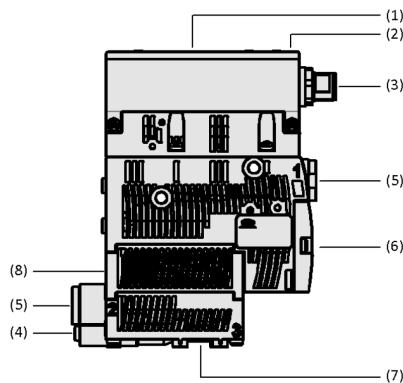


Compact Ejectors SCPSc / SCPSi

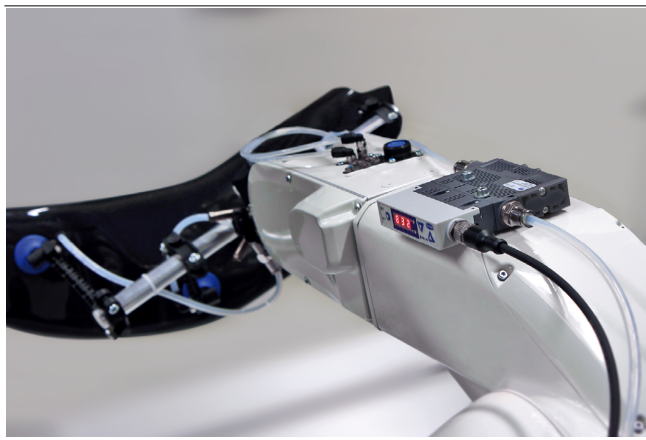
Suction rate from 16 l/min to 72 l/min



Compact Ejectors SCPSc / SCPSi



System design Compact Ejectors SCPSc / SCPSi



Centralized vacuum generation by means of compact ejector SCPSi

Suitability for industry specific applications

Application

- Compact ejector for handling of airtight and slightly porous workpieces
- Generation and monitoring of the vacuum in automated systems
- Use in robot handling and on linear axes
- Pick and place applications with shortest cycle times
- For systems with limited space and high dynamics when gripping parts
- Typically for use in fully automated small parts handling applications

Design

- Basic module made of high strength plastic and open silencer (6)
- Display screen or LED bar display (1) with operating keyboard (2) for easy setting of system parameters
- Electrical connection (3) via M12 plug, with metal thread
- Integrated pneumatic valves for switching functions NO or NC
- Optionally with additional power blow off module (8)
- Screw (4) to adjust blow off for lightweight pieces, pneumatic connection (5), optional mounting to DIN rails (7)

Product highlights

- Eco nozzle technology allows high suction rate with minimized compressed air consumption
- Integrated air saving function reduces compressed air consumption by up to 80 %
- IO-Link simplifies commissioning and access to device and process data
- Vacuum parameters on bright display or LED bar display very easy to read

Compact Ejectors SCPSc / SCPSi

Suction rate from 16 l/min to 72 l/min

Designation code Compact Ejectors SCPSc / SCPSi

SCPS	–	07	–	M	–	G02	–	NO	–	M12-5
1		2		3		4		5		6

PNP
7

1 – Abbreviated designation

Code	Version
SCPS	SCPS
SCPSc	SCPSc
SCPSi	SCPSi (IO-Link)

4 – Connection

Code	Connection
G02	Connection thread 2

7 – Switching function

Code	Type
PNP	Switches to plus
NPN	Switches to minus

2 – Nozzle size

Code	Diameter in mm
07...15	ø 0.7 to 1.5 (single stage)
2-07...2-14	ø 0.7 to 1.4 (double stage)

5 – Idle position suction valve

Code	Type
NC	Normally closed
NO	Normally open
IMP	Pulse valve

3 – Shape

Code	Type
M	Power blow off

6 – Connection electrical

Code	Connection
M12-5	M12, 5-pole

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

Available accessories: connection cable, distributor, DIN rail mount, filter, compressed air connection plate, mounting set, exhaust air set

