S pumps, ranges 50-70

Safety instructions and other important information

S pumps, ranges 50-70
Installation and operating instructions
Other languages
http://net.grundfos.com/qr/i/96838602

be
think
innovate

GRUNDFOS

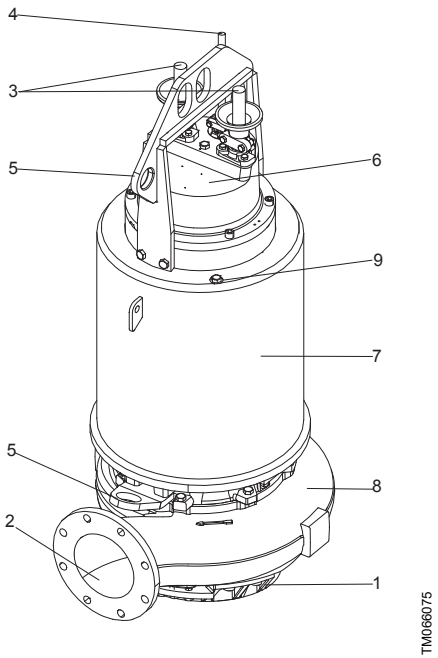
S pumps, ranges 50-70

English (GB) Safety instructions

■ Original safety instructions

These safety instructions give a quick overview of the safety precautions to be taken in connection with any work on this product. Observe these safety instructions during handling, installation, operation, maintenance, service and repair of this product. These safety instructions are a supplementary document, and all safety instructions will appear again in the relevant sections of the installation and operating instructions. Keep these safety instructions at the installation site for future reference.

Product description



S pump

Pos.	Description
1	Inlet
2	Outlet
3	Power supply cables
4	Control cable
5	Lifting bracket
6	Terminal box
7	Submersible motor
8	Pump
9	Air vent screw

Intended use

S pumps are designed for the pumping of sewage and wastewater in a wide range of municipal and industrial applications.

Pumped liquids

S pumps are designed for pumping sewage and wastewater in a wide range of municipal and industrial applications.

The pumps must not be used for pumping combustible, flammable or corrosive liquids.

Type key

The S pumps are identified by the type designation stated in the order confirmation and other documentation supplied with the pump.

Note: The pump type described in this manual is not available in all variants.

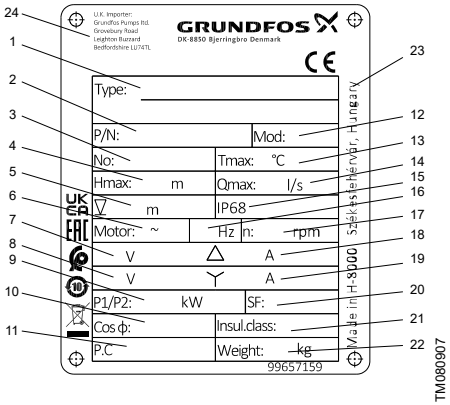
Example: S1.100.100.55.4.50M.S.205.G.N.D.511.Z

Code	Explanation	Designation
S	Grundfos sewage and wastewater pump	Pump type
ST	Multi-channel impeller pump installed in a column pipe	
1	Single-channel	Impeller type
2	Two-channel	
3	Three-channel	
V	SuperVortex	
100	Maximum solids size [mm]	Pump passage
100	Nominal outlet diameter [mm]	Pump outlet, S-type
	Nominal diameter of column pipe [mm]	Pump outlet, ST-type
55	P2 = Code number from type designation / 10	Output power [kW]

Code	Explanation	Designation
2	2-pole motor	Number of poles
4	4-pole motor	
6	6-pole motor	
8	8-pole motor	
10	10-pole motor	
12	12-pole motor	
50	Range 50	Pump range
54	Range 54	
58	Range 58	
62	Range 62	
66	Range 66	
70	Range 70	
S	Super-high	Pressure version
H	High	
M	Medium	
L	Low	
E	Extra-low	
F	Super-low	
S	Submersible installation without cooling jacket	Installation type
C	Submersible installation with cooling jacket	
D	Dry installation, vertical	
H	Dry installation, horizontal	
205	Impeller diameter [mm]	Impeller diameter (mean)
G	Cast iron impeller, pump- and stator housing	Material code for impeller, pump- and stator housing
Q	Stainless steel impeller, DIN W.-Nr. 1.4408	
S	Stainless steel impeller and pump housing, DIN W.-Nr. 1.4408	
R	Stainless steel impeller, pump- and stator housing, DIN W.-Nr. 1.4408	
N	Non-explosion-proof pump	Pump version
Ex	Pump with explosion-proof motor	

Code	Explanation	Designation
B	S pump with built-in SM 113 module. PTC sensors are connected directly to IO 113 or other PTC relay.	Sensor version
C	Not in use	
D	S pump without built-in SM 113 module.	
5	50 Hz	Frequency [Hz]
6	60 Hz	
11	3 x 400/690 V, Y/D (50 Hz only)	Voltage code and connection
	3 x 460 V, Y/D (60 Hz only)	
13	3 x 415 V, Y/D (50 Hz only)	
15	3 x 380/660 V, Y/D (60 Hz only)	
GPA	Pumps only for Australia	Customisation
Z	Custom-built products	

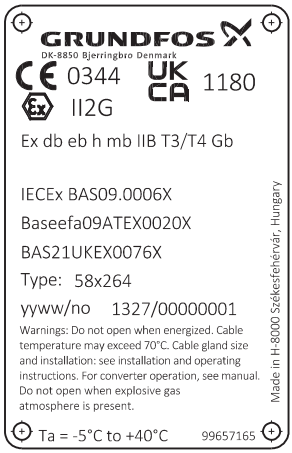
Nameplate



Pump nameplate

Pos.	Description
1	Type designation
2	Product number
3	Serial number
4	Maximum head [m]
5	Maximum installation depth [m]
6	Number of phases
7	Voltage, delta connection
8	Voltage, star connection
9	Rated power input / output [kW]
10	Cos φ, 1/1 load
11	Production code (YYWW)
12	Production number
13	Maximum liquid temperature [°C]
14	Maximum flow rate [l/s]
15	Ingress Protection class
16	Frequency [Hz]
17	Rated speed
18	Current, delta connection
19	Current, star connection
20	Safety factor
21	Insulation class
22	Net weight [kg]
23	Place of production
24	UK importer address for UK market

Ex approval plate



TM080580

Approval plate of explosion-proof pumps, T3 and T4 classification

The approval plate provides the following details:

Ex	The equipment conforms to harmonised European standard.
II	Equipment group (II = non-mining)
2	Equipment category (high protection)
G	Type of explosive atmosphere (gas)
CE	CE mark
UKCA	UKCA mark
0344	Number of quality assurance notified body
1180	Number of quality assurance notified body
Ex	Marking of explosion protection
db	Flameproof enclosure, Zone 1
eb	WIO sensor protection by increased safety
h	Constructional safety "c",Control of ignition sources "b" and Liquid immersion "k", according to EN ISO 80079-36:2016 and EN ISO 80079-37:2016
mb	WIO sensor protection by encapsulation

IIB	Gas group (ethylene)
T3	The maximum surface temperature of the motor is 200 °C*.
T4	The maximum surface temperature of the motor is 135 °C.
Gb	Equipment protection level, zone 1

* For motors operated by a frequency converter, the maximum surface temperature T3 is 200 °C.

