

# MAGNA3



Plug- and terminal-connected versions /  
Sensor and sensor cable

Service kit instructions



be  
think  
innovate

GRUNDFOS X



## CONTENTS

	Page
<b>1. Sensor with cable, plug connected versions</b>	<b>10</b>
1.1 Dismantling	10
1.2 Assembly	17
<b>2. Sensor cable, plug-connected versions</b>	<b>23</b>
2.1 Dismantling	23
2.2 Assembly	28
<b>3. Sensor with cable, terminal-connected versions</b>	<b>33</b>
3.1 Dismantling	33
3.2 Assembly	39
<b>4. Sensor cable, terminal-connected versions</b>	<b>44</b>
4.1 Dismantling	44
4.2 Assembly	48

## English (GB)

**Warning**

*Before starting service work, read the safety instructions supplied with the product.*

**Warning**

*Always use an antistatic service kit when handling electronic components. This will prevent static electricity from damaging components. See figure below.*

*When unprotected, the component must be placed on the antistatic cloth.*

## Dansk (DK)

**Advarsel**

Læs sikkerhedsanvisningerne der blev leveret med produktet, før du foretager servicearbejde.

**Advarsel**

Brug altid et antistatisk servicesæt når du håndterer elektroniske komponenter. Dette forhindrer at komponenter beskadiges af statisk elektricitet. Se nedenstående figur.

Når komponenten er ubeskyttet, skal den placeres på det antistatiske klæde.

## Deutsch (DE)

**Warnung**

Vor der Durchführung irgendwelcher Reparaturarbeiten ist die mit dem Produkt mitgelieferte Serviceanleitung sorgfältig durchzulesen.

**Warnung**

Beim Umgang mit elektronischen Bauteilen ist immer ein antistatischer Erdungsreparatursatz zu verwenden. Dadurch wird verhindert, dass die Bauteile durch statische Entladung beschädigt werden. Siehe nachfolgende Abbildung.

Wird kein entsprechender Schutz getragen, sind die Bauteile auf einem antistatischen Tuch abzulegen.

## Ελληνικά (GR)

**Ειδοποίηση**

Πριν ξεκινήσετε εργασίες επισκευής, διαβάστε τις οδηγίες ασφαλείας που συνοδεύουν το προϊόν.

**Ειδοποίηση**

Χρησιμοποιείτε πάντα ένα αντιστατικό service kit όταν διαχειρίζεστε ηλεκτρονικά εξαρτήματα. Έτσι θα αποφύγετε ο στατικός ηλεκτρισμός να καταστρέψει εξαρτήματα.

Βλέπε εικόνα παρακάτω.

Το εξάρτημα να παραμένει στο προστατευτικό αντιστατικό ύφασμα όταν δεν προστατεύεται.

## Español (ES)

**Advertencia**

*Antes de comenzar el trabajo, lea las instrucciones de seguridad suministradas con el producto.*

**Advertencia**

*Utilice siempre un kit de servicio antiestático cuando maneje componentes electrónicos. Esto evitará que la electricidad estática pueda dañar las piezas. Véase la figura siguiente.*

*Cuando esté sin protección, la pieza debe ser colocada sobre el paño antiestático.*

## Français (FR)

**Avertissement**

*Avant toute intervention, consulter les consignes de maintenance fournies avec le produit.*

**Avertissement**

*Toujours utiliser un kit de maintenance antistatique lors de la manipulation de composants électroniques. Cela évite que l'électricité statique n'endommage les composants.*

*Voir figure ci-dessous.*

*Lorsqu'il n'est pas protégé, le composant doit être placé sous un tissu antistatique.*

## Italiano (IT)

**Avviso**

*Prima di iniziare i lavori di manutenzione, leggere le istruzioni di sicurezza fornite con il prodotto.*

**Avviso**

*Utilizzare sempre un kit antistatico quando si maneggiano componenti elettronici. Ciò impedirà all'elettricità statica di danneggiare i componenti. Vedi fig. seguente.*

*Quando non protetto, il componente deve essere appoggiato sul panno antistatico.*

## Nederlands (NL)

**Waarschuwing**

*Lees de veiligheidsinstructies die bij het product meegeleverd zijn voordat u begint met servicewerkzaamheden.*

**Waarschuwing**

*Gebruik altijd een antistatische serviceset bij het hanteren van elektronische componenten. Dit voorkomt dat statische elektriciteit componenten beschadigt. Zie onderstaande afbeelding.*



*Indien onbeschermd moet het component op de antistatische doek worden gelegd.*

## Português (PT)

**Aviso**

*Antes de iniciar o serviço de manutenção, leia as instruções de segurança fornecidas com o produto.*

**Aviso**

*Utilize sempre um kit de manutenção antiestático quando lidar com componentes electrónicos. Isto irá prevenir que a electricidade estática danifique os componentes. Observe a figura abaixo.*



*Quanto desprotegido, o componente deve ser colocado num pano antiestático.*

## Русский (RU)

**Предупреждение**

*Перед началом работ по сервисному обслуживанию необходимо прочитать сервисное руководство, поставляемое с продуктом.*

**Предупреждение**

*При работе с электроникой всегда используйте антистатический сервисный комплект. Это поможет предотвратить повреждение компонентов статическим электричеством. Смотрите рисунок ниже.*



*При отсутствии защиты компоненты необходимо размещать на антистатической ткани.*

## Suomi (FI)

**Varoitus**

**Lue tuotteen mukana toimitetut turvallisuusohjeet ennen huoltotöiden aloittamista.**

**Varoitus**

**Käytä aina antistaattista huoltosarjaa, kun käsittelet elektronisia komponentteja. Tämä estää staattisen sähkön aiheuttaman komponenttien vaurioitumisen. Katso alla olevaa kuvaa.**



**Suojaamattomana komponentti on asetettava antistaattisen liinan päälle.**

## Svenska (SE)

**Varning**

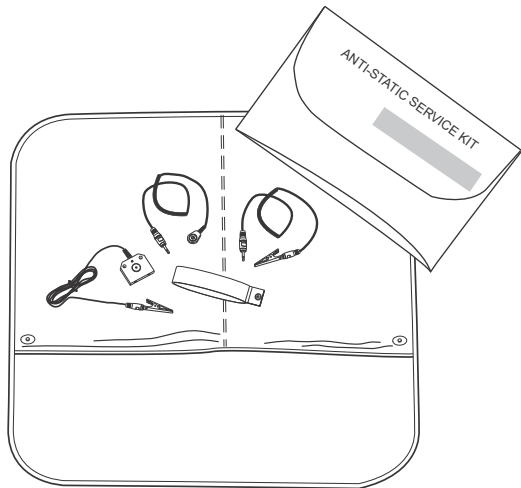
**Läs de säkerhetsanvisningar som medföljer produkten innan servicearbetet inleds.**

**Varning**

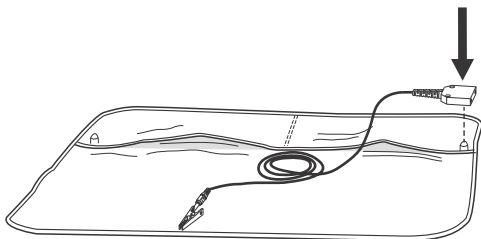
**Använd alltid ett antistatiskt servicekit vid hantering av elektroniska komponenter. Det förhindrar att komponenter skadas av statisk elektricitet. Se figur nedan.**



