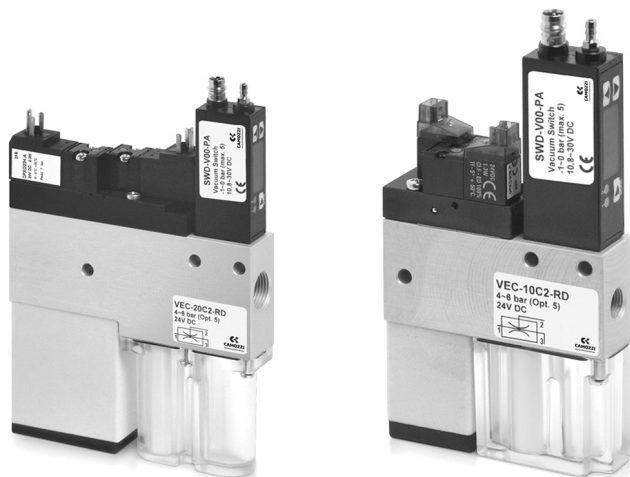


Series VEC compact ejectors

Vacuum generators with integrated valves and monitoring system.
Possibility to command suction and blow-off individually without using external valves.



Vacuum generators with integrated suction and blow-off valves, as well as a monitoring system (vacuum switch). Series VEC compact ejectors allow to control suction and blow-off individually without using external valves.

Versions with integrated air saving functions are available on request. These ejectors are particularly suitable for use in automatic handling systems.

- » Wide range of nozzle sizes, covering a great number of applications.
- » Modularity for easy installation
- » Available with automatic air saving system (optional) for reduced operations costs.
- » Easy monitoring of the vacuum level through integrated vacuum switch (available with or without digital display).

GENERAL DATA

- Description**
- body in anodized aluminium
 - valve function for the suction available in normally open (NO) or normally closed (NC) version
 - blow-off valve (NC), integrated silencer and non-return valve
- Options**
- mechanic/electronic vacuum switch
 - automatic air-saving system
 - mounting fitting plate for the battery mounting

CODING EXAMPLE

VE	C	-	10	C	2	-	RD
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VE	SERIES VE = Vacuum ejector
C	VERSION C = compact
10	NOZZLE DIAMETER (MM) 10 = 1,0 mm 15 = 1,5 mm 20 = 2,0 mm 25 = 2,5 mm
C	VALVE FUNCTION C = NC (suction OFF when not activated) A = NO (suction ON when not activated)
2	VERSION 2 = with Blow-off valve
RD	VERSION * RD = with air saving system and digital vacuum switch (with display). It is supplied complete with connectors and cables. * RE = with air saving system and electronic vacuum switch. It is supplied complete with connectors and cables. VD = without air saving system, digital vacuum switch (with display) VE = without air saving system, with electronic vacuum switch

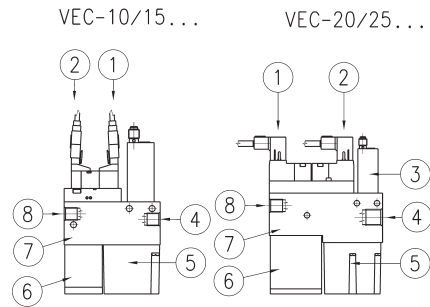
SERIES VEC COMPACT EJECTORS

* The air saving circuit, where used, switches the suction signal to "ON" apart from the fact that the ejector is NC or NO; this means that, in order to switch the internal loop back to "OFF", it is necessary to activate the signal on the coil controlling it (green cable).