Ex certification and classification

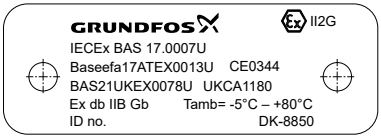
Direct drive, 50 or 60 Hz	Ex db eb h mb IIB T3/T4 Gb

IECEx standards: IEC 60079-0, IEC 60079-1, IEC 60079-18 and IEC 60079-7.

ATEX standards: EN IEC 60079-0, EN 60079-1, EN ISO 80079-36 and EN ISO 80079-37.

The certified pumps (Ex pumps) are supplied with an approval plate fixed in a visible place close to the nameplate.

Cable entry approval plate



TM080590

Cable entry approval plate

The cable entry approval plate provides the following details:

Pos.	Description
0344	Number of quality assurance notified body
Ex	The equipment conforms to harmonised European standard.
II	Equipment group (II = non-mining)
2	Equipment category (high protection)
G	Type of explosive atmosphere (gas)
CE	CE mark
UKCA	UKCA mark
0344	Number of quality assurance notified body
1180	Number of quality assurance notified body

Pos.	Description
Ex	Marking of explosion protection
db	Flameproof, Zone 1
IIB	Gas group (Ethylene)
Gb	Equipment protection level, zone 1
T_{amb}	Ambient temperature
ID no	Cable entry identification number
DK-8850	Country and postcode (Bjerringbro, Denmark)

Potentially explosive environments

Use the explosion-proof S pumps in potentially explosive environments. See section Ex approval plate.

The explosion classification of the pump is Ex II 2G, Ex db eb h mb IIB T3 or T4 Gb (-5 °C to +40 °C) with a WIO sensor.

The installation must be approved by the local authorities.

Special conditions for safe use:

1. Make sure the moisture and thermal switches are connected in two separate circuits and have separate alarm outputs (motor stop) in case of high humidity or high temperature in the motor.
2. Bolts used for replacement must be class A4-80 or A2-80 according to EN/ISO 3506-1.
3. The flame path gaps of the motor are specified by the manufacturer and are more narrow than the standard.
   WARNING: In case of repairs, always use original service parts from the manufacturer to ensure the correct dimensions of the flame path gaps.
4. During operation, the cooling jacket, when fitted, must be filled with the pumped liquid.
5. The level of pumped liquid must be controlled by level switches connected to the motor control circuit. The minimum level depends on the installation type and is specified in this installation and operating instructions.
6. Make sure the permanently attached cables are suitably mechanically protected and terminated in a suitable terminal board.
7. The WIO sensor must always be completely submerged in the oil when the power is on.
8. If a WIO sensor is installed, the control unit must protect the WIO sensor against short circuit current. The maximum current from the control unit must be limited to 350 mA.
9. The customer must inform Grundfos if the pump has been exposed to any harmful external effects or aggressive substances.

DANGER
Explosive environment
Death or serious personal injury

- Make sure the cable entries are not damaged or cracked to avoid sparks and a potential explosion.

Additional conditions for safe use:

1. The pump must not run dry.
2. The sewage pumps have an ambient temperature range of -5 to +40 °C (air) or 0-40 °C (submerged in liquid) and a maximum operating temperature of 40 °C. The minimum ambient temperature for a pump with a WIO sensor is 0 °C.
3. The maximum submersion depth is 20 m.
4. Dry-installed pumps often have a higher temperature at the cable entries than submerged ones. This may reduce the lifespan of the Ex-protection equipment. According to EN/IEC 60079-14, it is a user-responsibility to regularly inspect the permanently attached cables and cable entries for any visual damage, cracks or embrittlement caused by rubber aging.
5. The IO 113 control unit must protect the sensor against short-circuit currents.
6. For painted pumps, minimise the risk of discharge in the following ways:
   - Earthing is mandatory.
   - In dry installations, keep a safe distance between the pumps and walking paths.
   - Use wet fabric for cleaning.
7. If a WIO sensor is fitted to the pump, the sensor must be connected to a control equipment. In case of an alarm signal from the sensor, the control equipment stops the pump.
8. The thermal protector in the stator windings has a rated cut-out temperature (150 °C) ensuring the disconnection of the power supply. The power supply must be reset manually.

Special conditions for safe use of WIO sensor:

1. The control unit must protect the sensor against short-circuit currents.
2. Install the WIO sensor so that it is not exposed to mechanical impact.
3. The WIO sensor must not be used in oil with auto-ignition temperature below 250 °C.
4. The WIO sensor is approved according to EN 60079-0, EN60079-7, EN60079-18, IEC60079-0, IEC60079-18, IEC 60079-7. In Ex applications, the maximum current supplied to the sensor must be limited to 350 mA according to EN/IEC 60079-18 and EN/IEC 60079-0.
5. The WIO sensor must only be used with a galvanically isolated circuit.

DANGER
Explosive environment
Death or serious personal injury
- Make sure the cable entries are not damaged or cracked to avoid sparks and a potential explosion.

Applications

Depending on the installation type, the pumps can be used for submerged or dry, horizontal or vertical installation.

Maximum solids size: 80-145 mm depending on the impeller type.

Installation type	Description	Accessories
S	Sewage pump without cooling jacket for submerged installation on auto coupling	Auto coupling
C	Sewage pump with cooling jacket for submerged installation on auto coupling	Auto coupling
D	Sewage pump with cooling jacket for dry, vertical installation	Ranges 50, 54, 58 and 62: base stand for vertical installation
		Ranges 66 and 70: base plate or stand for vertical installation
H	Sewage pump with cooling jacket for dry, horizontal installation	Base stand or plate for horizontal installation.
ST	Sewage pump without cooling jacket for installation in column pipe	Seat ring

Lifting the pump

DANGER
Crushing hazard
Death or serious personal injury
- Always check the lifting bracket and chain for corrosion or wear before lifting.
- Always lift the pump by its lifting bracket or by a fork-lift truck.

DANGER
Crushing hazard
Death or serious personal injury
- When lifting the pump, make sure the centre of gravity is between the forklift arms. The approximate centre of gravity is marked with a label attached to the transport stand.

DANGER
Electric shock
Death or serious personal injury
- **Never** lift the pump by the power supply cables.

Raising the pump to vertical position

DANGER
Crushing hazard
Death or serious personal injury
- Make sure the lifting bracket or strap is tightened before lifting the pump.

DANGER
Crushing hazard
Death or serious personal injury
- Do not stand under or next to the pump when raising it to vertical position.
- Make sure the pump is raised carefully into vertical position to avoid the lifting chain slipping off the crane.

Installing the product

DANGER
Electric shock
Death or serious personal injury
- It must be possible to lock the main switch in position 0. Type and requirements as specified in EN 60204-1.

Persons must not work in the installation area when the atmosphere is explosive.

DANGER
Overhead load
Death or serious personal injury
- Never work under a pump when it is hanging from a crane.

DANGER
Crushing hazard
Death or serious personal injury
- Make sure that the rated capacity of the lifting equipment is adequate for the lifting work.

CAUTION
Hot surface
Minor or moderate personal injury
- Do not touch the pump or cables during operation as the surface temperature may exceed 70 °C.

Mechanical installation

DANGER
Electric shock
Death or serious personal injury
- Before installation, switch off the power supply and lock the main power switch in position 0.
- Before working on the pump, switch off any external voltage connected to the pump.

DANGER
Crushing hazard
Death or serious personal injury
- During installation, always support the pump by lifting chains or place it in horizontal position to secure stability.

CAUTION
Crushing hazard
Minor or moderate personal injury
- Do not put your hands or any tool into the pump inlet or outlet port after the pump is connected to the power supply, unless the main power switch is locked in the 0-position.
- Make sure that the power supply cannot be switched on unintentionally.

