



Assembly and Operating Manual

LM

Linear module

Translation of Original Operating
Manual

Hand in hand for tomorrow

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

Tel. +49-7133-103-2503

Fax +49-7133-103-2189

cmg@de.schunk.com



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 ▶ 1.1.3 [6] 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 Presentation of Warning Labels

To make risks clear, the following signal words and symbols are used for safety notes.



⚠ DANGER

Dangers for persons!

Non-observance will inevitably cause irreversible injury or death.



⚠ WARNING

Dangers for persons!

Non-observance can lead to irreversible injury and even death.



⚠ CAUTION

Dangers for persons!

Non-observance can cause minor injuries.

CAUTION

Material damage!

Information about avoiding material damage.

1.1.2 Definition of Terms

The term "product" replaces the product name on the title page in this manual.

1.1.3 Applicable documents

- General terms of business *
- Catalog data sheet of the purchased product *
- Assembly and operating manuals of the accessories *

Die mit Stern (*) gekennzeichneten Unterlagen können unter [schunk.com/downloads](https://www.schunk.com/downloads) heruntergeladen werden.

1.1.4 Sizes

This operating manual applies to the following sizes:

- LM 25
- LM 50
- LM 100
- LM 200
- LM 300

1.1.5 Variants

This operating manual applies to the following variations:

- LM, intermediate stop ZZA on the piston side
- LM, intermediate stop ZZA on the piston rod side

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 specified maintenance and lubrication intervals
- 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

- Linear module LM in the version ordered
- Shock absorber
- Assembly and Operating Manual

1.4 Accessories

The following accessories are available for the module:

- Adapter plate
- Sensors
- Intermediate stops
- Rod lock
- Stop screws

1.4.1 Sensors

Size	Designation	Type
LM 25 – 50	Inductive proximity switches	IN
LM 100–300	Inductive proximity switches	NI

Exact type designation of the compatible sensors see catalog.


1.4.2 Intermediate stops ZZA


Intermediate stops are additional modules for linear actuators. Two designs are available for all LM linear actuators:

- Design 1 : mounting on pi ston side of LM
- Design 2 : mounting on rod side of LM

The possible intermediate positions can be approached from each of 2 sides.


The length can be ordered in gradations of 1mm.

Exact specifications and ordering data  catalog . The most recent version applies.

Further information: ▶ [6.1](#) [ 23]

1.4.3 Intermediate stops LMZAW

LMZAW Intermediate stops are additional modules for linear actuators of series LM 100, LM 200 and LM 300. They can be mounted on either the piston side or rod side of the linear actuator.

Exact specifications and ordering data  catalog . The most recent version applies.

Further information:▶ [6.2](#) [ 24]

1.4.4 Rod lock

Die Absenksperre verhindert das Abfallen der Masse bei Energieverlust wie z.B. in Notaus-Situationen. Die Absenksperre kann auch nachträglich angebaut werden, jedoch verringert sich dadurch der Nutzhub.

CAUTION

Damage to the rod lock due to incorrect actuation / overload!

- The rod lock may only be triggered and unlocked when the product has been shut down.
- See the data on static holding force in the catalog. The forces occurring in a clamped condition must not exceed the holding force.
- In the event of a dynamic load or overload (e.g. drop in pressure during movement), the clamping cartridge must be checked and replaced if necessary.



⚠ WARNING

The rod lock is not a safety component for personal protection in the sense of the Machine Directive.

Genaue Spezifikationen sowie die Bestelldaten → Katalog . Es gilt jeweils die letzte Fassung.

Further information: ▶ 6.3 [📄 27]

1.4.5 Stop screw

CAUTION

Risk of mechanical damage

Use the stop screw-LMAS ... only for short strokes, slow lifting speed and low kinetic energy!

Designation	ID number
LMAS 25	0314156
LMAS 50	0314158
LMAS 100	0314160
LMAS 200	0314162

2 Basic safety notes

2.1 Intended use

The product is exclusively designed for linear movement of useful loads into any desired position.

- The product may only be used within the scope of its technical data, ▶ 3 [16].
- When implementing and operating components in safety-related parts of the control systems, the basic safety principles in accordance with DIN EN ISO 13849-2 apply. The proven safety principles in accordance with DIN EN ISO 13849-2 also apply to categories 1, 2, 3 and 4.
- 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.
- The product is intended for industrial and industry-oriented use.
- Appropriate use of the product includes compliance with all instructions in this manual.

2.2 Not intended use

It is not intended use if the product is used, for example, as a pressing tool, stamping tool, lifting gear, guide for tools, cutting tool, clamping device or a drilling tool.

- Any utilization that exceeds or differs from the appropriate use is regarded as misuse.

2.3 Constructional changes

Implementation of structural changes

Modifications, changes or reworking, e.g. additional threads, holes, or safety devices, can damage the product or impair its functionality or safety.

- Structural changes should only be made with the written approval of SCHUNK.

2.4 Spare parts

Use of unauthorized spare parts

Using unauthorized spare parts can endanger personnel and damage the product or cause it to malfunction.

- Use only original spare parts or spares authorized by SCHUNK.

2.5 Environmental and operating conditions

- Make sure that the product is used only in the context of its defined application parameters, ▶ 3 [16].
- Make sure that the product is not exposed to excessive vibrations and/or strokes.
- Make sure that the environment is free from splash water and vapors as well as from abrasion or processing dust. Exceptions are products that are designed especially for contaminated environments.
- Make sure that the environment is clean and the ambient temperature corresponds to the specifications per the catalog.
- Ensure that no strong magnetic fields impair the function of the product.

Contact your SCHUNK partner if the product is to be used in strong magnetic fields.

2.6 Personnel qualification

Inadequate qualifications of the personnel

If the personnel working with the product is not sufficiently qualified, the result may be serious injuries and significant property damage.

- All work may only be performed by qualified personnel.
- Before working with the product, the personnel must have read and understood the complete assembly and operating manual.
- Observe the national safety regulations and rules and general safety instructions.

The following personal qualifications are necessary for the various activities related to the product:

Trained electrician

Due to their technical training, knowledge and experience, trained electricians are able to work on electrical systems, recognize and avoid possible dangers and know the relevant standards and regulations.

