

Vacuum pumps/generators

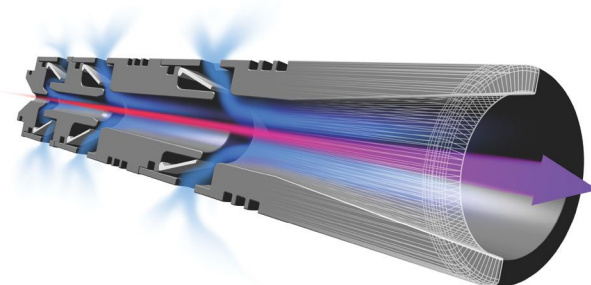


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COAX[®] technology

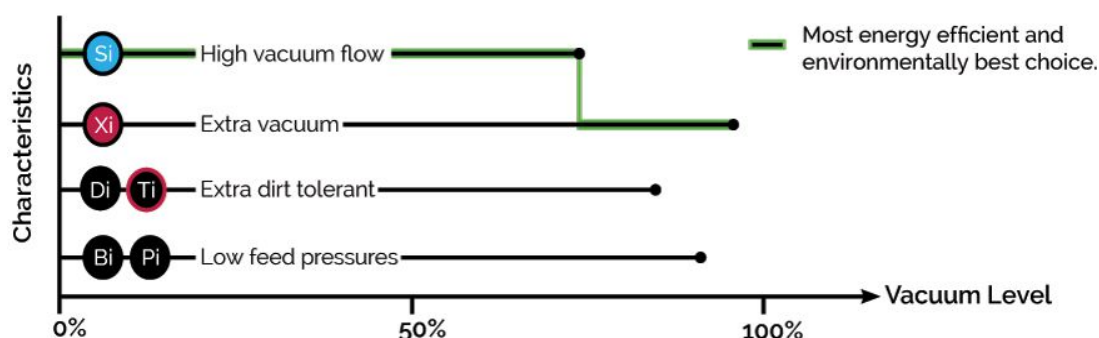
Piab vacuum pumps/generators are predominately based on the patented COAX[®] technology.

COAX[®] is an advanced solution for creating vacuum with compressed air. Based on Piab's multistage technology, COAX[®] cartridges are smaller, more efficient and more reliable than conventional ejectors, which allow for the design of a flexible, modular and efficient vacuum system. A vacuum system based on COAX[®] technology can provide you with three times more vacuum flow than conventional systems, allowing you to increase speed with high reliability while reducing energy consumption. COAX[®] cartridges exist in several sizes (MIDI, MINI & MICRO) and models (Bi, Pi, Si, Ti, Xi and Di), making them suitable for every application. The technology ensures excellent performance at both low and high feed pressures. Pumps based on COAX[®] technology can operate within the feed pressure range of 0.17 to 0.60 MPa.



Custom integration

- The two-stage COAX[®] cartridge MICRO is probably the world's smallest multistage vacuum ejector. Its low weight makes it suitable to integrate close to the suction point in high speed pick and-place applications of small objects.
- The two-stage COAX[®] cartridge MINI has small mounting dimensions and the three-stage COAX[®] cartridge MINI has high initial vacuum flow.
- The two-stage COAX[®] cartridge MIDI has small mounting dimensions and the three-stage COAX[®] cartridge MIDI has high initial vacuum flow. The MIDI cartridges are efficient generators of blow-air and are also suitable for fast evacuation of large volumes.



COAX® MICRO family



MICRO Bi03-2



MICRO Si02-2



MICRO Ti05-2



MICRO Xi2.5-2

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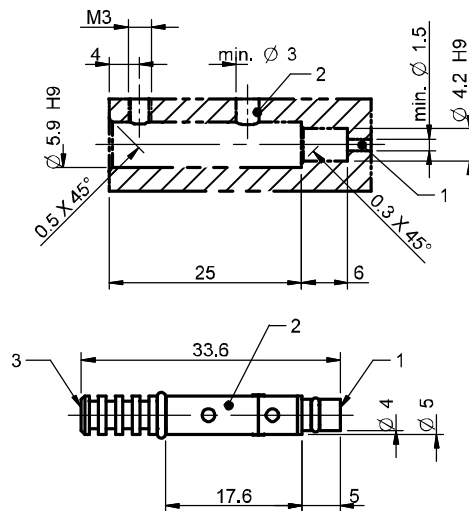
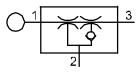
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)									Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	
MICRO Bi03-2	0.18	0.14	0.23	0.15	0.06	0.04	0.035	0.023	0.013	0.006	—	83
MICRO Si02-2	0.6	0.12	0.28	0.21	0.12	0.08	0.07	0.06	0.04	0.02	—	75
MICRO Ti05-2	0.4	0.27	0.32	0.28	0.23	0.17	0.1	0.07	0.04	0.02	0.004	84
MICRO Xi2.5-2	0.5	0.13	0.24	0.17	0.1	0.06	0.04	0.03	0.02	0.01	0.01	92

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)									Max vacuum -kPa
			10	20	30	40	50	60	70	80		
MICRO Bi03-2	0.18	0.14	0.5	1.4	3.9	6.4	10	16	28	51	83	
MICRO Si02-2	0.6	0.12	0.41	1.01	2.01	3.3	4.9	6.9	10.2	—	75	
MICRO Ti05-2	0.4	0.27	0.33	0.73	1.2	2	3.1	5	8.3	16.6	84	
MICRO Xi2.5-2	0.5	0.13	0.49	1.23	2.48	4.5	7.3	11.3	18	28	92	

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

COAX® MINI family



The two-stage COAX® cartridge MINI has small mounting dimensions and the three-stage COAX® cartridge MINI has high initial vacuum flow.

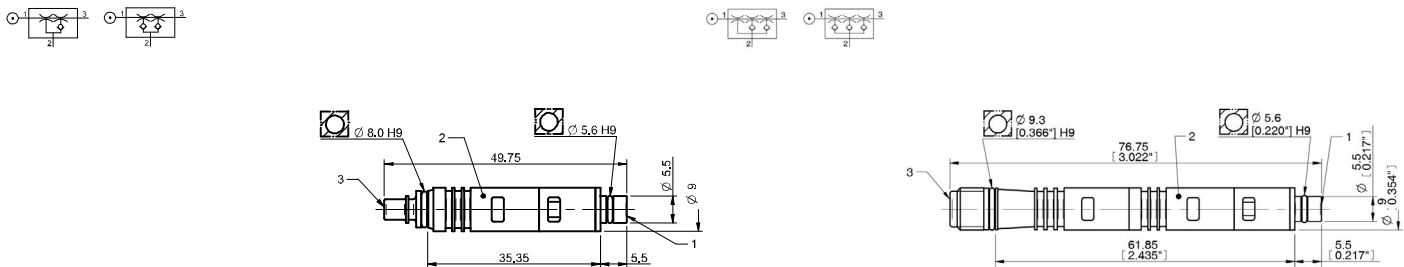
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MINI Di16-2	0.6	0.75	0.64	0.57	0.49	0.41	0.35	0.29	0.18	0.04	—	—	73
MINI Pi12-2	0.32	0.44	0.68	0.6	0.44	0.27	0.19	0.14	0.1	0.06	0.03	—	90
MINI Pi12-3	0.32	0.44	1.4	0.6	0.44	0.27	0.19	0.14	0.1	0.06	0.03	—	90
MINI Pi12-3 FS	0.32	0.44	1.4	0.6	0.44	0.27	0.19	0.14	0.1	0.06	0.03	—	90
MINI Si08-2	0.6	0.44	0.77	0.67	0.51	0.33	0.23	0.16	0.12	0.08	—	—	75
MINI Si08-3	0.6	0.44	1.34	0.73	0.55	0.35	0.23	0.17	0.13	0.08	—	—	75
MINI Si08-3 FS	0.6	0.44	1.34	0.73	0.55	0.35	0.23	0.17	0.13	0.08	—	—	75
MINI Xi10-2	0.5	0.46	0.75	0.63	0.49	0.33	0.19	0.15	0.11	0.07	0.045	0.011	94
MINI Xi10-3	0.5	0.46	1.43	0.7	0.5	0.33	0.19	0.15	0.11	0.07	0.045	0.011	94
MINI Xi10-3 FS	0.5	0.46	1.43	0.7	0.5	0.33	0.19	0.15	0.11	0.07	0.045	0.011	94

