



Assembly and Operating Manual

SWM-B -V

Storage system with locking

Translation of Original Operating
Manual

Imprint

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Technical changes:

We reserve the right to make alterations for the purpose of technical improvement.

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Dear Customer,

Thank you for trusting our products and our family-owned company, the leading technology supplier of robots and production machines.

Our team is always available to answer any questions on this product and other solutions. Ask us questions and challenge us. We will find a solution!

Best regards,

Your SCHUNK team

Customer Management

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Please read the operating manual in full and keep it close to the product.

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1 General

1.1 About this manual

This manual contains important information for a safe and appropriate use of the product.

This manual is an integral part of the product and must be kept accessible for the personnel at all times.

Before starting work, the personnel must have read and understood this operating manual. Prerequisite for safe working is the observance of all safety instructions in this manual.

In addition to these instructions, the documents listed under ► 1.1.1 [4] are applicable.

NOTE: The illustrations in this manual are intended to provide a basic understanding and may deviate from the actual version.

1.1.1 Applicable documents

- General terms of business *
- Catalog data sheet of the purchased product *

The documents labeled with an asterisk (*) can be downloaded from schunk.com/downloads.

1.1.2 Sizes

This operating manual applies to the following sizes:

- SWM-B 050-V
- SWM-B 085-V

1.2 Warranty

If the product is used as intended, the warranty is valid for 24 months from the ex-works delivery date under the following conditions:

- Observe the ambient conditions and operating conditions

Parts touching the workpiece and wear parts are not included in the warranty.

1.3 Scope of delivery

The scope of delivery includes

- Storage system with locking SWM-B -V in the ordered size
- Assembly and Operating Manual
- Accessory pack

Content of the accessory pack:

- SWM-B 050-V: 2x Centering sleeve \emptyset 8 x 5.35
- SWM-B 085-V: 2x Centering sleeve \emptyset 12 x 6.65

1.4 Accessories

The following accessories are available for the product, which must be ordered separately:

- Adapter plates for quick-change adapter SWA
- Attachment kit for locking monitoring (including sensor IN 30-K), Ident number: 1523876
- Attachment kit for tool presence monitoring (including sensor IN 30-K), Ident number: 1523878
- Mounting plate for SWM-B -V, Ident number: 1547060

2 Basic safety notes

2.1 Appropriate use

- The tool storage system is used for the safe storage of robot tools to enable an automated change of tools. For this purpose, the robot is equipped with a locking tool change system (e.g. SWS).

With active storage, the tool (within the scope of the technical data for the storage system) is locked in all orientations by a movable, spring-loaded and self-locking clamping slide.

- The product may only be used within the scope of its technical data, ▶ 3 [8].
- The product is intended for industrial and industry-oriented use.
- The product is intended for installation in a machine/ automated system. The applicable guidelines for the machine/ automated system must be observed and complied with.
- Appropriate use of the product includes compliance with all instructions in this manual.

2.2 Personal protective equipment

- When working on and with the product, observe the occupational health and safety regulations and wear the required personal protective equipment.
- Wear protective gloves to guard against sharp edges and corners or rough surfaces.

2.3 Constructional changes

- Constructional changes may only be done with the permission of SCHUNK.

2.4 Notes for assembly

- Before starting assembly, secure the danger zone with suitable protective measures.

2.5 Notes for operation

- Observe safety distances.
- Never deactivate safety installations.
- If the energy supply is connected, do not move any parts by hand.
- Observe the valid country-specific safety and accident prevention regulations.
- Check the storage process after the robot crashes.

