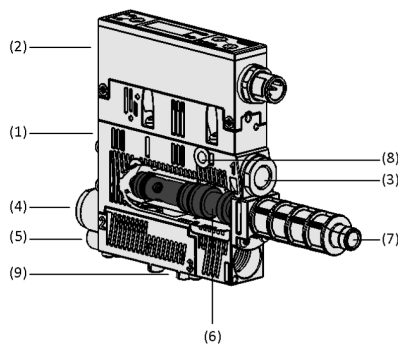


Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

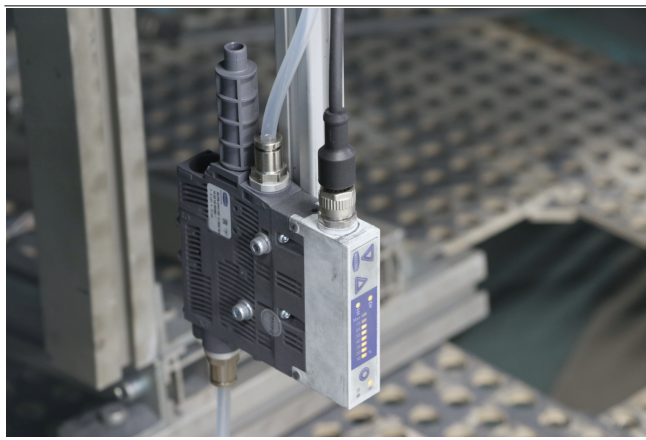
Suction rate from 13 l/min to 54 l/min



Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD



System design Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD



Mounting example compact ejector SCPS-UHV-HD

Suitability for industry specific applications

Application

- Robust compact ejector for handling suction-tight workpieces using high vacuum for maximum holding force
- Ideal for applications with dirty ambient conditions thanks to fine, easy-to-clean filter screen at the vacuum inlet
- Use in CNC machining centres for clamping workpieces
- Provision of the vacuum during fully automated parts handling
- Use in handling with robots and on linear axes

Design

- Basic module made of high-strength plastics (1)
- Control unit (2) in different versions: SCPSb with pneumatic valves for suction function NO / NC and blow off, SCPSc with LED bar display and M12-5 connector plug, SCPSi and SCPSi with integrated display and M12-5 connector plug
- Pneumatic connections for pressure (3) and vacuum (4)
- Throttle screw for adjusting the blow off force (5)
- Exchangeable nozzle (6) with attached silencer (7)
- Mounting hole (8) and receptacle for DIN rail mount (9)

Product highlights

- Special nozzle technology for an increased vacuum level enables higher holding forces with the same suction surface
- Quick release fastener for easy and tool-free removal of the nozzle for cleaning
- Increased dirt resistance and low maintenance due to fine filter screen at the vacuum inlet, even under extreme environmental influences
- Integrated air saving function to reduce compressed air consumption by up to 80 % and noise pollution
- SCPSi variant with IO-Link minimizes the installation effort by adopting device and process parameters

Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

Suction rate from 13 l/min to 54 l/min

Designation code Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

SCPS-UHV-HD	–	07	–	G02	–	NC	–	NPN
1		2		3		4		5

1 – Abbreviated designation

Code	Version
SCPSb-UHV-HD	SCPSb-UHV-HD
SCPS-UHV-HD	SCPS-UHV-HD
SCPSc-UHV-HD	SCPSc-UHV-HD
SCPSi-UHV-HD	SCPSi-UHV-HD

2 – Nozzle size

Code	Diameter in mm
07...16	ø 0.7 to 1.6

3 – Connection

Code	Connection
S02	Quick connect push-in coupling 2
S04	Quick connect push-in coupling 4
G02	Connection thread 2

4 – Idle position suction valve

Code	Type
NC	Normally closed
NO	Normally open

5 – Switching function

Code	Type
NPN	Switches to minus
PNP	Switches to plus

Compact ejector SCPSb- / SCPS- / SCPSc- / SCPSi-UHV-HD is delivered as a ready-to-connect product (without connection cable).