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)									Max vacuum -kPa
			10	20	30	40	50	60	70	80		
MINI Di16-2	0.6	0.75	0.17	0.35	0.58	0.84	1.15	1.58	2.49	—	—	73
MINI Pi12-2	0.32	0.44	0.17	0.32	0.58	1.1	1.8	2.7	4	6.4	—	90
MINI Pi12-3	0.32	0.44	0.08	0.23	0.49	1	1.7	2.6	3.9	6.3	—	90
MINI Pi12-3 FS	0.32	0.44	0.08	0.23	0.49	1	1.7	2.6	3.9	6.3	—	90
MINI Si08-2	0.6	0.44	0.14	0.31	0.55	0.9	1.4	2.1	3.1	—	—	75
MINI Si08-3	0.6	0.44	0.1	0.25	0.48	0.8	1.3	2	2.9	—	—	75
MINI Si08-3 FS	0.6	0.44	0.1	0.25	0.48	0.8	1.3	2	2.9	—	—	75
MINI Xi10-2	0.5	0.46	0.14	0.3	0.6	1	1.6	2.3	3.5	5.3	8.9	94
MINI Xi10-3	0.5	0.46	0.09	0.26	0.5	0.9	1.5	2.2	3.4	5.2	8.8	94
MINI Xi10-3 FS	0.5	0.46	0.09	0.26	0.5	0.9	1.5	2.2	3.4	5.2	8.8	94

Dimensional drawing



Ordering information

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COAX® MIDI family



The two-stage COAX® cartridge MIDI has small mounting dimensions and the three-stage COAX® cartridge MIDI has high initial vacuum flow. The MIDI cartridges are efficient generators of blow-air and are also suitable for fast evacuation of large volumes.

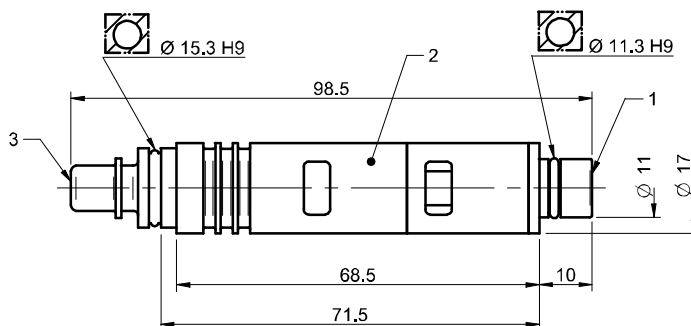
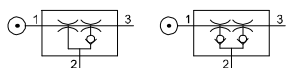
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MIDI Pi48-2	0.31	2	2.8	2.5	1.8	1.1	0.65	0.5	0.35	0.25	0.1	—	90
MIDI Pi48-3	0.31	2.05	5.6	2.5	1.8	1.1	0.65	0.5	0.35	0.25	0.1	—	90
MIDI Si32-2	0.6	1.75	3.3	3	2.6	1.7	0.9	0.6	0.5	0.35	—	—	75
MIDI Si32-3	0.6	1.75	6	3.5	2.6	1.7	0.9	0.6	0.5	0.35	—	—	75
MIDI Xi40-2	0.45	1.83	2.8	2.3	1.6	1	0.73	0.58	0.43	0.32	0.18	0.03	95
MIDI Xi40-3	0.45	1.83	5.9	3	2	1.3	0.73	0.58	0.43	0.32	0.18	0.03	95

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)									Max vacuum -kPa
			10	20	30	40	50	60	70	80	90	
MIDI Pi48-2	0.31	2	0.03	0.07	0.13	0.26	0.46	0.7	1	1.6	4	90
MIDI Pi48-3	0.31	2.05	0.02	0.06	0.12	0.25	0.45	0.7	1	1.6	4	90
MIDI Si32-2	0.6	1.75	0.03	0.07	0.1	0.18	0.33	0.53	0.8	—	—	75
MIDI Si32-3	0.6	1.75	0.02	0.05	0.1	0.18	0.33	0.53	0.8	—	—	75
MIDI Xi40-2	0.45	1.83	0.04	0.09	0.17	0.28	0.44	0.63	0.9	1.3	2.3	95
MIDI Xi40-3	0.45	1.83	0.022	0.062	0.12	0.22	0.37	0.57	0.84	1.2	2.2	95

Dimensional drawing



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piCHIP10X family



The lightweight piCHIP10X unit is a small vacuum pump which is optimized for integration. It is flexible enough to surface mount quickly on a variety of materials. With its almost silent operation, the piCHIP10X is ideal for clean room operations. Medical and electronic industries are best suited to use this product in their vacuum applications. Because COAX® cartridges are up to twice as fast as other cartridges and provide three times more flow than a conventional ejector with the same air consumption, the piCHIP10X is able to provide a high performance even at low or fluctuating feed pressures (0.1-0.6 MPa).

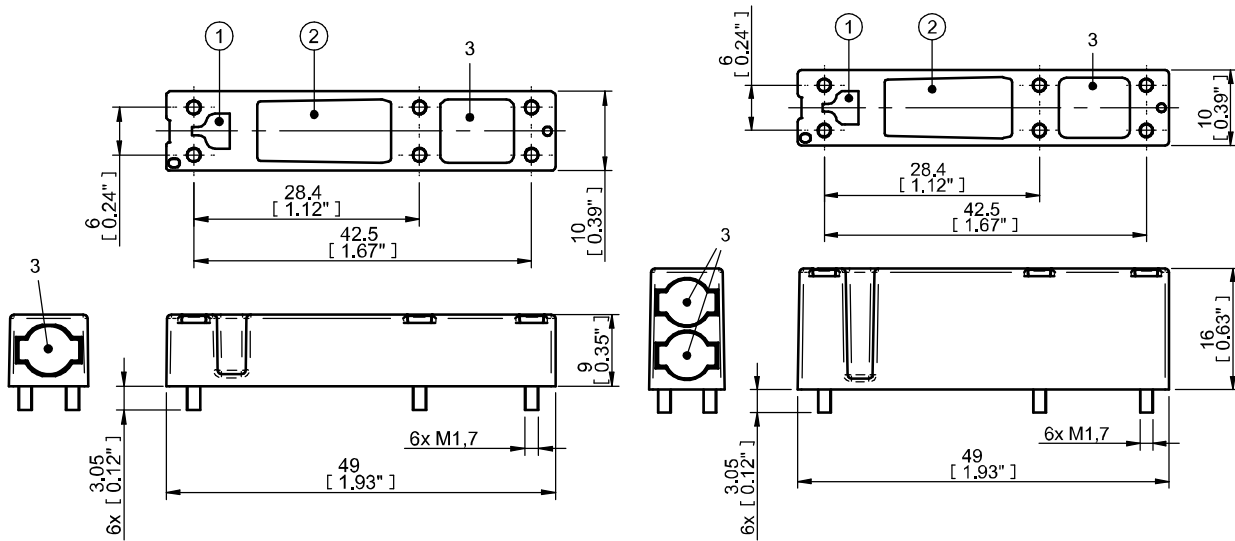
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80		
MICRO Bi03-2	0.18	0.14	0.23	0.15	0.06	0.04	0.035	0.023	0.013	0.006	—	83	
MICRO Si02-2	0.6	0.12	0.28	0.21	0.12	0.08	0.07	0.06	0.04	0.02	—	75	
MICRO Ti05-2	0.4	0.27	0.32	0.28	0.23	0.17	0.1	0.07	0.04	0.02	0.004	84	
MICRO Xi2.5-2	0.5	0.13	0.24	0.17	0.1	0.06	0.04	0.03	0.02	0.01	0.01	92	

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80			
MICRO Bi03-2	0.18	0.14	0.5	1.4	3.9	6.4	10	16	28	51	83		
MICRO Si02-2	0.6	0.12	0.41	1.01	2.01	3.3	4.9	6.9	10.2	—	75		
MICRO Ti05-2	0.4	0.27	0.33	0.73	1.2	2	3.1	5	8.3	16.6	84		
MICRO Xi2.5-2	0.5	0.13	0.49	1.23	2.48	4.5	7.3	11.3	18	28	92		

