circuit

Intrinsically safe according to EN 60079-11. [ib Gb] IIC

Uo = 15.8 V

Io = 125 mA

Co = 0.478 µF

Lo = 12 µH

9.3 Dimensions and weights

9.3.1 Dimensions

Dimensions include the mounting bracket.

Height	Width	Depth
96 mm	49 mm	50 mm

9.3.2 Weight

Product weight: 0.175 kg

10. Disposal

This product or parts of it must be disposed of in an environmentally sound way:

1. Use the public or private waste collection service.
2. If this is not possible, contact the nearest Grundfos company or service workshop.

See also end-of-life information at www.grundfos.com/product-recycling.

GB: EU declaration of conformity
We, Grundfos, declare under our sole responsibility that the product ALR 20/A Ex relay and AL05 Ex sensor, 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.

BG: Декларация за съответствие на ЕО
Ние, фирма Grundfos, заявяваме с пълна отговорност, че продуктът ALR 20/A Ex relay and AL05 Ex sensor, за който се отнася настоящата декларация, отговаря на следните директиви на Съвета за уеднаквяване на правните разпоредби на държавите-членки на ЕО.

CZ: Prohlášení o shodě EU
My firma Grundfos prohlašujeme na svou plnou odpovědnost, že výrobek ALR 20/A Ex relay and AL05 Ex sensor, na který se toto prohlášení vztahuje, je v souladu s níže uvedenými ustanoveními směrnice Rady pro sblížení právních předpisů členských států Evropského společenství.

DE: EU-Konformitätserklärung
Wir, Grundfos, erklären in alleiniger Verantwortung, dass das Produkt ALR 20/A Ex relay and AL05 Ex sensor, auf das sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EU-Mitgliedsstaaten übereinstimmt.

DK: EU-overensstemmelseserklæring
Vi, Grundfos, erklærer under ansvar at produktet ALR 20/A Ex relay and AL05 Ex sensor som erklæringen nedenfor omhandler, er i overensstemmelse med Rådets direktiver der er nævnt nedenfor, om indbyrdes tilnærmelse til EU-medlemsstaternes lovgivning.

EE: EÜvastavusdeklaratsioon
Meie, Grundfos, kinnitame ja kanname ainuisikulist vastutust selle eest, et toode ALR 20/A Ex relay and AL05 Ex sensor, mille kohta all olev deklaratsioon käib, on kooskõlas Nõukogu Direktiividega, mis on nimetatud all pool vastavalt vastuvõetud õigusaktidele ühtlustamise kohta EÜ liikmesriikides.

ES: Declaración de conformidad de la UE
Grundfos declara, bajo su exclusiva responsabilidad, que el producto ALR 20/A Ex relay and AL05 Ex sensor al que hace referencia la siguiente declaración cumple lo establecido por las siguientes Directivas del Consejo sobre la aproximación de las legislaciones de los Estados miembros de la UE.

FI: EU-vaatimustenmukaisuusvakuutus
Grundfos vakuuttaa omalla vastuullaan, että tuote ALR 20/A Ex relay and AL05 Ex sensor, jota tämä vakuutus koskee, on EU:n jäsenvaltioiden lainsäädännön lähentämiseen tähtäävien Euroopan neuvoston direktiivien vaatimusten mukainen seuraavasti.

FR: Déclaration de conformité UE
Nous, Grundfos, déclarons sous notre seule responsabilité, que le produit ALR 20/A Ex relay and AL05 Ex sensor, 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.

GR: Δήλωση συμμόρφωσης ΕΕ
Εμείς, η Grundfos, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι το προϊόν ALR 20/A Ex relay and AL05 Ex sensor τερμέκ, αμελυρε αζ αλάββι νυιλατκοζατ νονατκοζικ, μεγφελελ αζ Εὐρόπαι Υνιό ταγάλλαμαινακ jogi irányelveit összehangoló tanács alábbi előírásainak.

