

Compact Terminal SCTSi (SCTMi)

Maintenance Instructions

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1 Important Information

1.1 Note on Using this Document

J. Schmalz GmbH is generally referred to as Schmalz in these Maintenance instructions.

These Maintenance instructions contain important notes and information about the different operating phases of the product:

- Transport, storage, start of operations and decommissioning
- Safe operation, required maintenance, rectification of any faults

The Maintenance instructions describe the product at the time of delivery by Schmalz.

1.2 The technical documentation is part of the product

1. For problem-free and safe operation, follow the instructions in the documents.
 2. Keep the technical documentation in close proximity to the product. The documentation must be accessible to personnel at all times.
 3. Pass on the technical documentation to subsequent users.
- ⇒ Failure to follow the instructions in these Maintenance instructions may result in injuries!
- ⇒ Schmalz is not liable for damage or malfunctions that result from failure to heed these instructions.

If you still have questions after reading the technical documentation, contact Schmalz Service at:


www.schmalz.com/services

1.3 Warnings in This Document

Warnings warn against hazards that may occur when handling the product. This document contains three levels of danger that you can recognize by the signal word.

Signal word	Meaning
WARNING	Indicates a medium-risk hazard that could result in death or serious injury if not avoided.
CAUTION	Indicates a low-risk hazard that could result in minor or moderate injury if not avoided.
NOTE	Indicates a danger that leads to property damage.

1.4 Symbol

 This symbol indicates useful and important information.

- ✓ This symbol represents a prerequisite that must be met prior to an operational step.
- ▶ This symbol represents an action to be performed.
- ⇒ This symbol represents the result of an action.

Actions that consist of more than one step are numbered:

1. First action to be performed.
2. Second action to be performed.

1.5 Warranty

IMPORTANT!

A warranty claim can only be accepted if the product has been installed and used in accordance with its corresponding operating and assembly instructions. In the case of inappropriate handling or use of force, any warranty and liability claims shall be void.

Damage and defects resulting from inadequate maintenance and cleaning, improper use, repair or attempted repair by unauthorized persons, as well as damage and defects resulting from alterations or modifications to the product and from replaced parts or materials that do not conform to the original specification are excluded from the warranty.



These instructions are intended as guidelines for customers replacing certain wearing parts. However, we generally recommend professional maintenance in the plant. This also includes a final test for proper function and a warranty extension of 6 months.

2 Safety Instructions

Maintenance work may only be carried out by qualified personnel.



WARNING

Risk of injury due to incorrect maintenance or troubleshooting

- ▶ Check the proper functioning of the product, especially the safety features, after every maintenance or troubleshooting operation.



CAUTION

Damage due to flying parts

Risk of injury or damage to property!

- ▶ Wear eye protection
- ▶ Before performing maintenance, make sure that the vacuum and compressed air system is at atmospheric pressure.



NOTE

Improper maintenance

Damage to the compact terminal and the ejectors!

- ▶ Switch off the supply voltage before any maintenance.
- ▶ Secure it so that it cannot be switched back on.
- ▶ The compact terminal must only be operated with a silencer and press-in screens.

Maintenance work or repairs that go beyond the activities described here may not be carried out by the operator of the product without consulting Schmalz.

3 Replacing or Adding/Removing Components

This manual provides you with all the information you need to replace or add or remove one or more ejector discs on an SCTSi or SCTMi.

When replacing an ejector disc, a distinction is made between the following cases:

- Identical ejector disc (same part no.)
- Non-identical ejector disc
- Control module

To replace the control module, the SCTSi (SCTMi) must be sent to Schmalz for repair.

Because of the different software used by the ejector discs for the SCTSi and SCTMi, they must be ordered accordingly.

The ejector discs for the SCTSi are listed in chapter 3.1 (> See *ch. Available Ejector Discs for the SCTSi, Page 4*).

The ejector discs for the SCTMi are listed in chapter 3.2 (> See *ch. Available Ejector Discs for the SCTMi, Page 4*).

