Sail accelerator lever - side mounting

Translation of the original instructions

Deutsch English

2 Equipment and controls

2.1 Overview of controls and components

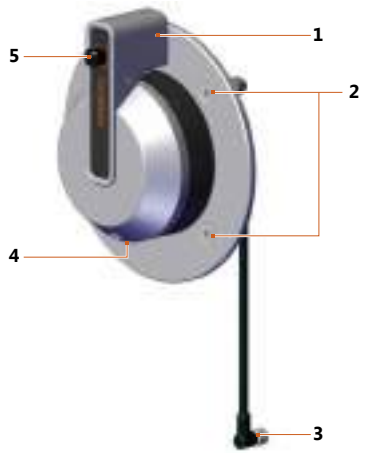


Fig. 41: Overview of remote throttle

1 Remote throttle
2 M6 screws
3 Sensor cable
4 Grub screw
5 Unlocking

Fig. 42: On/Off switch

Fig. 43: Emergency Off switch

Fig. 44: Display unit

2.2 Scope of delivery

The complete scope of delivery of your Torqeedo remote throttle includes the following components:

- Throttle including sensor cable
- Display unit
- Emergency Off switch
- On/Off switch
- Bus terminating connector
- Y-adapter
- Gateway
- Power supply cable for Gateway
- 8-pin extension (5 m)
- Instructions for use

3 Safety

3.1 Safety features

The Sail accelerator lever - side mounting is equipped with a wide range of safety features.

Safety features	Function
Emergency Stop	Disconnects the energy supply immediately, and switches off the drive. The propeller comes to a stop.
Electronic accelerator lever	Ensures that the Sail accelerator lever - side mounting can be switched on only in the neutral position, in order to prevent accidental start-up of the engine.
Unlocking mechanism	Prevents accidental acceleration.

3.2 General safety provisions

ADVICE

- You must read and comply with the safety and warning information in these instructions.
- Read these instructions carefully before you operate the Sail accelerator lever - side mounting.

Failure to comply with these instructions can result in personal injury or property damage. Torqeedo accepts no liability for damage caused by actions which are contrary to these instructions.

The symbols are explained in detail in **Chapter 1.2, "Explanation of symbols"**.

Particular safety regulations may apply to certain activities. Safety and warning information for these activities is to be found in the relevant sections of the instructions.

3.2.1 Principles

Operate your remote throttle in compliance with all local safety and accident prevention regulations.

Before delivery, the Sail accelerator lever - side mounting was designed and manufactured with the utmost care and with a special focus on convenience, user-friendliness and safety, and it has been extensively tested.

However, unintended use of the remote throttle may result in danger to the user's life and limb or of third parties, in addition to extensive property damage.

3.2.2 Intended use

The Sail accelerator lever - side mounting must be installed and operated in combination with the following components:

- Display unit
- Emergency Off switch
- On/Off switch
- Y-adapter
- Bus terminating connector
- Gateway
- Power 26-104 battery from version status "F" (if batteries with an older version status are used, contact the Torqueedo Service Centre)

Intended use also includes:

- Attachment to the attachment points provided for the purpose.
- Compliance with all directions in these instructions.
- The exclusive use of original replacement parts.
- No unauthorised opening of the products.
- Drive only with a valid licence in accordance with the country's regulations in which the boat is being operated.
- Regularly check the safety equipment to ensure it is functioning correctly.

3.2.3 Foreseeable misuse

Use other than, or going beyond, that defined under "Intended use" is deemed to be unintended use. The operator bears the sole responsibility for damage arising from unintended use, and the manufacturer accepts no liability whatsoever.

Amongst others, the following are deemed to be unintended use:

- Operating the remote throttle with products that are not from Torqueedo.