Installation types

Both horizontal and vertical installations are permitted.

Electrical connection

DANGER
Electric shock
Death or serious personal injury
- Before starting any work on the product, make sure that the power supply is switched off and that it cannot be switched on unintentionally.

Connect the pump to an external main switch ensuring all-pole disconnection with a contact separation according to EN 60204-1. It must be possible to lock the main switch in position 0. Type and requirements as specified in EN 60204-1.

The supply voltage and frequency are marked on the nameplate. Make sure that the motor is suitable for the power supply available at the installation site.

Carry out the electrical connection in accordance with local regulations.

The pump must be connected to a motor-protective circuit breaker.

Connect the pump to a control box with a motor protection relay with an IEC trip class 10 or 15.

Connect pumps installed in hazardous locations to a control box with a motor protection relay with an IEC trip class 10.

The motor is effectively earthed by the earth conductor of the power cables and the pipes. The motor top cover for Ex pumps is equipped with connections for external earthing or an equipotential bonding conductor.

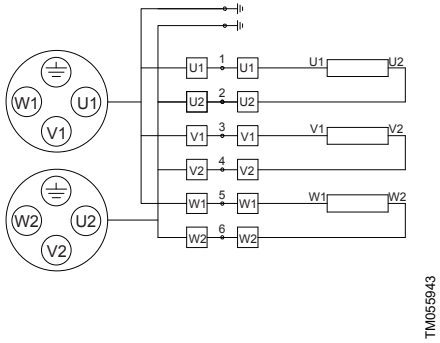
DANGER
Short-circuit
Death or serious personal injury
- For Ex models in dry-installation, version D and H, connect an external earthing.

DANGER
Electric shock
Death or serious personal injury
- Before starting any work on the product, make sure that the power supply is switched off and that it cannot be switched on unintentionally.

DANGER
Short-circuit
Death or serious personal injury
- For Ex models in dry-installation, version D and H, connect an external earthing.

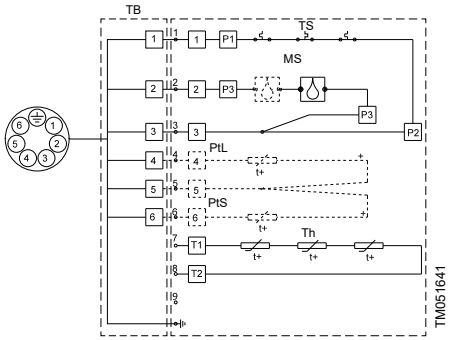
Wiring diagram

Standard power cable



Wiring diagram for standard power cable

Sensors



Wiring diagram for sensors

Pos.	Description
TB	Terminal board connection
PtS	Pt100 in stator
PtL	Pt100 in lower bearing
4	Thermal switches
TS	Thermistors
MS	Moisture switches Two moisture switches in Ex pumps

The wiring diagrams in custom-built products may differ from the standard. In this case, contact the nearest Grundfos company or authorised workshop.

Frequency converter operation

If the motor is operated by a frequency converter, the temperature class of explosion-proof pumps must be T3.

In principle, all three-phase motors can be connected to a frequency converter.

However, frequency converter operation often exposes the motor insulation system to a heavier load and causes the motor to be more noisy than usual.

In this product range, only a negligible amount of bearing currents occurs during the use of a frequency converter.

For frequency converter operation, observe the following:

- The thermal protection of the motor must be connected.
- Peak voltage and dU/dt must be in accordance with the table below. The values stated are maximum values supplied to the motor terminals. The cable influence is not taken into account. See the frequency converter data sheet regarding the actual values and the cable influence on the peak voltage and dU/dt.
- switching frequency is 2 kHz. Variable switching frequency is accepted.
- If the pump is an Ex-approved pump, check if the Ex certificate of the specific pump allows the use of a frequency converter.
- Set the frequency converter U/f ratio according to the motor data.
- Local regulations or standards must be complied with.
- Before installing a frequency converter, calculate the lowest permissible frequency in the installation to avoid zero flow.
- Do not reduce the motor speed to less than 50 %.
- Keep the flow rate above 1 m/sec.
- Let the pump run at rated speed at least once a day to prevent sedimentation in the piping system.
- Do not exceed the frequency indicated on the nameplate as this may cause motor overload.
- Keep the power cable as short as possible. The peak voltage increases with the length of the power cable.
- Use input and output filters on the frequency converter.
- Use a screened power cable if there is a risk that electrical noise may disturb other electrical equipment.
- Set the frequency converter for constant-torque operation. Pulse width modulation should be used.

When operating the pump by a frequency converter, consider the following:

- The locked-rotor torque can be lower depending on the frequency converter type.
- The noise level may increase. See the installation and operating instructions for the selected frequency converter.

Maximum repetitive peak voltage [V]	Maximum dU/dt U_N 400 V [V/µ sec.]
850	2000

Frequency converter use may reduce the lifespan of the bearings and the shaft seal, depending on operating mode and other circumstances.

Information about pump speed/torque curves, when operated by frequency converter, can be found on the Grundfos Product Center at https://product-selection.grundfos.com.

For more information about the frequency converter operation, see the data sheet and the installation and operating instructions for the selected frequency converter.

LC level controllers

Do not install the pump controller in a potentially explosive atmosphere.

Thermal switches

Install an automatic circuit breaker, which disconnects the power supply in case the thermal- or moisture switches are not operating.

Pt100

For range 50-54 explosion-proof pumps, the temperature sensor is only available for monitoring the lower bearing temperature.

For range 58-70 explosion-proof pumps, the temperature sensor is available for monitoring both the lower and the upper bearing temperatures.

Pump range	Alarm temperatures		
	Winding temperature [°C]	Upper bearing [°C]	Lower bearing [°C]
50-54	150	130	90
58-70	150	120	100

Water-In-Oil sensor

The internal Water-In-Oil (WIO) sensor is only available for the explosion-proof pumps in the ranges 58, 62 and 70. The sensor must be fitted from the factory.

All Ex pumps must be equipped with an internal or external WIO sensor.

Lack of oil may cause overheating and damage to the mechanical shaft seals. The WIO sensor in the oil chamber trips the alarm if the oil quality or quantity is inadequate.

Do not use Shell Ondina X420 oil without emulsifier detergent in a pump fitted with a WIO sensor.

The WIO sensor is available as an accessory for all standard (non-explosion-proof) pumps with 5.5 to 155 kW motors. It can be factory fitted or installed after the pump is started up.

The oil chamber is filled with oil acting as a lubricant and a coolant for both mechanical seals. The WIO sensor measures the water content in the oil chamber:

- 0-20 % water in the oil does not cause a reaction.
- Water content outside the measuring range causes a warning.
- Low oil level causes an alarm. The pump must not operate while this alarm is on.

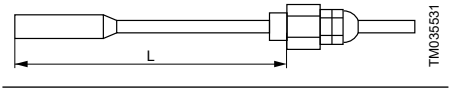
The sensor consists of a plate capacitor that is immersed in the oil and measures the electronic circuit, emitting a 4-20 mA proportional current signal.

The internal Water-In-Oil (WIO) sensor is only available for the explosion-proof pumps in the ranges 58, 62 and 70. The sensor must be fitted from the factory.

Fitting an external WIO sensor

To fit the WIO sensor into the oil chamber, proceed as follows:

1. Remove the oil screw.
2. Push the sensor into the oil filling hole, so it becomes completely covered in oil, but does not touch the rotating parts. Recommended insertion depths for different pump types are indicated in the table below.
3. Screw the sensor bush into the thread of the oil screw.