Compact Ejectors SCPSc / SCPSi

Suction rate from 16 l/min to 72 l/min

Ordering data Compact Ejectors SCPSc / SCPSi

Type				Nozzle size:		
				07	10	15
SCPS	-	NC	PNP switching	-	10.02.02.04112	10.02.02.04114 
SCPS	-	NC	PNP switching	M	10.02.02.06750	10.02.02.06751
SCPS	-	NC	NPN switching	M	10.02.02.06763	10.02.02.06764
SCPS	-	NO	PNP switching	-	10.02.02.04111	10.02.02.04113 
SCPS	-	NO	PNP switching	M	10.02.02.06756	10.02.02.06758
SCPS	-	NO	NPN switching	M	10.02.02.06766	10.02.02.06767
SCPSc	-	NC	PNP switching	-	10.02.02.07501	10.02.02.07489
SCPSc	-	NO	PNP switching	-	10.02.02.07505	10.02.02.07492
SCPSi	-	NC	-	-	10.02.02.04121 	10.02.02.04123  
SCPSi	-	NC	-	M	10.02.02.06753 	10.02.02.06550 
SCPSi	-	NO	-	-	10.02.02.04120 	10.02.02.04122  
SCPSi	-	NO	-	M	10.02.02.06760 	10.02.02.06761 
SCPSi	-	IMP	-	-	10.02.02.06833 	10.02.02.06834 
SCPSi	-	IMP	-	M	10.02.02.06830 	10.02.02.06831 

Type				Nozzle size:		
				2-07	2-09	2-14
SCPS	-	NC	PNP switching	10.02.02.04360	10.02.02.04362	10.02.02.04364
SCPS	-	NO	PNP switching	10.02.02.04359	10.02.02.04361	10.02.02.04363
SCPSc	-	NC	PNP switching	10.02.02.07507	10.02.02.07504	10.02.02.07497
SCPSc	-	NO	PNP switching	10.02.02.07508	10.02.02.07506	10.02.02.07499
SCPSi	-	NC	-	10.02.02.04366 	10.02.02.04368 	10.02.02.04370 
SCPSi	-	NO	-	10.02.02.04365 	10.02.02.04367 	10.02.02.04369 
SCPSc	BY	NC	PNP switching	-	-	10.02.02.07396
SCPSc	BY	NC	NPN switching	-	-	10.02.02.07397
SCPSc	BY	NO	PNP switching	-	-	10.02.02.07394
SCPSc	BY	NO	NPN switching	-	-	10.02.02.07395
SCPSi	BY	NC	-	-	-	10.02.02.07391
SCPSi	BY	NO	-	-	-	10.02.02.07390

Ordering data Spare parts Compact Ejectors SCPSc / SCPSi

Type	Spare parts			Part no.
SCPSi	M	Release module (inst)	MOD-ABW 54.8x18x19 SCPSi/i/t	10.02.02.06491
SCPS	M	Release module (inst)	MOD-ABW 54.8x18x19 SCPS/i/t	10.02.02.06491

Ordering data Accessories Compact Ejectors SCPSc / SCPSi

Type			Part no.
Connection cable, M12 5-pole, 5 m, PUR, straight	ASK B-M12-5 5000 K-5P		21.04.05.00080
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
Vacuum filter	VFI CN6/4 50		10.07.01.00241
Vacuum filter	VFI CN8/6 50		10.07.01.00245
Compressed air connection plate	GP 4 SCPS 07..15 G2		10.02.02.04338
Mounting set	SET SCPS		10.02.02.04343

Type	Accessories		Part no.
SCPS/SCPSc/SCPSi	Exhaust air set	ABL-SET SCPS single-stage	10.02.02.04216
SCPS/SCPSi	Exhaust air set	ABL-SET SCPS single-stage	10.02.02.04216
SCPS/SCPSi 2	Exhaust air set	ABL-SET SCPS two-stage	10.02.02.04667