The addition or removal of one or more ejector discs requires the replacement of the threaded rods connecting the SCTSi (SCTMi) as a block. The length of the threaded rods depends on the new number of ejector discs. Depending on the number of ejector discs, additional compressed-air distributors and reinforcing components are also required (> See *ch. Accessory Table for Reducing or Expanding the Terminal, Page 5*)).

3.1 Available Ejector Discs for the SCTSi

Part number	Designation	Description
10.02.02.06184	SCPSt 07 G02 NO C7H	Compact ejector for terminal; SCPSt 07 G02 NO
10.02.02.06187	SCPSt 07 G02 NC C7E	Compact ejector for terminal; SCPSt 07 G02 NC
10.02.02.05397	SCPST 07 G02 IMP C7Y	Compact ejector for terminal; SCPSt 07 G02 IMP
10.02.02.05990	SCPST 07 GS01 IMP C8Y	Compact ejector for terminal; SCPSt 07 GS01 IMP
10.02.02.06188	SCPSt 10 G02 NC C7D	Compact ejector for terminal; SCPSt 10 G02 NC
10.02.02.06185	SCPSt 10 G02 NO C7B	Compact ejector for terminal; SCPSt 10 G02 NO
10.02.02.05498	SCPSt 10 G02 IMP C70	Compact ejector for terminal; SCPSt 10 G02 IMP
10.02.02.05991	SCPSt 10 GS01 IMP C80	Compact ejector for terminal; SCPSt 10 GS01 IMP
10.02.02.06189	SCPSt 15 G02 NC C7N	Compact ejector for terminal; SCPSt 15 G02 NC
10.02.02.06186	SCPSt 15 G02 NO C7A	Compact ejector for terminal; SCPSt 15 G02 NO
10.02.02.05499	SCPSt 15 G02 IMP C71	Compact ejector for terminal; SCPSt 15 G02 IMP
10.02.02.05992	SCPSt 15 GS02 IMP C81	Compact ejector for terminal; SCPSt 15 GS02 IMP
10.02.02.06193	SCPSt 2-07 G02 NC C7F	Compact ejector for terminal; SCPSt 2-07 G02 NC
10.02.02.06190	SCPSt 2-07 G02 NO C7L	Compact ejector for terminal; SCPSt 2-07 G02 NO
10.02.02.05500	SCPSt 2-07 G02 IMP C72	Compact ejector for terminal; SCPSt 2-07 G02 IMP
10.02.02.05993	SCPSt 2-07 GS01 IMP C82	Compact ejector for terminal; SCPSt 2-07 GS01 IMP
10.02.02.06194	SCPSt 2-09 G02 NC C7T	Compact ejector for terminal; SCPSt 2-09 G02 NC
10.02.02.06191	SCPSt 2-09 G02 NO C7R	Compact ejector for terminal; SCPSt 2-09 G02 NO
10.02.02.05501	SCPSt 2-09 G02 IMP C73	Compact ejector for terminal; SCPSt 2-09 G02 IMP
10.02.02.05994	SCPSt 2-09 GS01 IMP C83	Compact ejector for terminal; SCPSt 2-09 GS01 IMP
10.02.02.06195	SCPSt 2-14 G02 NC C7P	Compact ejector for terminal; SCPSt 2-14 G02 NC
10.02.02.06192	SCPSt 2-14 G02 NO C7Q	Compact ejector for terminal; SCPSt 2-14 G02 NO
10.02.02.05502	SCPSt 2-14 G02 IMP C74	Compact ejector for terminal; SCPSt 2-14 G02 IMP
10.02.02.05995	SCPSt 2-14 GS02 IMP C84	Compact ejector for terminal; SCPSt 2-14 GS02 IMP
10.02.02.06196	SCPSt 10 G02 NC C75	Compact ejector for terminal; SCPSt 10 G02 NC
10.02.02.06197	SCPSt 2-14 G02 NC C76	Compact ejector for terminal; SCPSt 2-14 G02 NC