3.2.4 Before use

- The Sail accelerator lever - side mounting may be handled only by appropriately qualified persons who have the necessary physical and mental aptitude. Comply with the relevant national regulations.
- The boat builder, dealer, or vendor can provide training in the operation and safety provisions of the remote throttle and system.
- As the operator of the boat, you are responsible for the safety of the people on board, and for all marine crafts and persons in your vicinity. It is therefore essential that you comply with the basic rules of conduct of navigation, and that you read these instructions thoroughly.
- Particular care is required when people are in the water, even when the boat is moving at a slow speed.
- Comply with the boat manufacturer's instructions regarding the permitted motorisation of your boat. Do not exceed the stated loading and power limits.
- Check the status and all functions of the remote throttle (including Emergency Stop) at low power before every trip.
- Become familiar with all controls of the remote throttle. Above all, you should be capable of stopping the system quickly if necessary.

3.2.5 General safety information

ADVICE

Only clean the remote throttle using a cloth dampened with water or mild detergent. Never use aggressive cleaning agents.

4 Installation and startup

ADVICE

Ensure that you have a firm stance when installing your remote throttle. Connect the remote throttle and the batteries only after fitting the drive to the boat.

ADVICE

Before startup, check all of the safety functions, especially the Emergency Stop function.

4.1 Installing the remote throttle and components

ADVICE

During assembly, take account of the cut-outs for shims. These must be installed too.

ADVICE

During installation, ensure sufficient space for the lever movements.

ADVICE

Be aware that the installation drawings are not to scale.

The calibration in the status as shipped corresponds to the information supplied on the attached sticker. If necessary, the Sail accelerator lever - side mounting can be calibrated manually. **See "Calibration" in Chapter 5.6.3, "Settings".**

Remote throttle

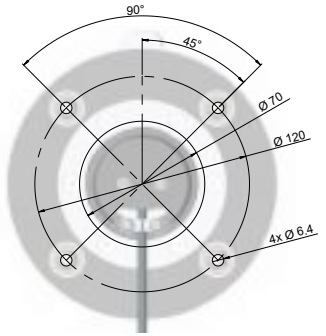


Fig. 45: Remote throttle installation drawing

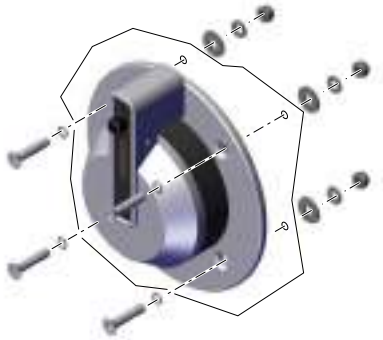


Fig. 46: Remote throttle exploded drawing

Display

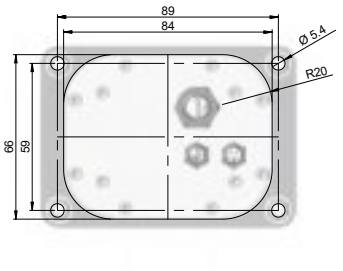


Fig. 47: Display installation drawing

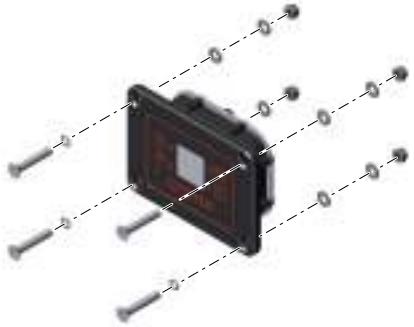


Fig. 48: Display exploded drawing

Emergency Off switch

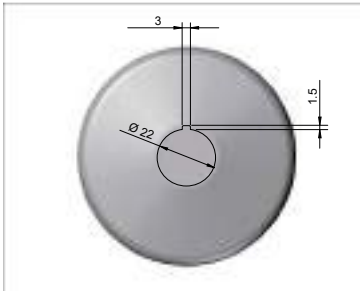


Fig. 49: Emergency Off switch installation drawing

Fig. 50: Emergency Off switch exploded drawing

On/Off switch

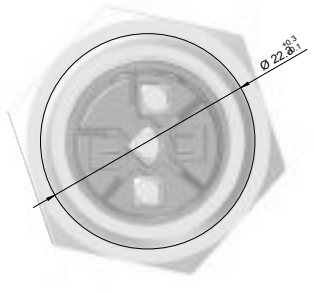


Fig. 51: On/Off switch installation drawing

Fig. 52: On/Off switch exploded drawing

4.2 Connection to the overall system

ADVICE

We recommend carrying out all installation work on land.