Dimensions of a WIO sensor

For WIO sensor insertion, use the following holes:

- Vertical installation: Always use the lowest oil screw hole.
- Horizontal installation: Always use the inspection screw hole.

After the oil change, clean the WIO sensor with white spirit before reinsertion.

S pumps, range	Sensor insertion depth [mm]
50	80
54	90
58	100
62	100
66	100
70	100

More detailed information can be found in the installation and operation instructions, 96591899, or in Grundfos Product Center at www.grundfos.com.

Preparations for starting up

DANGER
Rotating elements
Death or serious personal injury

- Before manual startup or changeover to automatic control, make sure that no persons are working on or near the pump.

Before the first startup and after a long standstill period, make sure the pump is vented and filled with the pumped liquid.

In dry installations with cooling jacket, the cooling jacket must always be filled with pumped liquid during operation.

DANGER
Rotating elements
Death or serious personal injury

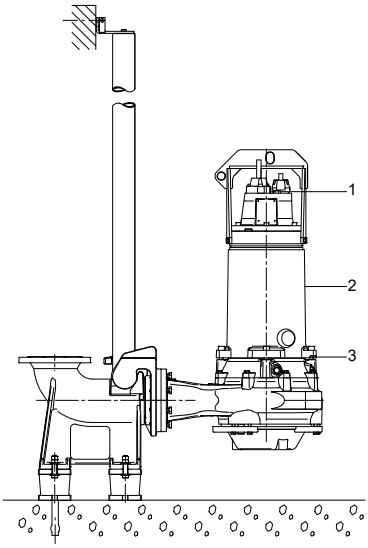
- Before manual startup or changeover to automatic control, make sure that no persons are working on or near the pump.

Start and stop levels for auto-coupling installation

To ensure appropriate operation, check if the start and stop levels function properly. If needed, alter them when starting up the pump.

Stop levels

Set the stop level according to the figure below.



Stop levels for auto-coupling installations

Pos.	Description
1	Installation type S (Ex pumps)
2	Installation type S (standard pumps)
3	Installation type C (standard and Ex pumps)

In case of an Ex pump, install an additional level sensor for the stop level.

Set the stop level, so the flow velocity in the pit increase. In pits with different stop levels, program the control sequence to pump down to the lowest stop level at least once a day to clean out the bottom of the pit.

The stop levels are determined by the motor submergence required to ensure cooling, prevent cavitation or avoid air being sucked into the pump. The lowest level must be confirmed through tests during startup.

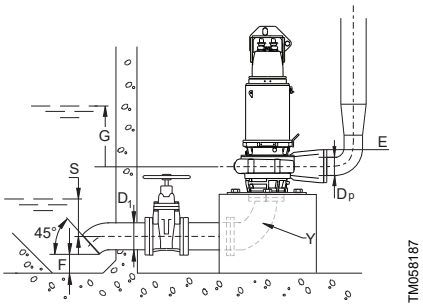
Start and stop levels for dry installation

Stop levels

The stop level setting for dry-installed pumps depends on the inlet height, shape and flow velocity. Set the stop level approximately one inlet diameter above the inlet. The final stop level must be confirmed through test runs during startup.

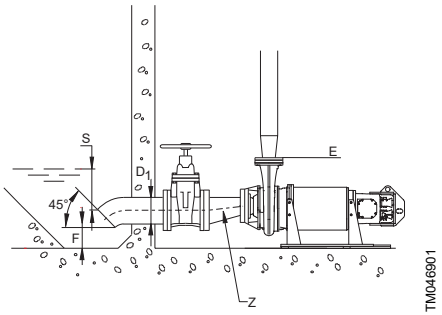
Start levels

In pits with dry-installed pumps, set the start level above the pump housing to ensure the cooling jacket is filled up before the pump starts operating. For vertical pumps, this height may be set with a margin according to the figure below.



Vertical, dry installation (D)

Use an eccentric reducer between the inlet pipe and the pump in horizontal installations. The reducer must be installed so that the straight part faces upwards. This avoids air accumulation in the inlet pipe and disturbance of operation. See the figure below.



Horizontal, dry installation (H)

Minimum stop level	$S = D_1$
Minimum distance between the bottom of pit and the lowest part of the inlet pipe	$F = 0.5 \times D_1$
Minimum start level	$G = D_p$
Minimum stop level for Ex pumps	E
Reduction elbow	Y
Eccentric reducer	Z

In case of an Ex pump, install an additional level sensor for the stop level. Pumps for dry installation must have a cooling jacket.

S is the minimum stop level. The minimum distance S above the inlet pipe is required to avoid the formation of vortices at the inlet pipe and to avoid air being sucked into the pump. Air in the pumped liquid may cause vibrations, cavitation and loss of pump performance.

G is the minimum start level of a dry-installed, vertical pump if no other actions are taken to ensure that the pump housing is filled with pumped liquid when the pump is started.

Other possible actions:

- Use a vacuum pump to suck liquid into the pump housing; this requires an isolating valve on the outlet side.
- Install a non-return valve in the outlet pipe after the first startup; this prevents the draining of the pump housing between running periods.

Checking the direction of rotation

Start and run an unsubmerged pump only for a few seconds to check the direction of rotation.

A label with an arrow on the pump housing indicates the correct direction of rotation. The direction of rotation is clockwise.

DANGER
Crushing hazard
Death or serious personal injury
- Do not touch the pump when starting it up.

Make sure that the bottom of the pit is clean before startup to avoid material or objects being sucked into the impeller.

Installation types S, C and ST

Proceed as follows:

1. Lift the pump approximately 2-5 cm from the ground or base using the lifting chain and a crane.
2. Start and run the pump for a few seconds.
3. Observe the jerk of the pump. If the pump jerks counter-clockwise, the direction of rotation is correct.

In case the direction of rotation is wrong, interchange two phases in the power supply cable.

Installation types D and H

Check the duty point to determine the direction of rotation.

DANGER
Crushing hazard
Death or serious personal injury
- Do not touch the pump when starting it up.

Handling and storing the product

DANGER
Crushing hazard
Death or serious personal injury
- Move the pump only by a forklift or a lifting crane.
- Before lifting the pump, make sure the centre of gravity is between the forklift arms.

Safety instructions and requirements

DANGER
Pump can tilt
Death or serious personal injury
- During maintenance and service, including transport to service workshop, always support the pump by lifting chains or place it in horizontal position to secure stability.

DANGER
Electric shock
Death or serious personal injury

- Before starting work on the pump, make sure that the main switch is locked in position 0. Make sure that the power supply cannot be switched on unintentionally.

WARNING
Crushing hazard
Death or serious personal injury

- Make sure that all rotating parts have stopped moving.

Maintenance and service must be carried out by trained persons.

Compliance with the standards IEC 60079-17 and IEC 60079-19 is a customer responsibility.

Maintenance and service work on explosion-proof pumps must be carried out by Grundfos or an authorised service workshop.

In case of repairs, always use original service parts from the manufacturer to ensure the correct dimensions of the flame path gaps.

The bolts used in the motor must be class A4-80 or A2-80 according to EN/ISO 3506-1. VER 2.

A defective bearing may reduce the Ex safety.

WARNING
Chemical hazard
Death or serious personal injury

- Flush the pump thoroughly with clean water before carrying out maintenance and service. Rinse the pump parts after dismantling.

Service instructions and videos can be found in Grundfos Product Center at www.grundfos.com.