Qualified personnel	Due to its technical training, knowledge and experience, qualified personnel is able to perform the delegated tasks, recognize and avoid possible dangers and knows the relevant standards and regulations.
Instructed person	Instructed persons were instructed by the operator about the delegated tasks and possible dangers due to improper behaviour.
Service personnel of the manufacturer	Due to its technical training, knowledge and experience, service personnel of the manufacturer is able to perform the delegated tasks and to recognize and avoid possible dangers.

2.7 Personal protective equipment

Use of personal protective equipment

Personal protective equipment serves to protect staff against danger which may interfere with their health or safety at work.

- When working on and with the product, observe the occupational health and safety regulations and wear the required personal protective equipment.
- Observe the valid safety and accident prevention regulations.
- Wear protective gloves to guard against sharp edges and corners or rough surfaces.
- Wear heat-resistant protective gloves when handling hot surfaces.
- Wear protective gloves and safety goggles when handling hazardous substances.
- Wear close-fitting protective clothing and also wear long hair in a hairnet when dealing with moving components.

2.8 Notes on safe operation

Incorrect handling of the personnel

Incorrect handling and assembly may impair the product's safety and cause serious injuries and considerable material damage.

- Avoid any manner of working that may interfere with the function and operational safety of the product.
- Use the product as intended.
- Observe the safety notes and assembly instructions.
- Do not expose the product to any corrosive media. This does not apply to products that are designed for special environments.
- Eliminate any malfunction immediately.
- Observe the care and maintenance instructions.

- Observe the current safety, accident prevention and environmental protection regulations regarding the product's application field.

2.9 Transport

Handling during transport

Incorrect handling during transport may impair the product's safety and cause serious injuries and considerable material damage.

- When handling heavy weights, use lifting equipment to lift the product and transport it by appropriate means.
- Secure the product against falling during transportation and handling.
- Stand clear of suspended loads.

2.10 Malfunctions

Behavior in case of malfunctions

- Immediately remove the product from operation and report the malfunction to the responsible departments/persons.
- Order appropriately trained personnel to rectify the malfunction.
- Do not recommission the product until the malfunction has been rectified.
- Test the product after a malfunction to establish whether it still functions properly and no increased risks have arisen.

2.11 Disposal

Handling of disposal

The incorrect handling of disposal may impair the product's safety and cause serious injuries as well as considerable material and environmental harm.

- Follow local regulations on dispatching product components for recycling or proper disposal.

2.12 Fundamental dangers

General

- Observe safety distances.
- Never deactivate safety devices.
- Before commissioning the product, take appropriate protective measures to secure the danger zone.

- Disconnect power sources before installation, modification, maintenance, or calibration. Ensure that no residual energy remains in the system.
- If the energy supply is connected, do not move any parts by hand.
- Do not reach into the open mechanism or movement area of the product during operation.

2.12.1 Protection during handling and assembly

Incorrect handling and assembly

Incorrect handling and assembly may impair the product's safety and cause serious injuries and considerable material damage.

- Have all work carried out by appropriately qualified personnel.
- For all work, secure the product against accidental operation.
- Observe the relevant accident prevention rules.
- Use suitable assembly and transport equipment and take precautions to prevent jamming and crushing.

Incorrect lifting of loads

Falling loads may cause serious injuries and even death.

- Stand clear of suspended loads and do not step into their swiveling range.
- Never move loads without supervision.
- Do not leave suspended loads unattended.

2.12.2 Protection during commissioning and operation

Falling or violently ejected components

Falling and violently ejected components can cause serious injuries and even death.

- Take appropriate protective measures to secure the danger zone.
- Never step into the danger zone during operation.

2.12.3 Protection against dangerous movements

Unexpected movements

Residual energy in the system may cause serious injuries while working with the product.

- Switch off the energy supply, ensure that no residual energy remains and secure against inadvertent reactivation.
- Never rely solely on the response of the monitoring function to avert danger. Until the installed monitors become effective, it must be assumed that the drive movement is faulty, with its

action being dependent on the control unit and the current operating condition of the drive. Perform maintenance work, modifications, and attachments outside the danger zone defined by the movement range.

- To avoid accidents and/or material damage, human access to the movement range of the machine must be restricted. Limit/prevent accidental access for people in this area due through technical safety measures. The protective cover and protective fence must be rigid enough to withstand the maximum possible movement energy. EMERGENCY STOP switches must be easily and quickly accessible. Before starting up the machine or automated system, check that the EMERGENCY STOP system is working. Prevent operation of the machine if this protective equipment does not function correctly.

2.12.4 Protection against electric shock

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.

2.13 Information about special dangers



⚠ WARNING

Risk of injury caused by crushing and impacts when moving the unit or attachments!

Risk of injury due to attachments breaking or becoming loose!



⚠ WARNING

Risk of injury from objects falling and being ejected!

Falling and ejected objects during operation can lead to serious injury or death.

- Take appropriate protective measures to secure the danger zone.



⚠ WARNING

Risk of injury due to unexpected movements!

If the power supply is switched on or residual energy remains in the system, components can move unexpectedly and cause serious injuries.

- Before starting any work on the product: Switch off the power supply and secure against restarting.
- Make sure, that no residual energy remains in the system.



⚠ WARNING

Risk of injury when the machine/system moves unexpectedly in the case of a loss of power supply or control system malfunction.

Use of a holding brake on the linear axis.

3 Technical data

Designation	LM				
	25	50	100	200	300
Ambient temperature [°C]	5 – 60				
Fluid consumption / 10 mm stroke	1.13	2.0	4.9	8.04	12.57
Protection class IP	40				
Noise emission [dB(A)]	70				
Pressure medium	Compressed air, compressed air quality according to ISO 8573-1:2010 [7:4:4]				
Min. pressure [bar]	3				
Max. pressure [bar]	8				
Nominal operating pressure [bar]	6				

More technical data is included in the catalog data sheet. Whichever is the latest version.

4 Assembly

4.1 Connections

4.1.1 Mechanical connection

Check the evenness of the bolting surface The values relate to the entire bolting surface.

Permissible unevenness [mm]

< 0.02

Tab.: Requirements for levelness of the bolting surface

Mounting

The linear module may be selectively attached to the body or the carriage. Similarly, the structure may be optionally attached to the end carriage or the base body.

The catalog shows the mounting of the linear module to the base body and the securing of the structure of the face plates.

4.1.2 Pneumatic connection

CAUTION

Possible damage to the linear module!

If the unit moves too hard into the end position, the linear module may be damaged.