**Oskyddade komponenter ska placeras på den antistatiska duken.**

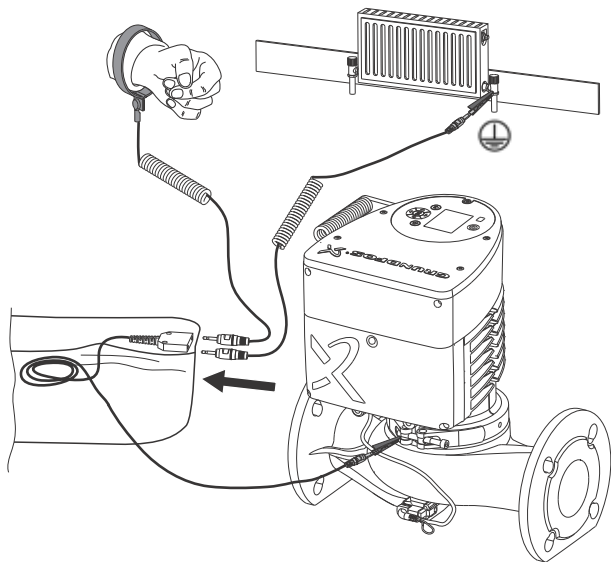


TM05 8838 2813



TM05 8771 2713





TM05 8774 2713

# 1. Sensor with cable, plug connected versions

## 1.1 Dismantling

DK: Demontering

NL: Demontage

DE: Demontage

PT: Desmontagem

GR: Αποσυναρμολόγηση

RU: Демонтаж

ES: Desmontaje

FI: Purkaminen

FR: Démontage

SE: Demontering

IT: Smontaggio

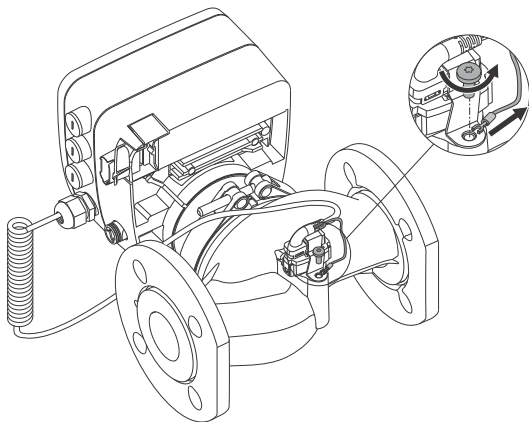


Fig. 1

TM05 8512 2313

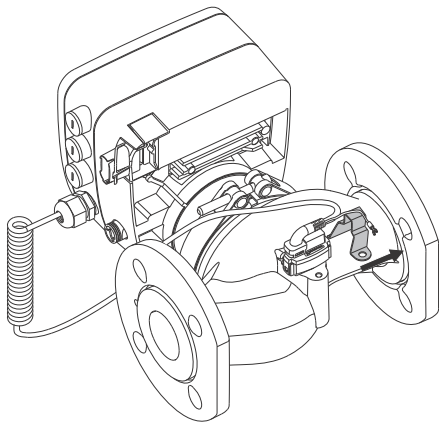


Fig. 2

TM05 8513 2313

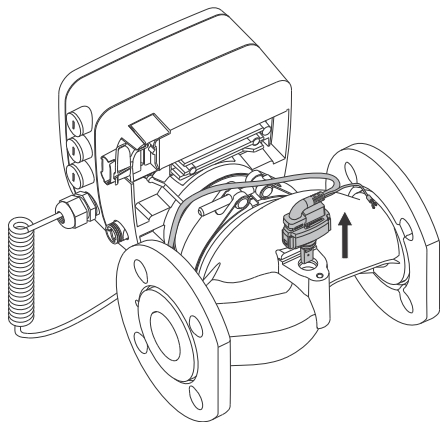


Fig. 3

TM05 8514 2213

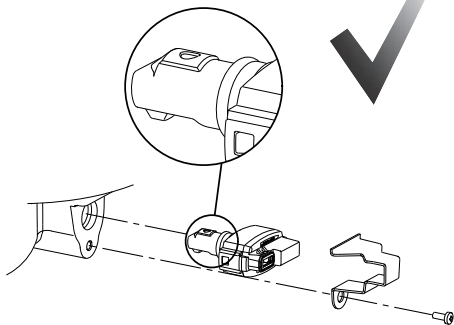


Fig. 4

TM05 4040 1912

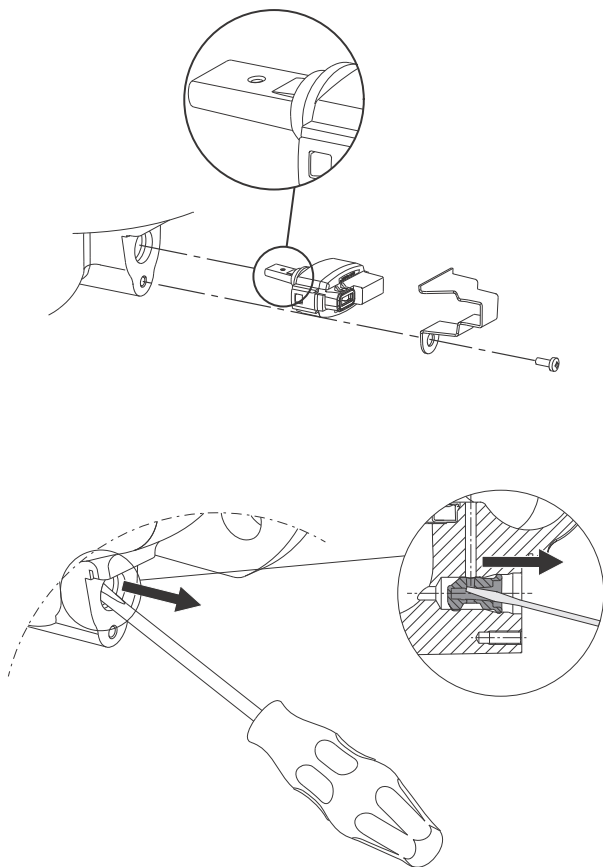


Fig. 5

TM05 8875 2713

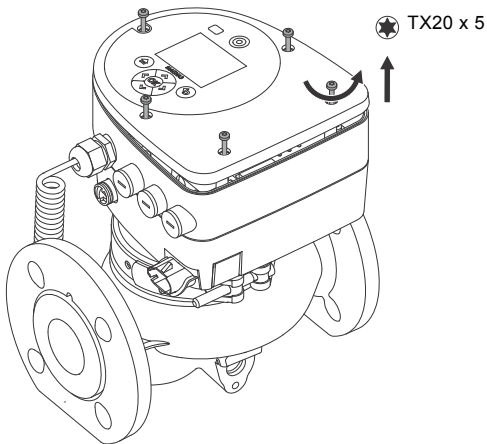


Fig. 6

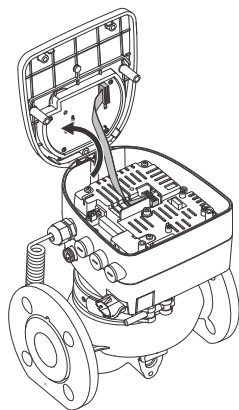


Fig. 7

TM05 8515 2213

TM05 8516 2313

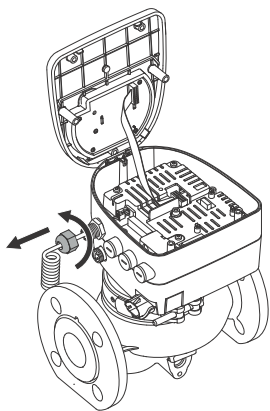


Fig. 8

TM05 8888 2713

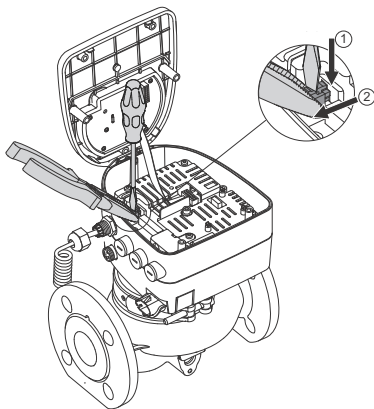


Fig. 9

TM05 8519 2313

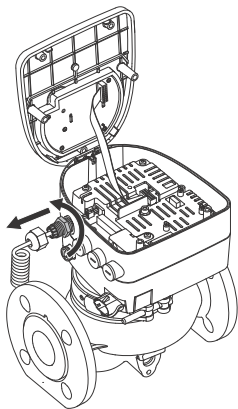


Fig. 10

TM05 8518 2313

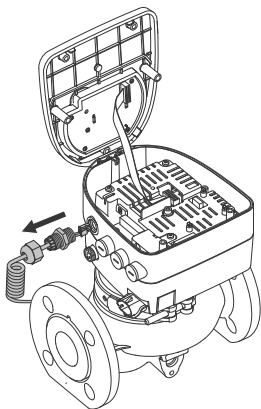


Fig. 11

TM05 8519 2313



