

LIMITED WARRANTY

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To obtain service under this warranty, the defective product must be returned to the distributor or dealer of Grundfos' products from which it was purchased together with proof of purchase and installation date, failure date, and supporting installation data. Unless otherwise provided, the distributor or dealer will contact Grundfos or an authorized service station for instructions. Any defective product to be returned to Grundfos or a service station must be sent freight prepaid; documentation supporting the warranty claim and/or a Return Material Authorization must be included if so instructed.

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Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages and some jurisdictions do not allow limit actions on how long implied warranties may last. Therefore, the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from jurisdiction to jurisdiction.

LiqTec, 80-130 V

**Installation and
operating instructions**

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**Notice d'installation
et d'entretien**

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**Instrucciones de instalación
y funcionamiento**

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Description

The LiqTec

- protects the pump against dry-running.
- protects the pump against too high liquid temperature $266^{\circ}\text{F} \pm 9^{\circ}\text{F}$ ($130^{\circ}\text{C} \pm 5^{\circ}\text{C}$).
- can monitor the motor temperature if the PTC sensor in the motor has been connected.
- has a fail-safe design. If the sensor, sensor cable, electronic unit or power supply fails, the pump stops immediately.

Mounting the LiqTec sensor

The LiqTec can be fitted to a DIN rail to be incorporated in a control cabinet.

See illustrations on page 12.

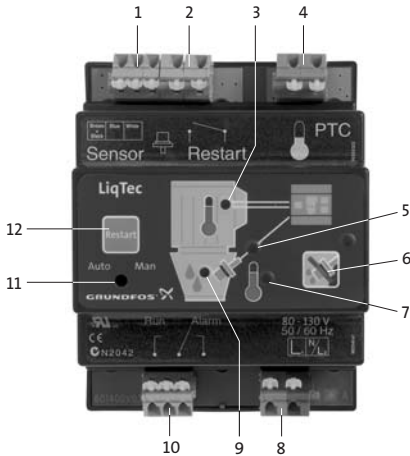
Electrical connection

Example of electrical connection, see page 13.

Calibration of sensor and LiqTec

Follow the procedure on the next page.

Functions



TW03 0129 4104

- 1. Connection for dry-running sensor**
Service number of dry-running sensor: 96556427.
- 2. Connection for external restarting.**
- 3. Motor PTC**
Green light indicates OK or short-circuited terminals.
Red light indicates too high motor temperature.
The alarm relay is activated.
- 4. Connection for PTC sensor**
A PTC sensor according to DIN 44 082 can be connected to this terminal.
If the PTC sensor is not used, the terminals must be short-circuited.
- 5. Sensor indicator light**
Red light indicates defective sensor or cable.
The alarm relay is activated.
- 6. Deactivation of the dry-running monitoring function**
Press the button to deactivate the dry-running monitoring function. Red flashing light. The PTC monitoring function is still active.
Press the Restart button to reactivate the dry-running monitoring function.
- 7. High liquid temperature indicator light**
Red light indicates too high liquid temperature $266^{\circ}\text{F} \pm 9^{\circ}\text{F}$ ($130^{\circ}\text{C} \pm 5^{\circ}\text{C}$).
The alarm relay is activated.
- 8. Supply voltage**
80-130 V, 50/60 Hz.
- 9. Dry-running indicator light**
Green light indicates OK (liquid in pump).
Red light indicates dry running (no liquid in pump).
The alarm relay is activated.
- 10. Alarm/Run output**
Potential-free changeover contact.
Maximum contact load:
250 V, 1 A, AC (inductive load).
- 11. Auto/Man**
Changeover between automatic and manual restarting.
The default setting is Man.
Changeover is carried out by means of a small screwdriver.
When Auto has been selected, the alarm indication will automatically be reset 10 to 20 seconds after liquid detection.
- 12. Restart**
Press the button to restart the pump. The button has no influence on the PTC monitoring.

Calibration of sensor and LiqTec

US

Step	Action	Result
1	Check that the sensor is correctly connected to the LiqTec, see page 13.	
2	Before fitting the sensor in the pump, submerge the sensor into stagnant water. Any kind of container with water can be used. Note: It is important that the water is stagnant as the calibration will be misleading if the sensor is cooled by flowing water.	
3	Keep the buttons, pos. 6 and 12, pressed for approx. 20 seconds.	All red indicator lights (except pos. 7) start flashing.
4	When the green indicator lights, pos. 3 and 9, are constantly on, stop pressing the buttons, pos. 6 and 12.	The calibration is completed.

Further information

Information related to IEC 60 730-1:

- Software class A.
- Pollution degree 2.
- Type 1.

The LiqTec has been cURus approved according to UL 508.

Maximum pressure:	580 psi (40 bar).
Maximum liquid temperature:	+266°F ±9°F (+130°C ±5°C).
Maximum ambient temperature:	+131°F (+55°C).
Power consumption:	5 Watt.
Enclosure class:	IP X0.

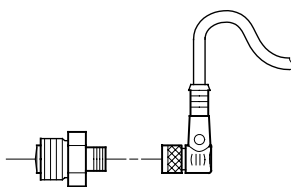
Maximum cable length:	65.6 feet (20 m).
Standard cable:	16.4 feet (5 m).
Extension cable:	49.2 feet (15 m).
Product number:	96443676.