- A linear movement must always be free of impact and bounce.
- For this purpose, carry out sufficient throttling and damping, ▶ 4.4 [21].
- Observe the specifications in the catalog data sheet.

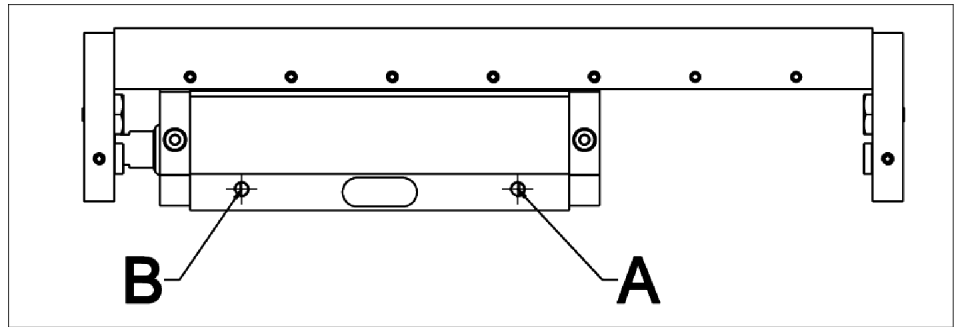
NOTE

- Use connection cables with the same or larger cross section as the connection threads.
- Observe the requirements for the air supply ▶ 3 [16].

CAUTION

Pressure medium:

Before operating with oil-free air, the unit may never have been operated with oiled air (washout of the factory-provided lubrication).



Designation	LM				
	25	50	100	200	300
Hose connection					
A = Lineareinheit ausfahren	M5	M5	M5	G1/8"	G1/8"
B =Lineareinheit einfahren					

Tab.: Thread diameter of the air connections

4.2 End position sets

CAUTION

Risk of damage to the product!

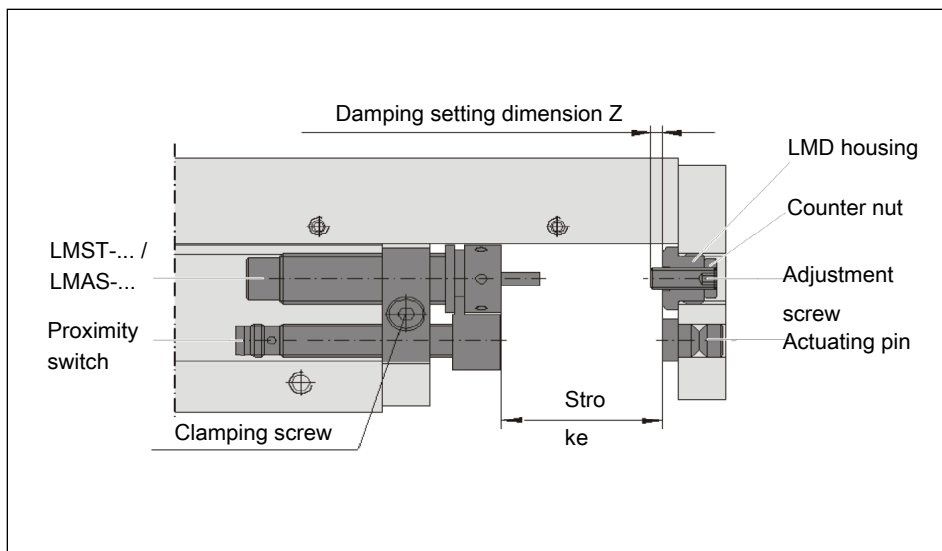
Use stop screw LMAS-... only for short strokes, slow stroke speeds and low kinetic energy!

- Use shock absorber stops (LMST-...) as standard.

The following components are available for stroke limitation, damping and monitoring of end positions:

- Stop screw LMAS-... (Optional instead of LMST-...)
- Shock absorber stop LMST-... (included in the scope of delivery)
- Damping adjustment LMD-... (included in the scope of delivery)
- Sensors Sensors

Installation



Linear module end positions set – installation variant 1

Stroke adjustment

In order to adjust the linear module stroke, after undoing the clamping screw, the shock absorber stop LMST-... / stop screw LMAS-... and the proximity switch LMNS -... can be adjusted together via a fine thread (not with LM 25).

The end position monitoring does not have to be readjusted. Retighten the clamping screw after setting the desired stroke.

Linear module	Max. tightening torque [Nm] with strength class 8.8
LM 25*	1.5
LM 50*	1.5
LM 100	3.0
LM 200	5.9
LM 300	5.9

*only for damper clamping, sensor clamping separate

The catalog data sheet contains the data on the maximum end position adjustment possible, ▶ 1.1.3 [6].

To adapt the damping characteristic to the kinetic energy occurring during operation, the damping stroke and therefore the characteristic can be adjusted.

1. Release the lock of the setscrew.
2. Set the damping adjustment set screw to the desired dimension. Caution, observe the setting range!
3. Secure the setscrew again.

Damping adjustment The set screw of the LMD housing can be used to adjust the stroke of the shock absorber and therefore the absorption characteristic to the kinetic energy occurring during operation. To do this, loosen the counter nut and adjust the setting dimension by turning the set screw.

The catalog data sheet contains the values for the stroke adjustment range and the dampening stroke adjustment range, ▶ 1.1.3 [6].

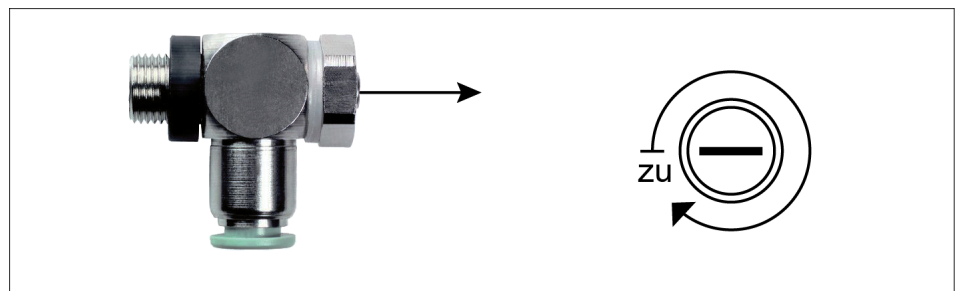
4.3 Setting the speed

CAUTION

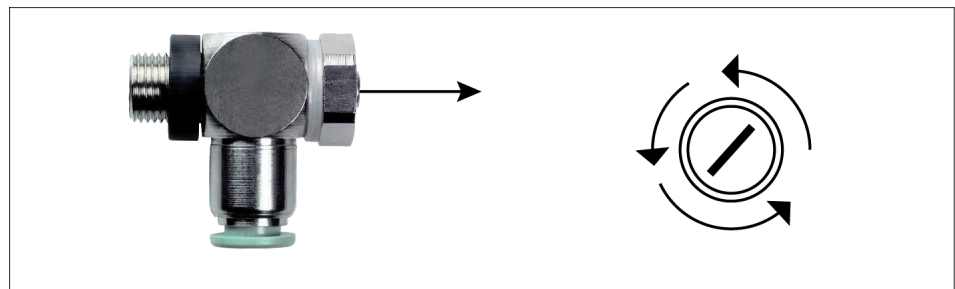
Material damage due to erroneous settings!