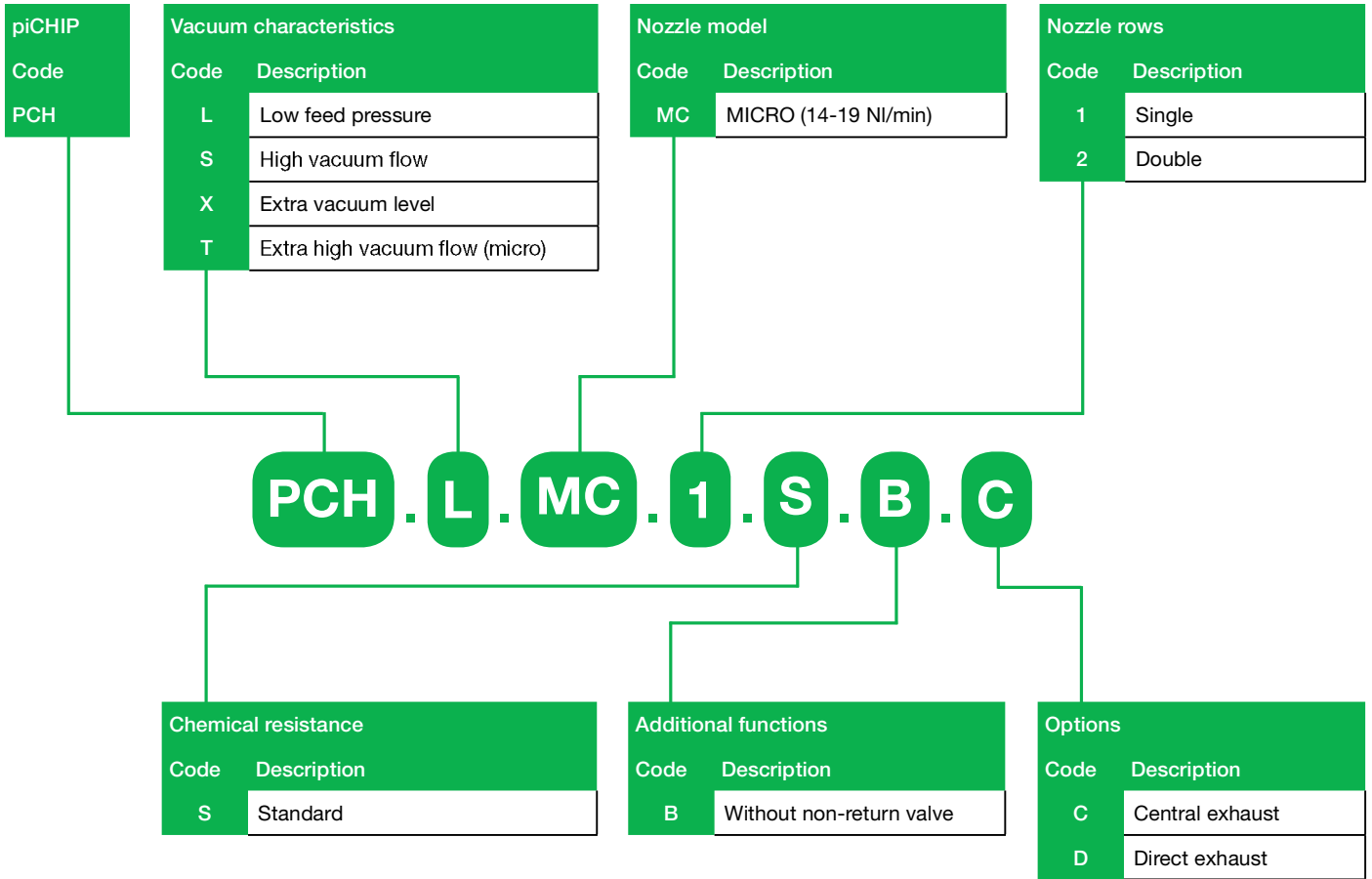
Dimensional drawing



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piCHIP10X – Customer Code



piINLINE® MICRO family



piINLINE® are small lightweight inline ejectors that use the patented COAX® technology inside. They can be mounted directly on a hose close to the suction cup (or point of suction). Piab's piINLINE® ejector program offers much better performance with at least 40-50% lower energy consumption compared to competing inline single-stage ejectors in corresponding sizes. Inline vacuum generators are especially common in electronic/semiconductor pick-and-place applications, dedicated packaging equipment, injection-molding automation and unloading/loading metal forming machines (bending, punching and laser-cutting).

The COAX® Cartridge Si/Ti for extra vacuum flow, Bi cartridge for reliability at low feed pressures. And Ti/Xi cartridge when high flow and deep vacuum is needed.

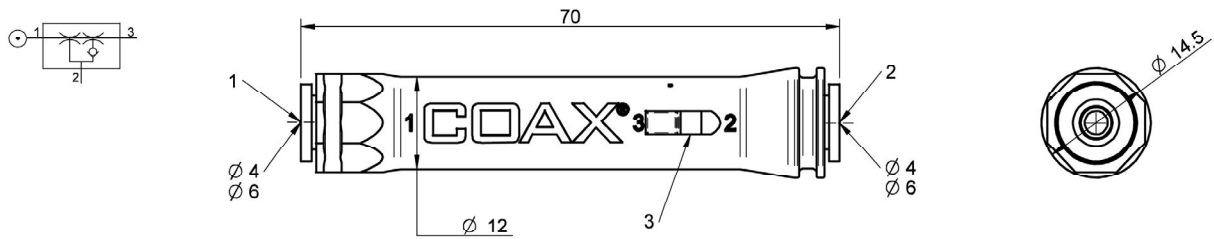
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80		
MICRO Bi03-2	0.18	0.14	0.23	0.15	0.06	0.04	0.035	0.023	0.013	0.006	—	83	
MICRO Si02-2	0.6	0.12	0.28	0.21	0.12	0.08	0.07	0.06	0.04	0.02	—	75	
MICRO Ti05-2	0.4	0.27	0.32	0.28	0.23	0.17	0.1	0.07	0.04	0.02	0.004	84	
MICRO Ti05-2	0.6	0.37	0.31	0.27	0.24	0.2	0.15	0.09	0.04	0.01	—	75	
MICRO Xi2.5-2	0.5	0.13	0.24	0.17	0.1	0.06	0.04	0.03	0.02	0.01	0.01	92	

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80			
MICRO Bi03-2	0.18	0.14	0.5	1.4	3.9	6.4	10	16	28	51	83		
MICRO Si02-2	0.6	0.12	0.41	1.01	2.01	3.3	4.9	6.9	10.2	—	75		
MICRO Ti05-2	0.4	0.27	0.33	0.73	1.2	2	3.1	5	8.3	16.6	84		
MICRO Ti05-2	0.6	0.37	0.3	0.7	1.2	1.8	2.6	4.2	8.43	—	75		
MICRO Xi2.5-2	0.5	0.13	0.49	1.23	2.48	4.5	7.3	11.3	18	28	92		

Dimensional drawing



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piINLINE® MINI family



piINLINE® are small lightweight inline ejectors that use the patented COAX® technology inside. They can be mounted directly on a hose close to the suction cup (or point of suction). Piab's piINLINE® ejector program offers much better performance with at least 40-50% lower energy consumption compared to competing inline single-stage ejectors in corresponding sizes. Inline vacuum generators are especially common in electronic/semiconductor pick-and-place applications, dedicated packaging equipment, injection-molding automation and unloading/loading metal forming machines (bending, punching and laser-cutting).

The COAX® Cartridge Si cartridge for extra vacuum flow, the Pi cartridge for high performance at low feed pressures. And the Xi cartridge when high flow and deep vacuum is needed.

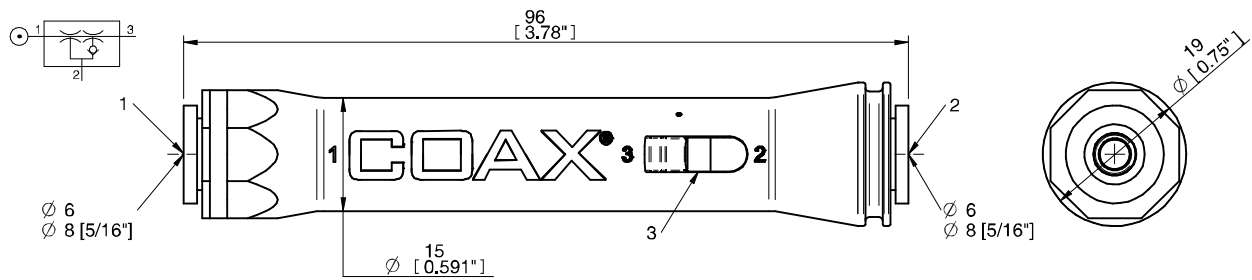
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MINI Si08-2	0.6	0.44	0.69	0.55	0.42	0.28	0.23	0.16	0.12	0.08	—	—	75
MINI Pi12-2	0.32	0.44	0.57	0.44	0.31	0.23	0.19	0.14	0.1	0.06	0.03	—	90
MINI Xi10-2	0.5	0.46	0.62	0.5	0.37	0.27	0.19	0.15	0.11	0.07	0.045	0.011	94

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
MINI Si08-2	0.6	0.44	0.16	0.37	0.66	1.1	1.4	2.1	3.1	—	—	75	
MINI Pi12-2	0.32	0.44	0.2	0.46	0.83	1.1	1.8	2.7	4	6.4	—	90	
MINI Xi10-2	0.5	0.46	0.18	0.41	0.72	1	1.6	2.3	3.5	5.3	8.9	94	

Dimensional drawing



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piINLINE® MIDI family



piINLINE® are small lightweight inline ejectors that use the patented COAX® technology inside. They can be mounted directly on a hose close to the suction cup (or point of suction). Piab's piINLINE® ejector program offers much better performance with at least 40-50% lower energy consumption compared to competing inline single-stage ejectors in corresponding sizes. Inline vacuum generators are especially common in electronic/semiconductor pick-and-place applications, dedicated packaging equipment, injection-molding automation and unloading/loading metal forming machines (bending, punching and laser-cutting).