## 1.2 Assembly

DK: Montering

NL: Montage

DE: Montage

PT: Montagem

GR: Συναρμολόγηση

RU: Подключение

ES: Montaje

FI: Kokoaminen

FR: Montage

SE: Montering

IT: Montaggio

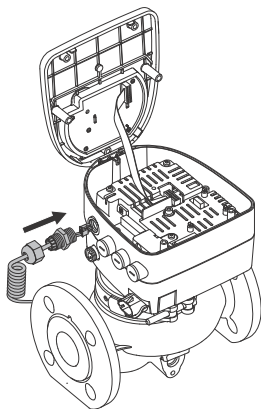


Fig. 1

TM05 8521 2313

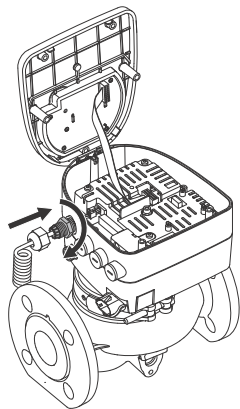


Fig. 2

TM05 8522 2313

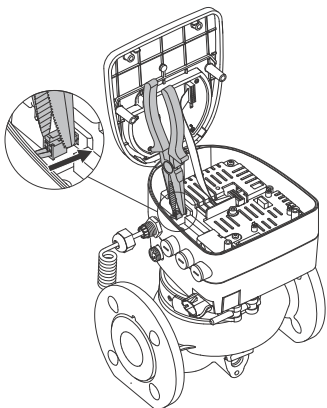


Fig. 3

TM05 8523 2313

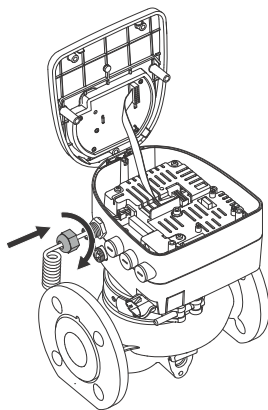


Fig. 4

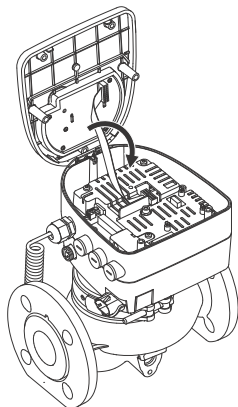


Fig. 5

TM05 8524 2313

TM05 8525 2313

Size	Torque [Nm]
M4	1,2

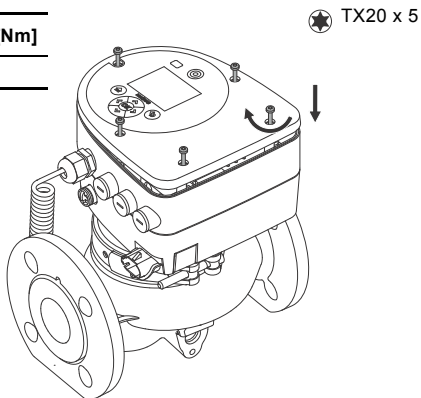


Fig. 6

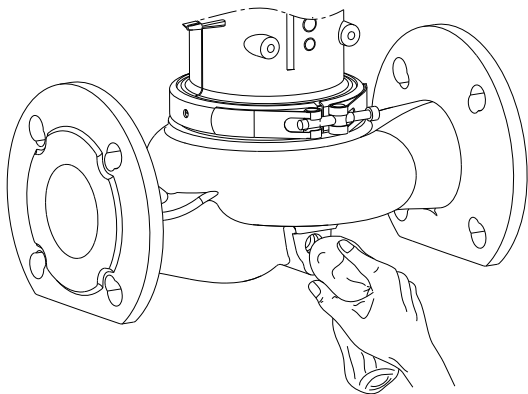


Fig. 7

TM05 8291 22.13

TM05 4619

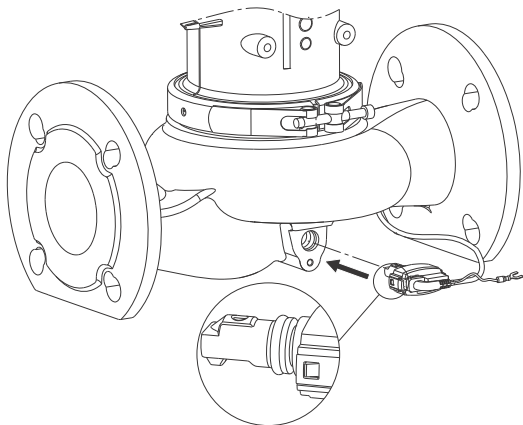


Fig. 8

TM05 4433 2513

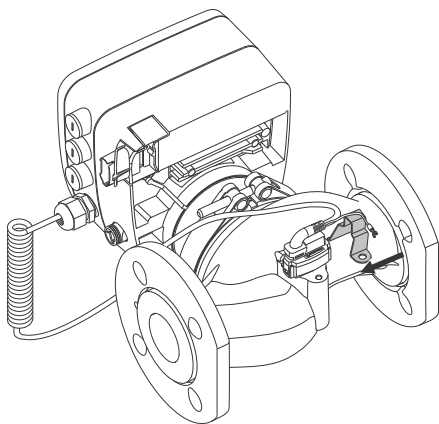


Fig. 9

TM05 8528 2313

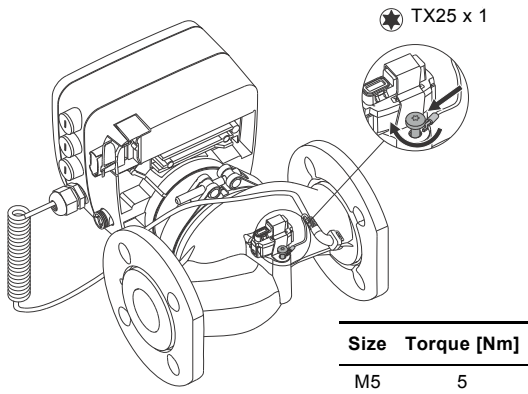


Fig. 10

TM05 8495 2213

## 2. Sensor cable, plug-connected versions

### 2.1 Dismantling

DK: Demontering

DE: Demontage

GR: Αποσυναρμολόγηση

ES: Desmontaje

FR: Démontage

IT: Smontaggio

NL: Demontage

PT: Desmontagem

RU: Демонтаж

FI: Purkaminen

SE: Demontering

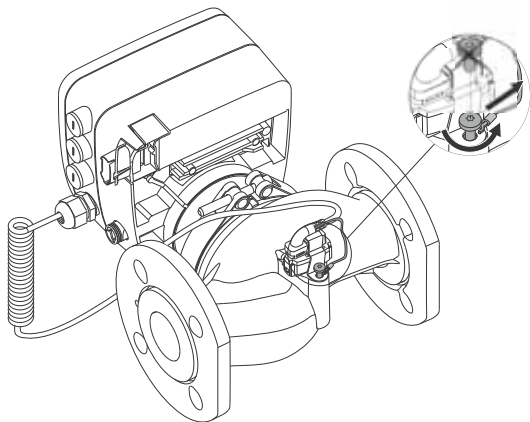


Fig. 1