Possible electrostatic energy

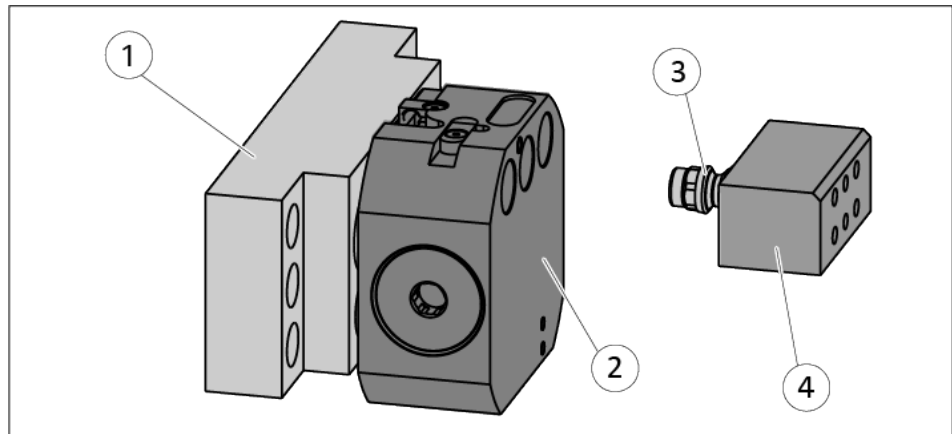
Components or assembly groups may become electrostatically charged. When the electrostatic charge is touched, the discharge may trigger a shock reaction leading to injuries.

- The operator must ensure that all components and assembly groups are included in the local potential equalisation in accordance with the applicable regulations.
- While paying attention to the actual conditions of the working environment, the potential equalisation must be implemented by a specialist electrician according to the applicable regulations.
- The effectiveness of the potential equalisation must be verified by executing regular safety measurements.

3 Technical data

| Size | 050 | 085 |
|----------------------------------|---|---|
| Actuating pressure, turbo [bar] | 6 | 6 |
| Unlocking pressure [bar] | 6 | 6 |
| Pressure medium | Compressed air, compressed air quality according to ISO 8573-1:2010 [7:4:4] | Compressed air, compressed air quality according to ISO 8573-1:2010 [7:4:4] |
| Operating temperature [°C] | 5 | 5 |
| Min. | 60 | 60 |
| Max. | | |
| Maximum permissible payload [kg] | 16 | 100 |
| Maximum permissible moment | 18 | 100 |
| Mx [Nm] | 18 | 100 |
| My [Nm] | 18 | 100 |
| Mz [Nm] | | |

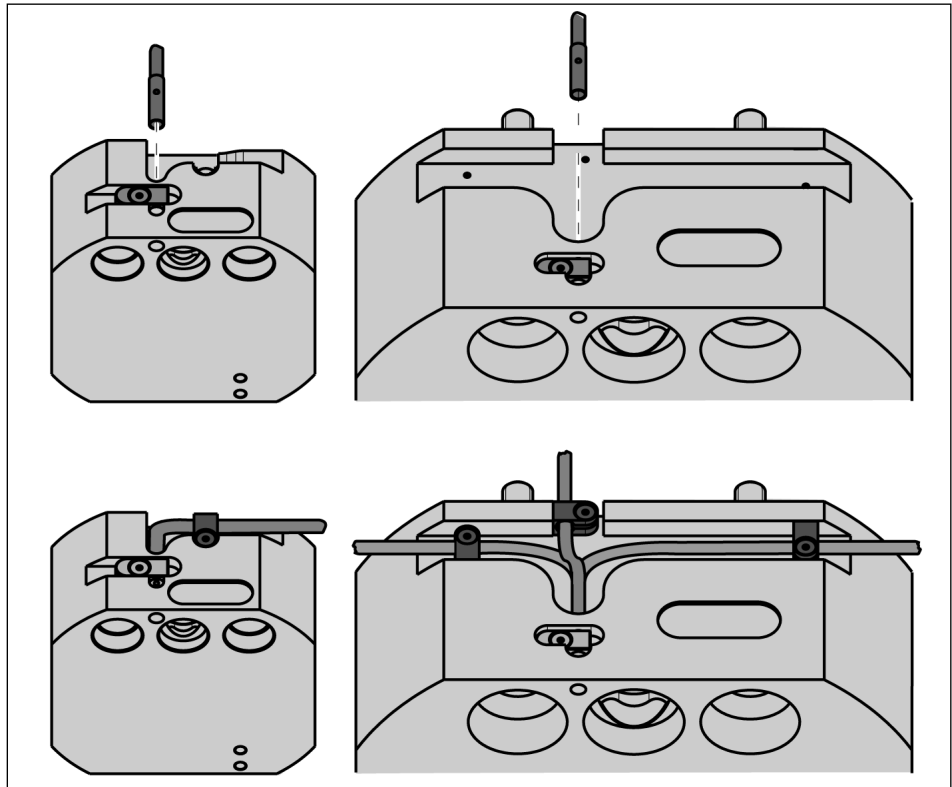
4 Structure



- 1 Mounting plate (only SWM-B 050-V, optional)
- 2 Storage module
- 3 Storage pins
- 4 Adapter plate A-SWA (in the illustration: A-SWA-007)