The COAX® Cartridge Si cartridge for extra vacuum flow the Pi cartridge for high performance at low feed pressures. And the Xi cartridge when high flow and deep vacuum is needed.

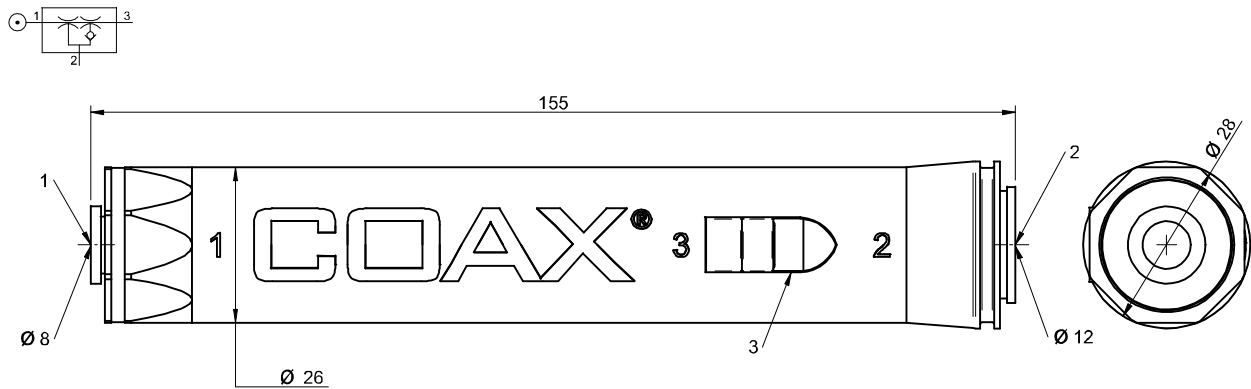
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MIDI Si32-2	0.6	1.75	3.1	2.5	1.9	1.2	0.7	0.6	0.5	0.35	—	—	75
MIDI Pi48-2	0.31	2	2.7	2.2	1.5	0.93	0.65	0.5	0.35	0.25	0.1	—	90
MIDI Xi40-2	0.45	1.83	2.8	2.3	1.6	1	0.73	0.58	0.43	0.32	0.18	0.03	95

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
MIDI Si32-2	0.6	1.75	3.1	2.5	1.9	1.2	0.7	0.6	0.5	0.35	—	75	
MIDI Pi48-2	0.31	2	0.04	0.1	0.18	0.3	0.48	0.71	1.05	1.85	4	90	
MIDI Xi40-2	0.45	1.83	0.04	0.09	0.17	0.28	0.44	0.63	0.9	1.3	2.3	95	

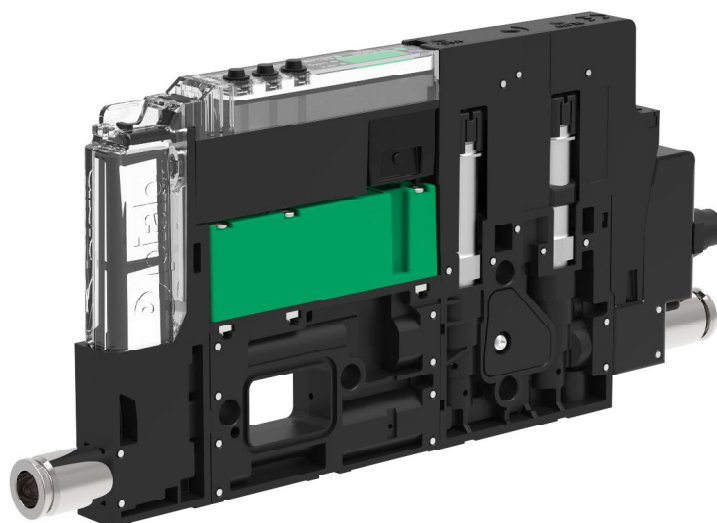
Dimensional drawing



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piCOMPACT[®]10X



piCOMPACT[®] is an ejector family with integrated controls, so called compact or "all-in-one" ejector unit. It is a stackable platform with the possibility to mount several units in the same manifold and have common pneumatic and electrical connections. The focus during development has been on the most significant "key criteria" for these types of pumps, reliability and speed, as well as introducing some brand new attractive features/functions. That in combination with our state-of-the-art vacuum engine, COAX[®], the product is outstanding. By working at low feed pressure and maximizing the utilization rate of the compressed air, the COAX[®] ejectors reduce energy consumption for manufacturers while increasing productivity and reliability. Its vacuum response to 50–60 -kPa is typically 30–50% faster compared to single stage technology. The piCOMPACT[®] is only 10 mm wide with a large 6 mm vacuum connection for maximum performance.

Vacuum flow

COAX [®] Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)								Max vacuum -kPa
			0	10	20	30	40	50	60	70	
MICRO Bi03-2	0.22/0.2*	0.14	0.21	0.14	0.063	0.021	0.016	0.014	0.007	0.004	82
MICRO Si02-2	0.604/0.6*	0.11	0.26	0.18	0.095	0.053	0.045	0.038	0.027	0.019	75
MICRO Ti05-2	0.43/0.4*	0.23	0.31	0.28	0.22	0.16	0.088	0.063	0.045	0.023	84
MICRO Xi2.5-2	0.51/0.5*	0.13	0.23	0.15	0.079	0.044	0.036	0.03	0.023	0.013	91

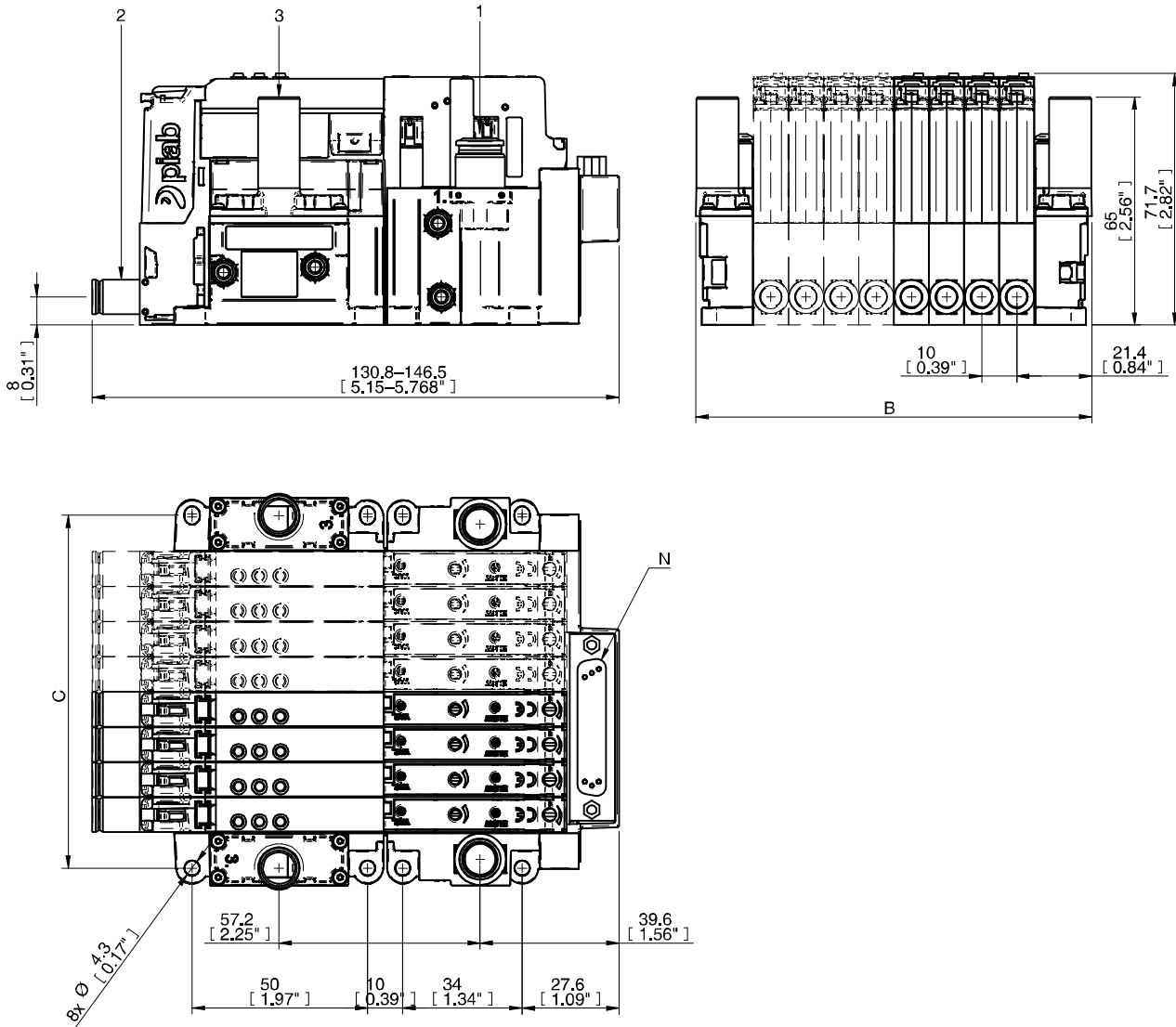
* Pump/nozzle.

