



Mini Compact Ejector SCPMb

Short Instruction Manual

Note: These brief operating instructions were originally written in German and have been translated into English. The operating instructions describe the basic functions of the device. They are intended to provide a quick start for experienced users. The complete description of the device can be found in the detailed operating instructions at www.schmalz.com or is available on request. These brief operating instructions make no claim to being exhaustive. Store in a safe place for future reference. Subject to technical changes without notice. No responsibility is taken for printing or other types of errors.

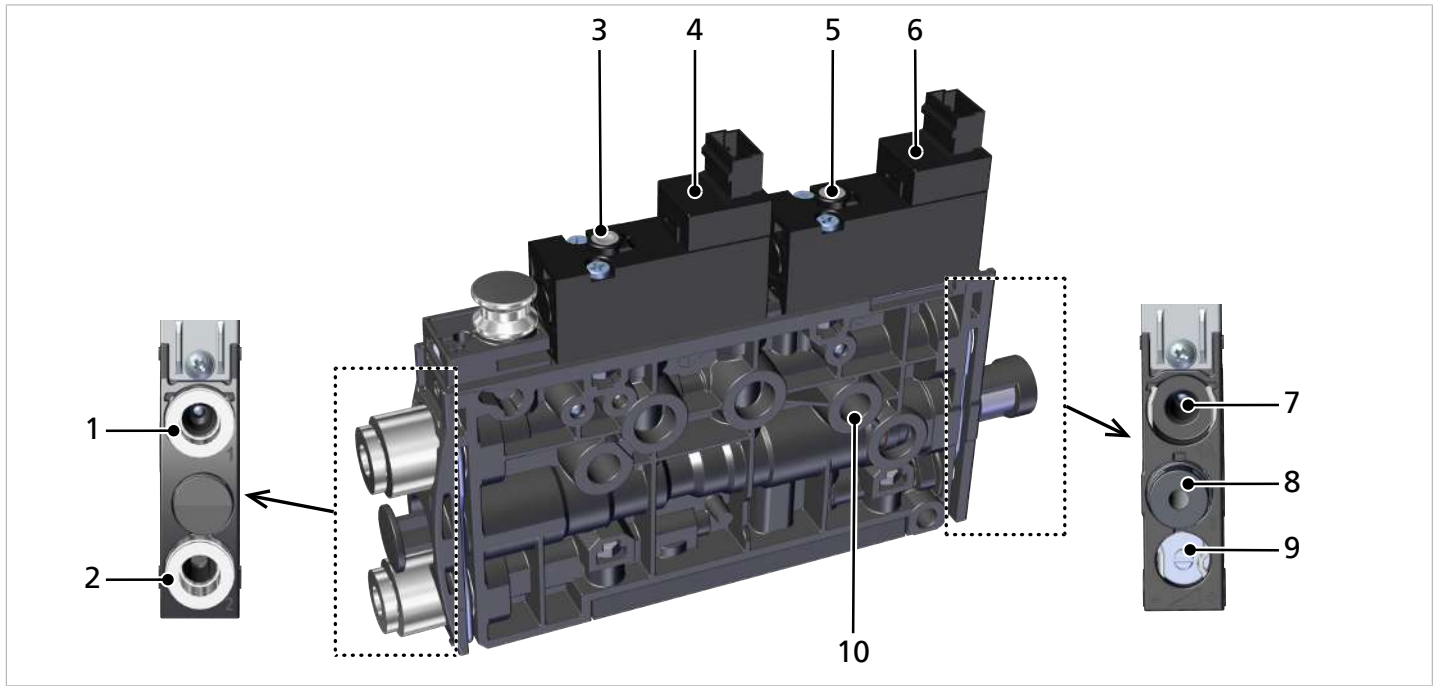
Published by

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1 Ejector Structure



1	Compressed air connector (marking 1)	6	"Blow-off" solenoid valve
2	Vacuum connection (marking 2)	7	Optional: Compressed air connector for separate blow-off EB (marking 1A)
3	Button for actuating the "suction" solenoid valve manually	8	Silencer (marking 3)
4	"Suction" solenoid valve	9	Valve screw for blow off volume flow
5	Button for actuating the "blow off" solenoid valve manually	10	Mounting holes 2x

2 General parameters

Parameter	Version	Symbol	Limit value			Comment
			min.	optimum	max.	
Working temperature		T_{amb}	0° C	—	+50° C	—
Storage temperature		T_{sto}	-10° C	—	60° C	—
Humidity		H_{rel}	10% r.h.	—	85% r.h.	Free from condensation
Degree of protection		—	—	—	IP40	—
Operating pressure (flow pressure)	03	P	2 bar	4 bar	6 bar	—
	05	P	3.5 bar	4 bar	6 bar	—
	07	P	3.5 bar	4 bar	6 bar	—
	10	P	3.5 bar	4.5 bar	6 bar	—
	12	P	3.5 bar	4.5 bar	6 bar	—
Operating medium	Air or neutral gas, filtered to 5 µm, without oil, class 3-3-3 compressed air quality in acc. with ISO 8573-1					

3 Electrical Parameters

Supply voltage	DC 24 V ± 10% (PELV ¹⁾)		
Polarity reversal protection	Yes		
Current consumption (at 24 V)	—	Typical current consumption	Max. current consumption
	SCPMb – xx – NC	50 mA	70 mA
	SCPMb – xx – NO	75 mA	115 mA

¹⁾ The power supply must correspond to the regulations in accordance with EN60204 (protected extra-low voltage).