3.2 Available Ejector Discs for the SCTMi

Part number	Designation	Description
10.02.02.04673	SCPSt 07 G02 NC DD6	Compact ejector for terminal; SCPSt 07 G02 NC
10.02.02.04676	SCPSt 07 G02 NO DD3	Compact ejector for terminal; SCPSt 07 G02 NO
10.02.02.04429	SCPSt 10 G02 NC DD7	Compact ejector for terminal; SCPSt 10 G02 NC
10.02.02.04681	SCPSt 10 G02 NO DD4	Compact ejector for terminal; SCPSt 10 G02 NO
10.02.02.04678	SCPSt 15 G02 NC DD8	Compact ejector for terminal; SCPSt 15 G02 NC
10.02.02.04675	SCPSt 15 G02 NO DD5	Compact ejector for terminal; SCPSt 15 G02 NO
10.02.02.04674	SCPSt 2-07 G02 NC DEC	Compact ejector for terminal; SCPSt 2-07 G02 NC
10.02.02.04677	SCPSt 2-07 G02 NO DD9	Compact ejector for terminal; SCPSt 2-07 G02 NO
10.02.02.04683	SCPSt 2-09 G02 NC DED	Compact ejector for terminal; SCPSt 2-09 G02 NC
10.02.02.04682	SCPSt 2-09 G02 NO DEA	Compact ejector for terminal; SCPSt 2-09 G02 NO
10.02.02.04679	SCPSt 2-14 G02 NC DEE	Compact ejector for terminal; SCPSt 2-14 G02 NC
10.02.02.04680	SCPSt 2-14 G02 NO DEB	Compact ejector for terminal; SCPSt 2-14 G02 NO
10.02.02.05606	SCPSt 10 G02 NC DEF	Compact ejector for terminal; SCPSt 10 G02 NC
10.02.02.05703	SCPSt 2-14 G02 NC DEH	Compact ejector for terminal; SCPSt 2-14 G02 NC

3.3 IO-Link Configuration File (IODD)

For variants with IO-Link, the required IO-Link configuration file (IODD) is dependent on the number of ejector discs. Division of the IO-Link configuration files (IODD):

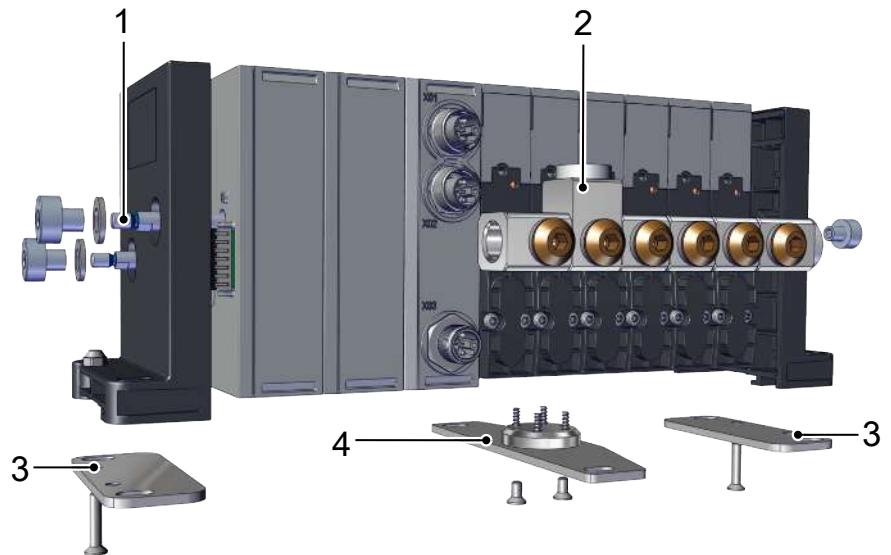
- Compact terminal with up to 4 ejector discs
- Compact terminal with up to 8 ejector discs
- Compact terminal with up to 12 ejector discs
- Compact terminal with up to 16 ejector discs

The IO-Link configuration files (IODD) are available at www.schmalz.com.