Available accessories: connection cable, distributor, top-hat rail clamp, filter, compressed air connection plate, mounting set

Ordering data Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

Type				Nozzle size:		
				07	11	16
SCPSb-UHV-HD	S04	NC	-	10.02.02.06258	10.02.02.06281	-
SCPSb-UHV-HD	S04	NO	-	10.02.02.06263	10.02.02.06282	-
SCPSb-UHV-HD	S02	NC	-	-	-	10.02.02.05330
SCPSb-UHV-HD	S02	NO	-	-	-	10.02.02.05331
SCPS-UHV-HD	G02	NC	NPN switching	10.02.02.06283	10.02.02.06287	10.02.02.05234
SCPS-UHV-HD	G02	NO	NPN switching	10.02.02.06285	10.02.02.06289	10.02.02.05325
SCPS-UHV-HD	G02	NC	PNP switching	10.02.02.06284	10.02.02.06288	10.02.02.05327
SCPS-UHV-HD	G02	NO	PNP switching	10.02.02.06286	10.02.02.06290	10.02.02.05328
SCPSc-UHV-HD	G02	NC	PNP switching	-	-	10.02.02.07427
SCPSc-UHV-HD	G02	NO	PNP switching	-	-	10.02.02.07509
SCPSc-UHV-HD	G02	NC	NPN switching	-	-	10.02.02.07610
SCPSc-UHV-HD	G02	NO	NPN switching	-	-	10.02.02.07510
SCPSi-UHV-HD	G02	NC	-	10.02.02.06291	10.02.02.06293	10.02.02.05065
SCPSi-UHV-HD	G02	NO	-	10.02.02.06292	10.02.02.06294	10.02.02.05235

Ordering data Accessories Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

Accessories		Part no.
Connection cable, M12 5-pole, 5 m, PUR, straight	ASK B-M12-5 5000 K-5P	21.04.05.00080
Connection cable, M12 5-pole, M12 5-pole, 1 m, PUR, straight	ASK B-M12-5 1000 S-M12-5	21.04.05.00158
Connection cable, M12 5-pole, M12 5-pole, 2 m, PUR, straight	ASK B-M12-5 2000 S-M12-5	21.04.05.00211
Connection distributor 1x M12, 5 pol, 2x M12, 4 pol	ASV SM/CPI B-M12-5 2xS-M12-4	10.02.02.03490
Top-hat rail clamp	HUT-SN-KL 75x18x9 SCPS	10.02.02.04149

Type		Accessories	Part no.
SCPS-UHV-HD	07	Vacuum filter	VFI CN6/4 50
SCPS-UHV-HD	11	Vacuum filter	VFI CN6/4 50
SCPS-UHV-HD	16	Vacuum filter	VFI CN8/6 50

Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

Suction rate from 13 l/min to 54 l/min

Technical data Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

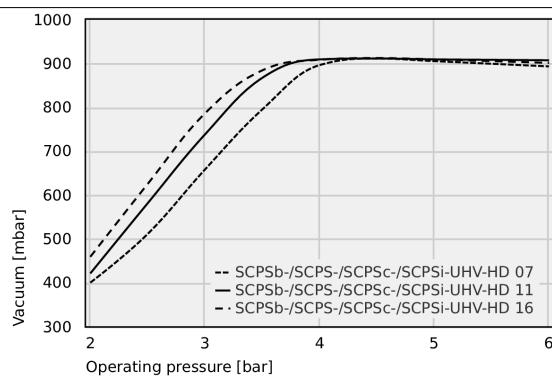
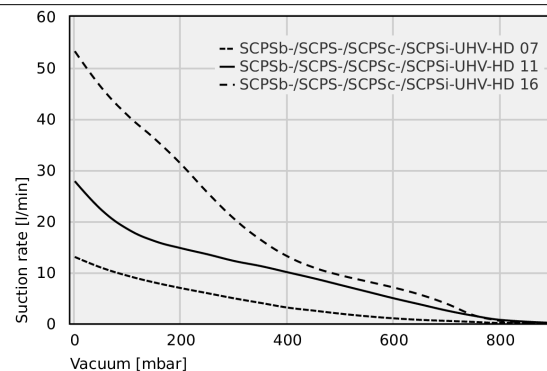
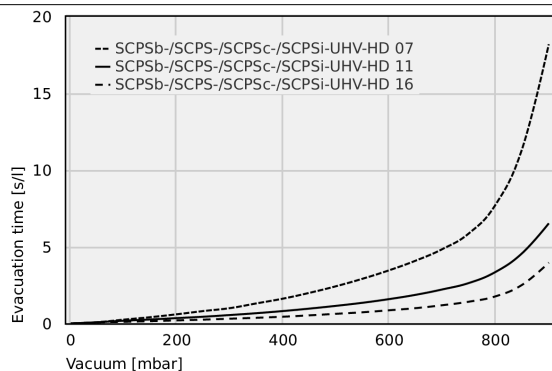
Type		Degree of evacuation [%]	Suction rate (max.) [l/min]	Suction rate (max.) [m³/h]	Air consumption suction [l/min]	Air consumption suction [m³/h]	Air consumption blow-off [m³/h]
SCPSb-UHV-HD	07	91	13.0	0.8	17.2	1.00	7.1
SCPSb-UHV-HD	11	91	27.8	1.6	37.5	2.21	7.1
SCPSb-UHV-HD	16	91	53.2	3.2	105.6	6.30	7.1
SCPS-UHV-HD	07	91	13.0	0.8	17.2	1.00	7.2
SCPS-UHV-HD	11	91	27.8	1.6	37.5	2.21	7.2
SCPS-UHV-HD	16	91	53.2	3.2	105.6	6.30	7.2
SCPSc-UHV-HD	16	91	53.2	3.2	105.6	6.30	7.2
SCPSi-UHV-HD	07	91	13.0	0.8	17.2	1.00	7.2
SCPSi-UHV-HD	11	91	27.8	1.6	37.5	2.21	7.2
SCPSi-UHV-HD	16	91	53.2	3.2	105.6	6.30	7.2

Type		Sound pressure level free [dB(A)]	Sound pressure level suction [dB(A)]	Operating pressure	Recommended hose internal diameter compressed air [mm]	Recommended hose internal diameter vacuum [mm]	Weight [kg]	Operating temperature
SCPSb-UHV-HD	07	62	64	3.0 ... 6.0 bar	4	4	0.21	5 ... 50 °C
SCPSb-UHV-HD	11	68	75	3.0 ... 6.0 bar	4	4	0.21	5 ... 50 °C
SCPSb-UHV-HD	16	75	77	3.0 ... 6.0 bar	4	6	0.21	5 ... 50 °C
SCPS-UHV-HD	07	62	64	3.0 ... 6.0 bar	4	4	0.21	0 ... 50 °C
SCPS-UHV-HD	11	68	75	3.0 ... 6.0 bar	4	4	0.21	0 ... 50 °C
SCPS-UHV-HD	16	75	77	3.0 ... 6.0 bar	4	6	0.21	0 ... 50 °C
SCPSc-UHV-HD	16	75	77	3.0 ... 6.0 bar	4	6	0.21	0 ... 50 °C
SCPSi-UHV-HD	07	62	64	3.0 ... 6.0 bar	4	4	0.21	0 ... 50 °C
SCPSi-UHV-HD	11	68	75	3.0 ... 6.0 bar	4	4	0.21	0 ... 50 °C
SCPSi-UHV-HD	16	75	77	3.0 ... 6.0 bar	4	6	0.21	0 ... 50 °C

Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

Suction rate from 13 l/min to 54 l/min

Performance data Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD



Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

Suction rate from 13 l/min to 54 l/min

	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
SCPSb-/SCPS-/SCPSi-UHV-HD 07	0.00	0.08	0.25	0.41	0.60	0.81	1.00	1.31	1.62	2.00	2.43	2.92	3.47	4.10	4.85	5.88	7.75	11.39	18.19
SCPSb-/SCPS-/SCPSi-UHV-HD 11	0.00	0.08	0.18	0.26	0.35	0.44	0.55	0.67	0.81	0.97	1.15	1.35	1.59	1.87	2.22	2.64	3.36	4.58	6.52
SCPSb-/SCPS-/SCPSi-UHV-HD 16	0.00	0.07	0.11	0.15	0.20	0.25	0.31	0.37	0.44	0.53	0.63	0.73	0.86	1.00	1.19	1.42	1.77	2.52	3.96

	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	900
SCPSb-/SCPS-/SCPSi-UHV-HD 07	13.0	10.9	9.3	8.0	6.9	5.9	4.9	4.0	3.1	2.5	1.9	1.4	1.0	0.7	0.5	0.3	0.1	0.1
SCPSb-/SCPS-/SCPSi-UHV-HD 11	27.8	22.2	18.4	16.1	14.7	13.5	12.2	11.2	10.0	8.8	7.5	6.2	4.9	3.7	2.5	1.5	0.7	0.1
SCPSb-/SCPS-/SCPSi-UHV-HD 16	53.2	46.1	40.6	36.1	31.1	25.5	20.4	16.3	13.1	10.9	9.4	8.2	7.0	5.6	3.8	1.6	0.5	0.1

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
SCPSb-/SCPS-/SCPSi-UHV-HD 07	400	511	658	795	896	911	905	899	893
SCPSb-/SCPS-/SCPSi-UHV-HD 11	421	581	738	867	909	911	909	908	907
SCPSb-/SCPS-/SCPSi-UHV-HD 16	459	625	786	884	908	912	909	905	901

Suction rate from 13 l/min to 54 l/min

 WWW.SCHMALZ.COM/SCPS-UHV-HD

Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

Suction rate from 13 l/min to 54 l/min

Design data Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

Type	B [mm]	B1 [mm]	D [mm]	d [mm]	D2 [mm]	d3 [mm]	G1	G2		H [mm]	H2 [mm]	H3 [mm]
SCPSi-UHV-HD 16 G02 NC	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPS-UHV-HD 16 G02 NC NPN	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPSi-UHV-HD 16 G02 NO	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPS-UHV-HD 16 G02 NO NPN	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPS-UHV-HD 16 G02 NC PNP	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPS-UHV-HD 16 G02 NO PNP	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPSb-UHV-HD 16 S02 NC	18	18.61	16.5	4.41	9	2.6	-	-	-	78	40.8	47.5
SCPSb-UHV-HD 16 S02 NO	18	18.61	16.5	4.41	9	2.6	-	-	-	78	40.8	47.5
SCPSb-UHV-HD 07 S04 NC	18	18.61	16.5	4.41	9	2.6	-	-	-	78	40.8	47.5
SCPSb-UHV-HD 07 S04 NO	18	18.61	16.5	4.41	9	2.6	-	-	-	78	40.8	47.5
SCPSb-UHV-HD 11 S04 NC	18	18.61	16.5	4.41	9	2.6	-	-	-	78	40.8	47.5
SCPSb-UHV-HD 11 S04 NO	18	18.61	16.5	4.41	9	2.6	-	-	-	78	40.8	47.5
SCPS-UHV-HD 07 G02 NC NPN	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPS-UHV-HD 07 G02 NC PNP	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPS-UHV-HD 07 G02 NO NPN	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPS-UHV-HD 07 G02 NO PNP	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPS-UHV-HD 11 G02 NC NPN	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPS-UHV-HD 11 G02 NC PNP	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPS-UHV-HD 11 G02 NO NPN	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5

Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

Suction rate from 13 l/min to 54 l/min

Type	B [mm]	B1 [mm]	D [mm]	d [mm]	D2 [mm]	d3 [mm]	G1	G2		H [mm]	H2 [mm]	H3 [mm]
SCPS-UHV-HD 11 G02 NO PNP	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPSc-UHV-HD 16 G02 NC PNP	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPSc-UHV-HD 16 G02 NO PNP	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPSc-UHV-HD 16 G02 NO NPN	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPSc-UHV-HD 16 G02 NC NPN	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPSi-UHV-HD 07 G02 NC	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPSi-UHV-HD 07 G02 NO	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPSi-UHV-HD 11 G02 NC	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5
SCPSi-UHV-HD 11 G02 NO	18	18.61	16.5	4.41	9	2.6	G1/8"-F	G1/8"-F	M12x1-M	99	40.8	47.5

Type	H4 [mm]	H5 [mm]	H6 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	X1 [mm]	X2 [mm]	Y1 [mm]	Y2 [mm]
SCPSi-UHV-HD 16 G02 NC	16.5	5.5	31.5	91.5	22	31.0	83.8	36.9	16	12	12
SCPS-UHV-HD 16 G02 NC NPN	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPSi-UHV-HD 16 G02 NO	16.5	5.5	31.5	91.5	22	31.0	83.8	36.9	16	12	12
SCPS-UHV-HD 16 G02 NO NPN	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPS-UHV-HD 16 G02 NC PNP	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPS-UHV-HD 16 G02 NO PNP	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPSb-UHV-HD 16 S02 NC	16.5	5.5	31.5	81.6	22	31.0	-	36.9	16	12	12
SCPSb-UHV-HD 16 S02 NO	16.5	5.5	31.5	81.6	22	31.0	-	36.9	16	12	12
SCPSb-UHV-HD 07 S04 NC	16.5	5.5	31.5	81.6	22	31.0	-	36.9	16	12	12
SCPSb-UHV-HD 07 S04 NO	16.5	5.5	31.5	81.6	22	31.0	-	36.9	16	12	12
SCPSb-UHV-HD 11 S04 NC	16.5	5.5	31.5	81.6	22	31.0	-	36.9	16	12	12
SCPSb-UHV-HD 11 S04 NO	16.5	5.5	31.5	81.6	22	31.0	-	36.9	16	12	12

Compact Ejectors SCPSb- / SCPSc- / SCPSi-UHV-HD

Suction rate from 13 l/min to 54 l/min

Type	H4 [mm]	H5 [mm]	H6 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	X1 [mm]	X2 [mm]	Y1 [mm]	Y2 [mm]
SCPS-UHV-HD 07 G02 NC NPN	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPS-UHV-HD 07 G02 NC PNP	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPS-UHV-HD 07 G02 NO NPN	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPS-UHV-HD 07 G02 NO PNP	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPS-UHV-HD 11 G02 NC NPN	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPS-UHV-HD 11 G02 NC PNP	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPS-UHV-HD 11 G02 NO NPN	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPS-UHV-HD 11 G02 NO PNP	16.5	5.5	31.5	91.5	22	29.5	83.8	36.9	16	12	12
SCPSi-UHV-HD 07 G02 NC	16.5	5.5	31.5	91.5	22	31.0	83.8	36.9	16	12	12
SCPSi-UHV-HD 07 G02 NO	16.5	5.5	31.5	91.5	22	31.0	83.8	36.9	16	12	12
SCPSi-UHV-HD 11 G02 NC	16.5	5.5	31.5	91.5	22	31.0	83.8	36.9	16	12	12
SCPSi-UHV-HD 11 G02 NO	16.5	5.5	31.5	91.5	22	31.0	83.8	36.9	16	12	12

Multimedia product presentation

Medium

Product video

Link

<https://vimeo.com/554726007>
<https://vimeo.com/147436675>