



Vacuum Automation

# Compact Terminal SCTMi

# Compact Terminal SCTMi

Flexible, fully networked vacuum generation



Variety, optimization of production processes, and continuous energy and process control are the challenges of the future. In order to meet these demands, powerful, flexible and energy-efficient vacuum systems are required. The answer is our

Compact Terminal SCTMi, a compact unit of several vacuum generators for simultaneously and independently handling different parts with a single vacuum system.

## LEAN

- Central compressed air and power supply for up to 16 ejectors with just one connection each
- Compact design and low weight make it suitable for a wide range of applications

## MODULAR

- Modular design means various vacuum circuits can be installed to handle different parts with ease
- Each ejector can be selected based on nozzle size, NO, NC or nozzle type

## NETWORKED

- Can be integrated in a wide range of field-bus systems
- Process and device parameters can be easily configured via IO-Link or NFC

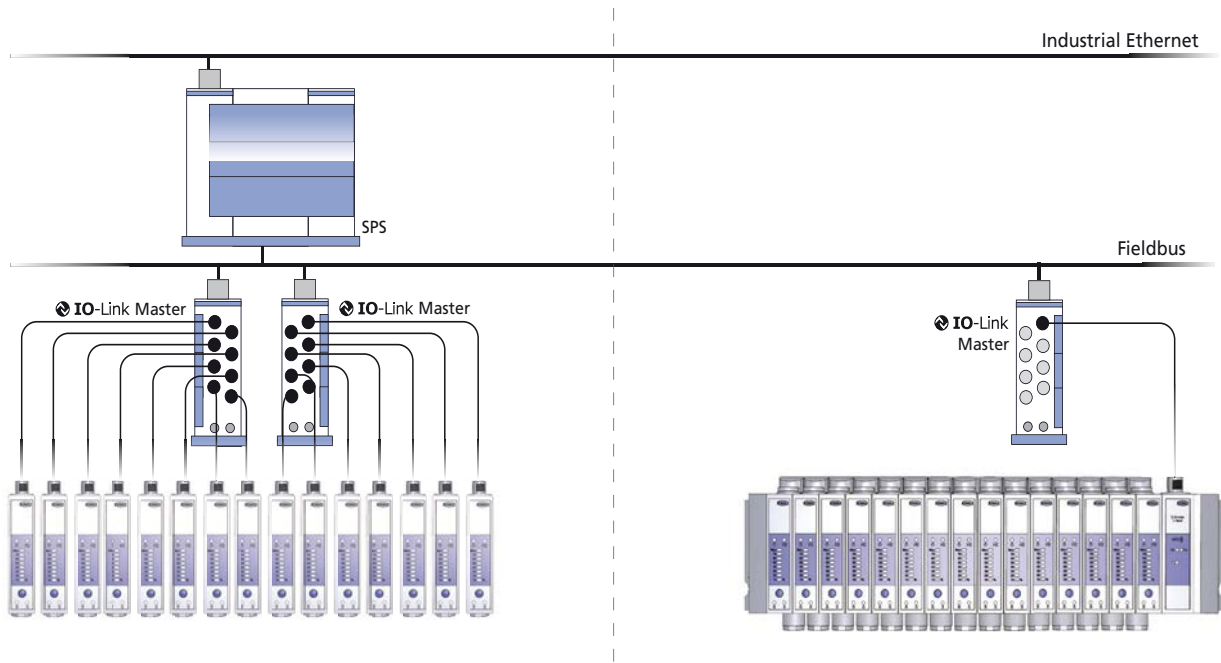
## INTELLIGENT

- All vacuum circuits can be separately controlled
- Process transparency, energy consumption control and a variety of diagnostic functions for use in intelligent factories

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## Simplified Integration in the Control Level