TM05 8481 2313

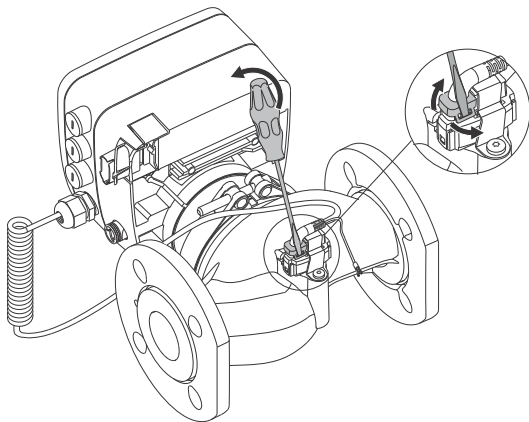


Fig. 2

TM05 8482 2313

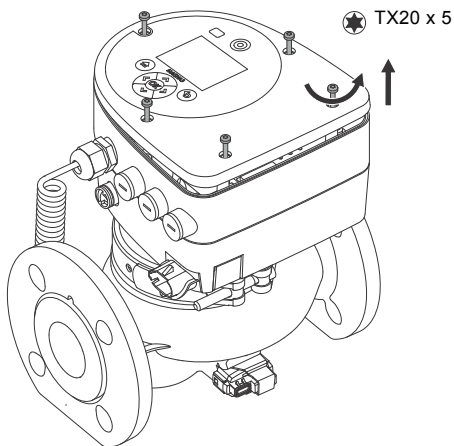


Fig. 3

TM05 88483 2213



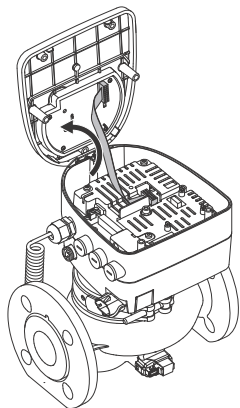


Fig. 4

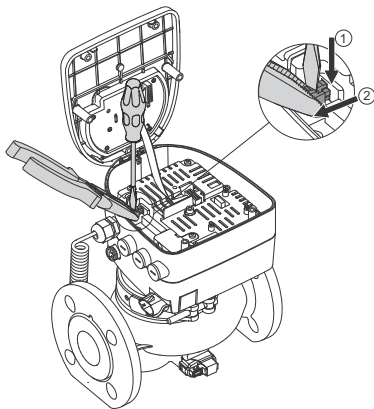


Fig. 5

TM05 8484 2313

TM05 8485 2313

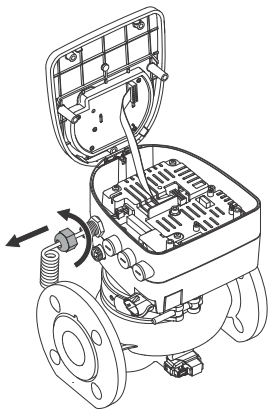


Fig. 6

TM05 8486 2313

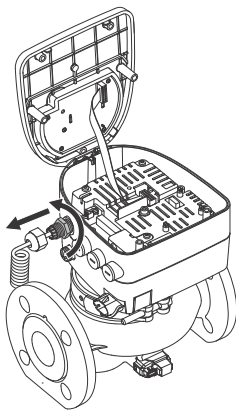
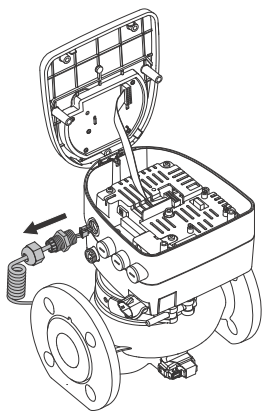


Fig. 7

TM05 8487 2313



**Fig. 8**

TM05 8488 2313

## 2.2 Assembly

DK: Montering

DE: Montage

GR: Συναρμολόγηση

ES: Montaje

FR: Montage

IT: Montaggio

NL: Montage

PT: Montagem

RU: Подключение

FI: Kokoaminen

SE: Montering

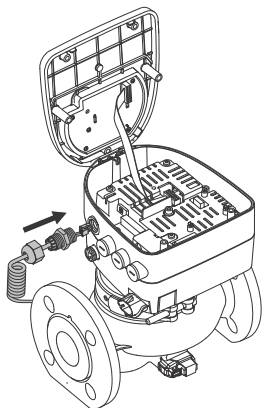


Fig. 1

TM05 8489 2313

TM05 8490 2313

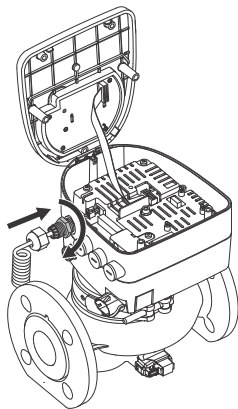


Fig. 2

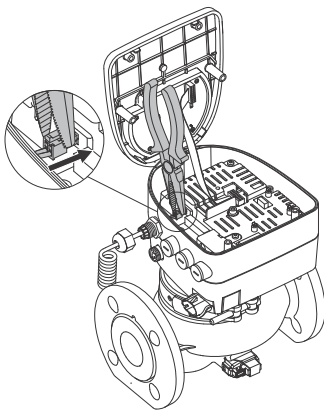


Fig. 3

TM05 8491 2313

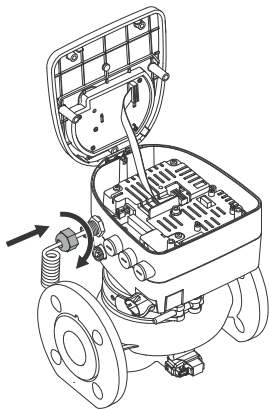


Fig. 4

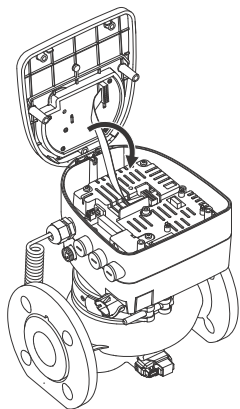


Fig. 5

TM05 8492 2313

TM05 8493 2313

Size	Torque [Nm]
M4	1,2

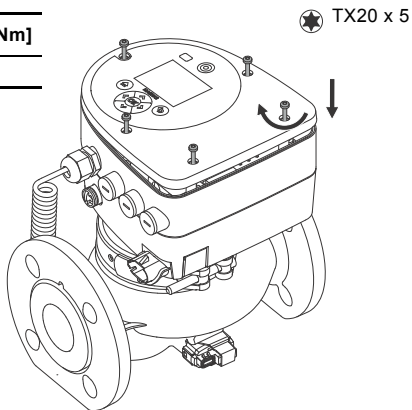


Fig. 6

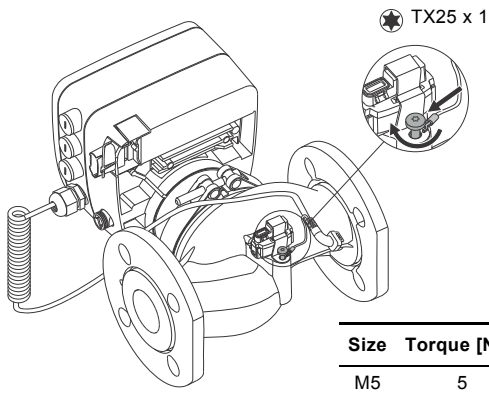
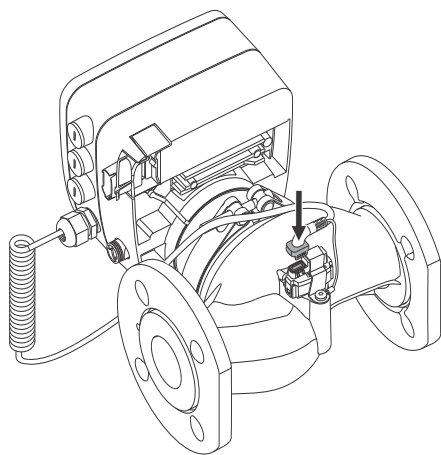


