



**SEW**  
**EURODRIVE**

# Addendum to the Operating Instructions



MOVIPRO® Accessories  
**PZO00A-BFBIRO-01/.. Keypad**



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## 1 General information

### 1.1 About this documentation



#### INFORMATION

The device is designed for use in industrial and commercial systems and machines in combination with a MOVIPRO® drive and application controller.

The functions of the device depend on the characteristics of the MOVIPRO® drive and application controller with which the device is operated.

In addition to this documentation, observe the operating instructions as well as all other applicable documentation of the respective MOVIPRO® drive and application controller.

#### The current version of the documentation is the original.

This documentation is an integral part of the product. The documentation is intended for all employees who perform assembly, installation, startup and service work on the product.

Make sure this documentation is accessible and legible. Ensure that persons responsible for the systems and their operation as well as persons who work on the product independently have read through the documentation carefully and understood it. If you are unclear about any of the information in this documentation, or if you require further information, contact SEW-EURODRIVE.

### 1.2 Other applicable documentation

This documentation supplements the operating instructions of the associated product. Use this document only in connection with the operating instructions.

Always use the latest edition of the documentation and the software.

The SEW-EURODRIVE website ([www.sew-eurodrive.com](http://www.sew-eurodrive.com)) provides a wide selection of documents for download in various languages. If required, you can also order printed and bound copies of the documentation from SEW-EURODRIVE.

### 1.3 Structure of the safety notes

#### 1.3.1 Meaning of signal words

The following table shows the grading and meaning of the signal words for safety notes.

Signal word	Meaning	Consequences if disregarded
<b>▲ DANGER</b>	Imminent hazard	Severe or fatal injuries
<b>▲ WARNING</b>	Possible dangerous situation	Severe or fatal injuries
<b>▲ CAUTION</b>	Possible dangerous situation	Minor injuries
<b>NOTICE</b>	Possible damage to property	Damage to the product or its environment
<b>INFORMATION</b>	Useful information or tip: Simplifies handling of the product.	

### 1.3.2 Structure of section-related safety notes

Section-related safety notes do not apply to a specific action but to several actions pertaining to one subject. The hazard symbols used either indicate a general hazard or a specific hazard.

This is the formal structure of a safety note for a specific section:



#### SIGNAL WORD


Type and source of hazard.

Possible consequence(s) if disregarded.

- Measure(s) to prevent the hazard.

### Meaning of the hazard symbols

The hazard symbols in the safety notes have the following meaning:

Hazard symbol	Meaning
	General hazard

### 1.3.3 Structure of embedded safety notes

Embedded safety notes are directly integrated into the instructions just before the description of the dangerous action.

This is the formal structure of an embedded safety note:

**▲ SIGNAL WORD!** Type and source of hazard. Possible consequence(s) if disregarded. Measure(s) to prevent the hazard.

## 1.4 Decimal separator in numerical values

In this document, a period is used to indicate the decimal separator.

Example: 30.5 kg

## 1.5 Rights to claim under limited warranty

Read the information in this documentation. This is essential for fault-free operation and fulfillment of any rights to claim under limited warranty. Read the documentation before you start working with the product.

## 1.6 Product names and trademarks

The brands and product names in this documentation are trademarks or registered trademarks of their respective titleholders.

**1.7 Copyright notice**

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## 2 Unit structure

### 2.1 Short designation

The following short designations are used:

Unit	Short designation
MOVIPRO® accessories – PZO00A-BFBIR0-01/.. keypad	Device
MOVIPRO® application controller	MOVIPRO®, MOVIPRO® unit

### 2.2 Scope of delivery

The following device is included in the delivery:

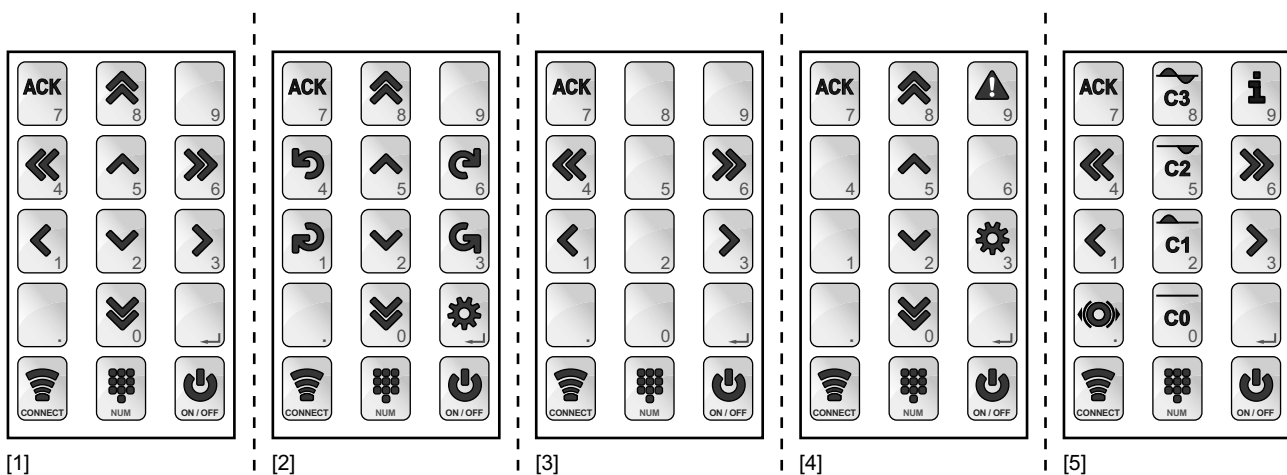
- 1 × PZO00A-BFBIR0-01/..

The available keypad layouts can be read from the type designation:

Keypad layout	Part number
..L001	17975972
..L002	17975980
..L003	17975999
..L004	17976006
..L005	17976014
..L006	25698974

### 2.3 Keypad layouts

The following figure shows the possible keypad layouts:



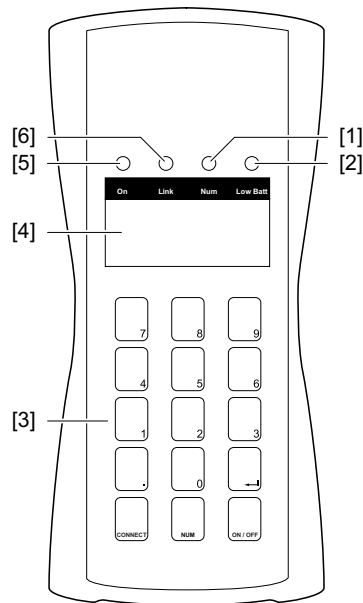
9007211941491979

[1] ..L001 / L006  
[2] ..L002  
[3] ..L003

[4] ..L004  
[5] ..L005

## 2.4 Basic device

The following figure shows the design of the device:



9007201678364171

- |     |               |     |            |
|-----|---------------|-----|------------|
| [1] | LED "Num"     | [4] | Nameplate  |
| [2] | LED "LowBatt" | [5] | LED "On"   |
| [3] | Keypad        | [6] | LED "Link" |

## 2.5 Nameplate

The nameplate provides important information about the device. The following figure shows an example of a nameplate:



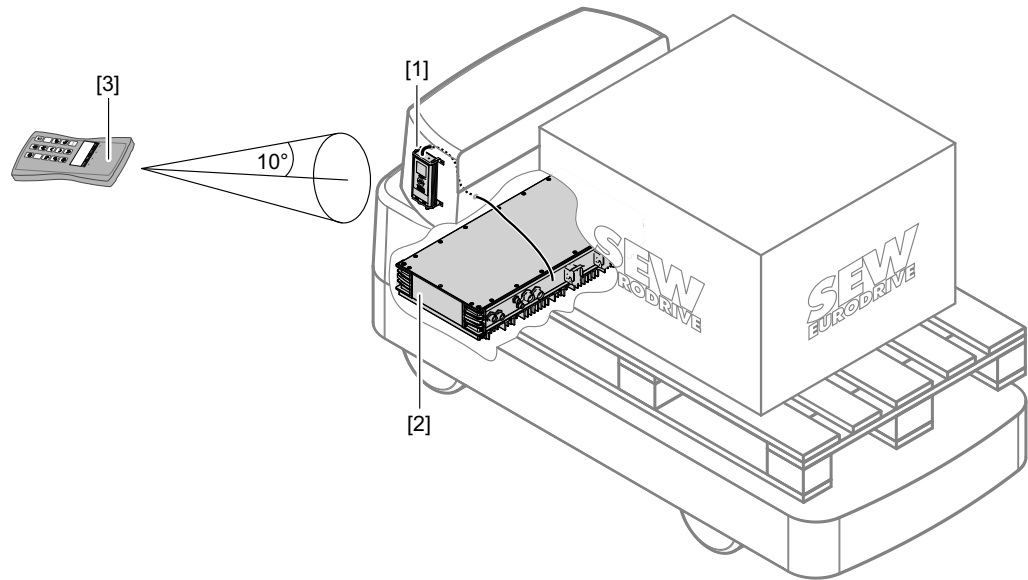
18014400928097931

- |     |                                |
|-----|--------------------------------|
| [1] | Data matrix code               |
| [2] | Part number                    |
| [3] | Type designation               |
| [4] | Barcode                        |
| [5] | Serial number                  |
| [6] | WEEE marking                   |
| [7] | Date code (calendar week/year) |
| [8] | Manufacturer address           |



## 2.6 Operating principle

The device is used for manual operation of system components that are operated with MOVIPRO® units. The MOVIPRO® units are equipped with an integrated status display and/or a separate display unit. The following figure shows an application example of an AGV system (Automatic Guided Vehicle):



18014400928152459

- [1] Display unit with infrared interface
- [2] MOVIPRO®
- [3] Keypad

The transmission medium of the device is infrared light. This requires a direct line of sight between the sender (keypad) and receiver (display unit) during operation.

If the button is pushed, the device sends a key code to the communication and control unit of the MOVIPRO® unit. The key code is interpreted by the installed unit software. The command is executed.

### INFORMATION

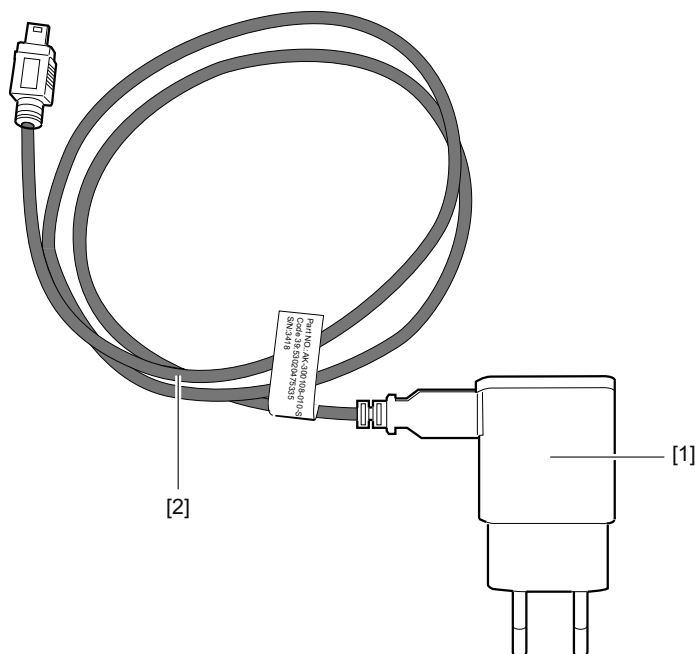


The assignment and functionality of the keys is defined via the unit software of the MOVIPRO® unit. For further information refer to the documentation of the unit software.

### 2.7 Accessories

#### 2.7.1 Overview

The following figure shows the charger for the keypad:



30540933771

- [1] Power supply unit (euro plug CEE 7/16 type C)
- [2] Prefabricated cable

#### 2.7.2 Available accessories

Charger	
The charger for the PZO00A-BFBIR0-01/... keypad consists of power supply unit and prefabricated cable.	
Power supply (euro plug CEE 7/16 type C)	19125070
Prefabricated cable	19125089

### 3 Operation



#### ⚠ WARNING

Risk of injury if the MOVIPRO® unit starts up unintentionally.

Severe or fatal injuries.

- Before you operate the device, check all settings for the key assignments and functionality defined in the unit software.
- Always observe the documentation of the unit software.



#### INFORMATION

The following key assignments are the default settings of the device. Deviating key assignments are customer-specific and are described in the respective customer-specific documentation.