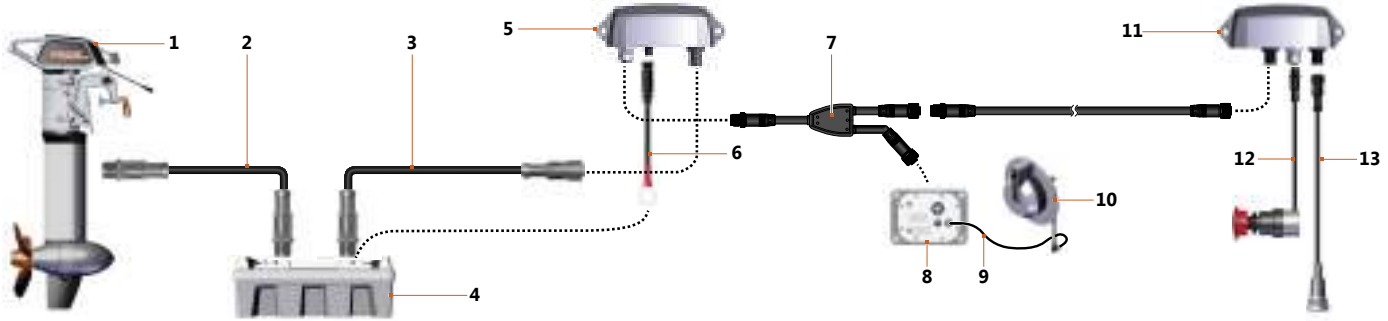


Fig. 53: Cabling of the remote throttle unit

1 Cruise engine
2 5-pin extension (5 m)
3 TQ-bus connection (5-pin)
4 Battery
5 Gateway
6 Power supply cable for Gateway
7 Y-adapter
8 Display unit
9 Sensor cable
10 Remote throttle
11 Bus terminating connector
12 Emergency Off switch
13 On/Off switch

Bus terminating connector

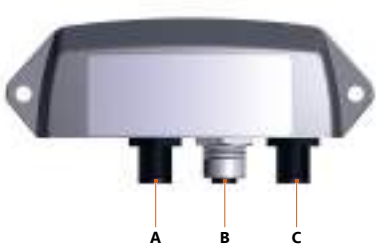


Fig. 54: Bus terminating single

Connect the 8-pin cable of the Y-adapter (7) with the bushing A to the bus terminating connector (11).

Emergency Off switch connection

Connect the 5-pin plug of the emergency off switch (12) with the bushing B on the bus terminating connector (11).

On/Off switch connection

Connect the 8-pin plug of the on/off switch (13) with the bushing C to the bus terminating connector (11).

Gateway connection

The gateway must be installed between the drive system and remote throttle in order to be able to translate between the two components. Connect the 5-pin cable (3) to bushing C and the 8-pin cable of the Y-adapter (7) to bushing A of the gateway (5).

To provide power, the gateway must be connected to the positive terminal of a Power 26-104 battery. Connect the power supply cable (6) to the positive terminal of the battery and with bushing B on the gateway (5). The gateway can only be operated in combination with Power 26-104 batteries from version status "F". If batteries with an older version status are used, contact the Torqueedo Service Center.

4.3 Setting the feel of the throttle

Fig. 55: Grub screw on the remote throttle

1 Grub screw

1. Set the mechanical resistance of the grub screw (1) using an Allen key.
   - ▶ The lever becomes more difficult to move if the grub screw is tightened clockwise.
   - ▶ The lever becomes easier to move if the grub screw is released anticlockwise.