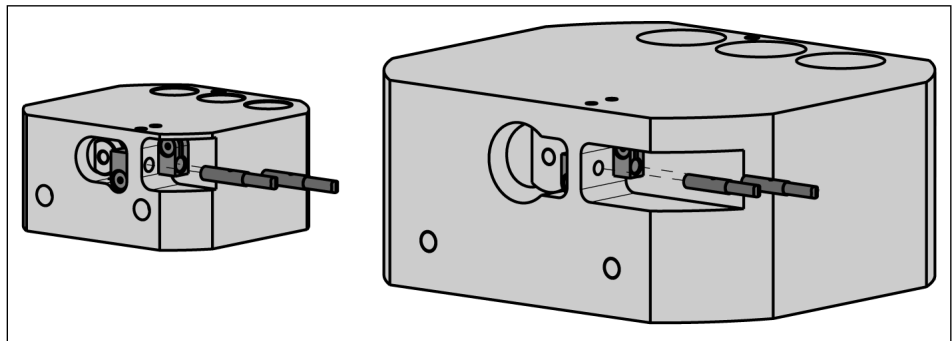
5 Assembly and settings

5.1 Mounting the sensors (optional)



Sensor for monitoring tool presence

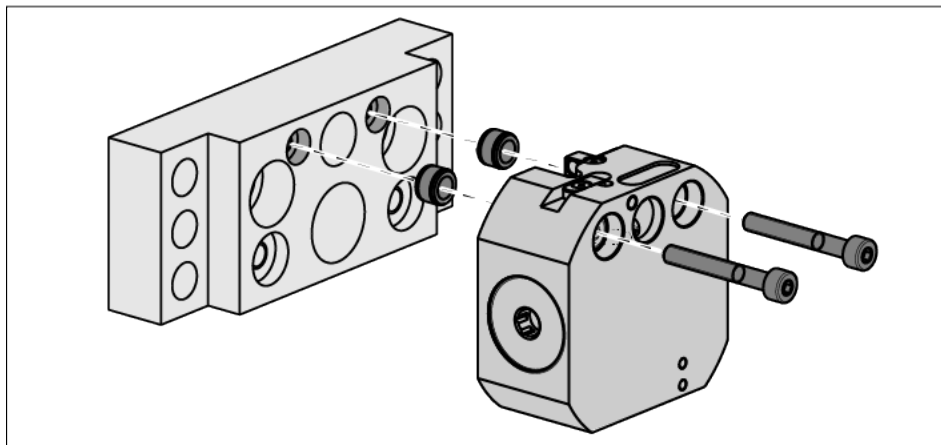
1 bracket for mounting the sensor and 1 bracket for the cable routing are included in the scope of delivery of the sensor.



Sensors for lock monitoring

Brackets for mounting the sensors are included in the scope of delivery of the sensors.