HR: EU deklaracija sukladnosti
Mi, Grundfos, izjavljujemo s punom odgovornošću da je proizvod ALR 20/A Ex relay and AL05 Ex sensor, na koja se izjava odnosi u nastavku, u skladu s dolje navedenim direktivama Vijeća o usklađivanju zakona država članica EU-a.

HU: EU megfelelőségi nyilatkozat
Mi, a Grundfos vállalat, teljes felelősséggel kijelentjük, hogy a(z) ALR 20/A Ex relay and AL05 Ex sensor termék, amelyre az alábbi nyilatkozat vonatkozik, megfelel az Európai Unió tagállamainak jogi irányelveit összehangoló tanács alábbi előírásainak.

IT: Dichiarazione di conformità UE
Grundfos dichiara sotto la sua esclusiva responsabilità che il prodotto ALR 20/A Ex relay and AL05 Ex sensor, al quale si riferisce questa dichiarazione, è conforme alle seguenti direttive del Consiglio riguardanti il riavvicinamento delle legislazioni degli Stati membri UE.

LT: ES atitikties deklaracija
Mes, Grundfos, su visa atsakomybe pareiškiame, kad produktas ALR 20/A Ex relay and AL05 Ex sensor, kuriam skirta ši deklaracija, atitinka žemiau nurodytas Tarybos Direktyvas dėl ES šalių narių įstatymų suderinimo.

LV: ES atbilstības deklarācija
Sabiedrība Grundfos ar pilnu atbildību paziņo, ka produkts ALR 20/A Ex relay and AL05 Ex sensor, uz kuru attiecas tālāk redzamā deklarācija, atbilst tālāk norādītajām Padomes direktīvām par ES dalībvalstu normatīvo aktu tuvināšanu.

NL: EU-conformiteitsverklaring
Wij, Grundfos, verklaren geheel onder eigen verantwoordelijkheid dat product ALR 20/A Ex relay and AL05 Ex sensor, waarop de onderstaande verklaring betrekking heeft, in overeenstemming is met de onderstaande Richtlijnen van de Raad inzake de onderlinge aanpassing van de wetgeving van de EU-lidstaten.

PL: Deklaracja zgodności UE
My, Grundfos, oświadczamy z pełną odpowiedzialnością, że nasz produkt ALR 20/A Ex relay and AL05 Ex sensor, którego deklaracja niniejsza dotyczy, jest zgodny z następującymi dyrektywami Rady w sprawie zbliżenia przepisów prawnych państw członkowskich.

PT: Declaração de conformidade UE
A Grundfos declara sob sua única responsabilidade que o produto ALR 20/A Ex relay and AL05 Ex sensor, ao qual diz respeito a declaração abaixo, está em conformidade com as Directivas do Conselho sobre a aproximação das legislações dos Estados Membros da UE.

RO: Declaraţia de conformitate UE
Noi Grundfos declarăm pe propria răspundere că produsul ALR 20/A Ex relay and AL05 Ex sensor, la care se referă această declaraţie, este în conformitate cu Directivele de Consiliu specificate mai jos privind armonizarea legilor statelor membre UE.

RS: Deklaracija o usklađenosti EU
Mi, kompanija Grundfos, izjavljujemo pod punom vlastitom odgovornošću da je proizvod ALR 20/A Ex relay and AL05 Ex sensor, na koji se odnosi deklaracija ispod, u skladu sa dole prikazanim direktivama Saveta za usklađivanje zakona država članica EU.

SE: EU-försäkran om överensstämmelse
Vi, Grundfos, försäkrar under ansvar att produkten ALR 20/A Ex relay and AL05 Ex sensor, som omfattas av nedanstående försäkran, är i överensstämmelse med de rådsdirektiv om inbördes närmande till EU-medlemsstaternas lagstiftning som listas nedan.

SI: Izjava o skladnosti EU
V Grundfosu s polno odgovornostjo izjavljamo, da je izdelek ALR 20/A Ex relay and AL05 Ex sensor,na katerega se spodnja izjava nanaša, v skladu s spodnjimi direktivami Sveta o približevanju zakonodaje za izenačevanje pravnih predpisov držav članic EU.