5 Operation

⚠ CAUTION!

Danger of injury since batteries are not switched off automatically!
Any voltage still present can deliver an electric shock.

- Always switch the battery off before working on it.

ADVICE

Regularly check all of the safety functions, especially the Emergency Stop function.

5.1 Emergency Stop

There are various options for stopping the system rapidly:

- Place the remote accelerator lever in the neutral position.
- Press the Emergency Off switch.
  - ► Pulling the Emergency Off switch again returns the deployed Emergency Off switch back to its original position.
- Move the On/Off switch to the Off position.

5.2 Starting a trip

Starting the motor

ADVICE

The system can be started only if the Emergency Stop has not been actuated.

1. Ensure that the Emergency Off Switch is not depressed.
2. Ensure that the remote throttle is in the neutral position.
3. Press the On/Off switch to start the system.
   - ► The On/Off switch engages.
   - ► The display switches on.
   - ► The Select LED lights up green at the active station.

5.3 Motion forward/reverse

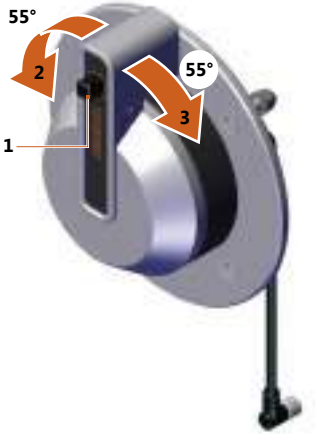


Fig. 56: Operating the remote throttle during forwards / backwards motion

The remote throttle can be swivelled a maximum of 55° forwards and 55° backwards.

1. For forwards or backwards motion, release the lock (1) on the neutral position.
2. Operate the remote throttle accordingly.
   - ► Forward (2)
   - ► Reverse (3)

5.4 End trip

Move the lever back to the neutral position and press the On/Off switch, in order to switch off the complete system.

5.5 Charge

To charge the Power 26-104 battery, it must be switched on. To ensure that the battery is switched on, switch the system on with the On/Off switch before charging. The system can be switched off while charging is taking place.

5.6 Onboard computer

5.6.1 Overview

The onboard computer is operated by pressing the relevant buttons next to the display.

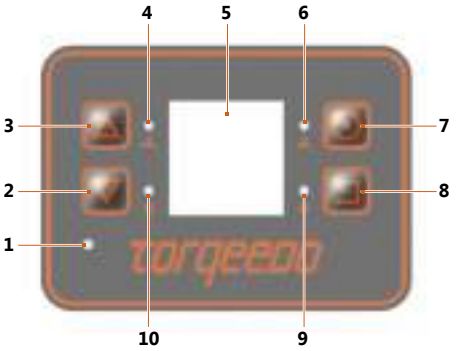


Fig. 57: Display overview

1 Brightness sensor
2 Browse backwards
3 Browse forwards
4 Select-LED for port (only for double accelerator lever)
5 Display
6 Select-LED for starboard
7 Confirm selection
8 Back
9 Neutral-LED for starboard
10 Neutral-LED for port (only for double accelerator lever)

Select-LED

The Select-LED displays whether the remote throttle is active if multiple levers are being operated on the boat.

Green:	The remote throttle is active.
Flashing green:	The remote throttle is currently being activated.
Off:	The remote throttle is inactive.
Orange:	No bus communication
Flashing red:	System error

Neutral-LED

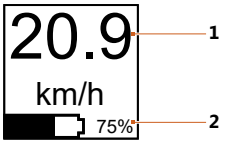
The Neutral-LED indicates whether the remote throttle is in the neutral position.

Green:	The remote throttle is active and in the neutral position.
Off:	The motor is in operation or the remote throttle is inactive.

5.6.2 Display

The scroll forwards and scroll backwards buttons allow navigation between the various displays.