Evacuation times

COAX [®] Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (ms) of 5 ml to reach different vacuum levels (-kPa)												Max vacuum -kPa
			0	10	20	30	40	50	60	70	75	80	90	Max	
MICRO Bi03-2	0.22/0.2*	0.14	5	9.9	20.4	53	99	153	228	354	—	552	—	652**	82
MICRO Si02-2	0.604/0.6*	0.11	5	8.9	16.2	31	48	68	95	136	185	—	—	185**	75
MICRO Ti05-2	0.43/0.4*	0.23	5	6.7	10.2	14.8	23	35	50	70	—	114	—	159**	84
MICRO Xi2.5-2	0.51/0.5*	0.13	5.1	8.9	16.2	35	59	87	121	169	—	250	421	464**	91

* Pump/nozzle, ** Evacuation time (ms) at max vacuum level (-kPa).

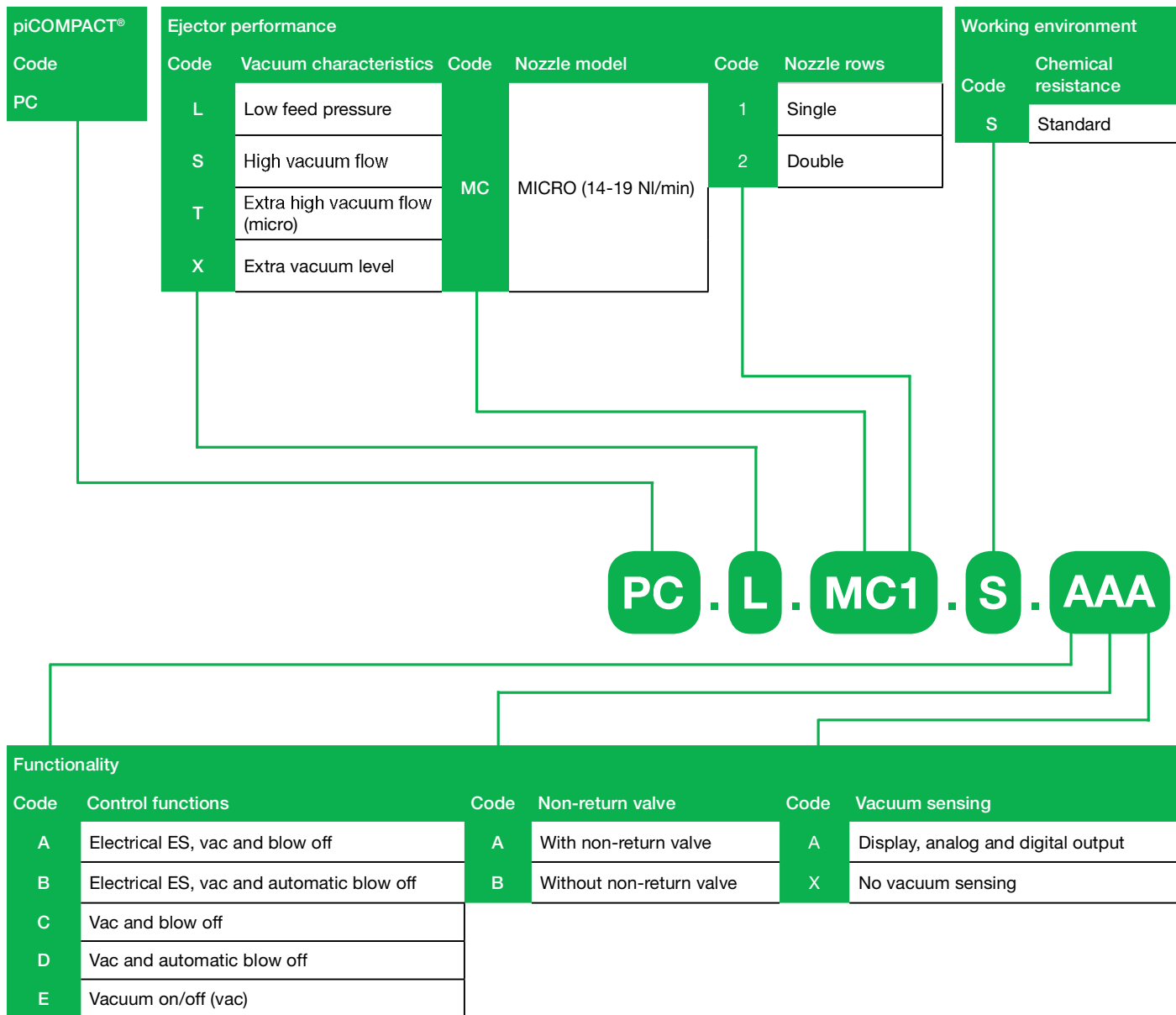
Dimensional drawing

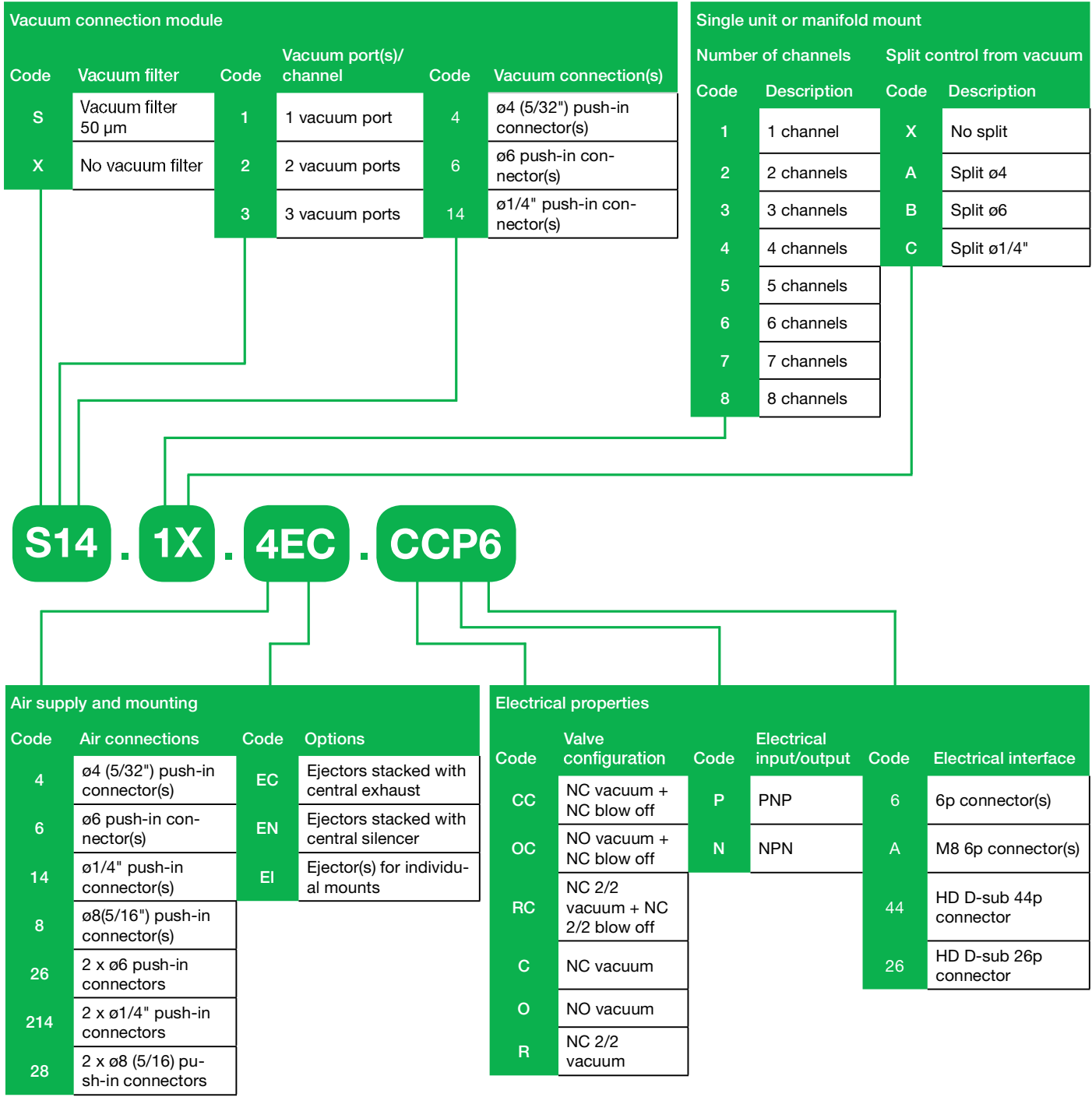


Ordering information

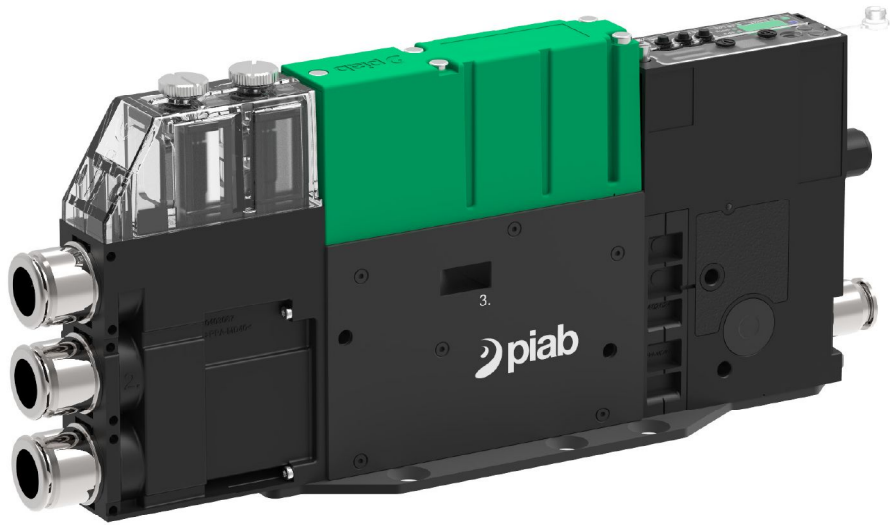
For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

piCOMPACT®10X – Customer Code





piCOMPACT[®]23



piCOMPACT[®] is an ejector family with integrated controls, so called compact or "all-in-one" ejector unit. It is a stackable platform with the possibility to mount several units in the same manifold and have common pneumatic and electrical connections. The focus