5.2 Mounting the storage module on the SCHUNK mounting plate

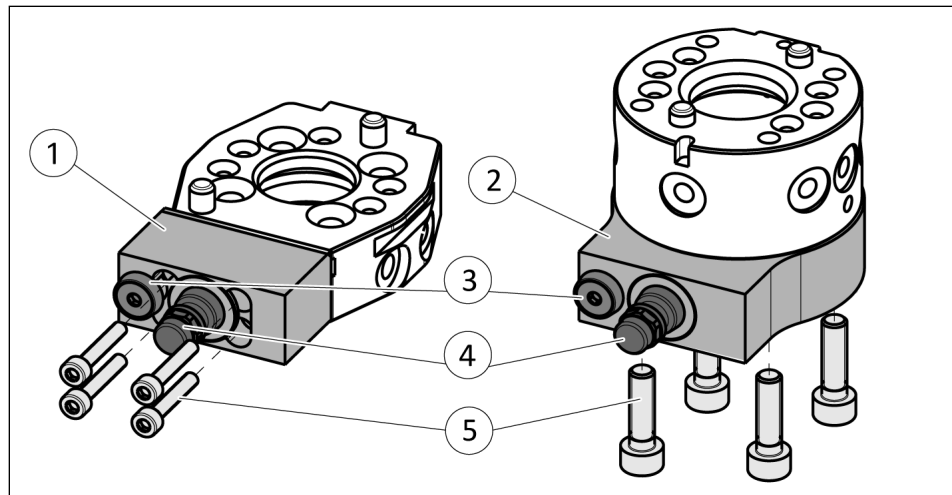


| Size | 050 | 085 |
|--|------------|-------------|
| Mounting the mounting plate | | |
| Mounting screw | M8 | M8 |
| Mounting screw according to standard | ISO 4762 | ISO 4762 |
| Mounting screw strength class | 8.8 | 8.8 |
| Max. tightening torque [Nm] | 20 | 20 |
| Mounting the storage module on the mounting plate | | |
| Centering sleeve | ∅ 8 x 5.35 | ∅ 12 x 6.65 |
| Mounting screw (2x) | M4 x 30 | M6 x 40 |
| Mounting screw according to standard | DIN 6912 | ISO 4762 |
| Mounting screw strength class | 8.8 | 12.9 |
| Max. tightening torque [Nm] | 3 | 15 |

5.3 Mounting the storage module without the SCHUNK mounting plate

| Size | 050 | 085 |
|---|------------|-------------|
| Centering sleeve | ∅ 8 x 5.35 | ∅ 12 x 5.65 |
| Mounting the storage module from the front | | |
| Mounting screws | M4 | M6 |
| Mounting screw according to standard | DIN 6912 | ISO 4762 |
| Mounting screw strength class | 8.8 | 12.9 |
| Max. tightening torque [Nm] | 3 | 15 |
| Mounting the storage module from the rear | | |
| Mounting screws | M5 | M8 |
| Mounting screw strength class | 8.8 | 8.8 |
| Max. tightening torque [Nm] | 5.5 | 20 |