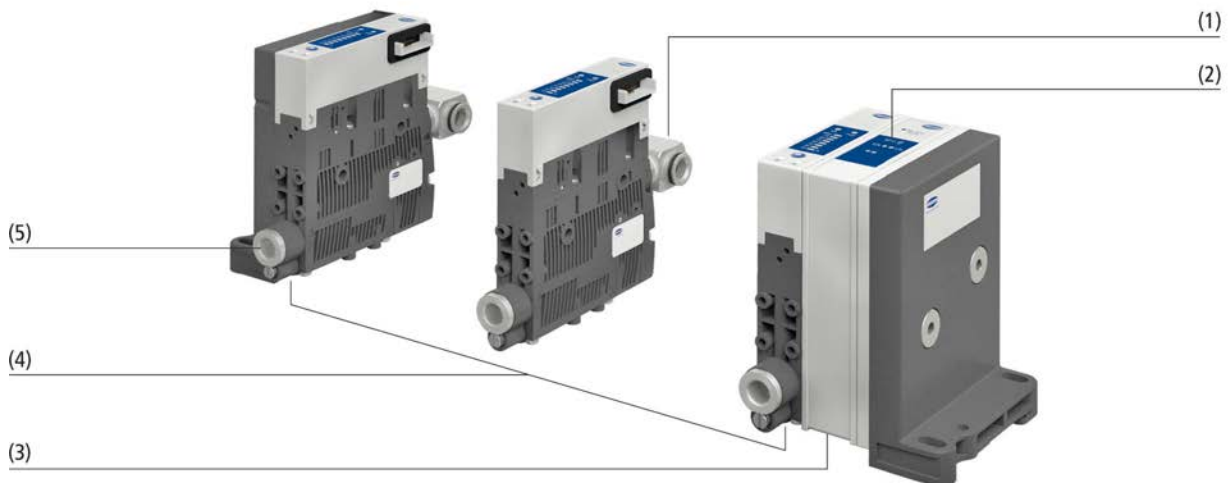


Connecting individual ejectors

Connecting the SCTMi

## Design

- Lean, central compressed air supply (1)
- NFC chip (2) for reading and writing process information
- Central power supply and IO-Link connection M12, 5-pin via the control module (3)
- Threaded vacuum connections (5)
- Compact vacuum terminal with max. 16 block-mounted compact ejectors (4)



System design Compact Terminal SCTMi

# Compact Terminal SCTMi

Configuration code – Selection and ordering aid



## SCTMi-IOL – 11112



### Main Body SCTMi

Code	Type
SCTMi-IOL	Main body SCTMi IO-Link



### Ejectors

Code*	Type	Part no.
1	SCPSt 07 G02 NO	10.02.02.04676
2	SCPSt 10 G02 NO	10.02.02.04681
3	SCPSt 15 G02 NO	10.02.02.04675
4	SCPSt 07 G02 NC	10.02.02.04673
5	SCPSt 10 G02 NC	10.02.02.04429
6	SCPSt 15 G02 NC	10.02.02.04678

#### Example: SCTMi-IOL01

Main body and IO-Link master element with IO-Link electrical connection using M12, 5-pin plug

#### Example: 11112200-00000000

4x ejector SCPSt 07 G02 NO (10.02.02.04676) and 2x ejector SCPSt 10 G02 NO (10.02.02.04681)



### Ordering Code Compact Ejectors SCPSt

SCPSt	-	2	-	07	-	G02	-	NC
1		2		3		4		5

#### 1 – Abbreviated designation

Code	Version
SCPSt	SCPSt

#### 2 – Nozzle technology

Code	Type
2	2-stage

#### 3 – Nozzle size

Code	Diameter in mm
07	0.7
10	1.0
15	1.5
2-07	0.7
2-09	0.9
2-15	1.4

#### 4 – Connection

Code	Connection
G02	Connection thread 2

#### 5 – Idle valve position

Code	Type
NC	Normally closed
NO	Normally open



**200-00000000**

**- P**



**Collective Pneumatic Connection**

Code*	Type	Part no.
7	SCPSt 2-07 G02 NO	10.02.02.04677
8	SCPSt 2-09 G02 NO	10.02.02.04682
9	SCPSt 2-14 G02 NO	10.02.02.04680
A	SCPSt 2-07 G02 NC	10.02.02.04674
B	SCPSt 2-09 G02 NC	10.02.02.04683
C	SCPSt 2-14 G02 NC	10.02.02.04679