during development has been on the most significant "key criteria" for these types of pumps, reliability and speed, as well as introducing some brand new attractive features/functions. That in combination with our state-of-the-art vacuum engine, COAX[®], the product is outstanding. By working at low feed pressure and maximizing the utilization rate of the compressed air, the COAX[®] ejectors reduce energy consumption for manufacturers while increasing productivity and reliability. Its vacuum response to 50–60 -kPa is typically 30–50% faster compared to single stage technology.

Vacuum flow

COAX [®] Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80		
SX12	0.504/0.5*	0.72	1.22	1.03	0.78	0.52	0.27	0.21	0.15	0.09	0.03	85	
SX42	0.47/0.43*	2.21	3.46	3.02	2.41	1.7	1.02	0.61	0.47	0.28	0.1	90	

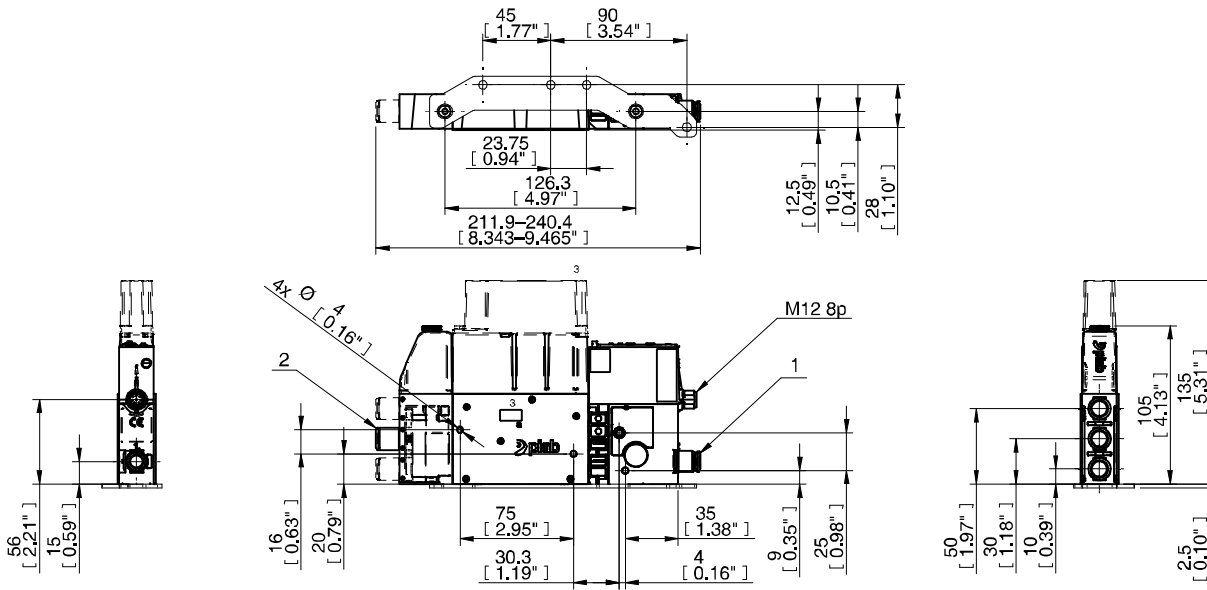
* Pump/nozzle.

Evacuation times

COAX [®] Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80			
SX12	0.504/0.5*	0.72	0.082	0.201	0.374	0.674	1.216	1.914	2.978	6.187	85		
SX42	0.47/0.43*	2.21	0.038	0.074	0.123	0.204	0.356	0.577	0.879	1.718	90		

* Pump/nozzle.