Compact Ejectors SCPSc / SCPSi

Suction rate from 16 l/min to 72 l/min

Technical data Compact Ejectors SCPSc / SCPSi

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]
SCPS 07 G02 NO M12-5 PNP	85	16.0	0.98	22.0	1.35	7.20
SCPS 07 M G02 NC M12-5 PNP	85	16.0	0.98	22.0	1.35	7.20
SCPS 10 G02 NO M12-5 PNP	85	36.0	2.21	46.0	2.85	7.20
SCPS 10 M G02 NC M12-5 PNP	85	36.0	2.21	46.0	2.85	7.20
SCPS 15 G02 NO M12-5 PNP	85	65.5	4.03	98.0	6.03	7.20
SCPS 15 M G02 NC M12-5 PNP	85	65.5	4.03	98.0	6.03	7.20
SCPS 2-07 G02 NO M12-5 PNP	85	37.0	2.28	22.0	1.35	7.20
SCPS 2-09 G02 NO M12-5 PNP	85	49.5	3.05	40.5	2.49	7.20
SCPS 2-14 G02 NO M12-5 PNP	85	71.5	4.40	82.0	5.04	7.20
SCPSc 07 G02 NC M12-5 PNP	85	16.0	0.98	22.0	1.35	7.20
SCPSc 07 G02 NO M12-5 PNP	85	16.0	0.98	22.0	1.35	7.20
SCPSc 10 G02 NC M12-5 PNP	85	36.0	2.21	46.0	2.85	7.20
SCPSc 10 G02 NO M12-5 PNP	85	36.0	2.21	46.0	2.85	7.20
SCPSc 15 G02 NC M12-5 PNP	85	65.5	4.03	98.0	6.03	7.20
SCPSc 15 G02 NO M12-5 PNP	85	65.5	4.03	98.0	6.03	7.20
SCPSc 2-07 G02 NC M12-5 PNP	85	37.0	2.28	22.0	1.35	7.20
SCPSc 2-07 G02 NO M12-5 PNP	85	37.0	2.28	22.0	1.35	7.20
SCPSc 2-09 G02 NC M12-5 PNP	85	49.5	3.05	40.5	2.49	7.20
SCPSc 2-09 G02 NO M12-5 PNP	85	49.5	3.05	40.5	2.49	7.20
SCPSc 2-14 G02 NC M12-5 PNP	85	71.5	4.40	82.0	5.04	7.20
SCPSc 2-14 G02 NO M12-5 PNP	85	71.5	4.40	82.0	5.04	7.20
SCPSi BY 2-14 G02 NO M12-5	85	71.5	2.28	82.0	5.04	7.20
SCPSi BY 2-14 G02 NC M12-5	85	71.5	4.40	82.0	5.04	7.20

*At optimal operating pressure (4 bar)

**At optimal operating pressure (4 bar)

Type	Sound pressure level free [dB(A)]*	Sound pressure level suction [dB(A)]	Pressure range (operating pressure) [bar]	Recommended hose internal diameter compressed air [mm]**	Recommended hose internal diameter vacuum [mm]***	Weight [kg]	Operating temperature [°C]
SCPS 07 G02 NO M12-5 PNP	63	58	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C

Compact Ejectors SCPSc / SCPSi

Suction rate from 16 l/min to 72 l/min

Type	Sound pressure level free [dB(A)]*	Sound pressure level suction [dB(A)]	Pressure range (operating pressure) [bar]	Recommended hose internal diameter compressed air [mm]**	Recommended hose internal diameter vacuum [mm]***	Weight [kg]	Operating temperature [°C]
SCPS 07 M G02 NC M12-5 PNP	63	58	3.0 ... 6.0 bar	4	4	0.212	0 ... 50 °C
SCPS 10 G02 NO M12-5 PNP	75	61	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPS 10 M G02 NC M12-5 PNP	75	61	3.0 ... 6.0 bar	4	4	0.212	0 ... 50 °C
SCPS 15 G02 NO M12-5 PNP	77	65	3.0 ... 6.0 bar	4	6	0.195	0 ... 50 °C
SCPS 15 M G02 NC M12-5 PNP	77	65	3.0 ... 6.0 bar	4	6	0.212	0 ... 50 °C
SCPS 2-07 G02 NO M12-5 PNP	63	58	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPS 2-09 G02 NO M12-5 PNP	73	62	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPS 2-14 G02 NO M12-5 PNP	75	70	3.0 ... 6.0 bar	4	6	0.195	0 ... 50 °C
SCPSc 07 G02 NC M12-5 PNP	63	58	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPSc 07 G02 NO M12-5 PNP	63	58	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPSc 10 G02 NC M12-5 PNP	75	61	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPSc 10 G02 NO M12-5 PNP	75	61	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPSc 15 G02 NC M12-5 PNP	77	65	3.0 ... 6.0 bar	4	6	0.195	0 ... 50 °C
SCPSc 15 G02 NO M12-5 PNP	77	65	3.0 ... 6.0 bar	4	6	0.195	0 ... 50 °C
SCPSc 2-07 G02 NC M12-5 PNP	63	58	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPSc 2-07 G02 NO M12-5 PNP	63	58	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPSc 2-09 G02 NC M12-5 PNP	73	62	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPSc 2-09 G02 NO M12-5 PNP	73	62	3.0 ... 6.0 bar	4	4	0.195	0 ... 50 °C
SCPSc 2-14 G02 NC M12-5 PNP	75	70	3.0 ... 6.0 bar	4	6	0.195	0 ... 50 °C
SCPSc 2-14 G02 NO M12-5 PNP	75	70	3.0 ... 6.0 bar	4	6	0.195	0 ... 50 °C
SCPSi BY 2-14 G02 NO M12-5	75	70	3.0 ... 6.0 bar	4	6	0.195	0 ... 50 °C
SCPSi BY 2-14 G02 NC M12-5	75	70	3.0 ... 6.0 bar	4	6	0.195	0 ... 50 °C