Fig. 7

TM05 8494 2213

TM05 8495 2213



**Fig. 8**

TM05 8496 2213



### 3. Sensor with cable, terminal-connected versions

#### 3.1 Dismantling

DK: Demontering

DE: Demontage

GR: Αποσυναρμολόγηση

ES: Desmontaje

FR: Démontage

IT: Smontaggio

NL: Demontage

PT: Desmontagem

RU: Демонтаж

FI: Purkaminen

SE: Demontering

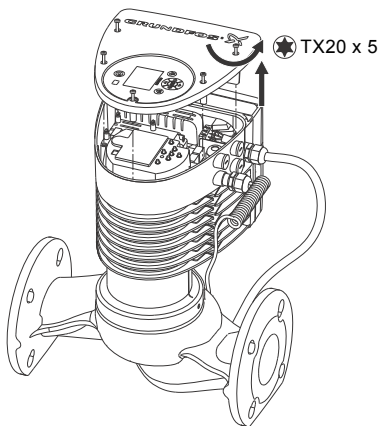


Fig. 1

TM05 3852 2512

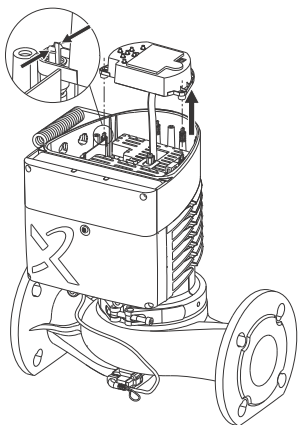


Fig. 2

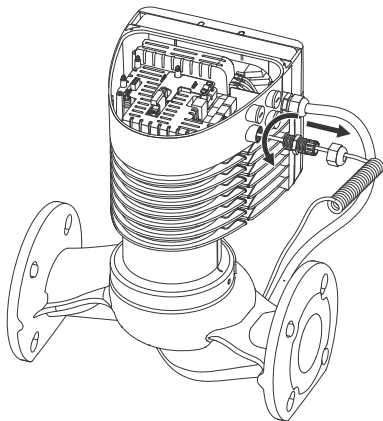


Fig. 3

TM05 3500 2512

TM05 4704 2512

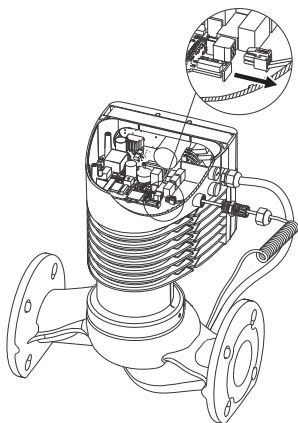


Fig. 4

TM05 3943 2512

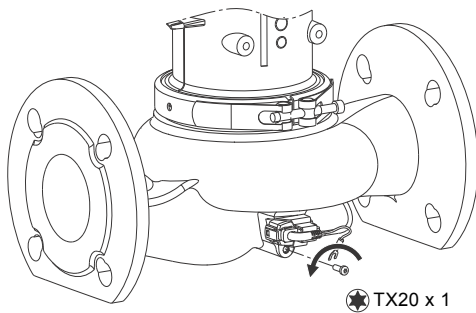


Fig. 5

★ TX20 x 1

TM05 4426 2512

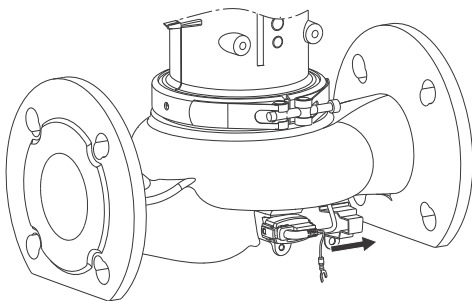


Fig. 6

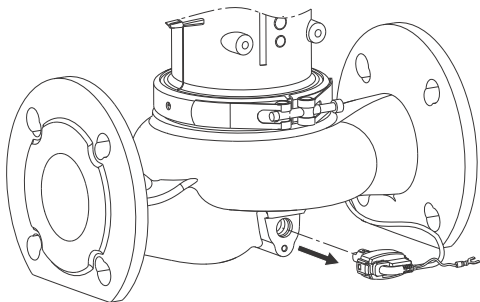


Fig. 7

TM05 4427 2512

TM05 4428 2512

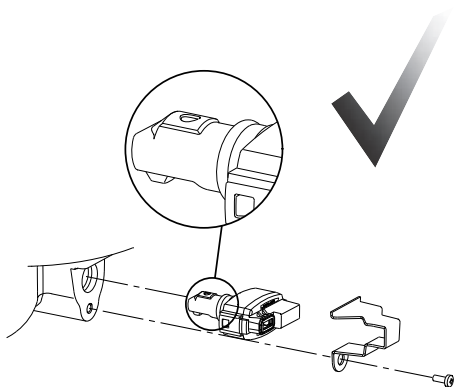


Fig. 8

TM05 4040 1912

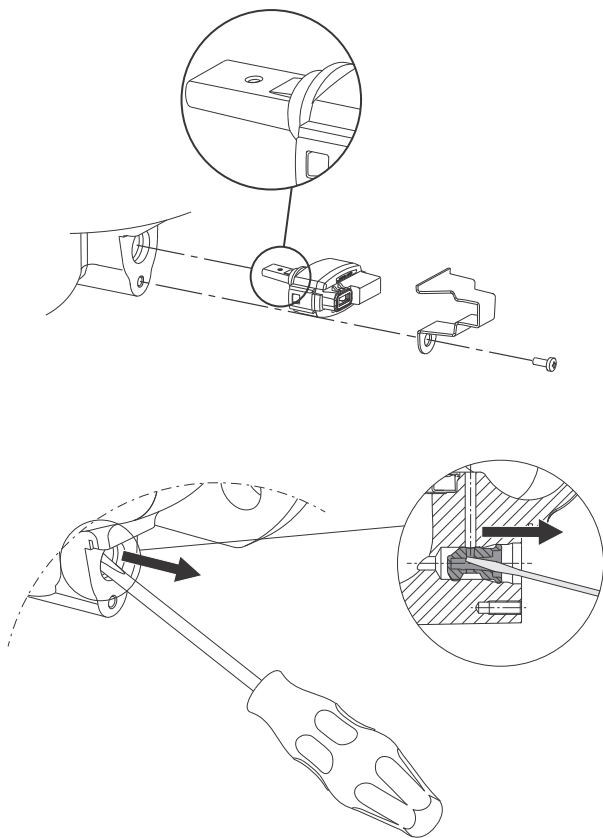


Fig. 9

TM05 8875 2713

### 3.2 Assembly

DK: Montering

NL: Montage

DE: Montage

PT: Montagem

GR: Συναρμολόγηση

RU: Подключение

ES: Montaje

FI: Kokoaminen

FR: Montage