DANGER
Pump can tilt
Death or serious personal injury

- During maintenance and service, including transport to service workshop, always support the pump by lifting chains or place it in horizontal position to secure stability.

DANGER
Electric shock
Death or serious personal injury

- Before starting work on the pump, make sure that the main switch is locked in position 0. Make sure that the power supply cannot be switched on unintentionally.

WARNING
Crushing hazard
Death or serious personal injury

- Make sure that all rotating parts have stopped moving.

Maintenance and service work on explosion-proof pumps must be carried out by Grundfos or an authorised service workshop.

In case of repairs, always use original service parts from the manufacturer to ensure the correct dimensions of the flame path gaps.

The bolts used in the motor must be class A4-80 or A2-80 according to EN/ISO 3506-1. VER 2.

A defective bearing may reduce the Ex safety.

WARNING
Chemical hazard
Death or serious personal injury

- Flush the pump thoroughly with clean water before carrying out maintenance and service. Rinse the pump parts after dismantling.

Maintenance schedule

Inspect pumps running normal operation once a year.

Check the following:

- **Power consumption**
- **Oil level and oil condition**
- **Cable entries** Make sure the cable entries are waterproof, the cables are not sharply bent or pinched, and the cable sheaths have no visual defects.
- **Impeller clearance**
- **Pump parts** Check the pump parts for possible wear. Replace defective parts.
- **Ball bearings** Check the shaft for noisy or heavy operation; turn the shaft by hand. Replace defective bearings. A general overhaul of the pump is required in case of defective bearings or poor motor function. This work must be carried out by an authorised service workshop. Bearings are lubricated for lifetime.

- **Vibration** If the pump is vibrating at an abnormal level, do not restart the pump until the cause of the fault is identified and eliminated.

Vibration may cause excessive temperature at dry-installed pumps.

The WIO sensor must also be checked during the oil change or at least once a year.

WIO sensor check

During the test, the WIO sensor must stay in place. If the sensor does not work correctly, it must be replaced.

Do not disassemble the sensor and do not remove it from the oil chamber.

To test the sensor, measure the current flowing through it and compare the values to the table below.

Value	Explanation	Measurement evaluation
0 mA	Cable break / Sensor fault	Change the WIO sensor.
3.8 mA	No oil in oil chamber	Do the test when the oil chamber is empty.
4-10 mA	Normal operation	Do the test when the oil chamber is full.
>10 mA	Water in oil, possible leak	Check the seals, possible water leak.

Oil check and change

Check the oil in the oil chamber every 3000 operating hours or at least once a year, or if the shaft seal is changed.

Lack of oil may cause overheating and damage to the mechanical shaft seals. The WIO sensor in the oil chamber trips the alarm if the oil quality or quantity is inadequate, or there is no oil in the oil chamber.

Oil auto-ignition temperature must be above 250 °C. Use any of the following:

- Elf Performance Polytraffic 10W-40
- Total Rubia Polytraffic 10W-40
- Pennzoil SAE 10W-40.

CAUTION
Pressurised system
Minor or moderate personal injury
- The oil chamber may be under pressure. Loosen the screws carefully and do not remove them until the pressure has been fully relieved.

Inspection and adjustment of the impeller clearance

The impeller clearance must be set to 0.7 mm ± 0.2 mm. It must be checked at least 3 different points.

The correct axial clearance is 0.7 mm ± 0.2 mm. Reset the clearance if it is 0.7 mm or more. The method for resetting the clearance is different for submersible pumps, installation types S, C and ST, and for dry-installed pumps, installation types D and H.

Submersible pumps, installation types S, C and ST

DANGER
Overhead load
Death or serious personal injury
- Never work under a pump when it is hanging from a crane.

Contaminated pumps and service

CAUTION
Biological hazard
Minor or moderate personal injury
- Flush the pump thoroughly with clean water and rinse the pump parts after dismantling.

A pump is classified as contaminated if it is used for contagious or toxic liquid.

CAUTION
Biological hazard
Minor or moderate personal injury
- Flush the pump thoroughly with clean water and rinse the pump parts after dismantling.

Sending the pump to service

Before returning the product for service, contact Grundfos with details about the pumped liquid. Otherwise, Grundfos can deny servicing the product. Any application for service must include details about the pumped liquid.

Operating conditions

pH value

All pumps can be used for pumping liquids with a pH value between 4 and 10.

Liquid temperature

The allowed temperature is 0-40 °C.

In special situations, if the motor is not fully loaded, the temperature of the pumped liquid may be higher.

In this case, contact the nearest Grundfos company or service workshop.

Explosion-proof pumps must never pump liquids with a temperature higher than 40 °C.

Ambient temperature

The allowed ambient temperature is -5 °C to +40 °C.

In special situations, if the motor is not fully loaded, the ambient temperature may be higher than 40 °C.

In this case, contact the nearest Grundfos company or service workshop.

For explosion-proof pumps, the ambient temperature on the installation site must be in the range between -5 and +40 °C.

Density and viscosity of the pumped liquid

Density: 1000 kg/m^3.

Kinematic viscosity: 1 mm^2/s (1 cSt).

When pumping liquids with a density and/or a kinematic viscosity higher than the values stated above, use motors with higher outputs.

Flow velocity

Keep a minimum flow velocity to avoid sedimentations in the piping system.

Recommended velocities:

Vertical pipes:	0.7 m/s
Horizontal pipes:	1.0 m/s

Installation depth

The maximum submersion depth is 20 m.

Level of the pumped liquid

An Ex motor without a cooling jacket, installation types S and ST, must be completely submerged during operation.

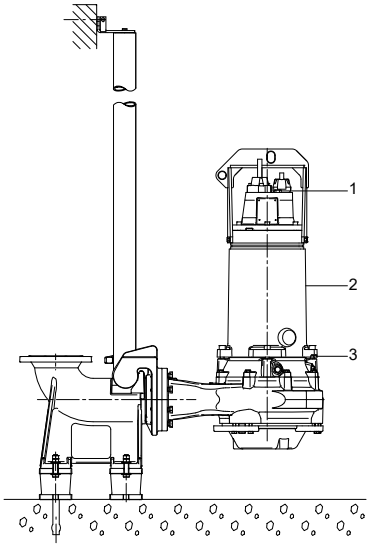
Install an additional level switch to ensure the pump is stopped if the stop level switch is not operating.

To avoid air being sucked into the pump and to ensure adequate cooling of the motor during operation, make sure to meet the following minimum requirements:

- **Installation type S:** Submerge the Ex pump to the top of the motor and the standard pump to the middle of the motor. See the figure below.

Installation type S pumps must always be completely submerged in the pumped liquid to be Ex protected.

- **Installation type C:** Submerge the pump to the top of the pump housing, so the liquid level is always above the pump housing.



Liquid level

Pos.	Description
1	Installation type S (Ex pumps)
2	Installation type S (standard pumps)
3	Installation type C (standard and Ex pumps)

- **Installation types D and H:** See section Dry installation.

For installation type D, air can be vented through an air-vent screw on top of the cooling jacket.

For installation type H, air venting is not necessary after the pump is filled with water.

- **Installation type ST:** For standard pumps, the liquid level must be at least 350 mm above the pump inlet. See fig. Submerged installation in column pipe.

Operating mode

The pumps are designed for continuous operation with the maximum number of starts per hour stated in the table below:

S pump, range	Starts per hour
50	
54	20
58	
62	
66	15
70	

Ingress Protection class

IP68, according to IEC 60529.