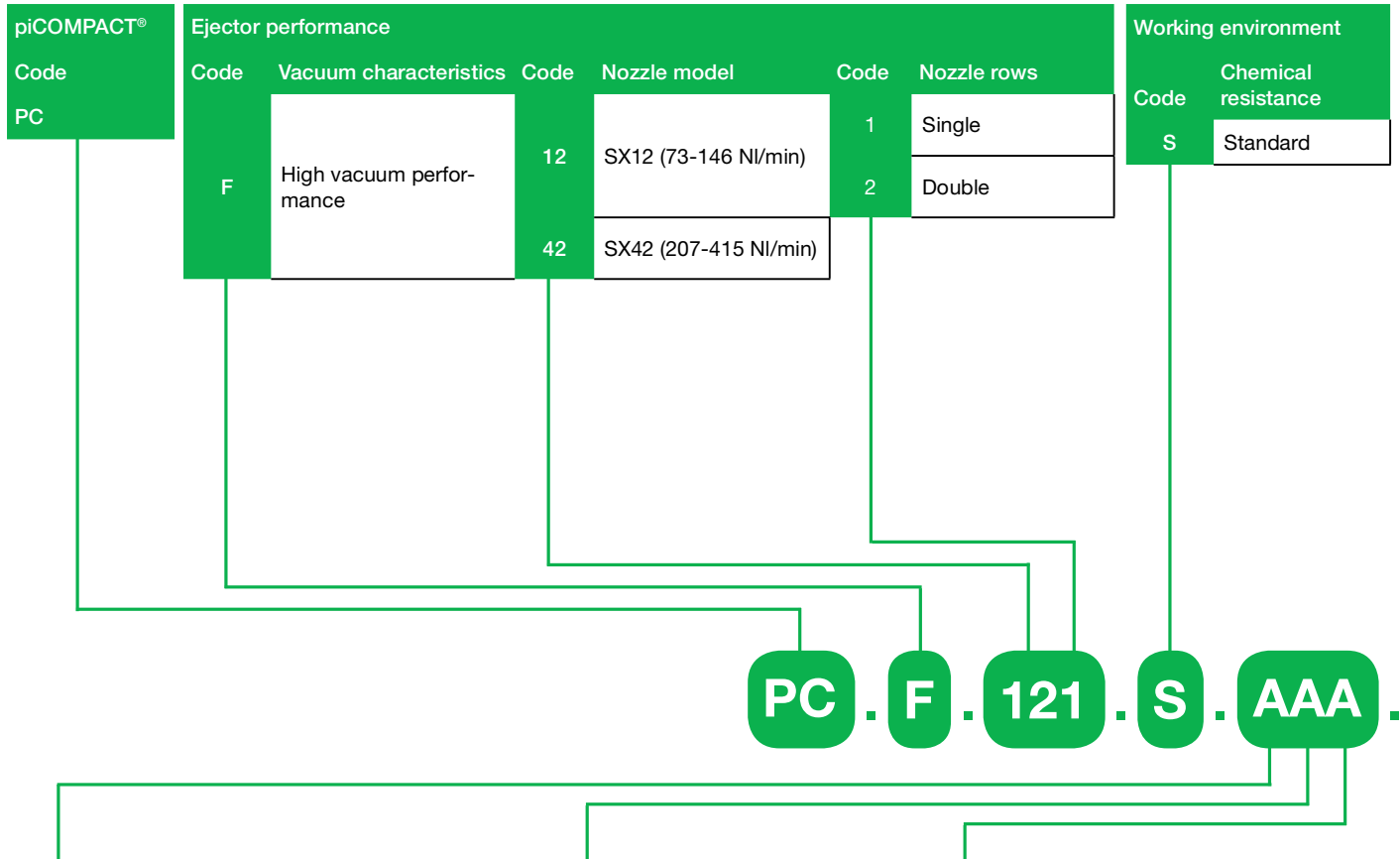
Dimensional drawing



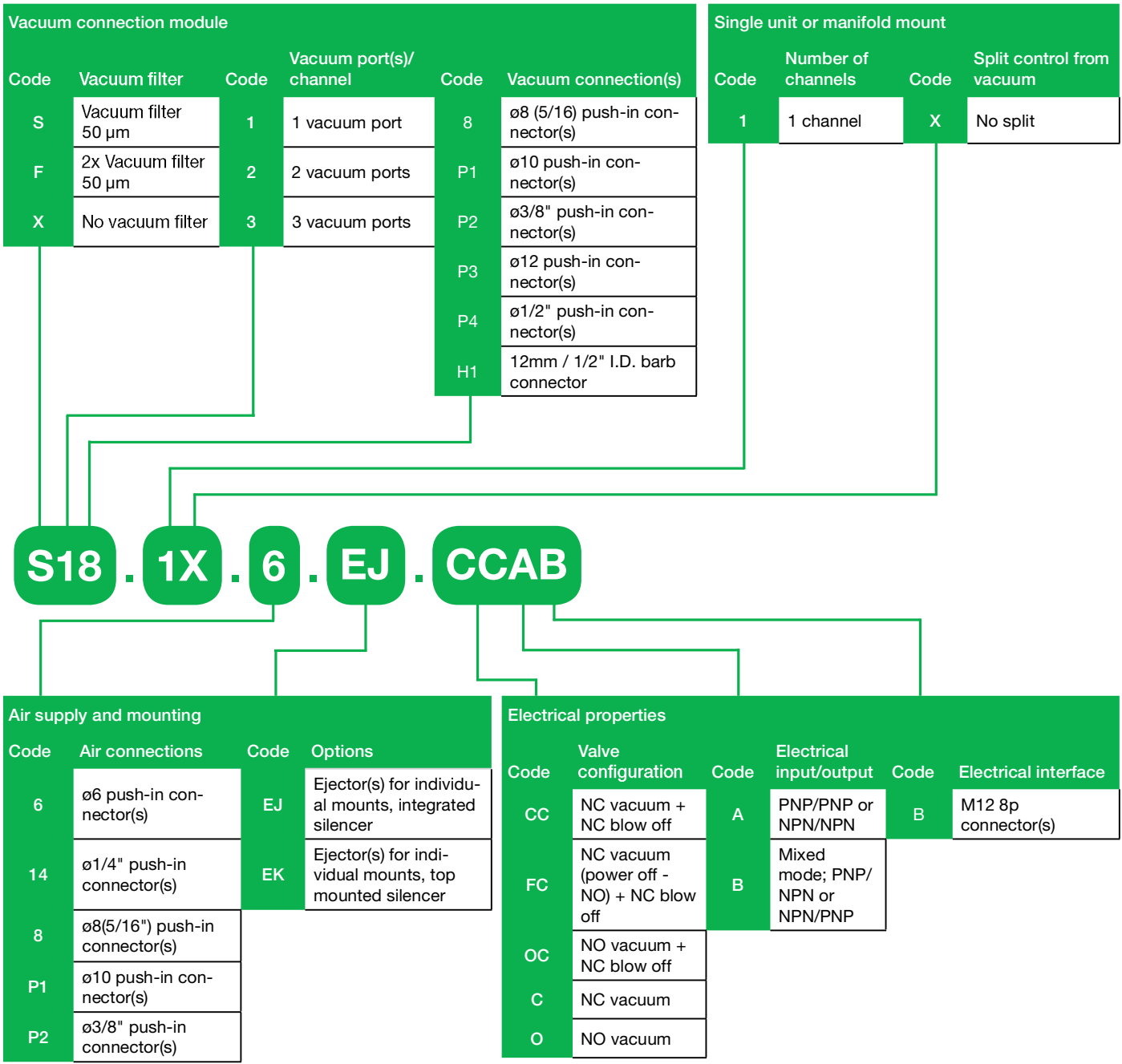
Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

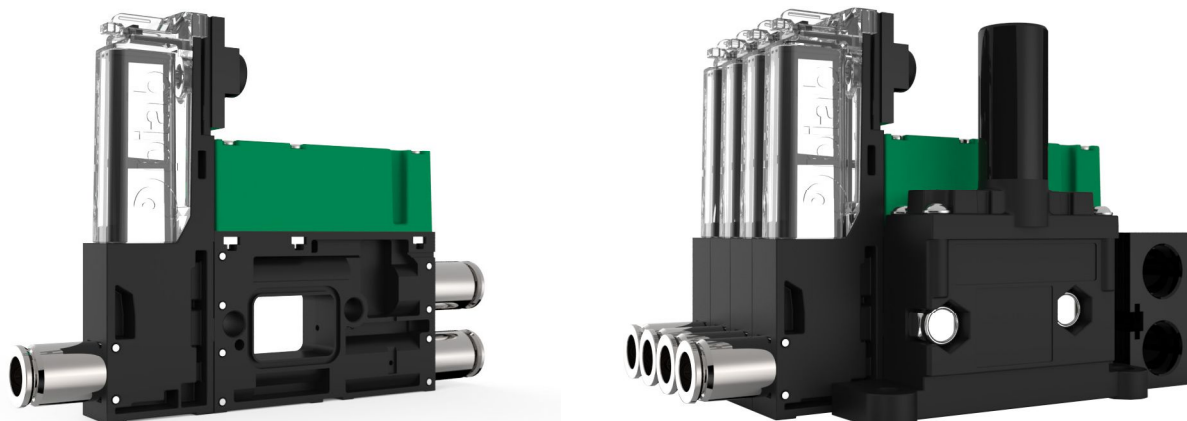
piCOMPACT®23 – Customer Code



Functionality					
Code	Control functions	Code	Non-return valve	Code	Vacuum sensing
A	Electrical ES, vac and blow off	A	With non-return valve	A	Display, analog and digital outputs
B	Electrical ES, vac and automatic blow off	B	Without non-return valve	B	Display, 2x digital outputs
C	Vac and blow off			C	Display, leakage warning and digital outputs
D	Vac and automatic blow off			X	No vacuum sensing
E	Vacuum on/off (vac)				



piPUMP10X



Compact/stackable vacuum pumps are air-driven multistage ejector families, based on COAX® technology. It provides a high operational reliability, in case of fluctuating or low compressed-air pressure. Excellent performance when a quick response time when deep vacuum is needed. There is also a quick vacuum non-return valve as an option.

