

## IO 50 SQFlex

Installation and operating instructions



# English (GB) Installation and operating instructions

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## 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.



#### Warning

The use of this product requires experience with and knowledge of the product.

Persons with reduced physical, sensory or mental capabilities must not use this product, unless they are under supervision or have been instructed in the use of the product by a person responsible for their safety.

Children must not use or play with this product.

## 1. Applications

The IO 50 SQFlex switch box is made for solar-powered SQFlex systems and is an on/off switch for the system power supply.

In addition, the IO 50 functions as a connection point for all necessary cables.

By means of the on/off switch, it is possible to

- start/stop the pump
- reset alarms.

The electrical connection and protection must be carried out in accordance with local regulations.

## 2. Installation



### Warning

Before starting any work on the IO 50, make sure that the power supply has been disconnected and that it cannot be accidentally connected.

### 2.1 Mechanical installation

The IO 50 SQFlex must be placed on a firm and stable surface that fits the box.

### 2.2 Electrical connection

The electrical connection must be carried out by an authorised electrician in accordance with local regulations.

Two typical wiring diagrams are shown on page 5:

- one DC conductor earthed (fig. 1)
- floating DC supply or AC connection (fig. 2).

#### Position of wire jumpers

| Wiring                   | Place the wire jumpers between |           |           |
|--------------------------|--------------------------------|-----------|-----------|
| One DC conductor earthed | 1L1 - 3L2                      | 5L3 - 7L4 | 4T2 - 6T3 |
| Floating DC supply       | 1L1 - 7L4                      | 3L2 - 5L3 | -         |

#### Explanation

The jumpers are necessary in order to meet the demands of the circuit breaker due to the complexity of handling DC currents. This means that contact sets in series connection are required.

### Warning



Never make any connections in the IO 50 unless the power supply has been disconnected. The IO 50 must be connected in accordance with the rules and standards in force for the application in question.

Use appropriate compression fittings to ensure watertight cable entries.

The IO 50 must be earthed.

The DC supply voltage is stated on the nameplate. Make sure that the IO 50 is suitable for the power supply on which it will be used.

### 3. Technical data

#### System voltages

- DC: Maximum 300 V, PE.
- AC: Maximum 254 V, 50/60 Hz, PE.

**Note**

All four relay contacts must be used to meet the rated DC voltage. See the wiring diagrams on page 5.

#### Maximum current

8.4 A.

#### Ambient temperature

$T_{\text{amb.}}$ : -30 °C to 50 °C.

#### Enclosure class

IP55 or NEMA 3R.

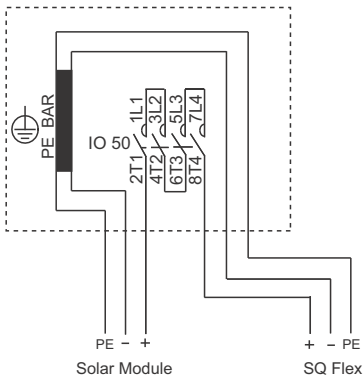
### 4. Disposal

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.

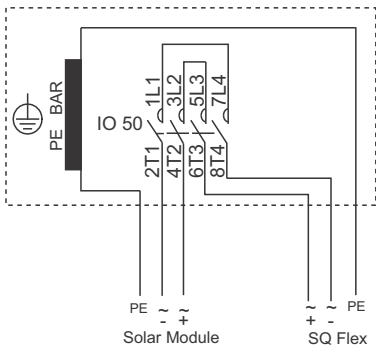
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Subject to alterations.



**Fig. 1** Wiring diagram, one DC conductor earthed

TM04 5893 2710



**Fig. 2** Wiring diagram, floating DC supply or AC connection

TM04 9755 2710

## Declaration of conformity

### GB: EC/EU declaration of conformity

We, Grundfos, declare under our sole responsibility that the products IO 50, to which the declaration below relates, are in conformity with the Council Directives listed below on the approximation of the laws of the EC/EU member states.

**Note:** There are two sets of Council Directives and standards listed below. One set applies until and including 19th April 2016. The other set applies from 20th April 2016 and onwards.

### ES: Declaración de conformidad de la CE/UE

Grundfos declara, bajo su exclusiva responsabilidad, que los productos IO 50 a los que hace referencia la siguiente declaración cumplen lo establecido por las siguientes Directivas del Consejo sobre la aproximación de las legislaciones de los Estados miembros de la CE/UE.