### 3.1 Charging the batteries

The device is equipped with permanently integrated batteries. Charge the batteries completely prior to the first startup.

- ✓ To charge the batteries, use the power supply with an output current of minimum 500 mA and a USB mini B connector.

1. Connect the power supply unit to a power socket.
2. Connect the power supply unit to the device.
3. Observe the display of the device:

LED display "LowBatt" flashes.	The batteries are charging.
LED display "LowBatt" goes out.	The batteries are completely charged.

4. If the batteries are completely charged, remove the power supply unit from the device.
5. Disconnect the power supply unit.

### 3.2 Keypad

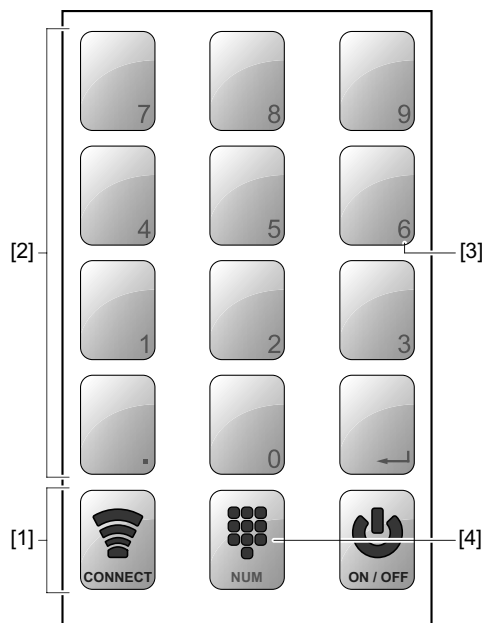
The keypad of the device comprises 3 × 5 keys.

The basic keys [1] are permanently assigned and have the following functions:

- <Connect>: Establish or disconnect a connection
- <Num>: Switch to numerical mode
- <On / Off>: Switch the device on or off

The application keys [2] can be assigned a function in the device software.

The following figure shows the keypad:



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- [1] Basic keys

[2] Application keys
- [3] Labeling of the numerical mode

[4] <Num> key

The keys of the device have a double assignment. They can send commands in symbol mode and numerical mode.

Symbol mode

If the "Num" LED is not lit, the device is in symbol mode. The functions printed in black on the keys are active.

Numerical mode

If you push the <Num> key, you activate the numerical mode. The "Num" LED lights up red and the functions printed in red on the keys are active.

Push the <Num> key again to switch back to symbol mode.

## INFORMATION



While establishing a connection to a drive and application controller, the device automatically switches to numerical mode.

While you enter an address, the device cannot switch back to symbol mode.

### 3.3 Switching on/off

To switch the device on or off, press the basic key <On/Off> for about 1 second. After a self-test (all LEDs light up briefly), the "On" LED indicates ready for operation.

## INFORMATION



- The device can also be switched off in a connected state.
- The device switches off automatically if no key is pressed for 5 minutes.

### 3.4 Establishing and exiting a connection

#### 3.4.1 Establishing a connection

Proceed as follows to establish a connection to a drive and application controller:

1. Aim the device at the infrared receiver of the drive and application controller with which you want to establish a connection.
2. Press the <Connect> key.

The device sends a general connection request to all drive and application controllers within reach. The "Link" LED flashes, and the device switches to numerical mode.

You can always abort process of establishing a connection by pressing the basic key <Connect> again.

3. All drive and application controllers within reach show their device address in the status display.
4. Enter the device address of the drive and application controller that you want to control via the keypad of the device. The device address consists of a maximum of 5 digits.

To enter the device address "042", for example, press keys <4> <2>.

5. To confirm the entered address, press the <←→> key.

The "Link" LED lights up, and the device sends commands to the selected drive and application controller. This is a point-to-point connection.

#### 3.4.2 Exiting the connection

To exit the connection with the drive and application controller, press the <Connect> key. The device sends a request for exiting the connection to the drive and application controller and changes to "ready for operation" status.

### 3.5 Sending commands

As soon as a point-to-point connection is established with the MOVIPRO®, the device cyclically sends information about the state of the application keys every 250 ms. If a key is pressed, the information is transferred immediately.