SE: Montering

IT: Montaggio

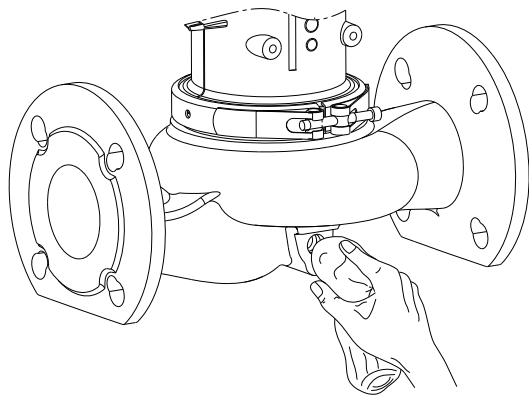


Fig. 1

TM05 4619 2512

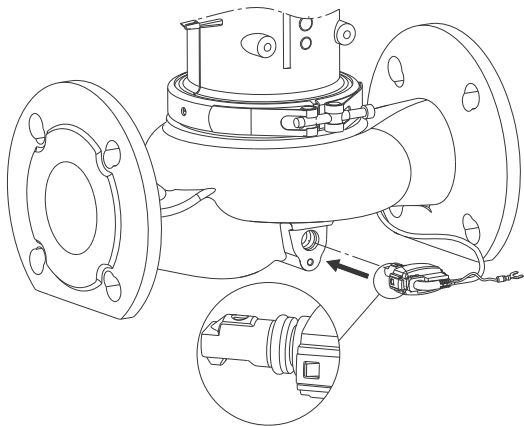


Fig. 2

TM05 4433 2512

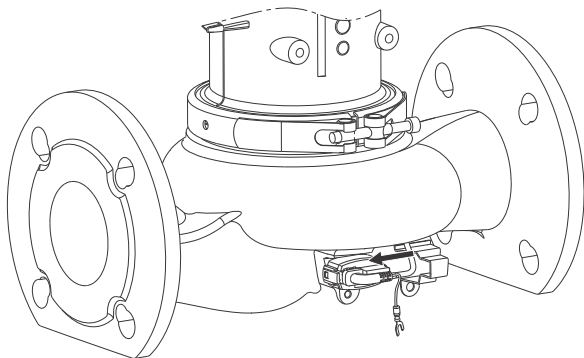


Fig. 3

TM05 4677 2512



Size	Torque [Nm]
M5	5,0

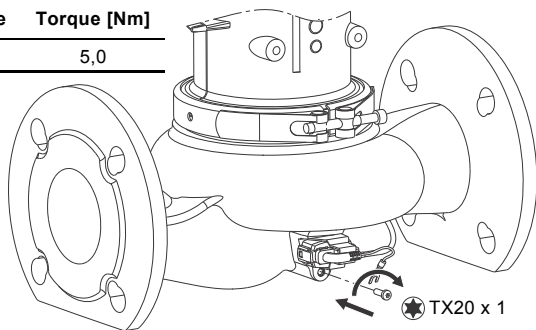


Fig. 4

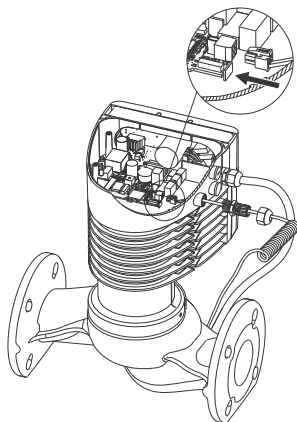


Fig. 5

TM05 4678 2512

TM05 4681 2512

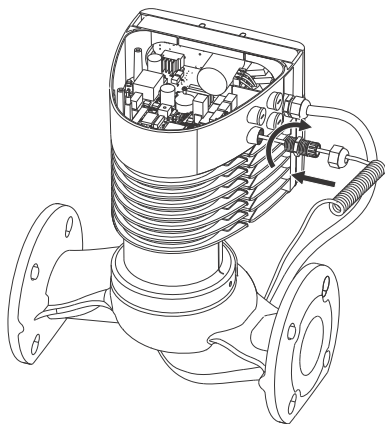


Fig. 6

TM05 4679 2512

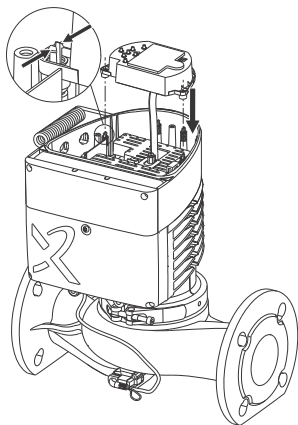


Fig. 7

TM05 4680 2512

TM05 4497 2512

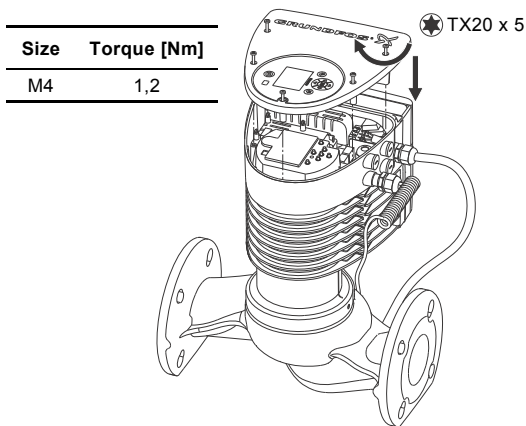


Fig. 8

## 4. Sensor cable, terminal-connected versions

### 4.1 Dismantling

DK: Demontering

DE: Demontage

GR: Αποσυναρμολόγηση

ES: Desmontaje

FR: Démontage

IT: Smontaggio

NL: Demontage

PT: Desmontagem

RU: Демонтаж

FI: Purkaminen

SE: Demontering

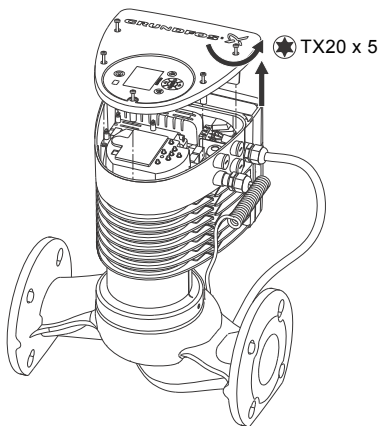


Fig. 1

TM05 3852 2512

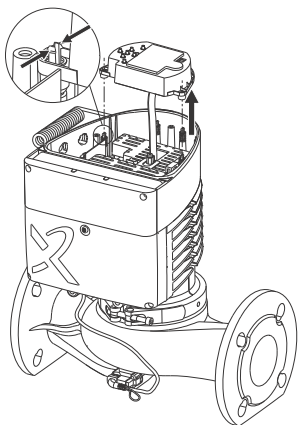


Fig. 2

TM05 3500 2512

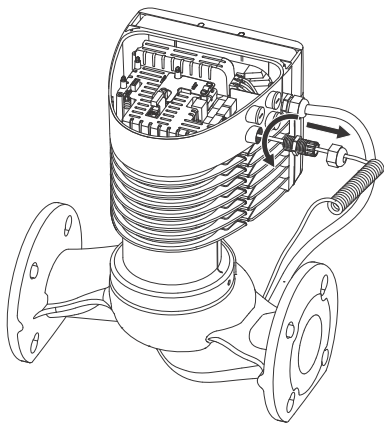


Fig. 3

TM05 4704 2512

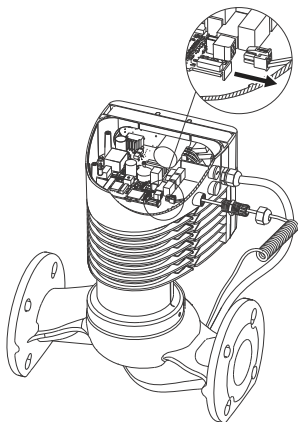


Fig. 4