TECHNICAL DATA



- EJECTOR SYSTEM:**
- 1 = Suction valve
 - 2 = Blow-off valve
 - 3 = Vacuum switch
 - 4 = Vacuum inlet
 - 5 = Filter
 - 6 = Silencer
 - 7 = Body
 - 8 = Compressed air inlet



TECHNICAL DATA												
Mod.	Nozzle Ø (mm)	Degree of evacuation (%)	Suction rate max. (l/min)	Suction rate max. (m³/h)	Air consumption (l/min)	Air consumption (m³/h)	Air cons. blow-off (l/min)	Noise level workp. gripped [db(A)]	Noise level free [db(A)]	Optimum working pressure (bar)	Weight (kg)	Temperature range
VEC-10	1	85	37	2,2	53	3,2	200	66	68	5	0,275	0 / 45°C
VEC-15	1,5	85	65	3,9	117	7	200	68	68	5	0,275	0 / 45°C
VEC-20	2	85	116	7	190	11,4	200	76	78	5 - 6	0,465	0 / 45°C
VEC-25	2,5	85	161	9,7	310	18,6	200	72	82	5 - 6	0,465	0 / 45°C

Air-saving system

When gripping an object, the ejector remains active until a preset vacuum value is reached. Once reached the preset vacuum value, the ejector is shut OFF. If the vacuum level drops below the preset limit value, the ejector is re-activated by the electronic control circuit until the preset vacuum value is reached again.

Note: VEC ejectors with air-saving system are delivered complete with connectors and cables.

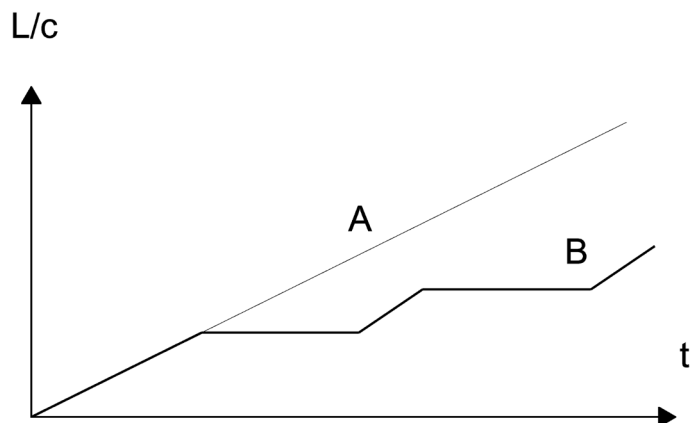


Mod.	
VEC-10/15-A	A = version Normally Open
VEC-10/15-C	C = version Normally Closed
VEC-20/25-A	A = version Normally Open
VEC-20/25-C	C = version Normally Closed

The air saving circuit, where used, switches the suction signal to "ON" apart from the fact that the ejector is NC or NO; this means that, in order to switch the internal loop back to "OFF", it is necessary to activate the signal on the coil controlling it (green cable).

Applications example

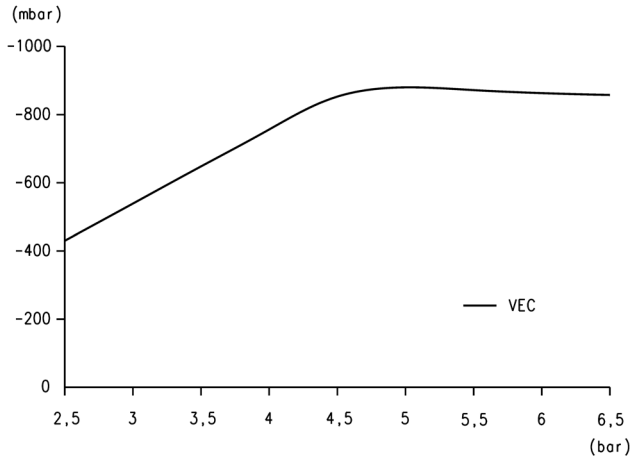
- * Evacuation time = time necessary for the ejector to reach a vacuum level of -600 mbar
- ** Air consumption l/cycle = $(105/60) \times 5 = (105 / 60) \times 0,05$
- *** Prod. cycles/day = 8 hours x $3600 \text{ s} = 28.800/20 \text{ s per cycle} = 1440 \text{ cycles} \times 2 \text{ shifts} = 2880 \text{ cycles}$