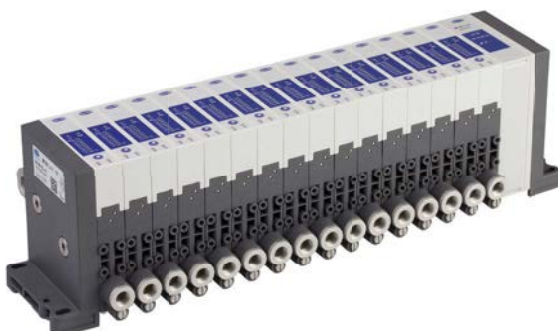
Code	Type
P	With collective pneumatic connection
X	Without collective pneumatic connection

**Note:**  
2 to 16 ejectors can be configured. A bigger inner hose diameter for air supply is required by 9 or more ejectors.

**Example: P**  
Collective pneumatic connection for supplying all ejectors with one, two or three compressed air lines

\*Each digit represents an ejector position.  
Unassigned positions are indicated by "0".

**Sample Configuration SCTMi**



**SCTMi-IOL - 88BB88BB-88BB88BB - P**

Main body and IO-Link master element with IO-Link connection	8x ejector SCPSt 2-09 G02 NO (10.02.02.04682) and 8x ejector SCPSt 2-09 G02 NC (10.02.02.04683)	Collective pneumatic connection
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Note: Our experienced specialists will assist you in setting up and configuring your terminal. Contact details can be found on the back of the catalog.

# Compact Terminal SCTMi

## Technical data

### Technical Data Compact Terminal SCTMi (Electronics)

Type	Operating temperature [°C]	Pressure range (operating pressure) [bar]	Electrical connection	Communication
SCTMi-IOL	0...50	2...6	M12, 5-pin plug	IO-Link class B

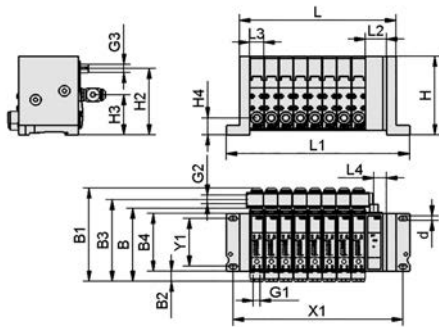
### Technical Data Compact Ejectors SCPSt

Type	Nozzle size [mm]	Degree of evacuation [%]*	Max. suction rate [m³/h]*	Max. suction rate [l/min]*	Vacuum air consumption [m³/h]*	Air consumption blow-off [m³/h]*	Sound level free* [dB(A)]**	Sound level during gripping* [dB(A)]**
SCPSt 07...	07	85	0.98	16.0	1.35	7.25	63	58
SCPSt 10...	10	85	2.21	36.0	2.85	7.25	73	60
SCPSt 15...	15	85	4.03	65.5	6.03	7.25	73	65
SCPSt 2-07...	2-07	85	2.28	37.0	1.35	7.25	63	58
SCPSt 2-09...	2-09	85	3.05	49.5	2.49	7.25	73	60
SCPSt 2-14...	2-14	85	4.40	71.5	5.04	7.25	75	65

\*At optimal operating pressure (4 bar)

\*\*No linear increase in sound level with increase in ejector disks

### Design Data Compact Terminal SCTMi



SCTMi-IOL...