4 Accessory Table for Reducing or Expanding the Terminal

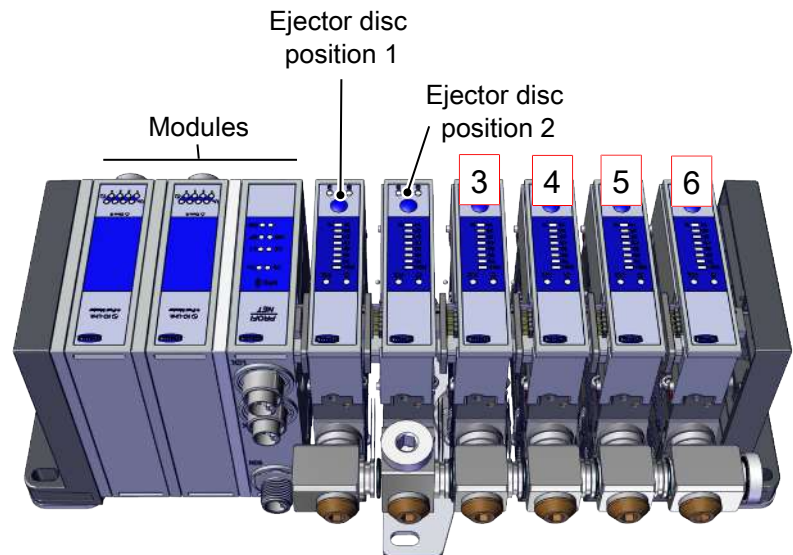
To reduce or expand the terminal, certain components are required in addition to the ejector discs:

- Threaded rods (1)
- Compressed-air distributors (2)
- Mounting set for end plates (3)
- Mounting set for center (4)



The following table shows all the components that are required for the respective conversion taking into account the new number of ejector discs in the SCTSi or SCTMi and their position depending on the number of ejector discs. The expansion modules (IOL, DI) are not relevant for calculating the position.

The first ejector disc after the modules is located at position 1.

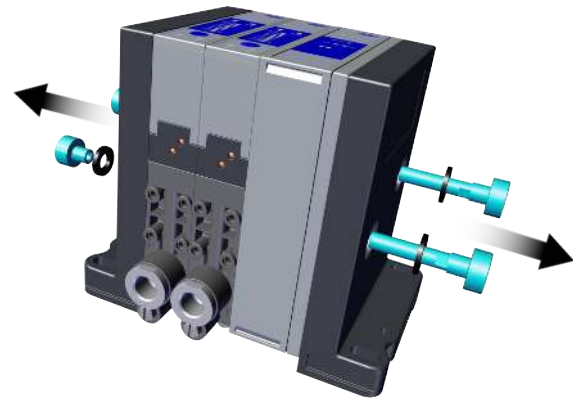


Number of ejector discs	Threaded rod (1) order x2	Mounting set for end plates (3)	Position of compressed-air distributor (2) part no. 10.02.02.04808		Position of mounting set for center (4) part no. 10.02.02.06571		
1	10.02.02.05829	—	—	—	—		
2	10.02.02.04799						
3	10.02.02.04894						
4	10.02.02.04423						
5	10.02.02.04895						
6	10.02.02.04479	10.02.02.06572	2	—	3	—	
7	10.02.02.04896				3		
8	10.02.02.04453				4		
9	10.02.02.04897				and 6		4
10	10.02.02.04815				5		
11	10.02.02.04898		and 7	5			
12	10.02.02.04899		3	and 8			
13	10.02.02.04900		and 8	3	and 9		
14	10.02.02.04901		3	and 9			
15	10.02.02.04902		and 9	4	and 10		
16	10.02.02.04806		4	and 10			