*At optimal operating pressure (4 bar)

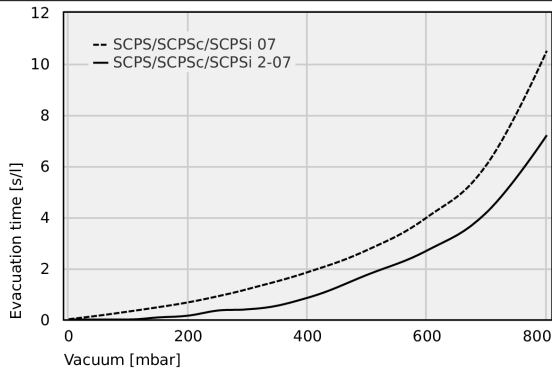
**For max. length 2 m

***For max. length 2 m

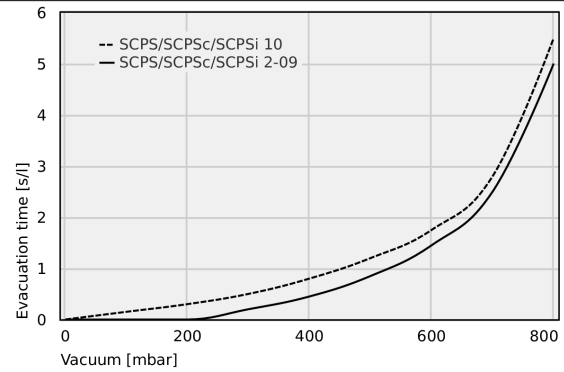
Compact Ejectors SCPSc / SCPSi

Suction rate from 16 l/min to 72 l/min

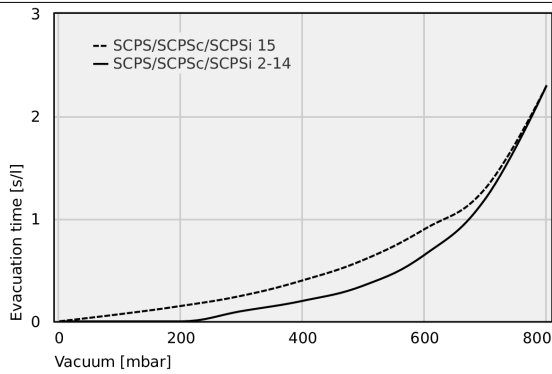
Performance data Compact Ejectors SCPSc / SCPSi



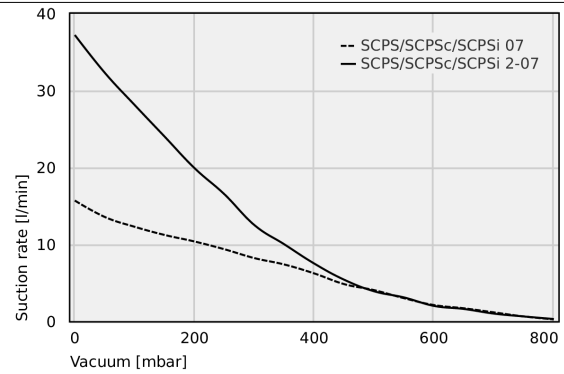
Evacuation time for various vacuum ranges [s/l]



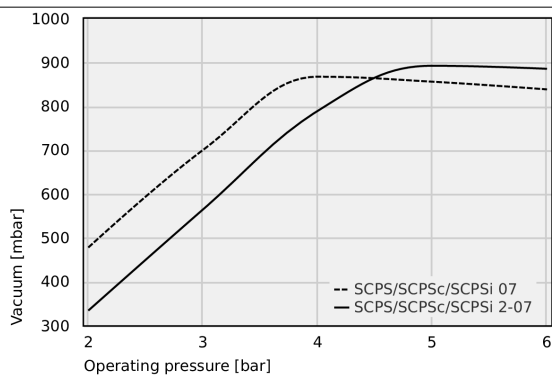
Evacuation time for various vacuum ranges [s/l]