**Nota:** A continuación se recogen dos conjuntos de normas y Directivas del Consejo. Uno de ellos es válido hasta el 19 de abril de 2016. El otro es válido a partir del 20 de abril de 2016.

### FR: Déclaration de conformité CE/UE

Nous, Grundfos, déclarons sous notre seule responsabilité, que les produits IO 50, auxquels se réfère cette déclaration, sont conformes aux Directives du Conseil concernant le rapprochement des législations des États membres CE/UE relatives aux normes énoncées ci-dessous.

**Remarque :** Deux groupes de Directives du Conseil et normes sont énoncés ci-dessous. Un groupe s'applique jusqu'au 19 avril 2016 inclus. L'autre groupe entrera en vigueur le 20 avril 2016.

### GR: Δήλωση συμμόρφωσης ΕΚ/ΕΕ

Εμείς, η Grundfos, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι τα προϊόντα IO 50, στα οποία αναφέρεται η παρακάτω δήλωση, συμμορφώνονται με τις παρακάτω Οδηγίες του Συμβουλίου περί προσέγγισης των νομοθεσιών των κρατών μελών της ΕΚ/ΕΕ.

**Σημείωση:** Υπάρχουν δύο σελ Οδηγιών Συμβουλίου και προτύπων που παρατίθενται παρακάτω. Το ένα σελ ισχύει μέχρι και την 19η Απριλίου 2016. Το άλλο σελ ισχύει από την 20η Απριλίου 2016 και μετέπειτα.

### IT: Dichiarazione di conformità CE/UE

Grundfos dichiara sotto la sua esclusiva responsabilità che i prodotti IO 50, ai quale si riferisce questa dichiarazione, sono conformi alle seguenti direttive del Consiglio riguardanti il riavvicinamento delle legislazioni degli Stati membri CE/UE.

**Nota:** Di seguito sono elencate due serie di direttive del Consiglio e norme. Una serie si applica fino al 19 aprile 2016 (incluso). La seconda serie si applica a partire dal 20 aprile 2016.

### PT: Declaração de conformidade CE/UE

A Grundfos declara sob sua única responsabilidade que os produtos IO 50, aos quais diz respeito a declaração abaixo, estão em conformidade com as Directivas do Conselho sobre a aproximação das legislações dos Estados Membros da CE/UE.

**Nota:** Abaixo estão listados dois grupos de Directivas do Conselho e normas. Um dos grupos é aplicável até 19 de Abril de 2016, inclusive. O outro grupo é aplicável a partir de 20 de Abril de 2016, inclusive.

### TR: EC/AB uygunluk bildirgesi

Grundfos olarak, aşağıdaki bildirim konusu olan IO 50 ürünlerinin, EC/AB Üye ülkelerinin direktiflerinin yakınlaştırılmasıyla ilgili durumun aşağıdaki Konsey Direktifleriyle uyumlu olduğunu ve bununla ilgili olarak tüm sorumluluğun bize ait olduğunu beyan ederiz.

**Not:** Aşağıda belirtilen iki küme Konsey Direktifleri ve Standartları bulunmaktadır. Bir küme 19 Nisan 2016 dahil bu tarihe kadar geçerlidir. Diğer küme 20 Nisan 2016 sonrası için geçerlidir.

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These Directives and standards apply until and including 19th April 2016:

- Low Voltage Directive (2006/95/EC)  
Standard used: EN 60947-3:2008

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These Directives and standards apply from 20th April 2016 and onwards:

- Low Voltage Directive (2014/35/EU)  
Standard used: EN 60947-3:2008

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This EC/EU declaration of conformity is only valid when published as part of the Grundfos installation and operating instructions (publication number 97823192 0316).

Bjerringbro, 7 January 2016



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empowered to sign the EC/EU declaration of conformity.

## Declaration of conformity EAC



Модуль сбора и передачи данных, серии IO сертифицирован на соответствие требованиям Технических регламентов Таможенного союза ТР ТС 020/2011 «Электромагнитная совместимость технических средств», ТР ТС 004/2011 «О безопасности низковольтного оборудования»

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Истра, 1 февраля 2016 г.

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