Speed



1 Speed over the ground (GPS-based)

2 Battery charge state in percent (always visible)

Fig. 58: Speed display view

The units used for the speed can be changed in the Settings. **See Chapter 5.6.3, "Settings"**.

Range

1 Remaining range or journey time (if no GPS signal is available)

Fig. 59: Range display view

The units used for the range can be changed in the Settings. **See Chapter 5.6.3, "Settings"**.

Battery charge state

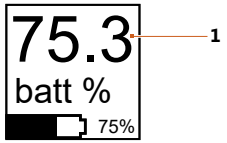


Fig. 60: Battery charge state display view

1 Battery charge state in percent

Power consumption

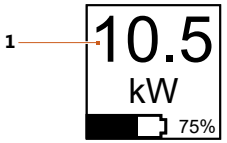


Fig. 61: Power consumption display view

1 Present power consumption in kilowatts

Overview of engine speed, torque and power

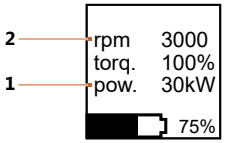


Fig. 62: Engine speed, torque and power display view

1 Power in kilowatts

2 Engine speed

The display shows the level of the engine speed and power (torque is not available in combination with Cruise).

Overview of speed, range and power consumption

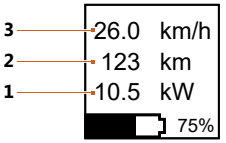


Fig. 63: Speed, range and power consumption display view

1 Present power consumption in kilowatts

2 Remaining range or journey time (if no GPS signal is available)

3 Speed over the ground

The units used for the speed and range can be changed in the Settings.
See Chapter 5.6.3, "Settings".

Hydrogeneration

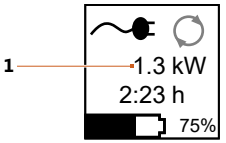


Fig. 64: Charging display view

1 Charging power in kilowatts

The display shows the level of the charging power (time is not available in combination with Cruise).

Requirements of hydrogeneration:

- The speed must be at least four knots.
- The main switch must be switched on.
- Hydrogeneration must be activated under **"Fig. 73: Hydrogeneration display view"**.

1. Switch the system on.
2. Check the GPS signal.

3. Set the accelerator lever to 1 - 20% forwards motion.
   ► The Hydrogeneration menu displays the recovered power.
4. To end hydrogeneration, move the lever back to the neutral position.

ADVICE

If the speed remains below four knots for more than 30 seconds, hydrogeneration is automatically switched off. The same applies to speeds over 12 knots (Cruise 2.0 FP), over 14 knots (Cruise 4.0 FP) and 16 knots (Cruise 10.0 FP). if you want to continue hydrogenerating, you must restart hydrogeneration. The system switches automatically to Stop mode as soon as a Power 26-104 has a voltage of more than 28.8 V.

5.6.3 Settings

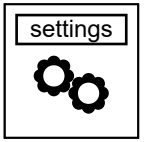


Fig. 65: Settings display view

In addition to the various displays, it is also possible to navigate to the settings.

This is only possible if the remote throttle is active and in the neutral position.

Press the **Confirm selection** button to access the Settings menu.

Press the **Back** button to exit the Settings menu.

Display

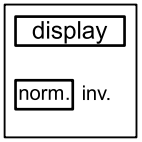


Fig. 66: Display view display

You can select either normal display or reverse display background (black). The setting is changed with the **Confirm selection** button.

Battery type

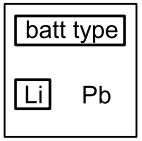


Fig. 67: Battery type display view

In this menu select the battery type you use (lithium or lead batteries). The setting is changed with the **Confirm selection** button.

Battery state of charge

If using batteries from other suppliers the state of charge cannot be automatically checked. This must be manually set. Therefore the state of charge needs to be set to 100 % after each full charge. The setting is changed with the **Confirm selection** button.