Type*	Dimensions in mm																				m (g)**
	L	L1	L2	L3	L4	B	B1	B2	B3	B4	H	H2	H3	H4	d	X1	Y1	G1**	G2**	G3**	
SCTMi-IOL(2)	89.2	123.2	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	108	64	G1/8"-F	G1/4"-F	M12x1-M	700
SCTMi-IOL(3)	107.7	141.7	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	125	64	G1/8"-F	G1/4"-F	M12x1-M	910
SCTMi-IOL(4)	126.2	160.2	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	143	64	G1/8"-F	G1/4"-F	M12x1-M	1,120
SCTMi-IOL(5)	144.7	178.7	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	162	64	G1/8"-F	G1/4"-F	M12x1-M	1,330
SCTMi-IOL(6)	163.2	197.2	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	180	64	G1/8"-F	G1/4"-F	M12x1-M	1,540
SCTMi-IOL(7)	181.7	215.7	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	199	64	G1/8"-F	G1/4"-F	M12x1-M	1,750
SCTMi-IOL(8)	200.2	234.2	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	217	64	G1/8"-F	G1/4"-F	M12x1-M	1,960
SCTMi-IOL(9)	218.7	252.7	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	236	64	G1/8"-F	G1/4"-F	M12x1-M	2,170
SCTMi-IOL(10)	237.2	271.2	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	254	64	G1/8"-F	G1/4"-F	M12x1-M	2,380
SCTMi-IOL(11)	255.7	289.7	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	273	64	G1/8"-F	G1/4"-F	M12x1-M	2,590
SCTMi-IOL(12)	274.2	308.2	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	291	64	G1/8"-F	G1/4"-F	M12x1-M	2,800
SCTMi-IOL(13)	292.7	326.7	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	310	64	G1/8"-F	G1/4"-F	M12x1-M	3,010
SCTMi-IOL(14)	311.2	345.2	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	328	64	G1/8"-F	G1/4"-F	M12x1-M	3,220
SCTMi-IOL(15)	329.7	363.7	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	347	64	G1/8"-F	G1/4"-F	M12x1-M	3,430
SCTMi-IOL(16)	348.2	382.2	27	18.5	16	97.5	125	13.5	109	77	105	89	54	22.5	5.5	365	64	G1/8"-F	G1/4"-F	M12x1-M	3,640

\*(2...16) corresponds to the number of installed ejectors

\*\*With compressed air distributor

# Compact Terminal SCTMi

Ideal for use in the smart production of the future

## Highlights of the Compact Terminal SCTMi

The Compact Terminal SCTMi offers an enormous range of innovative, energysaving technologies and networking options for use in intelligent factories. This page introduces you to the most important features.

### Near-Field Communication (NFC)

- Reliable communication via an energy-neutral, point-to-point connection
- Visible data – Both statistical data (such as the serial number) and dynamic process data (such as switching points) can be read out
- Parameterization option – An app can be used to parameterize the SCTMi directly from a smartphone



### Networking in Industry 4.0 Systems

- The **IO-Link** connection means that recorded data can be viewed and used all the way up to the control level, which allows for bidirectional parameterization and diagnostics in all conventional field-bus systems
- **Condition monitoring** increases system availability by providing detailed analyses of the system's condition and early detection of faults
- **Predictive maintenance** improves the performance of gripping systems
- **Energy monitoring** optimizes the vacuum system's energy consumption



### Automatic Air Saving Function

- Switches off the suction function once a safe vacuum value has been reached until the next cycle or until the vacuum falls below the safe vacuum value
- Various configuration values and air saving settings can be programmed separately for each ejector
- Reduction of compressed air consumption by up to 80 %



### Integrated Electronic Sub-Bus System

- Electronic control can be implemented with just a single cable
- Comprehensive data communication via IO-Link and near-field communication (NFC)
- All ejectors can be separately programmed and controlled

### Eco-Nozzle Technology

- Eco-nozzle technology provides a considerably higher suction rate with minimized compressed air consumption for energyefficient vacuum generation

## At your side worldwide



### Subsidiaries

- Schmalz Benelux – Hengelo (NL)
- Schmalz Canada – Mississauga
- Schmalz China – Shanghai
- Schmalz Finland – Vantaa
- Schmalz France – Champs-sur-Marne
- Schmalz India – Pune
- Schmalz Italy – Novara
- Schmalz Japan – Yokohama
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- Schmalz Poland – Suchy Las (Poznan)
- Schmalz Russia – Moscow
- Schmalz South Korea – Anyang
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- Schmalz Switzerland – Nürens Dorf
- Schmalz Turkey – Istanbul
- Schmalz United States – Raleigh (NC)

### Headquarters

Schmalz Germany – Glatten

### Sales Partners

You can find the Schmalz sales partner in your country at:  
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## Vacuum Automation

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J. Schmalz GmbH  
 Johannes-Schmalz-Str. 1  
 72293 Glatten, Germany  
 T: +49 7443 2403-0  
 schmalz@schmalz.de  
 www.schmalz.com