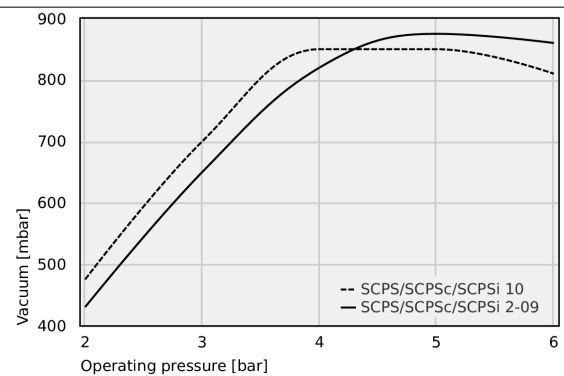
Evacuation time for various vacuum ranges [s/l]



Suction rate at various degrees of evacuation [l/min]



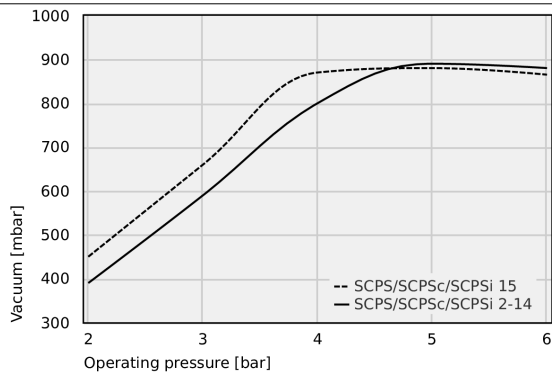
Achievable vacuum at various operating pressures



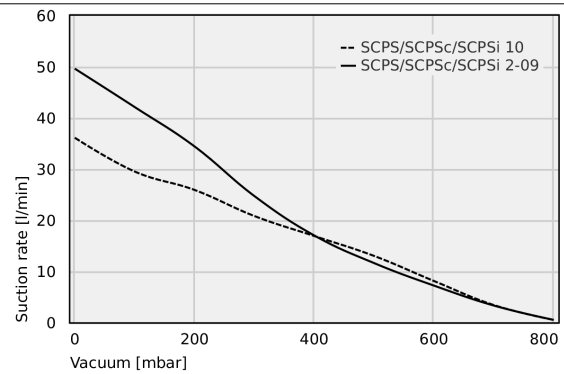
Achievable vacuum at various operating pressures

Compact Ejectors SCPSc / SCPSi

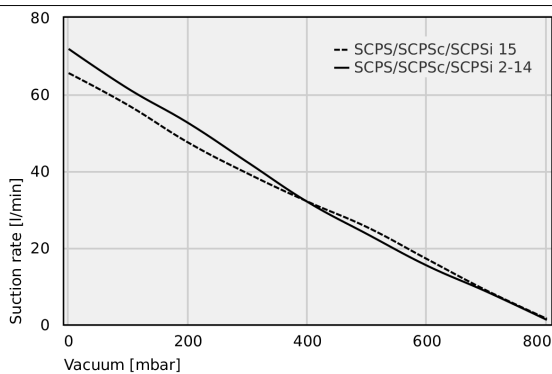
Suction rate from 16 l/min to 72 l/min



Achievable vacuum at various operating pressures



Suction rate at various degrees of evacuation [l/min]



Suction rate at various degrees of evacuation [l/min]

Compact Ejectors SCPSc / SCPSi

Suction rate from 16 l/min to 72 l/min

Evacuation time for various vacuum ranges [s/l]

	0	50	100	150	200	250	300	400	500	600	700	800
SCPS/SCPSc/ SCPSi 07	0.01	0.15	0.31	0.48	0.67	0.91	1.19	1.85	2.72	4.00	6.07	10.5
SCPS/SCPSc/ SCPSi 2-07	0.00	0.00	0.00	0.08	0.15	0.35	0.4	0.85	1.75	2.7	4.2	7.2
	0	100	200	300	400	500	600	700	800			
SCPS/SCPSc/ SCPSi 10	-	0.15	0.3	0.5	0.8	1.2	1.75	2.8	5.5			
SCPS/SCPSc/ SCPSi 2-09	-	-	-	0.2	0.45	0.85	1.45	2.5	5			
	0	100	200	300	400	500	600	700	800			
SCPS/SCPSc/ SCPSi 15	-	0.07	0.15	0.25	0.4	0.6	0.9	1.3	2.3			
SCPS/SCPSc/ SCPSi 2-14	-	-	-	0.1	0.2	0.35	0.65	1.2	2.3			