### 3.6 Status reports

The status of the device is displayed with the 4 LEDs.

LED	Status	Meaning
All	Lit	Self-test after power on.
On	Off	Device is switched off.
	Green light	Device is switched on.
Link	Off	The device does not send commands. No point-to-point connection with a MOVIPRO®.
	Flashing green	The device is waiting for a unit address to be entered.
	Green light	The device cyclically send commands. A point-to-point connection is established with a MOVIPRO®.
Num	Off	Symbol mode: The functions printed in black on the keys are interpreted.
	Red light	Numerical mode: The functions printed in red on the keys are interpreted.
LowBatt	Off	Batteries are fully charged.
	Red light	The charge state of the batteries is low.

## 4 Service

### 4.1 Error list

Error	Possible cause	Measure
The device cannot be switched on.	Batteries are empty.	<ul style="list-style-type: none"> <li>Charge the batteries.</li> </ul>
All LEDs flash briefly after switch-on, then the device switches off automatically.	An error was detected during the self-test.	<ul style="list-style-type: none"> <li>Contact SEW-EURODRIVE.</li> </ul>
The "Link" LED is lit, but the MOVIPRO® cannot be controlled.	An incorrect unit address was entered.	<ul style="list-style-type: none"> <li>Press the &lt;Connect&gt; key to switch the remote control to "ready for operation" mode.</li> <li>Re-establish the connection with the MOVIPRO®.</li> <li>Make sure that the device is aimed at the infrared receiver of the MOVIPRO® unit.</li> </ul>
	A communication error can occur while the connection with MOVIPRO® is being established.	
When entering a unit address, the device automatically switches to "ready for operation" state.	You have entered too many digits for the unit address.	<ul style="list-style-type: none"> <li>You can only enter a maximum of 5 digits.</li> <li>Re-establish the connection with the MOVIPRO®.</li> </ul>
While the "Link" LED is flashing, the <Num> key is not active.	Only numbers can be entered while the connection is being established. The numerical mode cannot be exited.	<ul style="list-style-type: none"> <li>Enter the unit address and establish a connection with a MOVIPRO®.</li> <li>You can abort the connection establishment by pressing the basic key &lt;Connect&gt; again.</li> </ul>
After confirming the unit address with the <Connect> key, the device switches in "ready for operation" state.	The entered unit address is confirmed with the <↵> key in numerical mode. Pressing the <Connect> key aborts the connection process.	<ul style="list-style-type: none"> <li>Press the &lt;Connect&gt; key to re-establish a connection.</li> <li>Enter the unit address of the MOVIPRO® unit with which the connection is to be established.</li> <li>Press the &lt;↵&gt; key to confirm your selection.</li> </ul>
The power supply unit is connected but the device is not charged.	<ul style="list-style-type: none"> <li>The power supply unit has not been connected correctly.</li> </ul>	<ul style="list-style-type: none"> <li>Check if the power supply unit has been connected correctly.</li> <li>Contact SEW-EURODRIVE.</li> </ul>
	<ul style="list-style-type: none"> <li>The power supply unit is defective.</li> </ul>	
	<ul style="list-style-type: none"> <li>Batteries are defective.</li> </ul>	

## 4.2 Storage



### NOTICE

Risk of damage due to defective batteries.

Extended storage can lead to a deep discharge of the batteries. Batteries can be damaged.

- Charge the batteries regularly once a month.

## 4.3 Waste disposal

Dispose of the product and all parts separately in accordance with their material structure and the national regulations. Put the product through a recycling process or contact a specialist waste disposal company. If possible, divide the product into the following categories:

- Iron, steel or cast iron
- Stainless steel
- Magnets
- Aluminum
- Copper
- Electronic parts
- Plastics

The following materials are hazardous to health and the environment. These materials must be collected and disposed of separately.

- Oil and grease

Collect used oil and grease separately according to type. Ensure that the used oil is not mixed with solvent. Dispose of used oil and grease correctly.

- Screens
- Capacitors
- Rechargeable batteries
- Batteries



### Waste disposal according to WEEE Directive 2012/19/EU

This product and its accessories may fall within the scope of the country-specific application of the WEEE Directive. Dispose of the product and its accessories according to the national regulations of your country.

