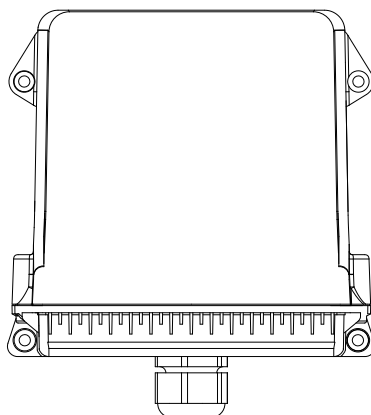


User Manual

Remote Control

R11 Receiver



Revision history

Table of revisions

Date	Changed	Rev
January 2019	Rebranded to Danfoss Power Solutions	0101

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Safety instructions

R11 general safety

The following safety instructions must be read carefully in order to install and use the product properly and to keep it in perfect working condition and to reduce the risk of misuse.

Potential damage to operator and product.

Do not use this product on machines in potentially explosive atmospheres unless the model is ATEX/ RATEX certified to do so.

- Strictly adhere to the installation instructions contained in this document.
- Make sure that professional and competent personnel carry out the installation.
- Ensure that all site and prevailing safety regulations are fully respected.
- Make sure that this document is permanently available to the operator and maintenance personnel.
- Keep the transmission key when the set is not in use.
- On starting each working day, check to make sure that the STOP button and other safety measures are working.
- When in doubt, press the STOP button.
- Whenever several sets have been installed, make sure the transmitter is the right one. Identify the machine controlled on the label for this purpose on the transmitter or by using the display (in case it has one).
- Service the equipment periodically.
- When carrying out repairs, only use spare parts from Danfoss.

R11 safety warnings

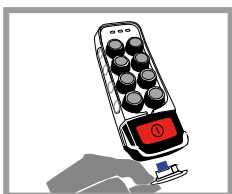
Potential damage to operator and product.

Follow the guidelines below to reduce risk of injury to the operator and the product.

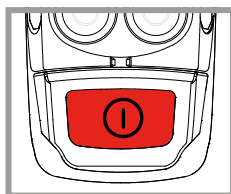
- Use the device with the manufacturer's battery and battery charger (if applicable).
- Only allow qualified personnel to operate the equipment.
- Always set the STOP button in the off position when not in use.
- Always press STOP before plugging in tether cable (if applicable).
- Do not operate product when visibility is limited.
- Make sure product is compatible with the machine.
- Avoid knocking or dropping the product.
- Do not use the product if a failure is detected.

Changes or modifications not approved by Danfoss can void the user's authority to operate this product.

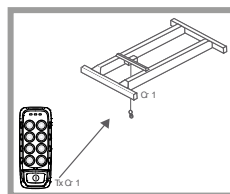
Quick reference precautions



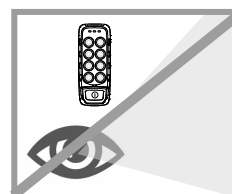
Remove the EEPROM in order to disable the transmitter