If the end position is approached too hard, the product may be damaged.

- Adjust exhaust throttle valve and shock absorber so that the movement is braked smoothly.



1. Close exhaust throttle valve completely.

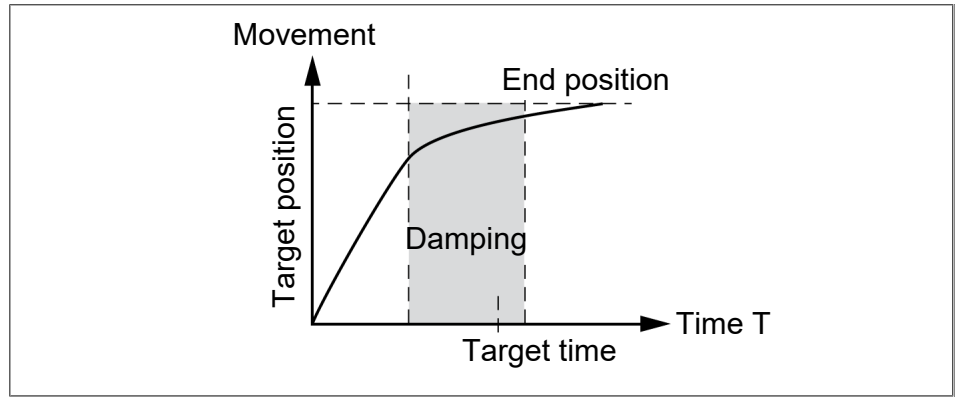


2. Open exhaust throttle valve until the product starts to move.
3. Continue to open the exhaust throttle valve incrementally until the movement decelerates smoothly.
 - ⇒ If the speed is too low, the product will brake too soon and the end position will be reached too slowly.
 - ⇒ If the speed is too high, the product will impact against the end position and the shock absorber will be overloaded.

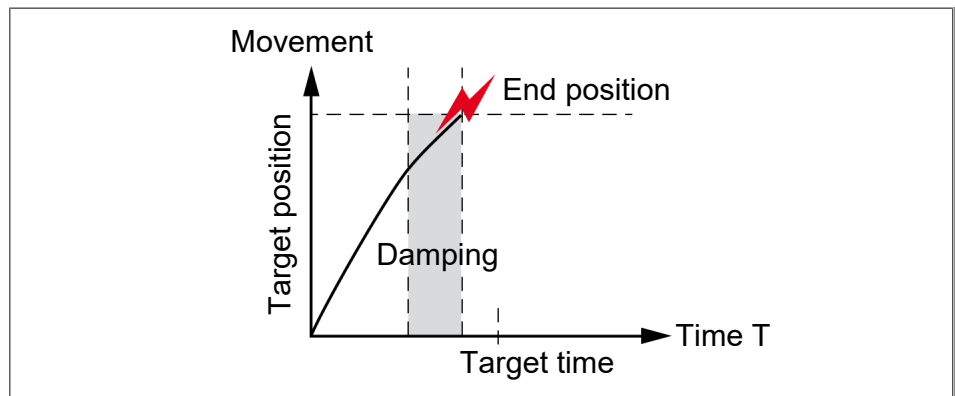
NOTE

A smooth motion may also be too slow in many use-cases. Further settings can be made via the shock absorbers, ▶ 4.4 [21].

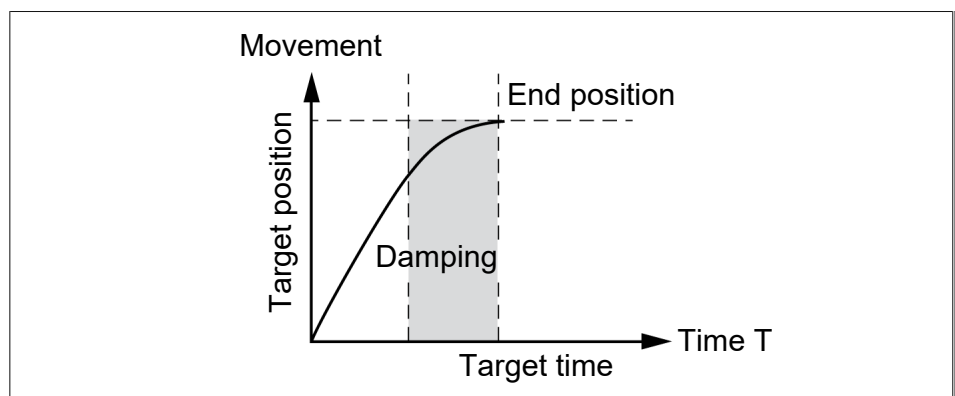
4.4 Adjustment of the shock absorber stroke



The shock absorber stroke is too long and the end position is reached too slowly.



The shock absorber stroke is too short and the unit arrives in the end position too abruptly.



Optimal shock absorber stroke.

5 Commissioning

CAUTION

Before commissioning!

Please read these instructions carefully.

Only with the knowledge of this manual errors can be prevented, and trouble-free operation is ensured.

- Check technical specifications ▶ 3 [16].
- Do not use the linear module until you have determined that it is in perfect operating condition, after having checked for compliance with all permissible operating parameters.
- When mounting loads, take measures to prevent impermissible forces and torques.
- Do not subject the linear module to loads outside of the operating range.
 - Excessive loads can result in damage or inaccuracy of the guide unit.
 - The maximum permissible loads are specified in our standard catalog.