Disposal

Disposal of this product or parts of it must be carried out according to the following guidelines:

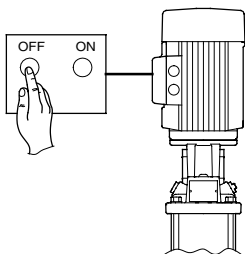
1. Use the local public or private waste collection service.
2. In case such waste collection service does not exist or cannot handle the materials used in the product, please deliver the product or any hazardous materials from it to your nearest Grundfos company or service workshop.

Subject to alterations.



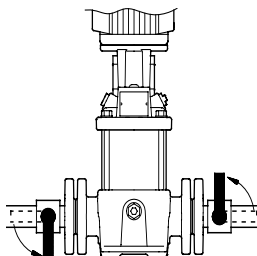
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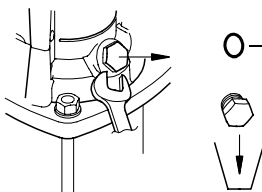
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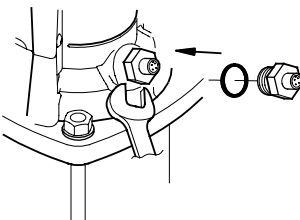
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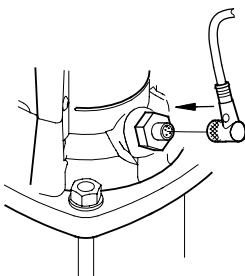
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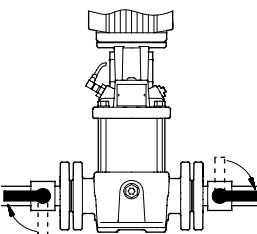
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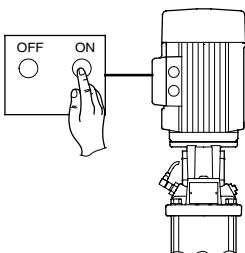
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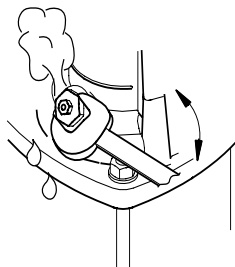
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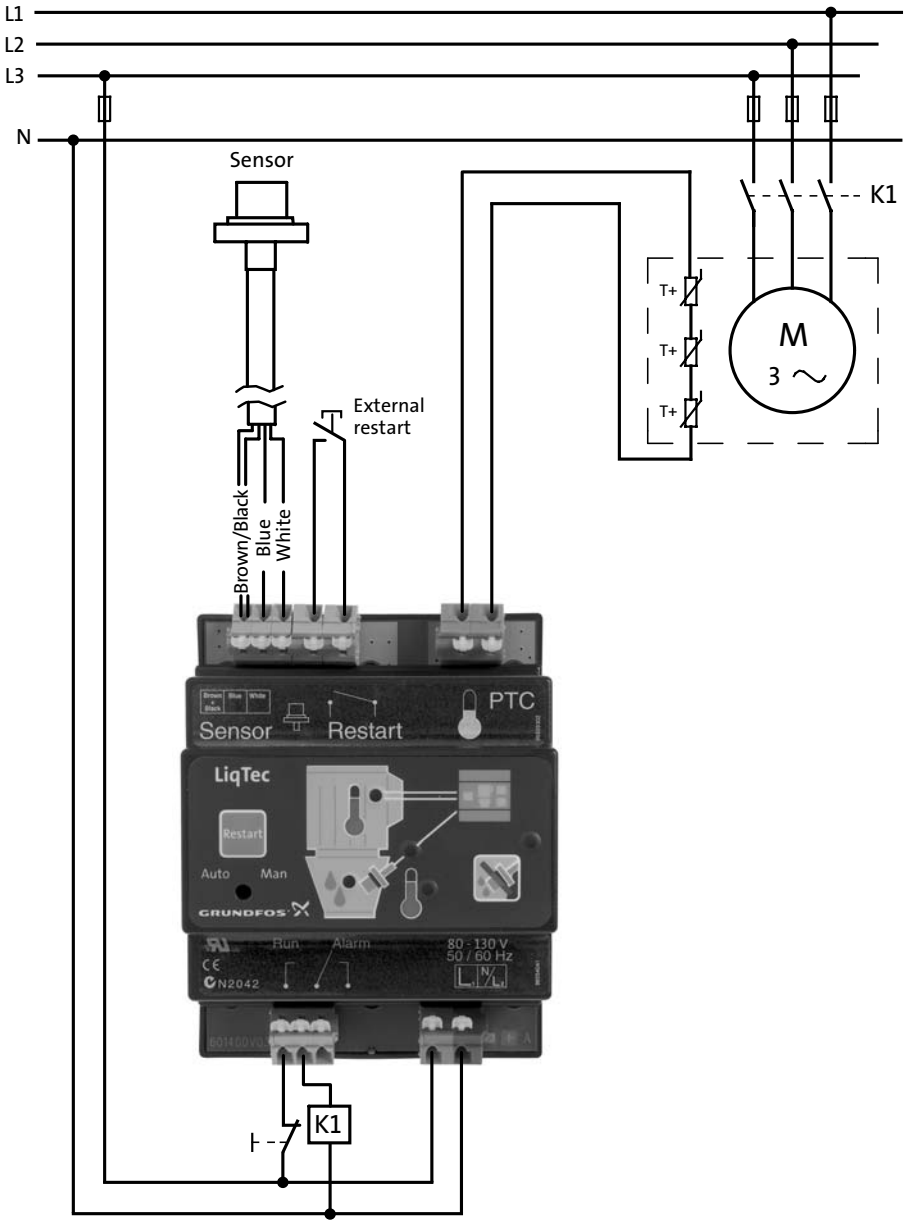


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