Suction rate at various degrees of evacuation [l/min]

	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
SCPS/ SCPSc/ SCPSi 07	15.69	13.56	12.28	11.22	10.37	9.36	8.21	7.38	6.22	4.83	4.05	3.00	2.11	1.69	1.16	0.63	0.25
SCPS/ SCPSc/ SCPSi 2-07	37.2	32.30	28.10	24.00	19.90	16.50	12.50	10.00	7.50	5.40	3.90	3.10	2.00	1.60	1.00	0.63	0.30
	0		100		200		300		400		500		600		700		800
SCPS/SCPSc/ SCPSi 10	36.1		29.5		25.9		20.8		16.9		13		8.1		3.4		0.5
SCPS/SCPSc/ SCPSi 2-09	49.6		42.1		34.4		24.7		17.0		11.6		7.2		3.3		0.5
	0		100		200		300		400		500		600		700		800
SCPS/SCPSc/ SCPSi 15	65.5		57.1		47.4		39.3		32		25.3		17		8.8		1.5
SCPS/SCPSc/ SCPSi 2-14	71.8		61.4		52.5		42.2		31.9		23.5		15.3		8.5		1.2

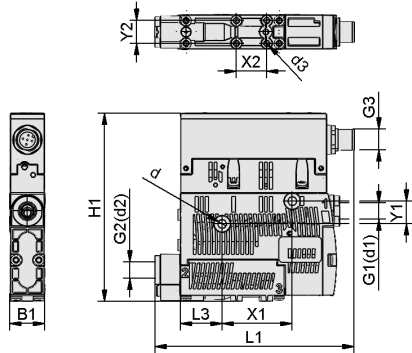
Achievable vacuum at various operating pressures

	2	3	4	5	6
SCPS/SCPSc/SCPSi 07	477.81	700.18	867.18	855.86	838.29
SCPS/SCPSc/SCPSi 2-07	334.00	564.57	789.19	892.20	885.26
	2	3	4	5	6
SCPS/SCPSc/SCPSi 10	475	700	850	850	810
SCPS/SCPSc/SCPSi 2-09	430	650	820	875	860
	2	3	4	5	6
SCPS/SCPSc/SCPSi 15	450	660	870	880	865
SCPS/SCPSc/SCPSi 2-14	390	590	800	890	880

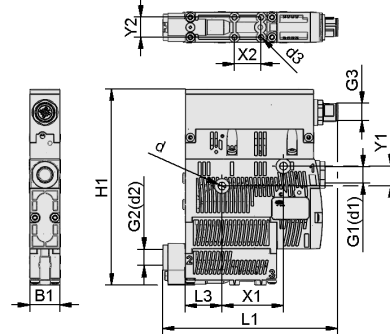
Compact Ejectors SCPSc / SCPSi

Suction rate from 16 l/min to 72 l/min

Design data Compact Ejectors SCPSc / SCPSi



SCPS / SCPSc / SCPSi



SCPS / SCPSc / SCPSi M

Compact Ejectors SCPSc / SCPSi

Suction rate from 16 l/min to 72 l/min

Design data Compact Ejectors SCPSc / SCPSi

Type		B1 [mm]	d [mm]	d3 [mm]	G1	G2	G3	H1 [mm]
SCPSc/SCPSc/SCPSi	-	18.6	4.4	2.6	G1/8"-F	G1/8"-F	M12x1-M	99.0
SCPSc/SCPSc/SCPSi 2	-	18.6	4.4	2.6	G1/8"-F	G1/8"-F	M12x1-M	99.0
SCPSc/SCPSc/SCPSi	M	18.6	4.4	2.6	G1/8"-F	G1/8"-F	M12x1-M	117.8

Type		L1 [mm]	L3 [mm]	X1 [mm]	X2 [mm]	Y1 [mm]	Y2 [mm]
SCPSc/SCPSc/SCPSi	-	105.0	22	36.9	16	12	12
SCPSc/SCPSc/SCPSi 2	-	106.0	22	36.9	16	12	12
SCPSc/SCPSc/SCPSi	M	105.0	22	36.9	16	12	12

Multimedia product presentation

Medium	Link
Product video	https://vimeo.com/147436675