For further information, contact the responsible SEW-EURODRIVE branch or an authorized partner of SEW-EURODRIVE.



### Waste disposal according to the Battery Directive 2006/66/EC

This product contains batteries or accumulators. Dispose this product and the batteries or accumulators separately from the municipal waste according to the national regulations.



## 5 Technical data

Keypad	
Ambient temperature	+5 °C to +40 °C
Storage temperature	+5 °C to +40 °C
Degree of protection	IP45
Mass	0.20 kg (0.55 lb)
Dimensions W × H × D	83 mm × 160 mm × 50 mm
Range (with a direct line of sight to the receiver)	approx. 12 m (39 ft) (depending on ambient conditions such as direct sunlight or strong heat sources)
Transmission angle	± 10°
Operating time	Approx. 6 h (depends on age of product)
Charging duration	Approx. 4 h
Power supply connection	USB mini B socket 5 V min. 500 mA

## 6 MAXOLUTION® Competence Center

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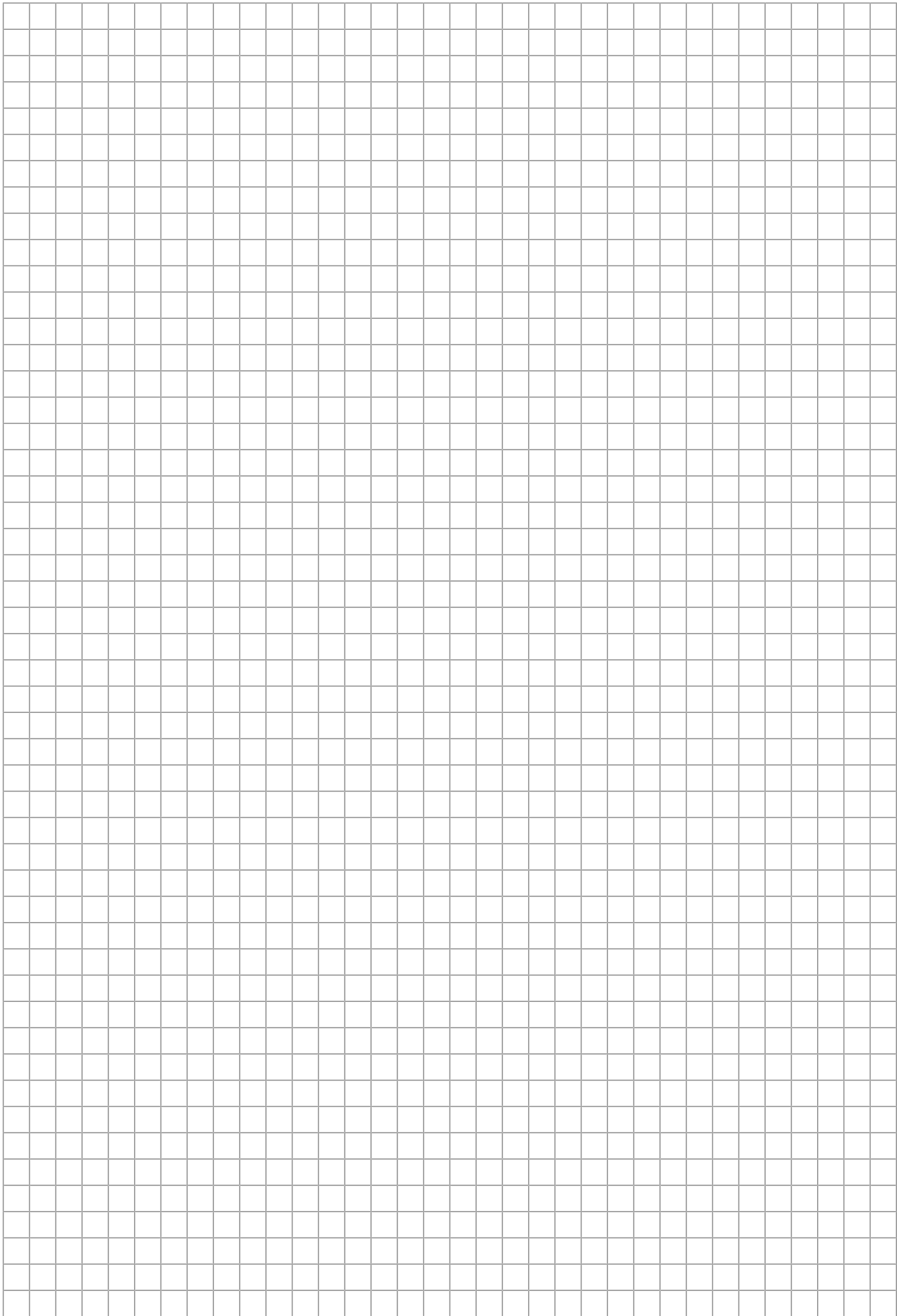
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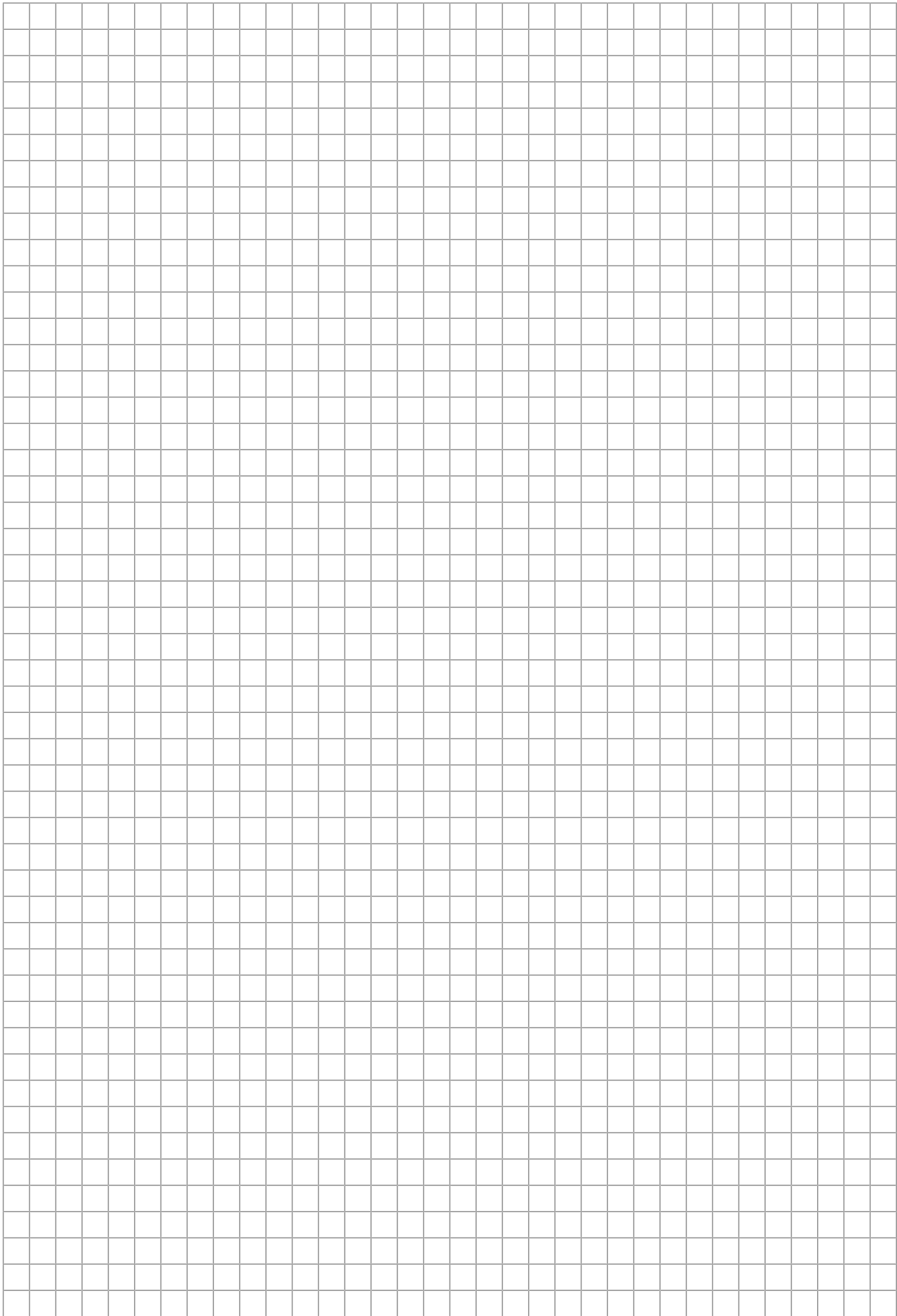
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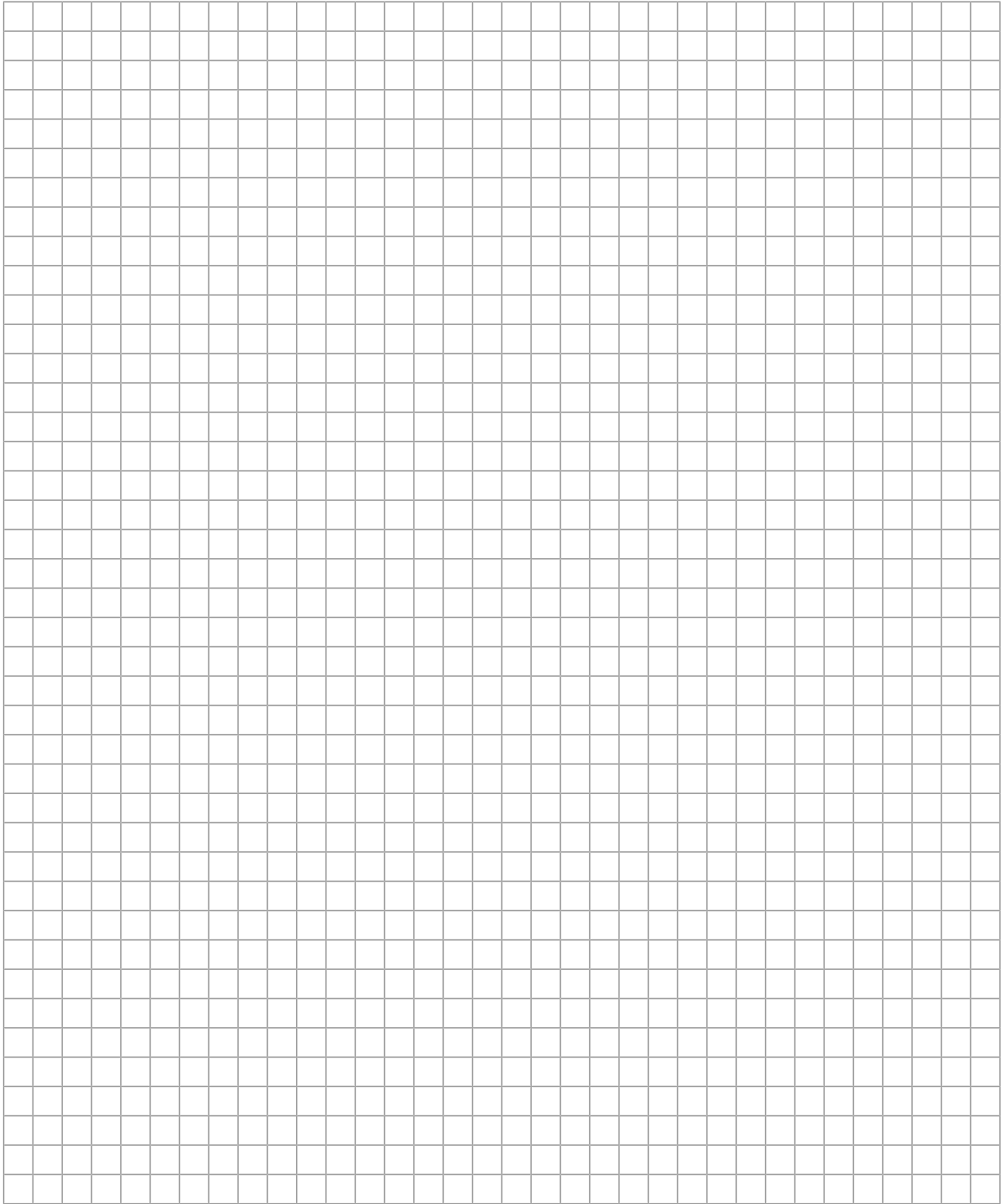
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Driving the world

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