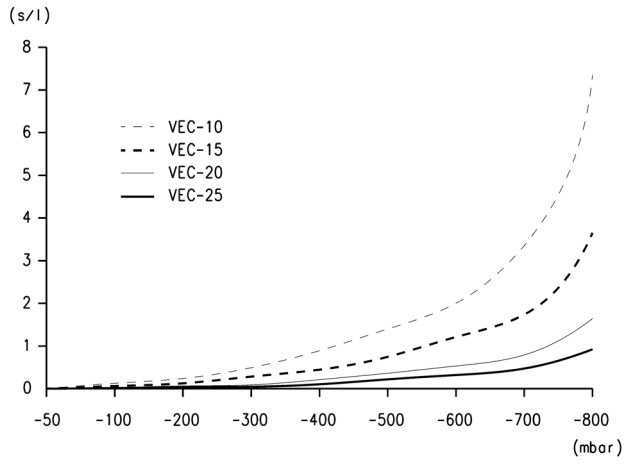
Operating conditions	without air-saving "A"	With air-saving "B"
Model	VEC-15C2-VE	VEC-15C2-RE
Air consumption l/min	105	105
Transport time (sec.)	5	5
Evac. time to -600 mbar (sec.)*	0,05	0,05
Total time vacuum ON (sec.)	5	0,05
Air consumption (l/cycle)**	8,8	0,087
Cycle time (sec.)	20	20
Prod. cycles/day (2-shifts)***	2880	2880
Daily air consumption (l)	25.361	250

In this example the air-saving system saves around 99% of the air.

DIAGRAMS VEC

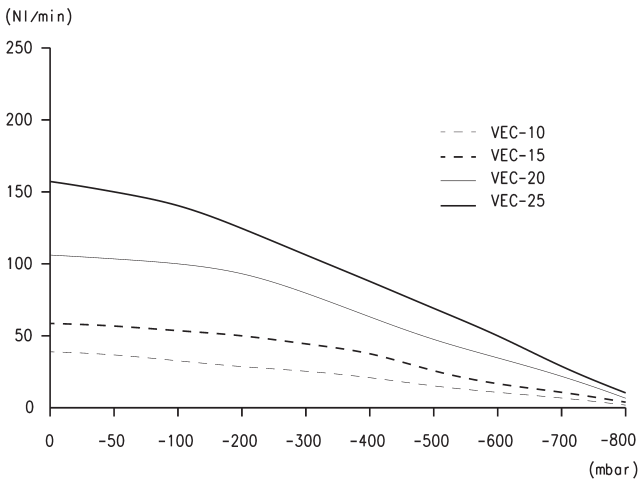


Achievable vacuum at different supply pressures



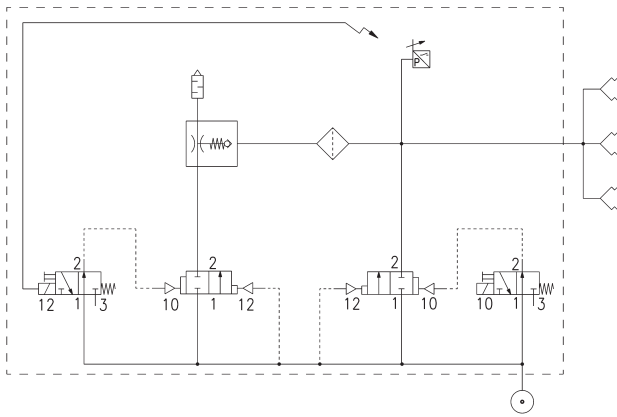
Evacuation time for different vacuum values