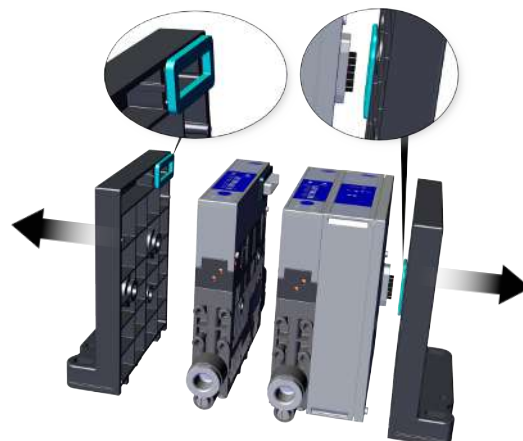
5 Removing the Compact Terminal

- ✓ The compact terminal is disconnected from the compressed air supply and the power supply.
- ✓ The vacuum and compressed air system is subjected to atmospheric pressure.

1. Loosen and remove the threaded rods (2 pieces) with Allen key M4 and M5. Insert the Allen keys from both sides and turn a key counterclockwise to release. Keep the nuts and seals and reuse them for mounting.



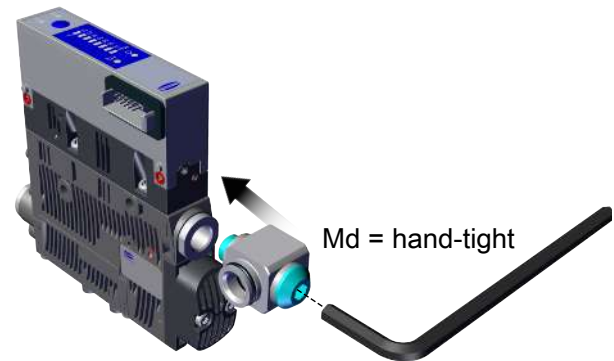
2. To disconnect the disc elements and end plates, pull on the compressed-air distributors in the direction shown. Both end plates contain sealing elements inside. These should be handled with care and reused during mounting.



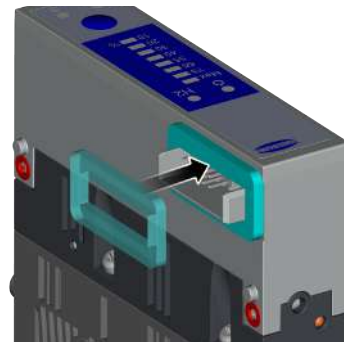
3. For **maintenance of the ejector disc**, follow maintenance instructions 30.30.01.00962.
Request the maintenance instructions from the Schmalz Service department at: www.schmalz.com/services.
When replacing or adding an ejector disc, proceed to the next chapter.

6 Preparing the Ejector Disk for Mounting

1. Mount the selected compressed-air distributor (part no. 10.02.02.04457 for internal variant or 10.02.02.04808 with additional compressed-air inlet) on the new ejector disc. Only hand-tighten / lightly tighten the hollow bolt with a size 5 Allen key.
Do not fully tighten until everything is screwed in place.



2. Fit the seal (part no. 10.02.02.04071).



7 Mounting the Compact Terminal

- ✓ The compressed-air distributor is mounted and aligned horizontally.
- ✓ Have the correct threaded rods, thread locking compound and, if necessary, the supporting disc including screws to hand.
- ✓ All seals and the O-ring are mounted (use some lubricant).

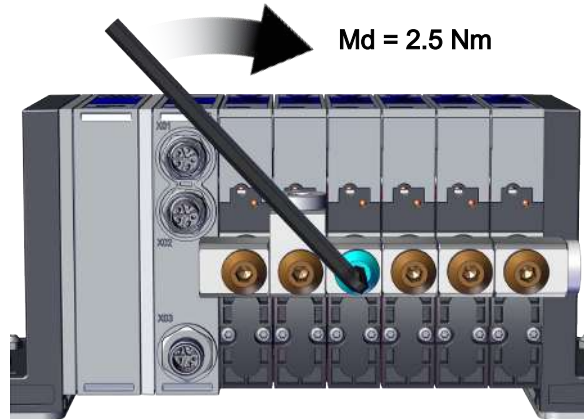
1. Insert the new or additional ejector disc and carefully push the compact terminal together. Do not use force on the electrical interface.