Sound pressure level

CAUTION
Sound pressure level
Minor or moderate personal injury

- Use hearing protection when working nearby an installation in operation. Depending on the installation type, the sound pressure level of the pump may exceed 70 dB(A).

Storage temperature

Storage temperature: -40 to +55 °C. Maximum 70 °C for short periods not exceeding 24 hours (EN 60204-1).

CAUTION
Sound pressure level
Minor or moderate personal injury

- Use hearing protection when working nearby an installation in operation. Depending on the installation type, the sound pressure level of the pump may exceed 70 dB(A).

Declaration of conformity

GB: EC/EU declaration of conformity

We, Grundfos, declare under our sole responsibility that the products S 50-70, 7.5-155 kW, 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.

BG: Декларация за съответствие на ЕС/ЕО

Ние, фирма Grundfos, заявяваме с пълна отговорност, че продуктите S 50-70, 7.5-155 kW, за които се отнася настоящата декларация, отговарят на следните директиви на Съвета за уеднаквяване на правните разпоредби на държавите-членки на ЕС/ЕО.

CZ: Prohlášení o shodě EU

My firma Grundfos prohlašujeme na svou plnou odpovědnost, že výrobky S 50-70, 7.5-155 kW, na které se toto prohlášení vztahuje, jsou v souladu s níže uvedenými ustanoveními směrnice Rady pro sblížení právních předpisů členských států Evropského společenství.

DE: EG-/EU-Konformitätserklärung

Wir, Grundfos, erklären in alleiniger Verantwortung, dass die Produkte S 50-70, 7.5-155 kW, auf die sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EG-/EU-Mitgliedsstaaten übereinstimmen.

DK: EF-/EU-overensstemmelseserklæring

Vi, Grundfos, erklærer under ansvar at produkterne S 50-70, 7.5-155 kW som erklæringen nedenfor omhandler, er i overensstemmelse med Rådets direktiver der er nævnt nedenfor, om indbyrdes tilnærmelse til EF-/EU-medlemsstaternes lovgivning.

EE: EÜ/ELi vastavusdeklaratsioon

Meie, Grundfos, kinnitame ja kanname ainuisikulist vastutust selle eest, et toode S 50-70, 7.5-155 kW, mille kohta all olev deklaratsioon käib, on kooskõlas Nõukogu Direktiividega, mis on nimetatud all pool vastavalt vastuvõetud õigusaktidele ühtlustamise kohta EÜ/EL liikmesriikides.

ES: Declaración de conformidad de la CE/UE

Grundfos declara, bajo su exclusiva responsabilidad, que los productos S 50-70, 7.5-155 kW 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.

FI: EY-/EU-vaatimustenmukaisuusvakuutus

Grundfos vakuuttaa omalla vastuullaan, että tuotteet S 50-70, 7.5-155 kW, joita tämä vakuutus koskee, ovat EY-/EU:n jäsenvaltioiden lainsäädännön lähentämiseen tähtäävien Euroopan neuvoston direktiivien vaatimusten mukaisia seuraavasti.

FR: Déclaration de conformité CE/UE

Nous, Grundfos, déclarons sous notre seule responsabilité, que les produits S 50-70, 7.5-155 kW, 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.

GR: Δήλωση συμμόρφωσης ΕΚ/ΕΕ

Εμείς, η Grundfos, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι τα προϊόντα S 50-70, 7.5-155 kW, στα οποία αναφέρεται η παρακάτω δήλωση, συμμορφώνονται με τις παρακάτω Οδηγίες του Συμβουλίου περί προσέγγισης των νομοθεσιών των κρατών μελών της ΕΚ/ΕΕ.

HR: EC/EU deklaracija sukladnosti

Mi, Grundfos, izjavljujemo s punom odgovornošću da su proizvodi S 50-70, 7.5-155 kW, na koja se izjava odnosi u nastavku, u skladu s dolje navedenim direktivama Vijeća o usklađivanju zakona država članica EC/EU-a.

HU: EC/EU megfelelőségi nyilatkozat

Mi, a Grundfos vállalat, teljes felelősséggel kijelentjük, hogy a(z) S 50-70, 7.5-155 kW termékek, amelyre az alábbi nyilatkozat vonatkozik, megfelelnek az Európai Unió tagállamainak jogi irányelveit összehangoló tanács alábbi előírásainak.

IT: Dichiarazione di conformità CE/UE

Grundfos dichiara sotto la sua esclusiva responsabilità che i prodotti S 50-70, 7.5-155 kW, ai quale si riferisce questa dichiarazione, sono conformi alle seguenti direttive del Consiglio riguardanti il riavvicinamento delle legislazioni degli Stati membri CE/UE.

LT: EB/ES atitikties deklaracija

Mes, Grundfos, su visa atsakomybe pareiškiame, kad produktai S 50-70, 7.5-155 kW, kuriems skirta ši deklaracija, atitinka žemiau nurodytas Tarybos Direktyvas dėl EB/ES šalių narių įstatymų suderinimo.

LV: EK/ES atbilstības deklarācija

Sabiedrība Grundfos ar pilnu atbildību paziņo, ka produkti S 50-70, 7.5-155 kW, uz kuru attiecas tālāk redzamā deklarācija, atbilst tālāk norādītajām Padomes direktīvām par EK/ES dalībvalstu normatīvo aktu tuvināšanu.

NL: EG-/EU-conformiteitsverklaring

Wij, Grundfos, verklaren geheel onder eigen verantwoordelijkheid dat de producten S 50-70, 7.5-155 kW, waarop de onderstaande verklaring betrekking heeft, in overeenstemming zijn met de onderstaande Richtlijnen van de Raad inzake de onderlinge aanpassing van de wetgeving van de EG-/EU-lidstaten.

PL: Deklaracja zgodności WE/UE

My, Grundfos, oświadczamy z pełną odpowiedzialnością, że nasze produkty S 50-70, 7.5-155 kW, których deklaracja niniejsza dotyczy, są zgodne z następującymi dyrektywami Rady w sprawie zbliżenia przepisów prawnych państw członkowskich.

PT: Declaração de conformidade CE/UE

A Grundfos declara sob sua única responsabilidade que os produtos S 50-70, 7.5-155 kW, 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.

RO: Declaraţia de conformitate CE/UE

Noi Grundfos declarăm pe propria răspundere că produsele S 50-70, 7.5-155 kW, la care se referă această declaraţie, sunt în conformitate cu Directivele de Consiliu specificate mai jos privind armonizarea legilor statelor membre CE/UE.

RS: Deklaracija o usklađenosti EC/EU

Mi, kompanija Grundfos, izjavljujemo pod punom vlastitom odgovornošću da je proizvod S 50-70, 7.5-155 kW, na koji se odnosi deklaracija ispod, u skladu sa dole prikazanim direktivama Saveta za usklađivanje zakona država članica EC/EU.

RU: Декларация о соответствии нормам ЕЭС/ЕС

Мы, компания Grundfos, со всей ответственностью заявляем, что изделия S 50-70, 7.5-155 kW, к которым относится нижеприведённая декларация, соответствуют нижеприведённым Директивам Совета Евросоюза о тождественности законов стран-членов ЕЭС/ЕС.

SE: EG-/EU-försäkran om överensstämmelse

Vi, Grundfos, försäkrar under ansvar att produkterna S 50-70, 7.5-155 kW, som omfattas av nedanstående försäkran, är i överensstämmelse med de rådsdirektiv om inbördes närmande till EG-/EU-medlemsstaternas lagstiftning som listas nedan.