Regulate the operating speed of the cylinder with regulator valves ▶ 4.1.2 [17]. Starting slow, increase the speed until the desired operating speed is reached.

CAUTION

Risk of mechanical damage of the product!

The product must always be adjusted so that no mechanical impacts are produced when reaching the end position.

6 Handling

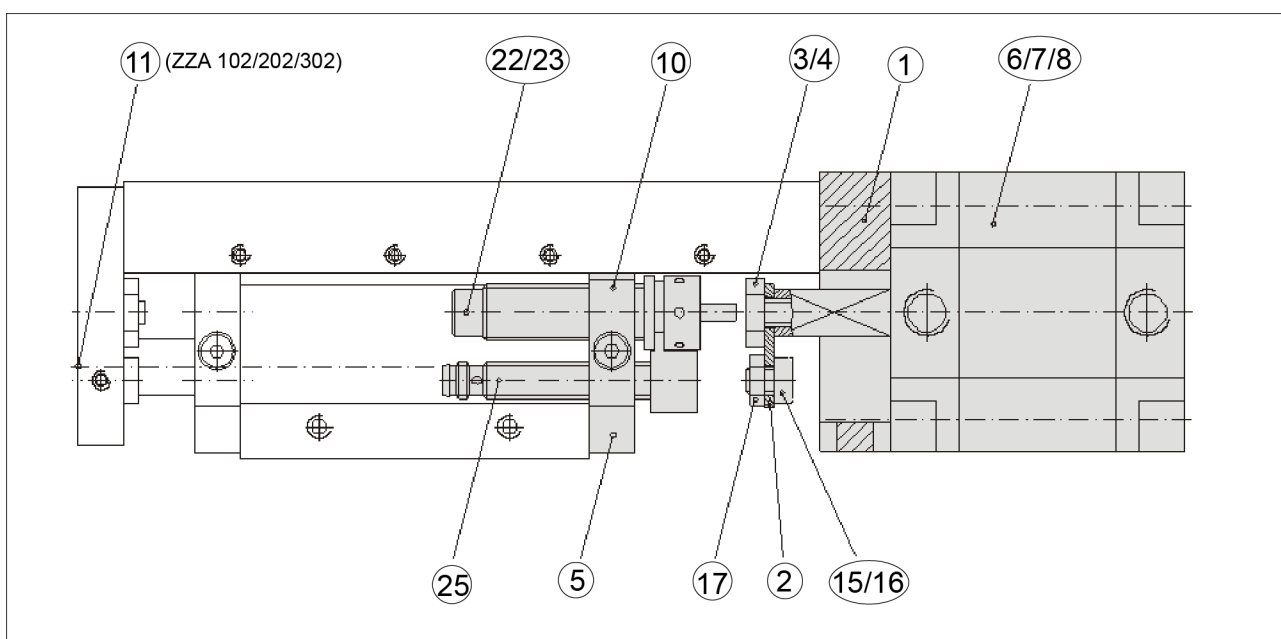
6.1 Intermediate stops ZZA

CAUTION

Note the General Notes to ▶ 6 [23]

Intermediate stops are add-on modules for linear modules. 2 models are available for all LM linear modules:

- Execution 1: Attachment LM piston-side
- Execution 2: Attachment LM rod-side



Intermediate stops execution 1

Execution 1 is shown. In execution 2 the entire intermediate stop is mounted on the other side of the module.

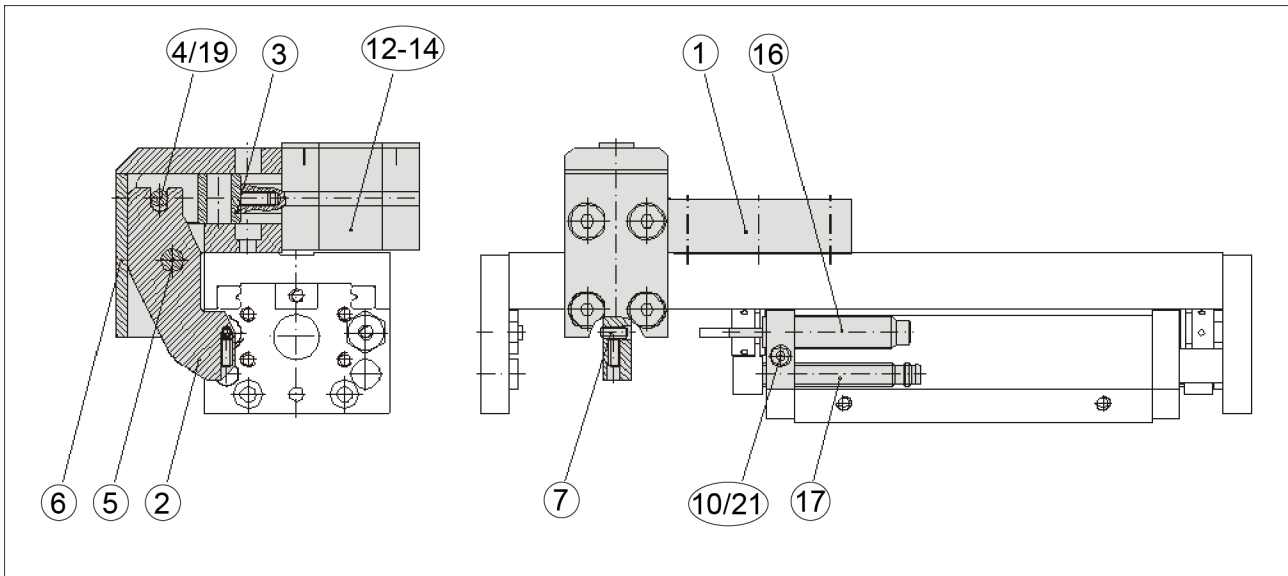
It is also possible to equip a linear module with one intermediate stop each of execution 1 and 2. (2 intermediate positions)

End position sets can be used for stroke limiting, shock absorption and monitoring of the intermediate position ▶ 4.2 [18]

The maximum possible intermediate position adjustment is specified in the catalog.

6.2 Intermediate stops LMZAW

LMZAW Intermediate stops are additional modules for linear actuators of series LM 100, LM 200 and LM 300. They can be mounted on either the piston side or rod side of the linear actuator.



Intermediate stops LMZAW – mounting on the piston side

16 LM 100 – STD 1203
LM 200/300 – STD 1403

17 LM 100/200/300 – NI 30

The intermediate position is steplessly adjustable within the permissible range. Shock absorbers (16), clamping piece (10) and two sensors for monitoring of the cylinders (12) are included in delivery.