5.4 Mounting the adapter plate on the change system

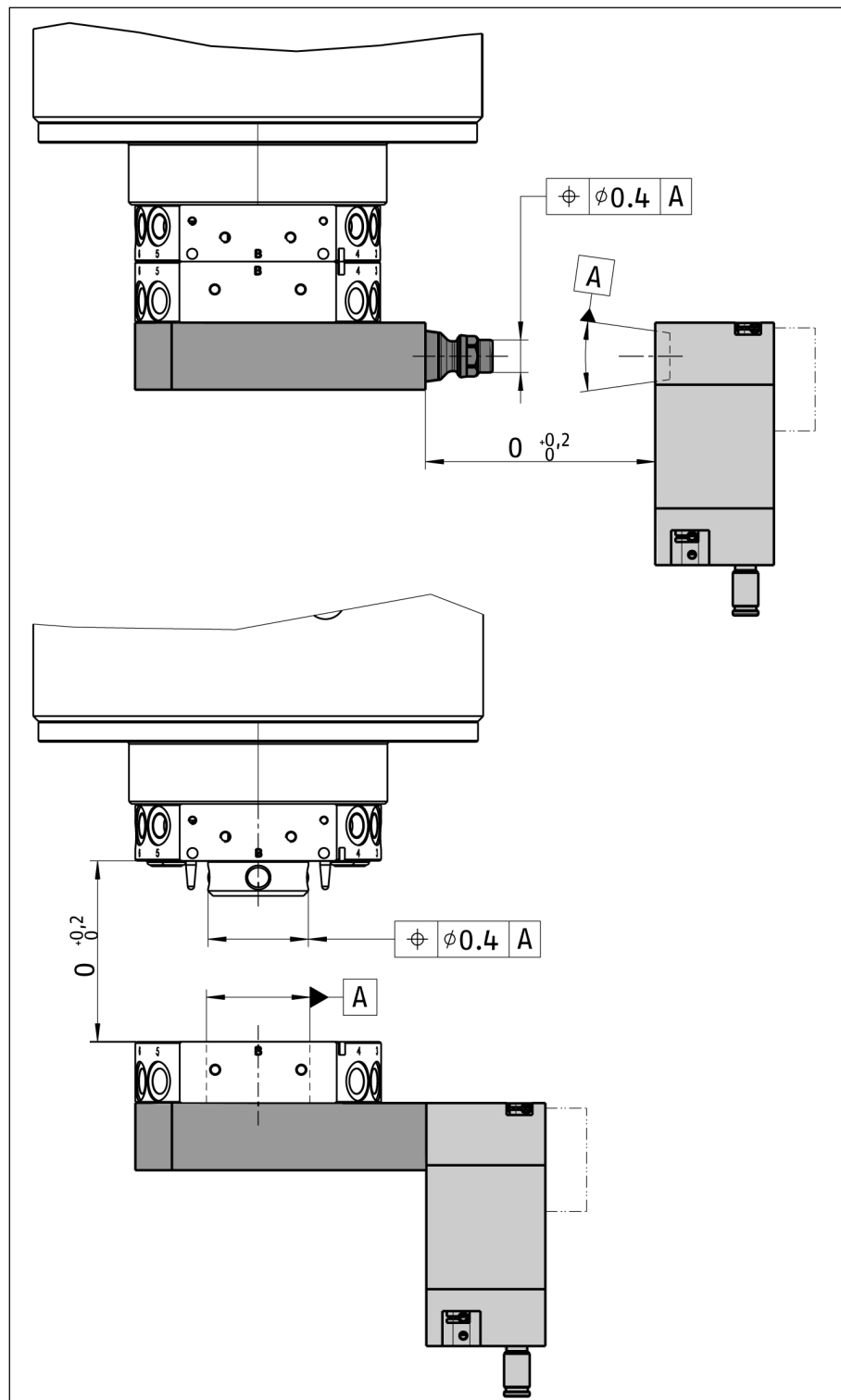


| | Size | 050 | 085 |
|---|--|-----|-----|
| 1 | Side plate | | |
| 2 | Intermediate plate | | |
| 3 | Torque pin Max. tightening torque [Nm] | 3.4 | 12 |
| 4 | Storage pins Max. tightening torque [Nm] | 13 | 50 |
| 5 | Mounting screws of the strength class | 8.8 | 8.8 |

5.5 Pneumatic connection

| | |
|---|----|
| Thread for pneumatic connection "Open" | M5 |
| Thread for pneumatic connection "Turbo" | M5 |

5.6 Teaching procedure



The storage pin is inserted linearly into the storage module. The offset tolerances shown in the illustration must be observed.

6 Translation of the original declaration of incorporation

in terms of the Directive 2006/42/EG, Annex II, Part 1 Section B.

Manufacturer/
Distributor SCHUNK SE & Co. KG
Spanntechnik | Greiftechnik | Automatisierungstechnik
Bahnhofstr. 106 – 134
D-74348 Lauffen/Neckar

We hereby declare that the partly completed machine described below

Product designation: Storage system with locking / SWM-B -V /pneumatic
ID number 1442568, 1442590

meets the following basic occupational health and safety of the Machinery Directive 2006/42/EC:

No. 1.1.1, No. 1.1.2, No. 1.1.3, No. 1.1.5, No. 1.3.2, No. 1.5.3, No. 1.5.4, No. 1.5.6, No. 1.5.8, No. 1.5.10, No. 1.5.11, No. 1.5.13

The partly completed machinery may not be put into operation until it has been confirmed that the machine into which the partly completed machinery is to be installed complies with the provisions of the Machinery Directive (2006/42/EC). The declaration shall be rendered invalid if modifications are made to the product.

Applied harmonized standards, especially:

EN ISO 12100:2010 Safety of machinery – General principles for design –
Risk assessment and risk reduction

The special technical documentation according to Annex VII, Part B, belonging to the partly completed machine, has been created.

Person authorized to compile the technical documentation:
Stefanie Walter, Address: see manufacturer's address

Signature: see original declaration

Lauffen/Neckar, January 2025

Dr.-Ing. Manuel Baumeister,
Head of Systems Engineering,
Technology & Innovation

7 Information on the RoHS Directive, REACH Regulation and Substances of Very High Concern (SVHC)

RoHS Directive

SCHUNK products are classified as "large-scale stationary installations" or as "large-scale stationary industrial tools" within the meaning of Directive 2011/65/EU and its extension 2015/863/EU "on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)", or fulfill their intended function only as part of one. Therefore products from SCHUNK do not fall within the scope of the directive at this time.