Battery capacity

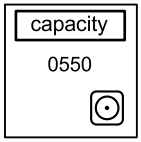


Fig. 68: Battery capacity display view

If using batteries from other suppliers, their capacity needs to be entered once in ampere hours (Ah). The entry is started with the **Confirm selection** button. A cursor shows the number to be changed. The number can be changed with the **arrow keys** and the active number with the **confirm selection** key. Select the **Back** key to exit the menu and save the setting.

Display brightness

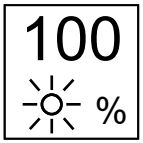


Fig. 69: Brightness display view

The brightness of the display's background lighting is automatically regulated by the ambient light sensor. The basic brightness of the background lighting can be adjusted in 5% increments using the **Confirm selection** button.

Units of measurement

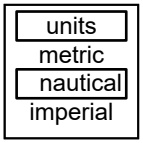


Fig. 70: Units of measurement display view

It is possible to select whether the speed and remaining range are displayed in metric, nautical, or imperial units of measurement.

The choice is changed with the **Confirm selection** button.

Range display

Fig. 71: Range display view

It is possible to select whether the range is displayed in remaining kilometres or remaining travel time. If no GPS signal is available, the remaining travel time is displayed automatically.

The choice is changed with the **Confirm selection** button.

Bluetooth

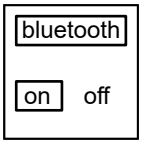


Fig. 72: Bluetooth display view

It is possible to connect the onboard computer with other Torqueedo products (e.g. the TorqTrac App) via Bluetooth. The Bluetooth connection can be switched on and off.

The choice is changed with the **Confirm selection** button.

Hydrogeneration

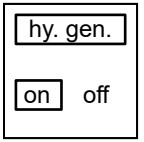


Fig. 73: Hydrogeneration display view

Hydrogeneration is the recharging of the engine's batteries with the turning of the propeller while sailing.

Hydrogeneration can be activated in this menu. Generation can then be started in the main menu. This is only useful if Torqueedo systems for sailing boats are being used.

The choice is confirmed with **Confirm selection**.

Number of batteries used

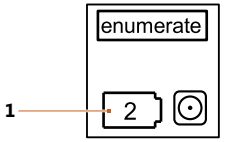


Fig. 74: Battery enumeration display view

1 Number of batteries used in the system

The number of batteries used in the system can be counted using the onboard computer.

At startup, the number of batteries used in the system must be determined once.

The enumeration of batteries is started with the **Confirm selection** button and the number of batteries found is output.

Calibration

ADVICE

If the Sail accelerator lever - side mounting is installed other than as intended (see sticker on the accelerator lever), then this must be recalibrated manually.

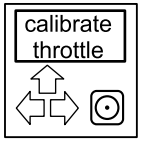


Fig. 75: Calibration display view

The remote throttle is calibrated for installation on the right as standard. If the remote throttle is mounted on the other side of the boat, then it must be recalibrated accordingly.

The Calibration menu is accessed by pressing and holding the **Confirm selection** button.