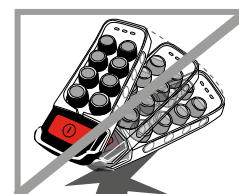
When in doubt, press the STOP button



Make sure the transmitter works with the machine to be handled



Do not use the set when visibility is limited

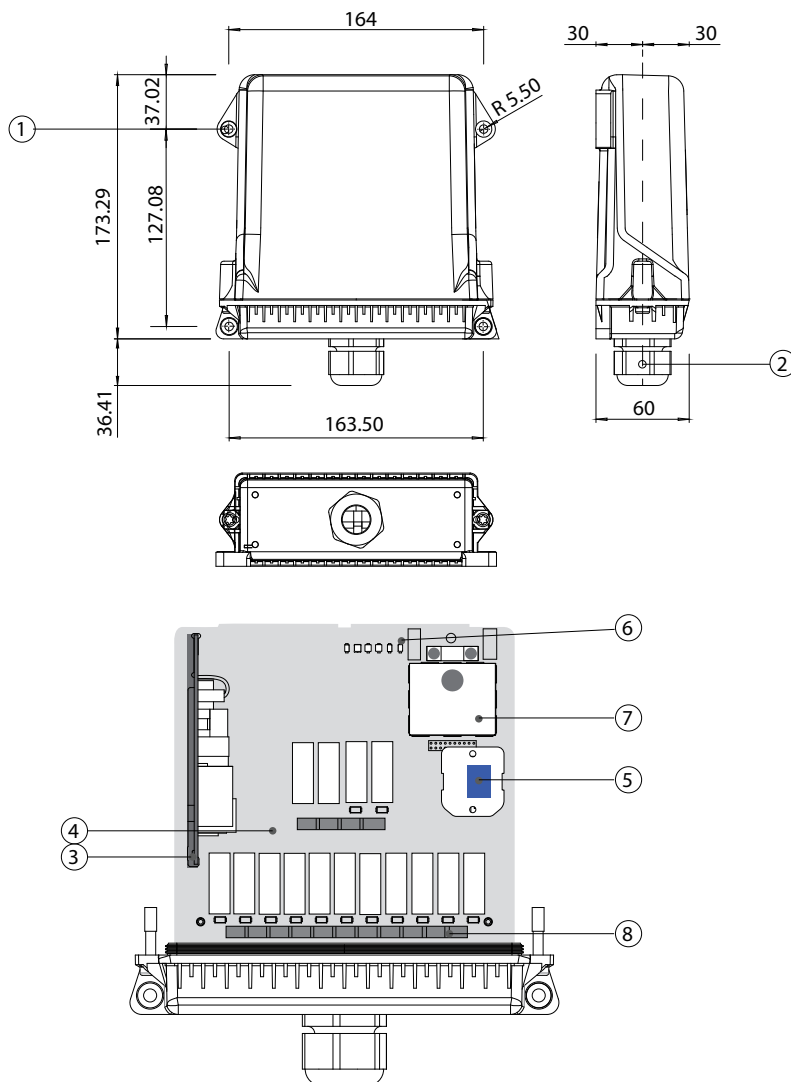


Avoid knocking or dropping the set

Technical description

R11 dimensions and identification

Dimensions in mm



1. Fixing slots (fixed assembly or anti-vibration with magnets*)
2. M25 cable gland
3. Power supply
4. LR11 logic board
5. Removable EEPROM
6. Signaling LEDs
7. 2.4 GHz radio
8. Wiring connection

* The use of the anti-vibration kit is recommended in any case

Installation

R11 receiver installation

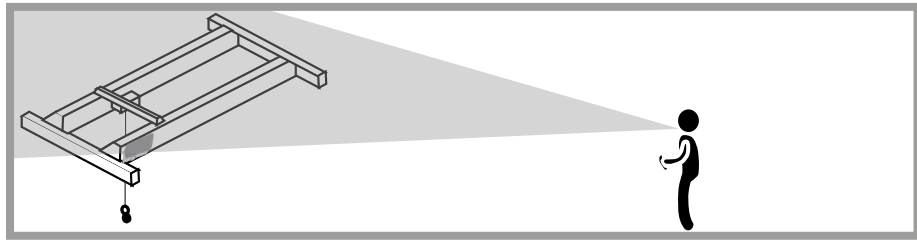
Risk of shock

Completely shut down the machine when installing the receiver.

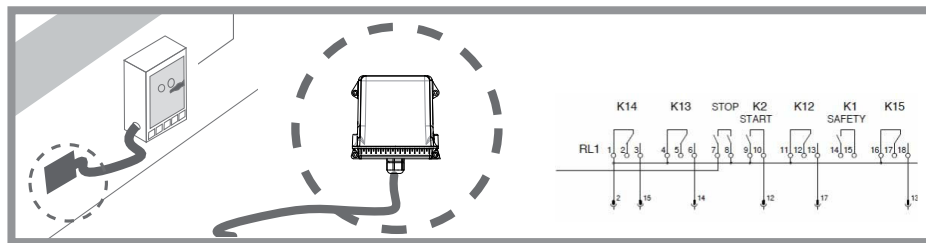
Check the power supply and shut off the main switch to disconnect the interface cable between the receiver and the machine's electrical box.

1. Find an easily accessible and clear location with a direct vision between the receiver's antenna and the transmitter's working area.

It is strongly advised to avoid installing the receiver inside a closed metal enclosure.



2. Optional: If high levels of vibration is expected, ensure shock-absorbers are being used.
3. Connect the power supply and the receiver's outputs using the connection block diagram provided with the system.



4. Check the electrical installation and verify if there is an option to connect the neutral or the ground cable. In that case, be sure to connect the ground cable.
To guarantee a reliable connection, apply a torque between 0.5 and 0.5 Nm to screw the connection terminals.

Troubleshooting

Receiver LED troubleshooting guide






The troubleshooting LEDs are located on then receiver board. Use the following table to identify faults and corrective action.

In order to reach the signaling, the receiver must be accessible and connected and the two screws located on the base of the receiver must be released using the suitable tool.

The LEDs on the receiver board are POWER, STATUS, DIAG1, DIAG2, ORDER and RELAY in that order.

LED	Color and frequency	Pulse frequency	Description	Action
POWER	Green continuous		Switched ON if powered	Check power supply if it is switched off.
STATUS	Blue fast pulses		System is starting; establishing connection with radio and EEPROM	Wait
	Blue continuous		Waiting for transmitter communication, coming from ACTIVE STOP	Release STOP button and press START
	Blue slow pulses		Waiting for transmitter communication, coming from PASSIVE STOP	Press Start
	Green continuous		Working	Operate
	Red slow pulses		EEPROM module missing or corrupt	Check EEPROM and reprogram if necessary
	Red double pulses		Radio communication error	Replace receiver
	Red triple pulses		Secondary micro error or error between micro communication	Replace receiver
STATUS + DIAG1	Red 4 pulses Orange slow pulses		Low tension in the receivers power supply	Supply the system with the correct voltage
	Red 4 pulses Orange double pulses		Hardware error	Replace receiver
	Red 4 pulses Orange triple pulses			
	Red 4 pulses			
	Orange 4 pulses			

Troubleshooting

LED	Color and frequency	Pulse frequency	Description	Action
DIAG1	Green slow pulses		Low link quality	N/A
	Green double pulses		Medium link quality	N/A
	Green triple pulses		High link quality	N/A
ORDER	Green continuous			N/A
RELAY	Green continuous		STOP relay activated	N/A

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