6.3 Rod lock

CAUTION

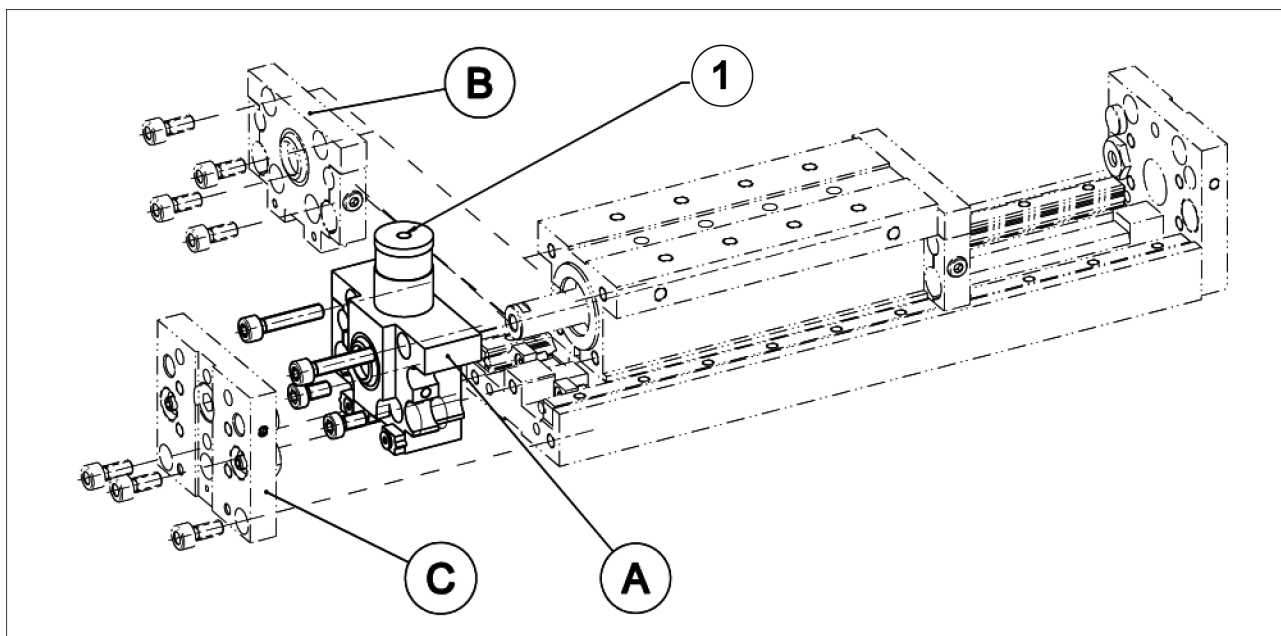
Damage to the rod lock due to incorrect actuation / overload!

- The rod lock may only be triggered and unlocked when the product has been shut down.
- See the data on static holding force in the catalog. The forces occurring in a clamped condition must not exceed the holding force.
- In the event of a dynamic load or overload (e.g. drop in pressure during movement), the clamping cartridge must be checked and replaced if necessary.



⚠ WARNING

The rod lock is not a safety component for personal protection in the sense of the Machine Directive.



Rod lock

Item	Designation	Thread
1	Air connection	M5

Assembly of ASP rod lock

1. Remove face plate I (C) and cover plate I (B).
2. Install the completely installed rod lock (A) on the module.
Grease wiper ring! Maintenance and care
The cover plate (B) is no longer required.
3. Install face plate I (C) on the module.
4. Remove screw from air connection (1) clamping is now active and must be released with the corresponding air pressure.

7 Troubleshooting

7.1 Module does not move

Possible cause	Corrective action
Pressure drops below minimum.	Check air supply. ▶ 4.1.2 [18]
Compressed air lines switched.	Check compressed air lines. ▶ 4.1.2 [18]

7.2 End position signal not present

Possible cause	Corrective action
Proximity switch defective or set incorrect.	Adjust sensor or if necessary change sensor., ▶ 4.2 [18]
Cable breakage.	Change sensor.

7.3 Linear module proposes at the end positions

Possible cause	Corrective action
Damping wrong adjustet.	Adjust stop screw.
Shock absorber defective.	Change the shock absorber.
Stroke speed too high.	Check / reduce stroke speed with ventilation valves. Change defective exhaust ait throttle if necessary.

7.4 Payload swings in the final position

Possible cause	Corrective action
Stroke speed too high.	Check / reduce stroke speed with ventilation valves. Change defective exhaust ait throttle if necessary.
Bad damping.	Adjust damping (stop screw).▶ 4.2 [18]
Unfavorable installation.	Check construction.
Unfavorable CLM – Type.	Use larger LM – Type.

8 Maintenance and care

Activity	Maintenance intervals
Functional test damper	regularly
Change of shock absorber	2 Mio. cycles
Check Condition of the seals	regularly
Change the seals	If necessary
Lubricate the guides	every 3.000 km

During maintenance, treat all greased areas with lubricant. Thinly apply lubricant with a lint-free cloth.

SCHUNK recommends the listed lubricant.

Lubricant point	Lubricant
Seals and sealing surfaces	SCHUNK grease 1
Linear guides	SCHUNK grease 10

Details regarding SCHUNK lubricant designations are available at [schunk.com/lubricants](https://www.schunk.com/lubricants).

The product contains food-compliant lubricants as standard.

The requirements of standard EN 1672-2:2020 are not fully met.

NOTE

- Change contaminated food-compliant lubricant.
- Observe information in the safety data sheet from the lubricant manufacturer.

9 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: Linear module / LM /pneumatic
ID number 0314050...0314501

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, March 2024

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

10 UKCA declaration of incorporation

in accordance with the Supply of Machinery (Safety) Regulations 2008.

Manufacturer/	SCHUNK Intec Limited
Distributor	Clamping and gripping technology 3 Drakes Mews, Crownhill MK8 0ER Milton Keynes

We hereby declare that on the date of the declaration the following partly completed machine complied with all basic safety and health regulations found in the "Supply of Machinery (Safety) Regulations 2008".

The declaration shall be rendered invalid if modifications are made to the product.