SK: ES vyhlásenie o zhode
My, spoločnosť Grundfos, vyhlasujeme na svoju plnú zodpovednosť, že produkt ALR 20/A Ex relay and AL05 Ex sensor, na ktorý sa vyhlásenie uvedené nižšie vzťahuje, je v súlade s ustanoveniami nižšie uvedených smerníc Rady pre zblíženie právnych predpisov členských štátov EÚ.

TR: AB uygunluk bildirgesi
Grundfos olarak, aşağıdaki bildirim konusu olan ALR 20/A Ex relay and AL05 Ex sensor ürünlerinin, AB üye ülkelerinin direktiflerinin yakınlaştırılmasıyla ilgili durumun aşağıdaki Konsey Direktifleriyle uyumlu olduğunu ve bununla ilgili olarak tüm sorumluluğun bize ait olduğunu beyan ederiz.

UA: Декларація відповідності директивам EU

Ми, компанія Grundfos, під нашу одноосібну відповідальність заявляємо, що виріб ALR 20/A Ex relay and AL05 Ex sensor, до якого відноситься нижченаведена декларація, відповідає директивам EU, переліченим нижче, щодо тотожності законів країн-членів ЄС.

CN: 欧盟符合性声明

我们，格兰富，在我们的全权责任下声明，产品 ALR 20/A Ex relay and AL05 Ex sensor 系列，其制造和性能完全符合以下所列欧盟委员会指令。

KO: EU 적합성 선언

Grundfos 는 아래의 선언과 관련된 ALR 20/A Ex relay and AL05 Ex sensor 제품이 EU 회원국 법률에 기반하여 아래의 이사회 지침을 준수함을 단독 책임 하에 선언합니다 .

NO: EUs samsvarsærklæring

Vi, Grundfos, erklærer under vårt eneansvar at produktet ALR 20/A Ex relay and AL05 Ex sensor, som denne erklæringen gjelder, er i samsvar med Det europeiske råds direktiver om tilnærming av forordninger i EU-landene.

AR: إقــرار مطابقــة الاتحــاد الأوروبــي (EU)

نقــر نحــن، جرونــدفوس، بمقتضــى مســؤوليتنا الفرديــة بــأن المنتــج ALR 20/A Ex relay and AL05 Ex sensor، الــذي يختــص بــه الإقــرار أدنــاه، يكــون مطابقــا لتوجيهــات المجلــس المــذكورة أدنــاه بشــأن التقريــب بيــن قــوانين الــدول أعضــاء الاتحــاد الأوروبــي (EU).

TW: EU 合格聲明

葛蘭富根據我們唯一的責任，茲聲明與以下聲明相關之 ALR 20/A Ex relay and AL05 Ex sensor 產品，符合下列近似 EU 會員國法律之議會指令。

IS: ESB-samræmisyfirlýsing

Við, Grundfos, lýsum því yfir og ábyrgjumst að fullu að varan ALR 20/A Ex relay and AL05 Ex sensor, sem þessi yfirlýsing á við um, samræmist tilskipunum ráðs Evrópubandalaganna um samræmingu laga aðildarríkja ESB.

- RoHS Directives (2011/65/EU and 2015/863/EU).
  Standard used: EN IEC 63000:2018
- Low voltage directive (2014/35/EU)
  Applies only products with sensor and relay:
  Standards used:
  IEC 61010-1:2010, IEC 61010-1:2010/AMD1:2016
- Electromagnetic compatibility (EMC) Directive (2014/30/EU)
  Standards used:
  EN61000-6-3:2007 + A1:2011, EN61000-6-2:2005
- ATEX Directive (2014/34/EU)
  Further information, see below.

This EU declaration of conformity is only valid when published as part of the Grundfos installation and operating instructions (publication number 99421246).