REACH Regulation

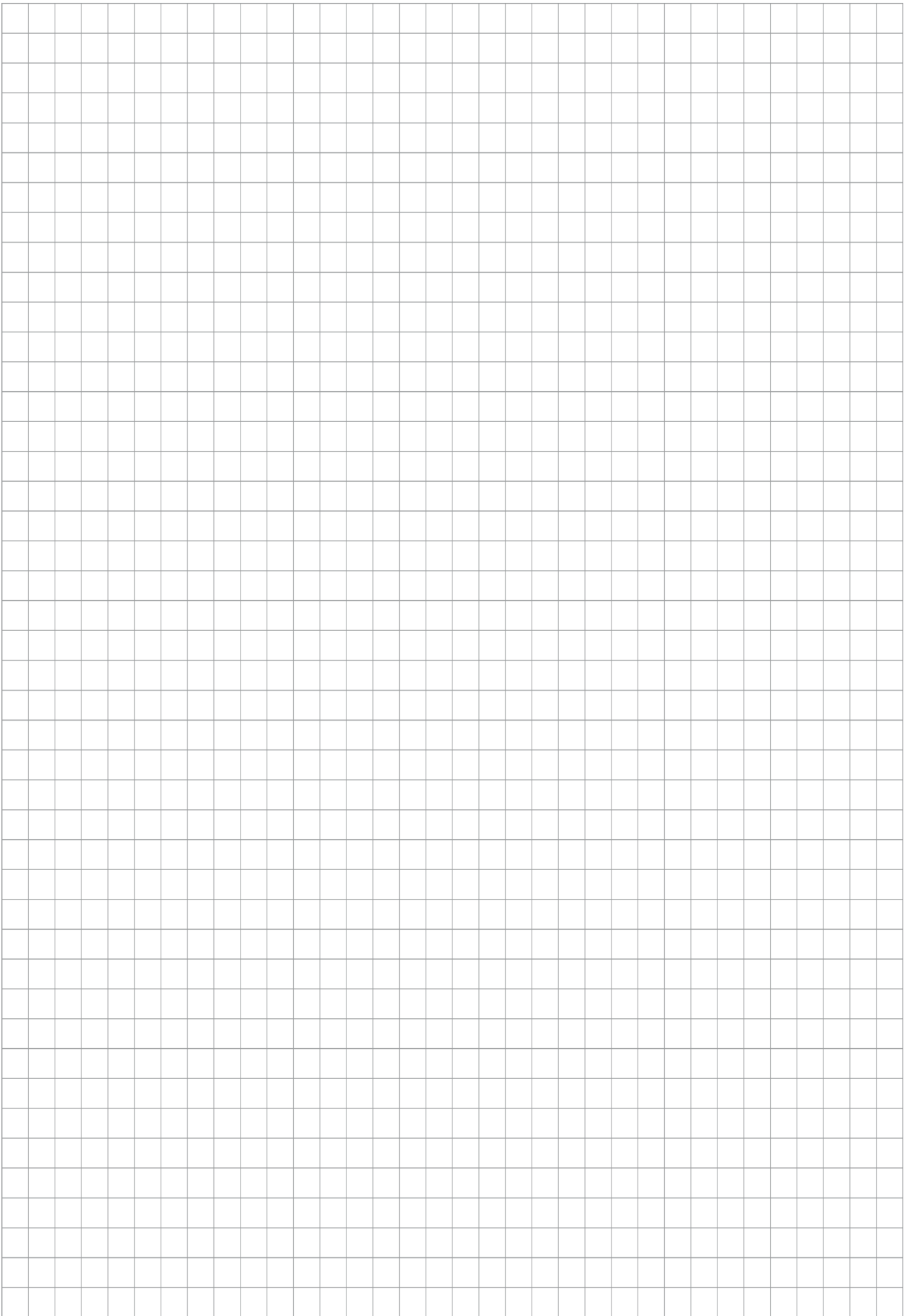
Products from SCHUNK fully comply with the regulations of Regulation (EC) No. 1907/2006 "concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)" and its amendment 2022/477. SCHUNK attaches great importance to completely avoiding chemicals of concern to humans and the environment wherever possible.