Maximum forward position

Fig. 76: Maximum forward position display view

1. Move the lever to the maximum forward position.
2. Press the **Confirm selection** button.

Maximum reverse position

Fig. 77: Maximum reverse position display view

1. Move the lever to the maximum reverse position.
2. Press the **Confirm selection** button.

Neutral position

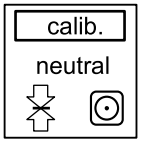


Fig. 78: Neutral setting display view

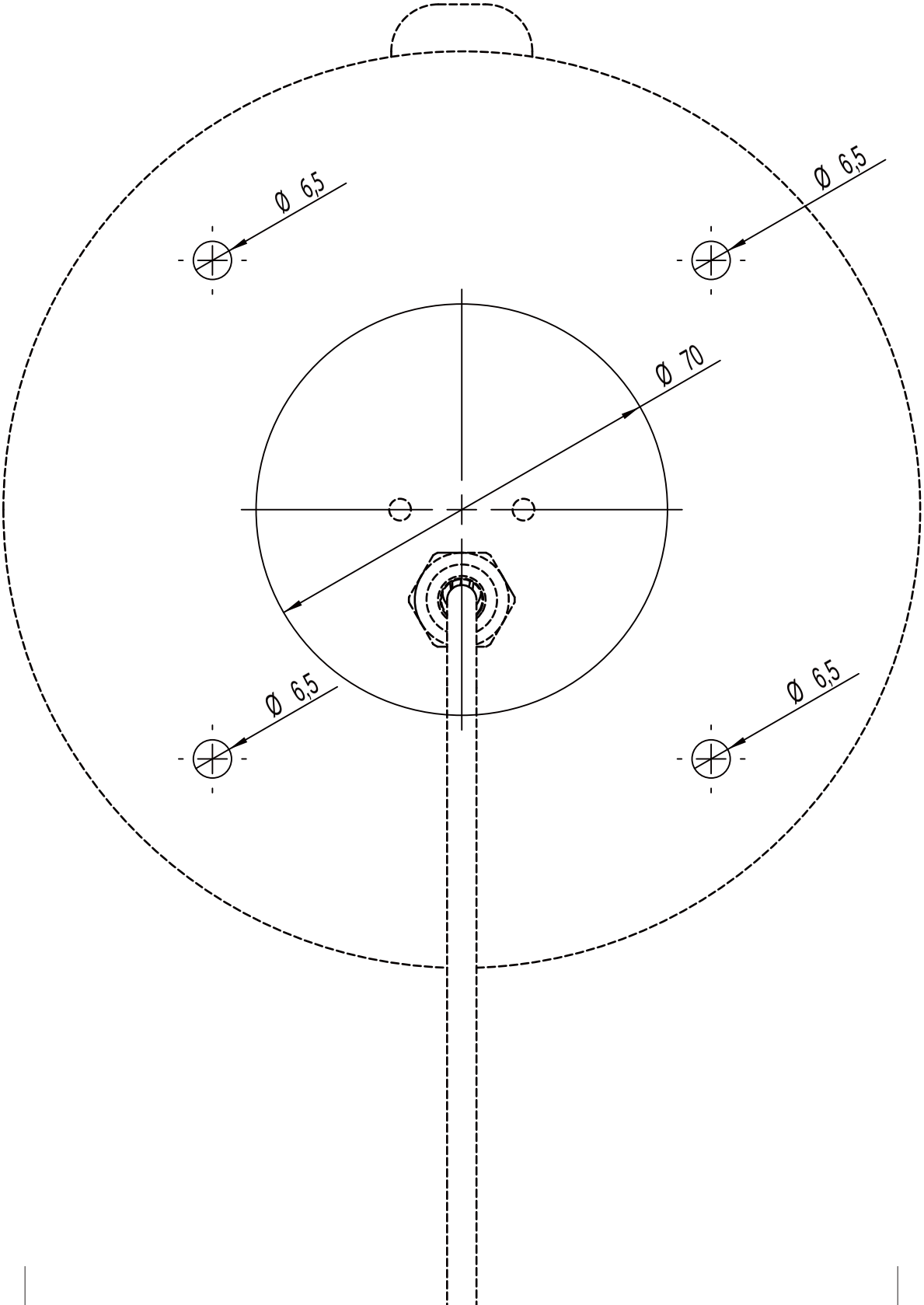
1. Move the lever to the neutral position.
2. Press the **Confirm selection** button.
3. Restart the system to end the calibration.

5.6.4 Warnings and error messages

Fig. 79: Error code display

In the event of a system error, the onboard computer's display indicates the relevant error code.

The meaning of the error code can be looked up in your system's instructions for use. Pressing the **Confirm selection** button suppresses the error message for 1 minute.


Ø 6,5
Ø 6,5
Ø 70
Ø 6,5
Ø 6,5