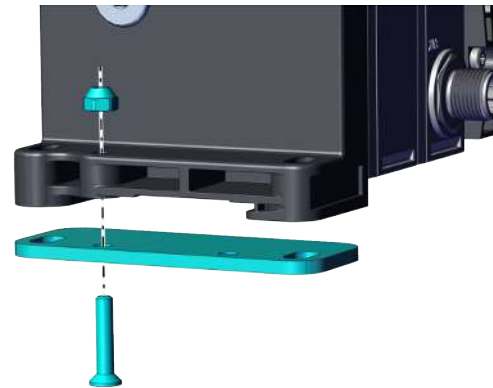
2. Guide the threaded rods through the compact terminal and screw them from both sides, including the seals, to 2 Nm using a medium-strength thread locking compound. Start with threaded rod 1.



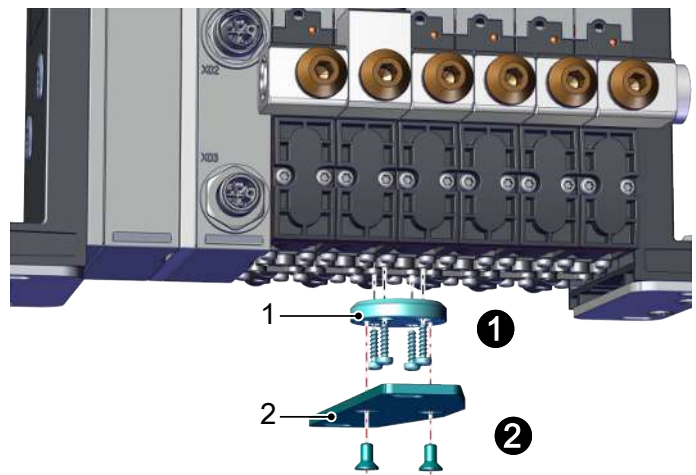
3. Tighten the fastening screw of the compressed-air distributor to 2.5 Nm on the new ejector disc.



4. If the terminal has six or more ejector discs, install the mounting set in the correct position on the end plates.



5. If the terminal has six or more ejector discs, use the mounting set for the center. See the table in chapter 4 for the position(s).
Fasten the washer (1) in the correct position with the four screws provided and tighten to a torque of 0.8 Nm ①
Fasten the mounting plate (2) to the washer (1) with the two screws provided and tighten to a torque of 1.6 Nm ②



8 Cleaning the Compact Terminal

1. For cleaning, do not use aggressive cleaning agents such as industrial alcohol, white spirit or thinners. Only use cleaning agents with pH 7–12.
2. Remove dirt on the exterior of the device with a soft cloth and soap suds at a maximum temperature of 60° C. Make sure that the compact terminal is not soaked in soapy water.
3. Ensure that no moisture gets into the electrical connection.

9 Connecting the Compact Terminal to the Compressed Air and Power Supply



WARNING

The compact terminal is not screwed or secured to the threaded rods.

When compressed air is supplied, individual components are accelerated and fly around. There is a risk of injury.

- ▶ Before switching the compact terminal on again, mount the threaded rods with thread locking compound.

1. Secure the compact terminal at the place of use.
2. Connect the compressed air and vacuum. If there is a larger number of ejectors, we recommend using an additional compressed air supply via an intermediate feed.
3. Mount the electrical connections.
4. Switch on the compact terminal via the control unit. The new configuration is automatically detected by the control unit.



Following conversion, the type plate of the compact terminal is no longer correct.

10 Checking for Correct Installation and Function

Before starting the handling process, check for proper installation and function.