Product designation:	Linear module / LM / pneumatic
ID number	0314050...0314501

The partly completed machine may not be put into operation until it has been confirmed that the machine into which the partly completed machine is to be installed complies with the provisions of the "Supply of Machinery (Safety) Regulations 2008".

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:
Marcel Machado, address: refer to manufacturer's address



Lauffen/Neckar, March 2024

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

11 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

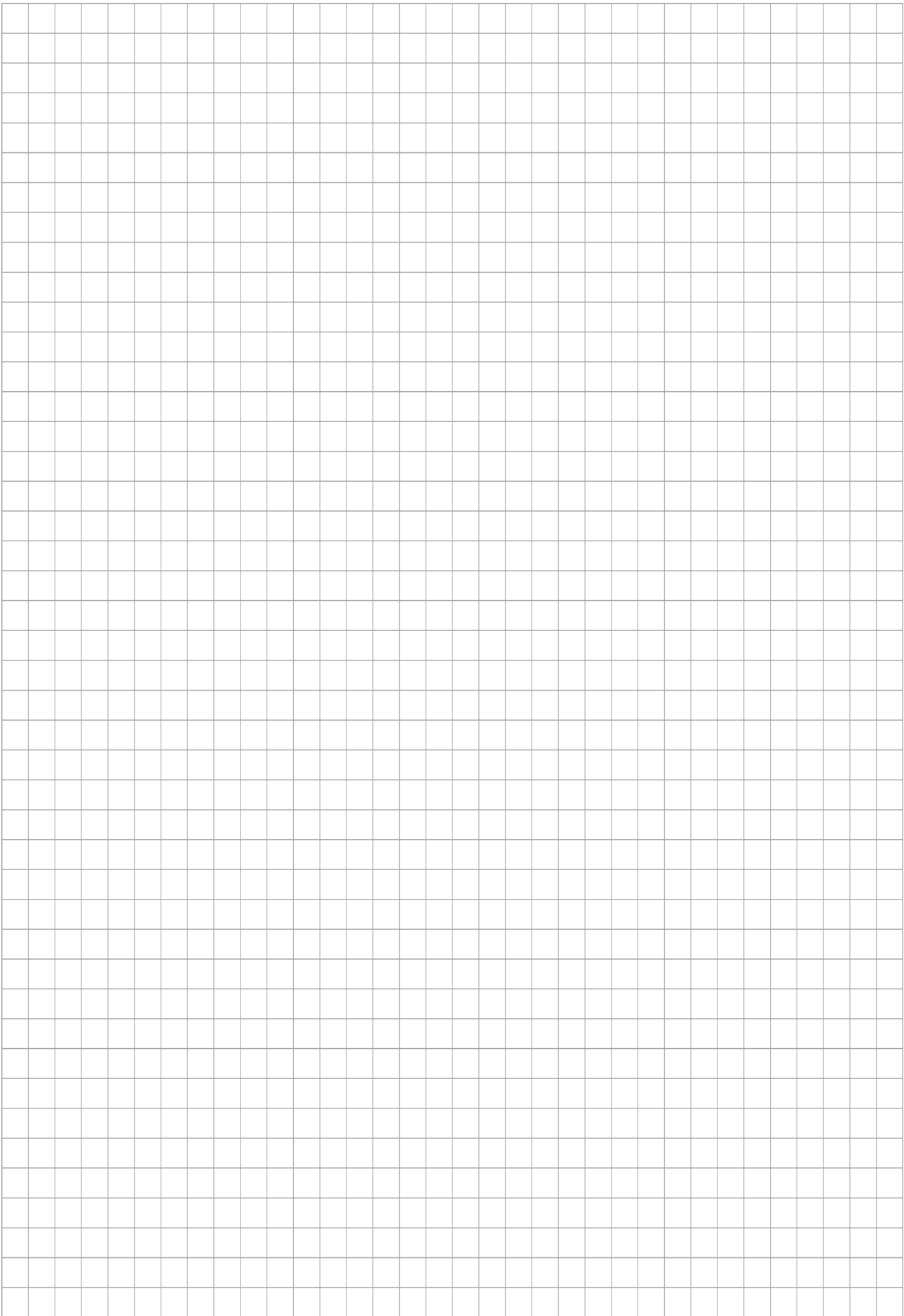
Products from SCHUNK fully comply with the regulations of Regulation (EC) No. 1907/2006 "concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)" and its amendment 2022/477. SCHUNK attaches great importance to completely avoiding chemicals of concern to humans and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