TM05 3943 2512

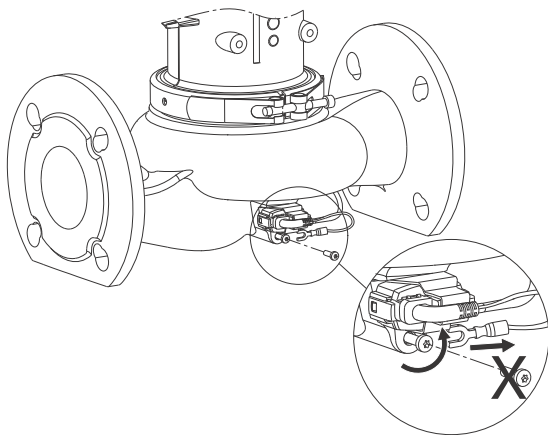


Fig. 5

TM05 5153 2512

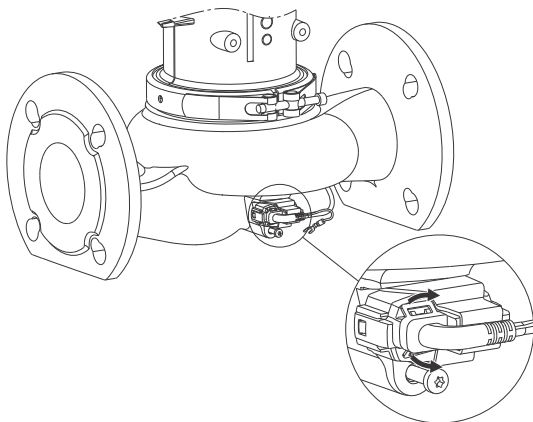


Fig. 6

TM05 5154 2512

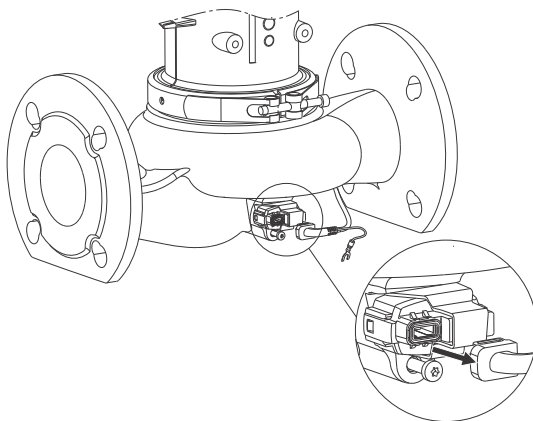


Fig. 7

TM05 5155 2512

## 4.2 Assembly

DK: Montering

DE: Montage

GR: Συναρμολόγηση

ES: Montaje

FR: Montage

IT: Montaggio

NL: Montage

PT: Montagem

RU: Подключение

FI: Kokoaminen

SE: Montering

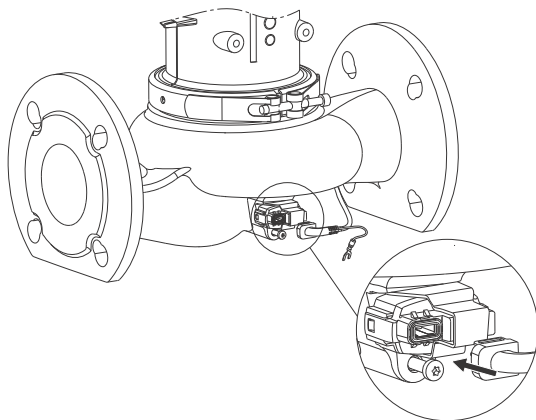


Fig. 1

TM05 5257 2512



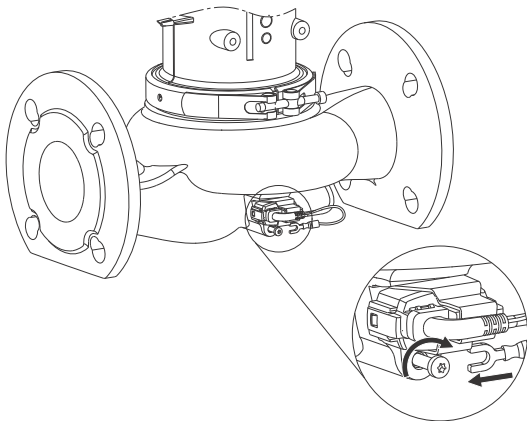


Fig. 2

TM05 5258 2512

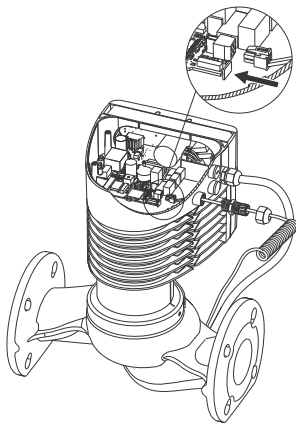


Fig. 3

TM05 4681 2512

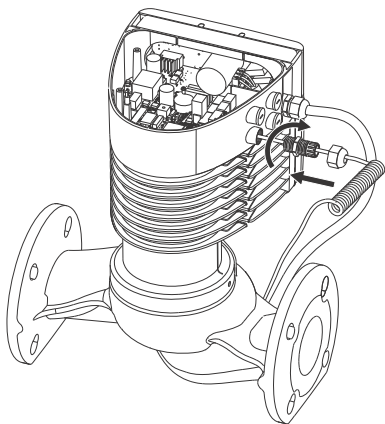


Fig. 4

TM05 4679 2512

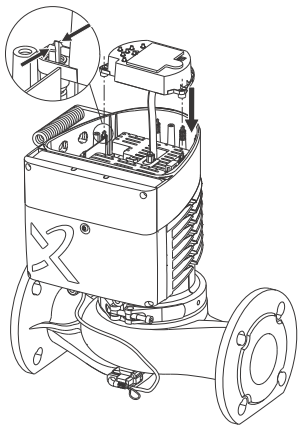


Fig. 5

TM05 4680 2512

TM05 4497 2512

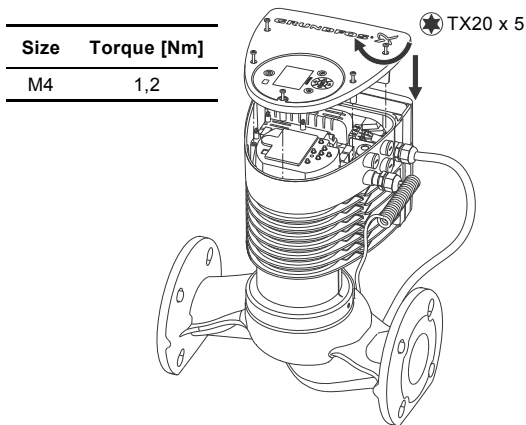


Fig. 6





**Argentina**

Bombas GRUNDFOS de Argentina S.A.  
Phone: +54-3327 414 444  
Telefax: +54-3327 411 111

**Australia**

GRUNDFOS Pumps Pty. Ltd.  
Phone: +61-8-8461-4611  
Telefax: +61-8-8340 0155

**Austria**

GRUNDFOS Pumpen Vertrieb Ges.m.b.H.  
Tel.: +43-6246-883-0  
Telefax: +43-6246-883-30