SI: Izjava o skladnosti ES/EU

V Grundfosu s polno odgovornostjo izjavljamo, da je izdelek S 50-70, 7.5-155 kW, na katerega se spodnja izjava nanaša, v skladu s spodnjimi direktivami Sveta o približevanju zakonodaje za izenačevanje pravnih predpisov držav članic ES/EU.

SK: EC/EU vyhlásenie o zhode

My, spoločnosť Grundfos, vyhlasujeme na svoju plnú zodpovednosť, že produkty S 50-70, 7.5-155 kW na ktoré sa vyhlásenie uvedené nižšie vzťahuje, sú v súlade s ustanoveniami nižšie uvedených smerníc Rady pre zblíženie právnych predpisov členských štátov EC/EÚ.

TR: EC/AB uygunluk bildirgesi

Grundfos olarak, aşağıdaki bildirim konusu olan S 50-70, 7.5-155 kW 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.

UA: Декларація відповідності директивам ЕС/EU

Ми, компанія Grundfos, під нашу одноосібну відповідальність заявляємо, що вироби S 50-70, 7.5-155 kW, до яких відноситься нижченаведена декларація, відповідають директивам ЕС/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 S 50-70, 7.5-155 kW 系列，其制造和性能完全符合以下所列欧盟委员会指令。

KZ: Сәйкестік жөніндегі ЕК/ЕО декларациясы

Біз, Grundfos, ЕК/ЕО мүше елдерінің заңдарына жақын төменде көрсетілген Кеңес директиваларына сәйкес төмендегі декларацияға қатысты S 50-70, 7.5-155 kW өнімдері біздің жеке жауапкершілігімізде екенін мәлімдейміз.

NO: EFs/EUs samsvarsærklæring

Vi, Grundfos, erklærer under vårt eneansvar at produktene S 50-70, 7.5-155 kW som denne erklæringen gjelder, er i samsvar med styrets direktiver om tilnærming av forordninger i EF-/EU-landene.

AR: إقرار مطابقة الاتحاد الأوروبي (EC/EU)

نقر نحن، جروندفوس، بمقتضى مسؤوليتنا الفردية بأن المنتجين S 50-70, 7.5-155 kW، اللذين يختص بهما الإقرار أدناه، يكونان مطابقين لتوجيهات المجلس المذكورة أدناه بشأن التقريب بين قوانين الدول أعضاء الاتحاد الأوروبي (EC/EU).

- Machinery Directive (2006/42/EC)
  Standards used: EN 809:1998 + A1:2009
- EMC Directive (2014/30/EU)
  Standard used: EN 61326-1:2013
- RoHS Directives (2011/65/EU and 2015/863/EU)
  Standard used: EN IEC 63000:2018
- ATEX Directive (2014/34/EU)
  Applies only to products intended for use in potentially explosive environments II 2 G, Ex db eb h mb IIB T3 or T4 Gb (-5°C - +40°C) and equipped with the separate ATEX approval plate and EU-type examination certificate.

Certificate No	Standards used
Baseefa09ATEX0020X	EN IEC 60079-0:2018, EN 60079-1:2014, EN ISO 80079-36:2016, EN ISO 80079-37:2016

Notified body for EU-Type examination:	SGS Fimko Oy. No 0598. Helsinki, Finland.
Notified body for production:	Dekra Certification B.V. No 0344. 6802 ED Arnhem, The Netherlands.
Manufacturer:	Grundfos Holding A/S Poul Due Jensen Vej 7, Dk-8850 Bjerringbro, Denmark.

This EC/EU declaration of conformity is only valid when published as part of the Grundfos safety instructions (publication number 99103986).

Székesfehérvár, 15th of February 2021

Róbert Kis
Technical Product Owner
Grundfos Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark
Person authorised to compile technical file and empowered to sign the EC/EU declaration of conformity.

Declaration of conformity

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:

S 50-70

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 809+A1:2015

Order No 2574-14, 2015 Electromagnetic Compatibility

Standards used:NM EN 61326-1:2016

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

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 :

S 50-70

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 809+A1:2015

Compatibilité électromagnétique, ordonnance n° 2574-14, 2015

Normes utilisées : NM EN 61326-1:2016

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

AR: إقرار المطابقة المغربي

نحن، جروندفوس، نقر تحت مسؤوليتنا وحدنا بأن المنتجات التي يتعلق بها الإقرار أدناه، تتوافق مع القوانين والقرارات والمعايير والمواصفات المغربية التي تم إقرار المطابقة بشأنها، كما هو موضح أدناه:

سارٍ على منتجات جروندفوس:

S 50-70

قانون رقم 24-09، 2011 بشأن سلامة المنتجات والخدمات والقرارات التالية:

القرار رقم 2573-14، 2015 متطلبات السلامة للمعدات الكهربائية ذات الجهد المنخفض

المعايير المستخدمة:NM EN 809+A1:2015

القرار رقم 2574-14، 2015 التوافق الكهرومغناطيسي

المعايير المستخدمة:NM EN 61326-1:2016

يكون إقرار المطابقة المغربي صالحًا فقط عند نشره كجزء من تعليمات جروندفوس.

Bjerringbro, 20 December 2019

Róbert Kis

Technical Product Owner

Grundfos Holding A/S

Poul Due Jensens Vej 7

8850 Bjerringbro, Denmark

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

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

AR: الجهة المصنعة والشخص المفوض بتوقيع إقرار المطابقة المغربي.

10000268494

Declaration of conformity

UK declaration of conformity

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

Valid for products:

S pumps, ranges 50-70, 7.5-155 kW

- Supply of Machinery (Safety) Regulations 2008
  Standards used: EN 809:1998 + A1:2009
- Electromagnetic Compatibility Regulations 2016
  Standards used: EN 61326-1:2013
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2019
  Standards used: EN IEC 63000:2018
- Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016
  applies only to products intended for use in potentially explosive environments Ex II 2 G, Ex db eb h mb IIB T3 or T4 Gb (-5°C - +40°C) and equipped with the separate UKEX approval plate and UK-type examination certificate.

Certificate No	Standards used
BAS21UKEX0076X	EN IEC 60079-0:2018, EN 60079-1:2014, EN ISO 80079-36:2016, EN ISO 80079-37:2016

Approved body for UK-Type examination:	SGS Basefaa No 1180. Buxton, United Kingdom.
Approved body for production:	SGS Basefaa No 1180. Buxton, United Kingdom.
Manufacturer:	Grundfos Holding A/S Poul Due Jensen Vej 7, Dk-8850 Bjerringbro, Denmark.

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

UK Importer: Grundfos Pumps ltd. Grovebury Road, Leighton Buzzard, LU7 4TL.

Székesfehérvár, 10th of January 2021

Róbert Kis
Technical Product Owner
Grundfos Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark
Manufacturer and person empowered to sign the UK declaration of conformity.
10000334489

Declaration of conformity

GB: Ukrainian declaration of conformity

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

Valid for Grundfos products:

S 50-70

Resolution No. 62, 2013 - Technical Regulations on Safety of Machines

Resolution No. 533, 2018 - Amendments to some provisions

Standards used: ДСТУ EN 809:2015

Resolution No. 1077, 2015 - Technical Regulations on Electromagnetic Compatibility

Resolution No. 533, 2018 - Amendments to some provisions

Standards used: ДСТУ EN 61326-1:2016

Resolution No. 139, 2017 - Technical Regulations on Use of Certain Hazardous Substances in Electrical and Electronic Equipment

Standards used: ДСТУ EN IEC 63000:2020

Resolution No. 1055, 2016 - Technical regulation of the equipment and the protective systems intended for use in potentially explosive environments

Resolution No. 102, 2020 - Amendments to some resolutions of the Cabinet of Ministers of Ukraine

Standards used: ДСТУ EN IEC 60079-0:2019, ДСТУ EN 60079-1:2019,ДСТУ EN ISO 80079-36:2017, ДСТУ EN ISO 80079-37:2017

ATEX approved product: S 50-70 Ex

ATEX certificate number: Baseefa09ATEX0020X

Name and address of Notified body (ATEX):SGS Fimko Oy. No 0598. Helsinki, Finland.