DIAGRAMS VEC

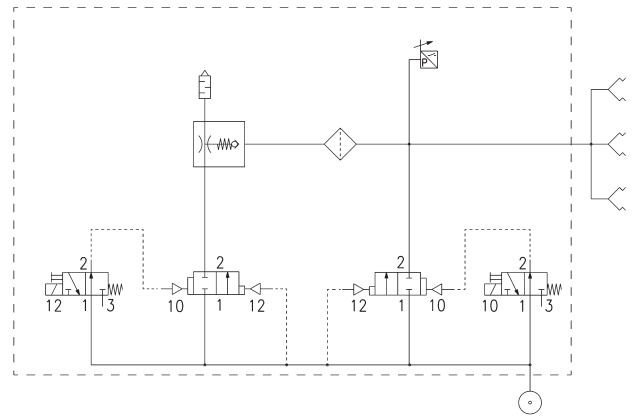


Suction rate for different vacuum values

Normally Closed valve functions

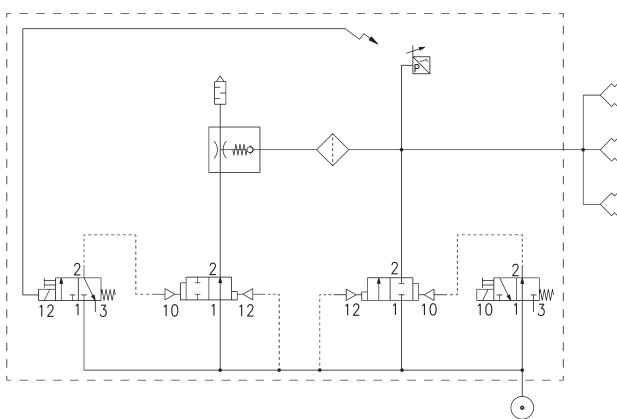


VEC..C2-RD - VEC..C2-RE

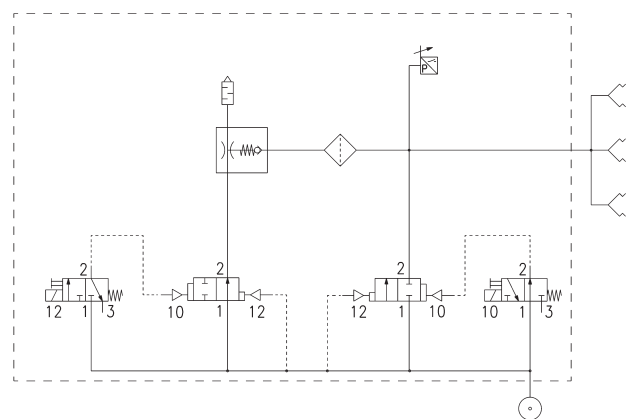


VEC..C2-VD - VEC..C2-VE

Normally Open valve functions



VEC..A2-RD - VEC..A2-RE



VEC..A2-VD - VEC..A2-VE

EJECTORS VEC 10 - 15 - 20 - 25



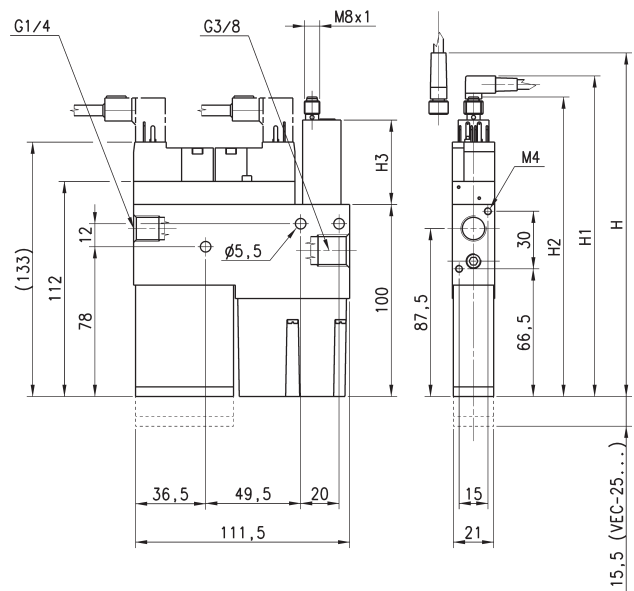
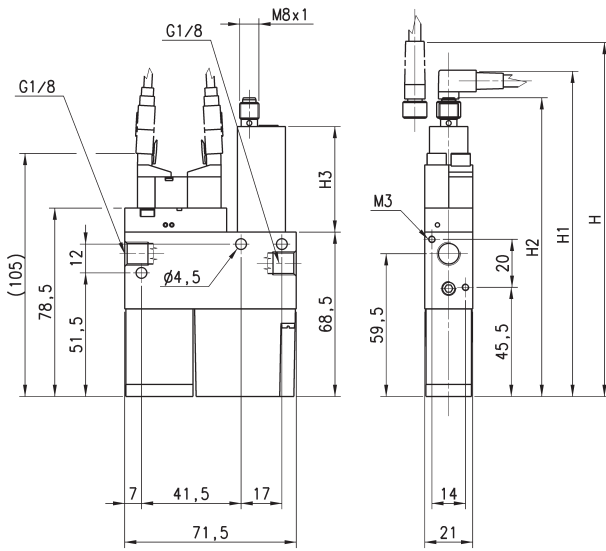
...D = SWD-V00-PA
Electronic digital display; 2 digital outputs