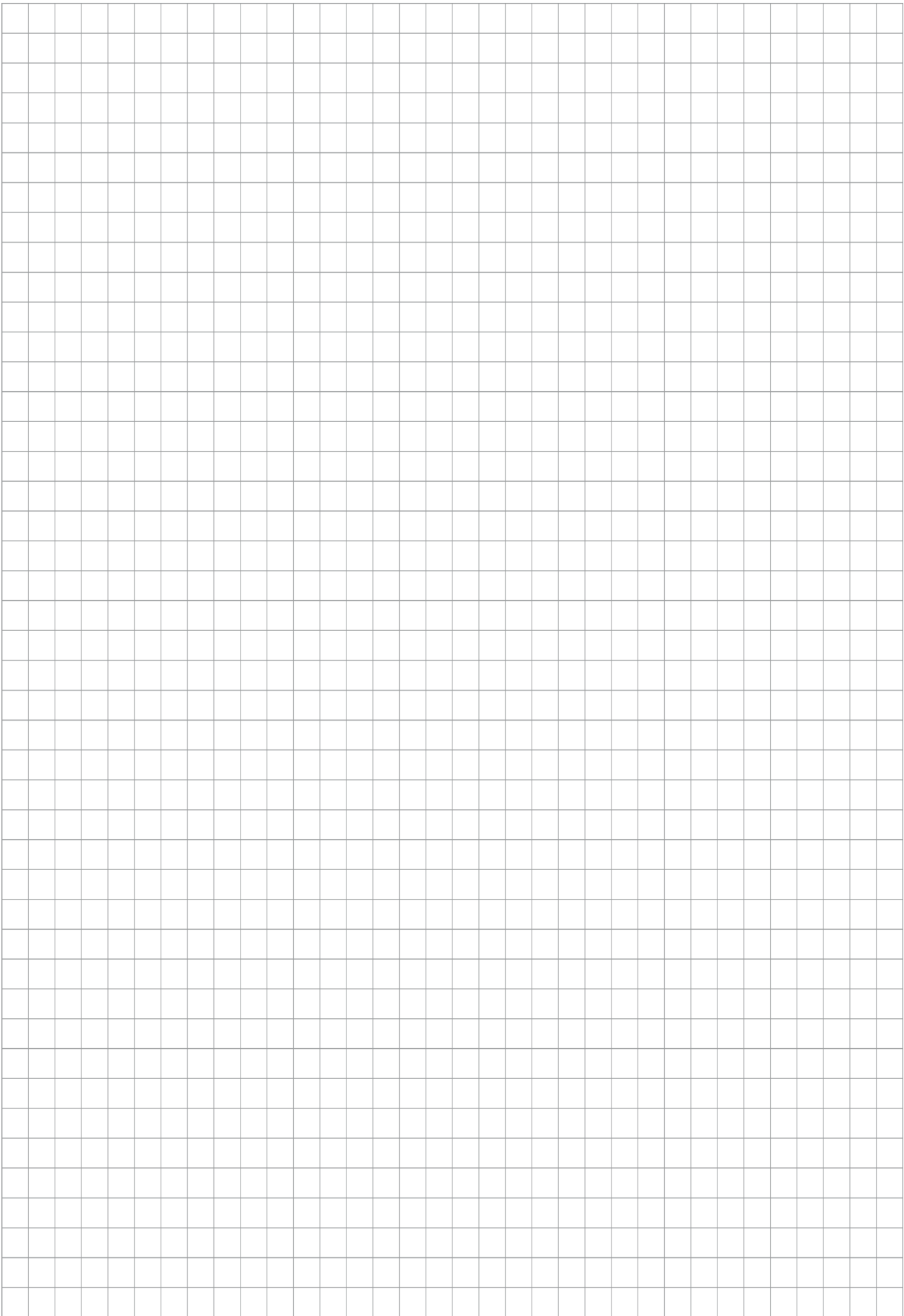
Only in rare exceptional cases do SCHUNK products contain SVHC substances on the candidate list with a mass content above 0.1%. In accordance with Article. 33 (1) of Regulation (EC) No. 1907/2006, SCHUNK complies with its duty to "communicate information on substances in articles" and lists the components concerned and the substances used in an overview that can be viewed at schunk.com/SVHC.

Signature: see original declaration

Lauffen/Neckar, January 2025

Dr.-Ing. Manuel Baumeister,
Head of Systems Engineering,
Technology & Innovation







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Spanntechnik | Greiftechnik | Automatisierungstechnik

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