4 Externally Controlled Blow-Off

The “blow off” valve is controlled directly by the “blow off” command. The ejector switches to blow off mode for as long as the “blow off” signal is present.

The “blow off” signal is given priority over the “suction” signal.

5 Checking the Delivery

The scope of delivery can be found in the order confirmation. The weights and dimensions are listed in the delivery notes.

1. Compare the entire delivery with the supplied delivery notes to make sure nothing is missing.
2. Damage caused by defective packaging or occurring in transit must be reported immediately to the carrier and J. Schmalz GmbH.

6 Installation Instructions



⚠ CAUTION

Improper installation or maintenance

Personal injury or damage to property

- ▶ During installation and maintenance, make sure that the product is disconnected and depressurized and that it cannot be switched on again without authorization.

For safe installation, the following instructions must be observed:

- Use only the connectors, mounting holes and attachment materials that have been provided.
- Mounting and removal must be performed only when the device is unpressurized and disconnected from the mains.
- Pneumatic and electrical line connections must be securely connected and attached to the product.

7 Pneumatic Connection



⚠ CAUTION

Compressed air or vacuum in direct contact with the eye

Severe eye injury

- ▶ Wear eye protection
- ▶ Do not look into compressed air openings
- ▶ Do not look into the silencer air stream
- ▶ Do not look into vacuum openings, e.g. suction cups



CAUTION

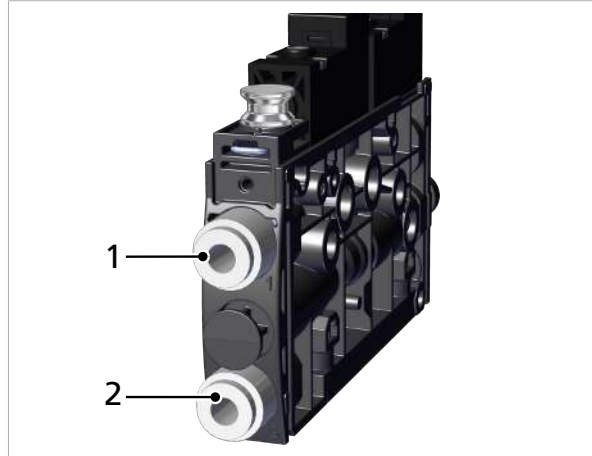
Noise pollution due to incorrect installation of the pressure and vacuum connections

Hearing damage

- ▶ Correct installation.
- ▶ Wear ear protectors.

7.1 Connecting the Compressed Air and Vacuum

- ▶ Connect the compressed air hose to the compressed air connection (1).
Connect the vacuum hose to the vacuum connection (2).
For threaded connectors, the maximum tightening torque is 1 Nm.



8 Electrical Connection



NOTE

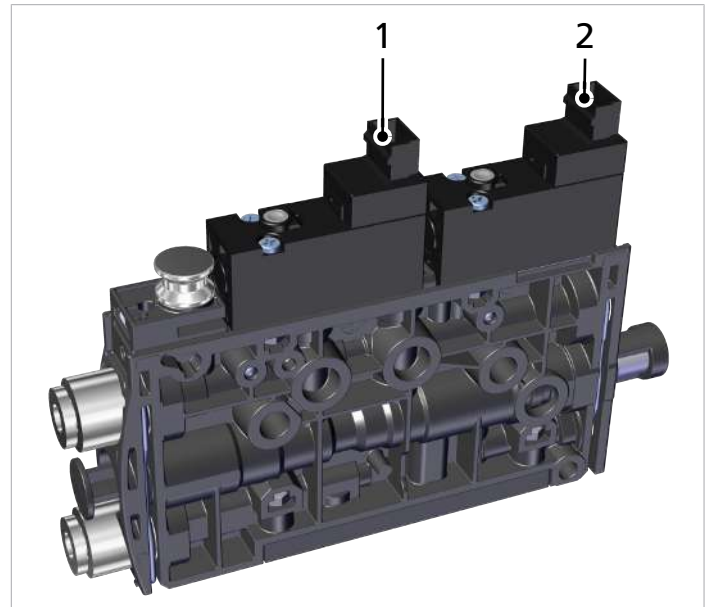
Incorrect power supply

Destruction of the integrated electronics

- ▶ Operate the product using a power supply unit with protected extra-low voltage (PELV).
- ▶ The system must incorporate safe electrical cut-off of the power supply in compliance with EN60204.
- ▶ Do not connect or disconnect the connector under tension and/or when voltage is applied.

The electrical connection is established directly via the connection plugs of the valves. The connection of the valves is independent of the polarity.

- ✓ Provide connection cable (for example, 2x item no.: 21.04.06.00086)



- ▶ Insert the connection cables into the electrical connections (1 and 2) until they click into place.

9 General Preparations



⚠ WARNING

Extraction of hazardous media, liquids or bulk material

Personal injury or damage to property!

- ▶ Do not extract harmful media such as dust, oil mists, vapors, aerosols etc.
- ▶ Do not extract aggressive gases or media such as acids, acid fumes, bases, biocides, disinfectants or detergents.
- ▶ Do not extract liquids or bulk materials, e.g. granulates.

Always carry out the following tasks before activating the system:

1. Before each start of operations, check that the safety features are in perfect condition.
2. Check the product for visible damage and deal with any problems immediately (or notify the supervisor).
3. Ensure that only authorized personnel are present in the working area of the machine or system and that no other personnel are put in danger by switching on the machine.

During automatic operation, there must be no people in the system danger area.