...E = SWE-V00-PA
Electronic without digital display; 1 digital output and 1 analog output.

SERIES VEC COMPACT EJECTORS

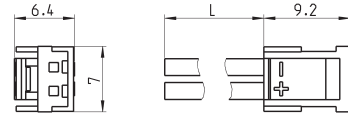
VEC-10/15...

VEC-20/25...



DIMENSIONS						
Mod. [D]	Mod. [E]	R = With air saving	H	H1	H2	H3
VEC-10...-RD	VEC-10...-RE	R	162	150	139	58,5
VEC-15...-RD	VEC-15...-RE	R	162	150	139	58,5
VEC-20...-RD	VEC-20...-RE	R	195,5	183,5	172,5	58,5
VEC-25...-RD	VEC-25...-RE	R	195,5	183,5	172,5	58,5
VEC-10...-VD	VEC-10...-VE	-	147,5	135,5	124,5	44
VEC-15...-VD	VEC-15...-VE	-	147,5	135,5	124,5	44
VEC-20...-VD	VEC-20...-VE	-	181	169	158	44
VEC-25...-VD	VEC-25...-VE	-	181	169	158	44

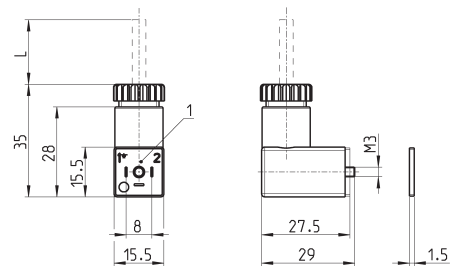
Connector Mod. 121-8.. for Mod. VEC-10 and VEC-15



Mod.	description	colour	L = cable length (mm)	cable holding
121-803	crimped cable	black	300	crimping
121-806	crimped cable	black	600	crimping
121-810	crimped cable	black	1000	crimping
121-830	crimped cable	black	3000	crimping

Connector Mod. 126-... DIN 43650 pin spacing 8 mm

For Mod. VEC-20 and VEC-25

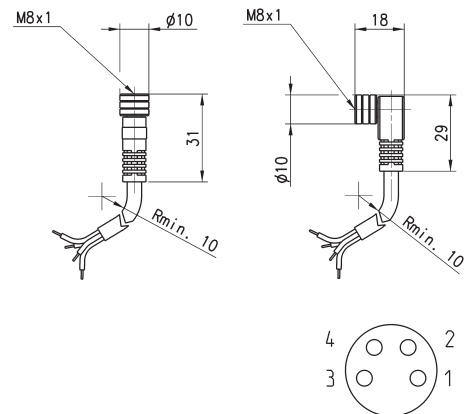


Mod.	description	colour	working voltage	cable length [L]	cable holding	tightening torque
126-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
126-800	connector, without electronics	black	-	-	PG7	0.3 Nm
126-701	connector, varistor + Led	transparent	24 V AC/DC	-	PG7	0.3 Nm

1 = 90° adjustable connector

Circular M8 4-pole connectors, Female

With PU sheathing, non shielded cable.
Protection class: IP65



Mod.	Type of connector	Cable length (m)
CS-DF04EG-E200	straight	2
CS-DF04EG-E500	straight	5
CS-DR04EG-E200	90°	2
CS-DR04EG-E500	90°	5