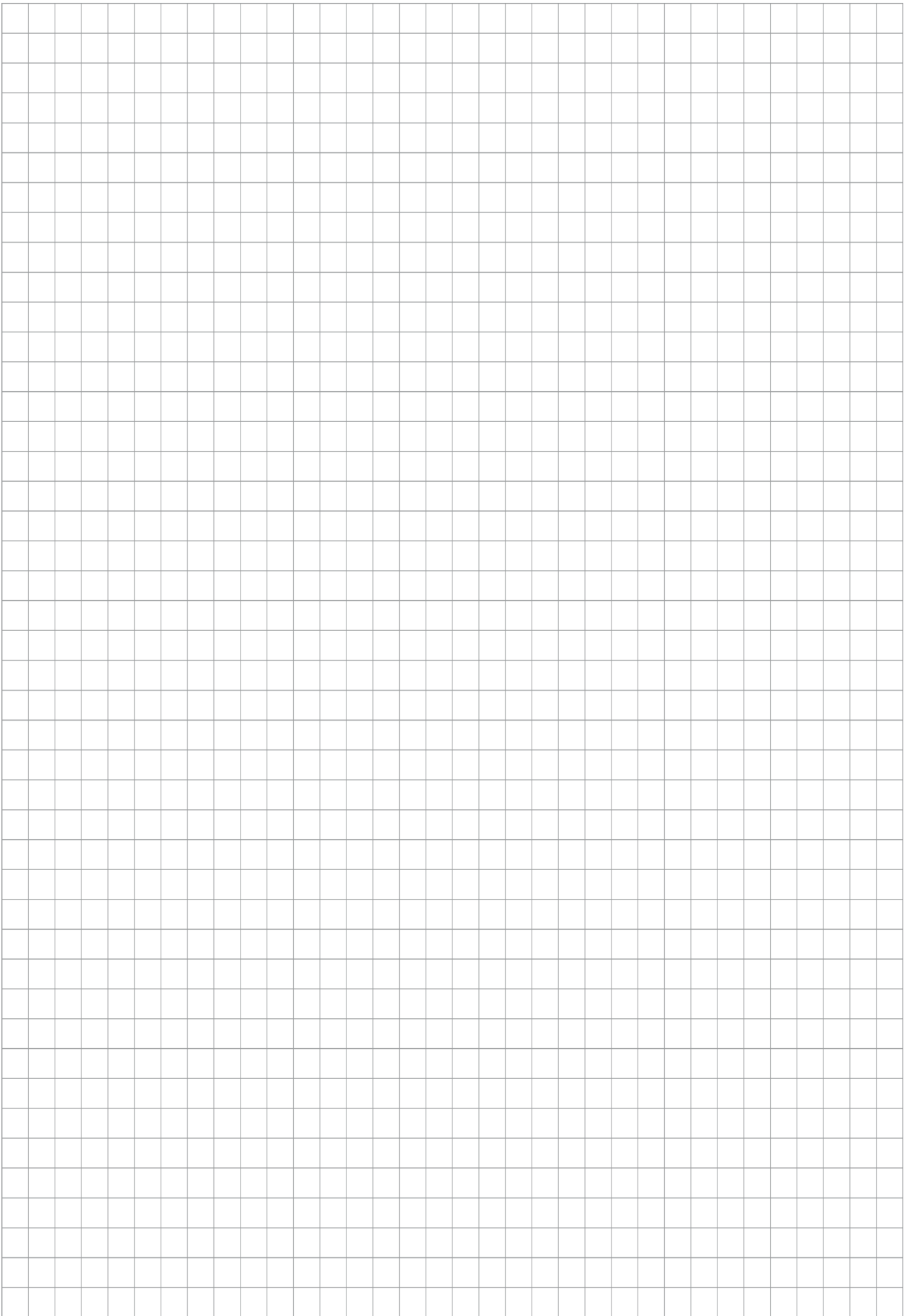
Only in rare exceptional cases do SCHUNK products contain SVHC substances on the candidate list with a mass content above 0.1%. In accordance with Article. 33 (1) of Regulation (EC) No. 1907/2006, SCHUNK complies with its duty to "communicate information on substances in articles" and lists the components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

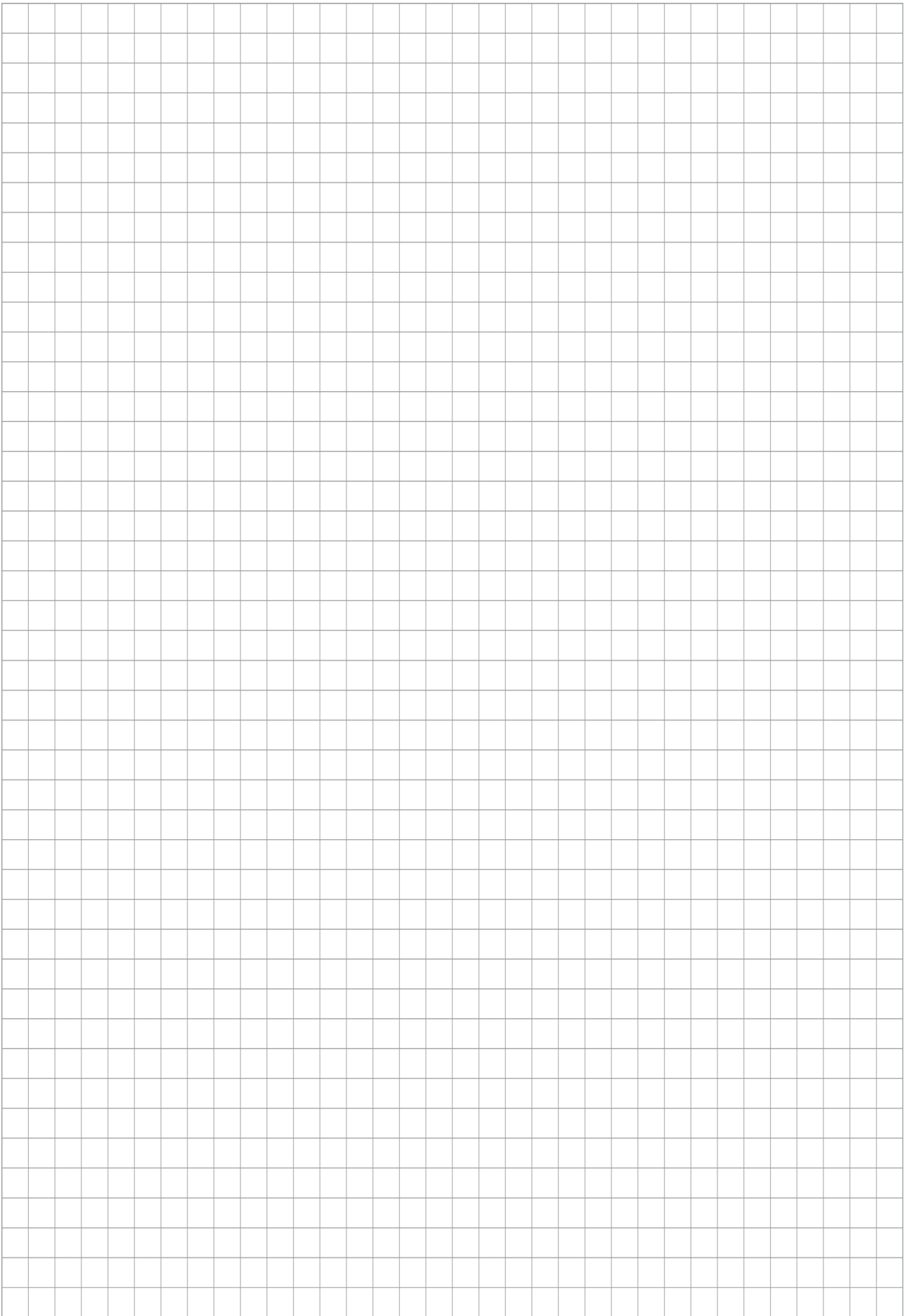
Signature: see original declaration

Lauffen/Neckar, March 2024

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









SCHUNK SE & Co. KG
Spanntechnik | Greiftechnik | Automatisierungstechnik

Bahnhofstr. 106 - 134
D-74348 Lauffen/Neckar
Tel. +49-7133-103-0
info@de.schunk.com
schunk.com

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