**Belgium**

N.V. GRUNDFOS Bellux S.A.  
Tél.: +32-3-870 7300  
Télécopie: +32-3-870 7301

**Belarus**

Представительство ГРУНДФОС в Минске  
Тел.: +7 (375 17) 286 39 72, 286 39 73  
Факс: +7 (375-17) 286 39 71

**Bosnia/Herzegovina**

GRUNDFOS Sarajevo  
Phone: +387 33 713 290  
Telefax: +387 33 659 079  
e-mail: grundfos@bih.net.ba

**Brazil**

BOMBAS GRUNDFOS DO BRASIL  
Phone: +55-11 4393 5533  
Telefax: +55-11 4343 5015

**Bulgaria**

Grundfos Bulgaria EOOD  
Tel. +359 2 49 22 200  
Fax. +359 2 49 22 201

**Canada**

GRUNDFOS Canada Inc.  
Phone: +1-905 829 9533  
Telefax: +1-905 829 9512

**China**

GRUNDFOS Pumps (Shanghai) Co. Ltd.  
Phone: +86-021-612 252 22  
Telefax: +86-021-612 253 33

**Croatia**

GRUNDFOS CROATIA d.o.o.  
Phone: +385 1 6595 400  
Telefax: +385 1 6595 499

**Czech Republic**

GRUNDFOS s.r.o.  
Phone: +420-585-716 111  
Telefax: +420-585-716 299

**Denmark**

GRUNDFOS DK A/S  
Tlf.: +45-87 50 50 50  
E-mail: info\_GDK@grundfos.com  
www.grundfos.com/DK

**Estonia**

GRUNDFOS Pumps Eesti OÜ  
Tel: + 372 606 1690  
Fax: + 372 606 1691

**Finland**

OY GRUNDFOS Pumput AB  
Phone: +358-(0)207 889 900  
Telefax: +358-(0)207 889 550

**France**

Pompes GRUNDFOS Distribution S.A.  
Tél.: +33-4 74 82 15 15  
Télécopie: +33-4 74 94 10 51

**Germany**

GRUNDFOS GMBH  
Tel.: +49-(0) 211 929 69-0  
e-mail: infoservice@grundfos.de  
Service in Deutschland:  
e-mail: kundendienst@grundfos.de

HILGE GmbH & Co. KG  
Tel.: +49 6135 75-0  
Telefax: +49 6135 1737  
e-mail: hilge@hilge.de

**Greece**

GRUNDFOS Hellas A.E.B.E.  
Phone: +0030-210-66 83 400  
Telefax: +0030-210-66 46 273

**Hong Kong**

GRUNDFOS Pumps (Hong Kong) Ltd.  
Phone: +852-27861706/27861741  
Telefax: +852-27858664

**Hungary**

GRUNDFOS Hungária Kft.  
Phone: +36-23 511 110  
Telefax: +36-23 511 111

**India**

GRUNDFOS Pumps India Private Limited  
Phone: +91-44 4596 6800

**Indonesia**

PT GRUNDFOS Pompa  
Phone: +62-21-460 6909  
Telefax: +62-21-460 6910/460 6901

**Ireland**

GRUNDFOS (Ireland) Ltd.  
Phone: +353-1-4089 800  
Telefax: +353-1-4089 830

**Italy**

GRUNDFOS Pompe Italia S.r.l.  
Tel.: +39-02-95838112  
Telefax: +39-02-95309290/9583846  
1

**Japan**

GRUNDFOS Pumps K.K.  
Phone: +81-35-448 1391  
Telefax: +81-35-448 9619

**Korea**

GRUNDFOS Pumps Korea Ltd.  
Phone: +82-2-5317 600  
Telefax: +82-2-5633 725

**Latvia**

SIA GRUNDFOS Pumps Latvia  
Tālr.: + 371 714 9640, 7 149 641  
Fakss: + 371 914 9646

**Lithuania**

GRUNDFOS Pumps UAB  
Tel: + 370 52 395 430  
Fax: + 370 52 395 431

**Malaysia**

GRUNDFOS Pumps Sdn. Bhd.  
Phone: +60-3-5569 2922  
Telefax: +60-3-5569 2866

**Mexico**

Bombas GRUNDFOS de México S.A. de C.V.  
Phone: +52-81-8144 4000  
Telefax: +52-81-8144 4010

**Netherlands**

GRUNDFOS Netherlands  
Tel.: +31-88-478 6336  
Telefax: +31-88-478 6332 s

**New Zealand**

GRUNDFOS Pumps NZ Ltd.  
Phone: +64-9-415 3240  
Telefax: +64-9-415 3250

**Norway**

GRUNDFOS Pumper A/S  
Tlf.: +47-22 90 47 00  
Telefax: +47-22 32 21 50

**Poland**

GRUNDFOS Pompy Sp. z o.o.  
Tel: (+48-61) 650 13 00  
Fax: (+48-61) 650 13 50

**Portugal**

Bombas GRUNDFOS Portugal, S.A.  
Tel.: +351-21-440 76 00  
Telefax: +351-21-440 76 90

**Romania**

GRUNDFOS Pompe România SRL  
Phone: +40 21 200 4100  
E-mail: romania@grundfos.ro

**Russia**

ООО Грундфос  
Тел. (+7) 495 737 30 00, 564 88 00  
E-mail: grundfos.moscow@grundfos.com

**Serbia**

GRUNDFOS Predstavništvo Beograd  
Phone: +381 11 26 47 877, 11 26 47 496  
Telefax: +381 11 26 48 340

**Singapore**

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

**Slovenia**

GRUNDFOS d.o.o.  
Phone: +386 1 568 0610  
Telefax: +386 1 568 0619

**South Africa**

GRUNDFOS (PTY) LTD  
Phone: (+27) 11 579 4800  
Fax: (+27) 11 455 6066  
E-mail: lsmart@grundfos.com

**Spain**

Bombas GRUNDFOS España S.A.  
Tel.: +34-91-848 8800  
Telefax: +34-91-628 0465

**Sweden**

GRUNDFOS AB  
Tel.: +46(0)771-32 23 00  
Telefax: +46(0)31-331 94 60

**Switzerland**

GRUNDFOS Pumpen AG  
Tel.: +41-1-806 8111  
Telefax: +41-1-806 8115

**Taiwan**

GRUNDFOS Pumps (Taiwan) Ltd.  
Phone: +886-4-2305 0868  
Telefax: +886-4-2305 0878

**Thailand**

GRUNDFOS (Thailand) Ltd.  
Phone: +66-2-725 8999  
Telefax: +66-2-725 8998

**Turkey**

GRUNDFOS POMPA San. ve Tic. Ltd. Sti.  
Phone: +90 - 262-679 7979  
Telefax: +90 - 262-679 7905  
E-mail: satis@grundfos.com

**Ukraine**

ТОВ ГРУНДФОС УКРАЇНА  
Тел.: (+38 044) 390 40 50  
Факс.: (+38 044) 390 40 59

**United Arab Emirates**

GRUNDFOS Gulf Distribution  
Phone: +971-4- 8815 166  
Telefax: +971-4-8815 136

**United Kingdom**

GRUNDFOS Pumps Ltd.  
Phone: +44-1525-850000  
Telefax: +44-1525-850011

**U.S.A.**

GRUNDFOS Pumps Corporation  
Phone: +1-913-227-3400  
Telefax: +1-913-227-3500

**Uzbekistan**

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

Addresses revised  
06.05.2013

be think innovate

---

<b>98189617</b> 0813
----------------------

ECM: 1119982
--------------

The name Grundfos, the Grundfos logo, and **be think innovate** are registered trademarks owned by Grundfos Holding A/S or Grundfos A/S, Denmark. All rights reserved worldwide.

© Copyright Grundfos Holding A/S

[www.grundfos.com](http://www.grundfos.com)

**GRUNDFOS** 

Pumpland.ru