Székesfehérvár, 14 October 2020

Róbert Kis
Senior Manager
WWL Program Engineering
Grundfos Holding A/S
Poul Due Jensens Vej 7
DK-8850 Bjerringbro, Denmark

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

Product:	ALR 20/A Ex relay and AL05 Ex sensor
Certificate No:	SEV 18 ATEX 0129 X
Standards used:	EN IEC 60079-0:2018, EN 60079-1:2014 and EN 60079-11:2012

GB: Moroccan declaration of conformity

We, Grundfos, declare under our sole responsibility that the products to which the declaration below relates, are in conformity with Moroccan laws, orders, standards and specifications to which conformity is declared, as listed below:

Valid for Grundfos products:
ALR 20/A Ex relay and AL05 Ex sensor

Law No 24-09, 2011 Safety of products and services and the following orders:
Order No 2573-14, 2015 Safety Requirements for Low Voltage Electrical Equipment
Standards used: NM EN 61010-1:2014
Order No 2574-14, 2015 Electromagnetic Compatibility
Standards used: NM EN 61000-6-2:2015, NM EN 61000-6-3:2015

This Moroccan declaration of conformity is only valid when accompanying Grundfos instructions.

Bjerringbro, 20/12/2019

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8850 Bjerringbro, Denmark

Manufacturer and person empowered to sign the Moroccan declaration of conformity.

10000269110

FR: Déclaration de conformité marocaine

Nous, Grundfos, déclarons sous notre seule responsabilité que les produits auxquels se réfère cette déclaration, sont conformes aux lois, ordonnances, normes et spécifications marocaines pour lesquelles la conformité est déclarée, comme indiqué ci-dessous :

Valable pour les produits Grundfos :
ALR 20/A Ex relay and AL05 Ex sensor

Sécurité des produits et services, loi n° 24-09, 2011 et décrets suivants :
Exigences de sécurité pour les équipements électriques basse tension, ordonnance n° 2573-14, 2015
Normes utilisées: NM EN 61010-1:2014
Compatibilité électromagnétique, ordonnance n° 2574-14, 2015
Normes utilisées: NM EN 61000-6-2:2015, NM EN 61000-6-3:2015

Cette déclaration de conformité marocaine est uniquement valide lorsqu'elle accompagne la notice d'installation et de fonctionnement Grundfos.

Bjerringbro, 20/12/2019

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Fabricant et personne habilitée à signer la Déclaration de conformité marocaine.

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AR: إقــرار المطابقـــة المغـــربي

نحـــن، جرونـــدفوس، نقـــر تحـــت مســـؤوليتنا وحـــدنا بـــأن المنتجـــات الـــتي يتعلـــق بها الإقـــرار أدنـــاه، تتوافـــق مـــع القـــوانين والقـــرارات والمعـــايير والمواصـــفا المغربيـــة الـــتي تـــم إقـــرار المطابقـــة بشـــأنها، كمـــا هـــو موضـــح أدنـــاه:

ســـارٍ علـــى منتجـــات جرونـــدفوس:
ALR 20/A Ex relay and AL05 Ex sensor

قـــانون رقـــم 24-09، 2011 بشـــأن ســـلامة المنتجـــات والخـــدمات والقـــرارات التاليـــة:
القـــرار رقـــم 2573-14، 2015 متطلبـــات الســـلامة للمعـــدات الكهربائيـــة ذات الجهـــد المنخفـــض
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NM EN 61010-1:2014
القـــرار رقـــم 2574-14، 2015 التوافـــق الكهرومغناطيســـي
المعـــايير المســـتخدمة:
NM EN 61000-6-2:2015, NM EN 61000-6-3:2015

يكـــون إقـــرار المطابقـــة المغـــربي صـــالحًا فقـــط عنـــد نشـــره كجـــزء مـــن تعليمـــات جرونـــدفوس.

Bjerringbro, 20/12/2019

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الجهـــة المصـــنعة والشـــخص المفـــوض بتوقيـــع إقـــرار المطابقـــة المغـــربي.

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