Importer address:

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

UA: Українська декларація відповідності

Ми, Grundfos, заявляємо про свою виключну відповідальність за те, що продукція, до якої відноситься ця декларація, відповідає вимогам українським постановам, стандартам та технічним умовам, щодо яких заявлена відповідність, як зазначено нижче:

Дійсно для продуктів Grundfos:

S 50-70

Постанова № 62 від 2013 р., Про затвердження Технічного регламенту безпеки машин

Постанова № 533 від 2018 р., Про внесення змін до деяких положень

Застосовані стандарти: ДСТУ EN 809:2015

Постанова № 1077 від 2015 р., Технічний регламент з електромагнітної сумісності обладнання

Постанова № 533 від 2018 р., Про внесення змін до деяких положень

Застосовані стандарти: ДСТУ EN 61326-1:2016

Постанова № 139 від 2017 р., Технічний регламент обмеження використання деяких небезпечних речовин в електричному та електронному обладнанні

Застосовані стандарти: ДСТУ EN IEC 63000:2020

Постанова № 1055 від 2016 р., Технічний регламент обладнання та захисних систем, призначених для використання в потенційно вибухонебезпечних середовищах

Постанова № 102 від 2020 р., Про внесення змін до деяких постанов Кабінету Міністрів України

Застосовані стандарти: EN IEC 60079-0:2019, ДСТУ EN 60079-1:2019,EN ISO 80079-36:2017, ДСТУ EN ISO 80079-37:2017

Продукт, схвалений ATEX: S 50-70 Ex

Номер сертифіката ATEX: Baseefa09ATEX0020X

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Ця українська декларація відповідності дійсна лише за наявності інструкцій Grundfos.

Székesfehérvár, 1st of February 2022.

Róbert Kis
Technical Product Owner
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GB: Manufacturer and person empowered to sign the Ukrainian declaration of conformity

UA: Виробник та особа, уповноважена підписати українську декларацію відповідності

10000418471

RUS

S, SV, ST типоразмеры 50-70

Руководство по эксплуатации

Руководство по эксплуатации на данное изделие является составным и включает в себя несколько частей:
Часть 1: настоящее «Руководство по эксплуатации».
Часть 2: электронная часть «Паспорт. Руководство по монтажу и эксплуатации» размещенная на сайте компании Грундфос. Перейдите по ссылке, указанной в конце документа.
Часть 3: информация о сроке изготовления, размещенная на фирменной табличке изделия.

Сведения о сертификации:

Насосы типа S, SV, ST типоразмеры 50-70 сертифицированы на соответствие требованиям Технических регламентов Таможенного союза: ТР ТС 004/2011 «О безопасности низковольтного оборудования»; ТР ТС 010/2011 «О безопасности машин и оборудования»; ТР ТС 020/2011 «Электромагнитная совместимость технических средств»; ТР ТС 012/2011 «О безопасности оборудования для работы во взрывоопасных средах».

KAZ

S, SV, ST өлшемдері 50-70

Пайдалану бойынша нұсқаулық

Атаулы өнімге арналған пайдалану бойынша нұсқаулық құрамалы болып келеді және келесі бөлімдерден тұрады:
1 бөлім: атаулы «Пайдалану бойынша нұсқаулық»
2 бөлім: Грундфос компаниясының сайтында орналасқан электронды бөлім «Төлқұжат, Құрастыру және пайдалану бойынша нұсқаулық». Құжат соңында көрсетілген сілтеме арқылы өтіңіз.
3 бөлім: өнімнің фирмалық тақташасында орналасқан шығарылған уақыты жөніндегі мәлімет

Сертификаттау туралы ақпарат:

S, SV, ST өлшемдері 50-70 типті сорғылары «Төмен вольты жабдықтардың қауіпсіздігі туралы» (ТР ТС 004/2011), «Машиналар және жабдықтар қауіпсіздігі туралы» (ТР ТС 010/2011) «Техникалық заттардың электрлі магниттік сәйкестілігі» (ТР ТС 020/2011) Кеден Одағының техникалық регламенттерінің талаптарына сәйкес сертификатталды; «Жарылыс пайдалану үшін, қауіпсіздік жабдықтарды туралы» ТР ТС 012/2011.

KG

S, SV, ST өлчөмдөрү 50-70

Пайдалануу боюнча колдонмо

Аталган жабдууну пайдалануу боюнча колдонмо курамдык жана өзүнө бир нече бөлүкчөнү камтыйт:
1-Бөлүк: «Пайдалануу боюнча колдонмо»
2-Бөлүк: «Паспорт. Пайдалануу жана монтаж боюнча колдонмо» электрондук бөлүгү Грундфос компаниянын сайтында жайгашкан. Документтин аягында көрсөтүлгөн шилтемеге кайрылыңыз.
3-Бөлүк: жабдуунун фирмалык тактасында жайгашкан даярдоо мөөнөтү тууралуу маалымат.

Шайкештик жөнүндө декларация

S, SV, ST өлчөмдөрү 50-70 түрүндөгү соргучтар Бажы Биримдиктин Техникалык регламенттин талаптарына ылайыктуу тастыкталган: ТР ТБ 004/2011 «Төмөн вольттук жабдуунун коопсуздугу жөнүндө»; ТР ТБ 010/2011 «Жабдуу жана машиналардын коопсуздугу жөнүндө»; ТР ТБ 020/2011 «Техникалык каражаттардын электрмагниттик шайкештиги»; ТР ТБ 012/2011 «Жардыруу коркунучу жакын чөйрөгө колдонуу үчүн жеке коопсуздук жабдуулар».

ARM

S, SV, ST Զոմոն 50-70

Շահագործման ձեռնարկ
Տվյալ սարքավորման շահագործման ձեռնարկը բաղկացած է մի քանի մասերից.
Մաս 1. սույն «Շահագործման ձեռնարկ»:
Մաս 2. էլեկտրոնային մաս. այն է՝ «Անձնագիր: Մոնտաժման և շահագործման ձեռնարկ» տեղադրված «Գրունդֆոս». Անցեք փաստաթղթի վերջում նշված հղումով.
Մաս 3. տեղեկություն արտադրման ամսաթվի վերաբերյալ՝ նշված սարքավորման պիտակի վրա:

Տեղեկություններ հավաստագրման մասին՝
S, SV, ST Զոմոն 50-70 տիպի պոմպերը սերտիֆիկացված են համաձայն Մաքսային Միության տեխնիկական կանոնակարգի պահանջների՝ TP TC 004/2011 «Ցածրավոլտ սարքավորումների վերաբերյալ», TP TC 010/2011«Մեքենաների և սարքավորումների անվտանգության վերաբերյալ» ; TP TC 020/2011 «Տեխնիկական միջոցների էլեկտրամագնիսական համատեղելիության վերաբերյալ», TP TC 012/2011 «Անձնական անվտանգության սարքավորումներ օգտագործման պոտենցիալ պայթյունավտանգ միջավայրերին»:

http://net.grundfos.com/qr/i/98740064

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