Vacuum flow

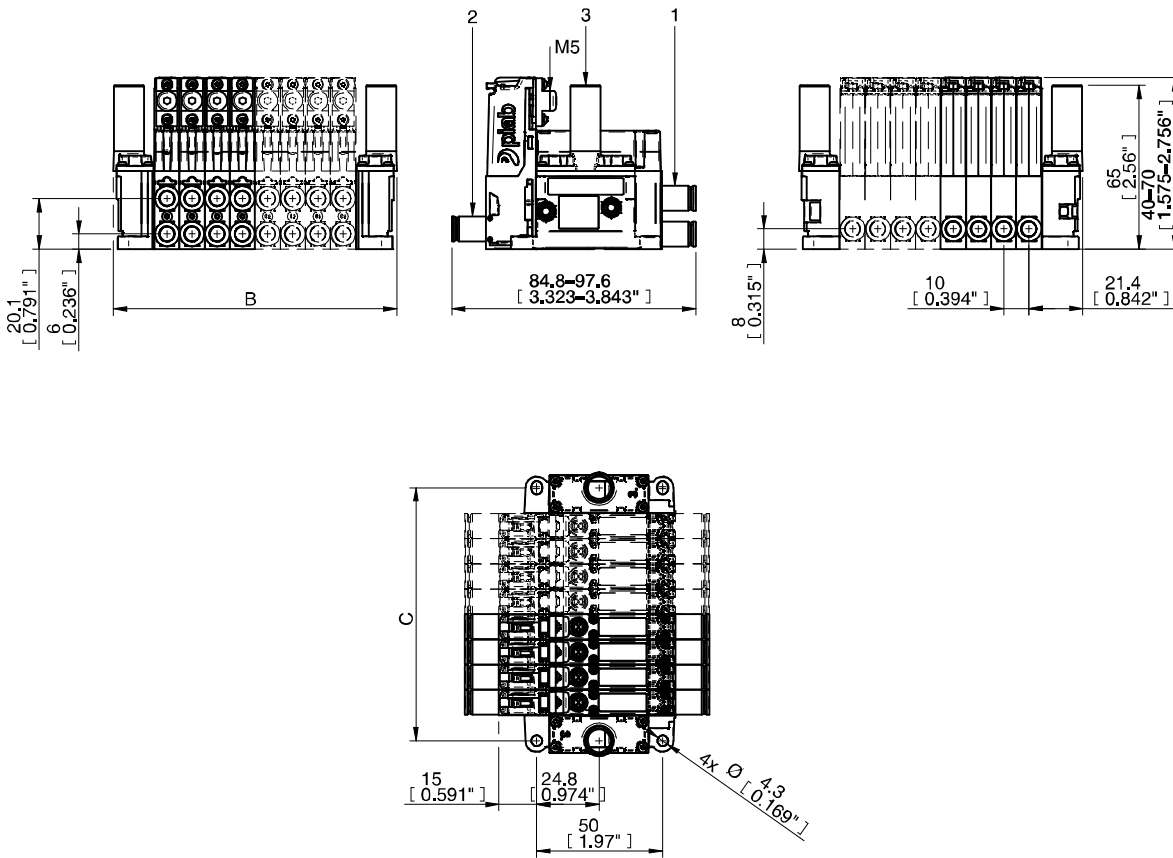
COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)								Max vacuum -kPa
			0	10	20	30	40	50	60	70	
MICRO Bi03-2	0.2	0.14	0.21	0.14	0.063	0.021	0.016	0.014	0.007	0.004	82
MICRO Si02-2	0.6	0.11	0.26	0.18	0.095	0.053	0.045	0.038	0.027	0.019	75
MICRO Ti05-2	0.4	0.23	0.31	0.28	0.22	0.16	0.088	0.063	0.045	0.023	84
MICRO Xi2.5-2	0.5	0.13	0.23	0.15	0.079	0.044	0.036	0.03	0.023	0.013	91

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)											Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	Max	
MICRO Bi03-2	0.2	0.14	5	9.9	20.4	53	99	153	228	354	552	—	652*	82
MICRO Si02-2	0.6	0.11	5	8.9	16.2	31	48	68	95	136	—	—	185*	75
MICRO Ti05-2	0.4	0.23	5	6.7	10.2	14.8	23	35	50	70	114	—	159*	84
MICRO Xi2.5-2	0.5	0.13	5.1	8.9	16.2	35	59	87	121	169	250	421	464*	91

* Evacuation time (ms) at max vacuum level (-kPa).

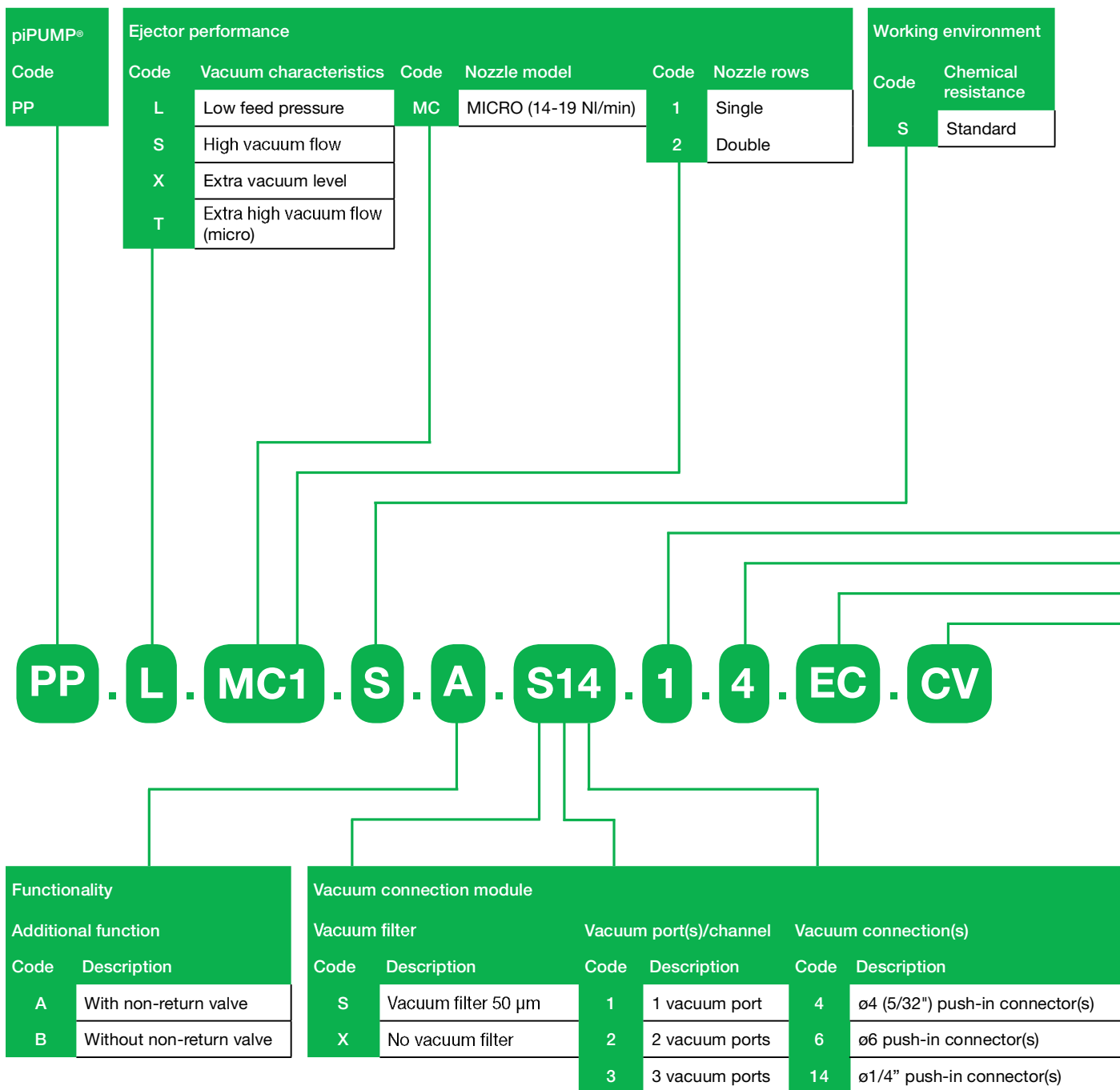
Dimensional drawing



Ordering information

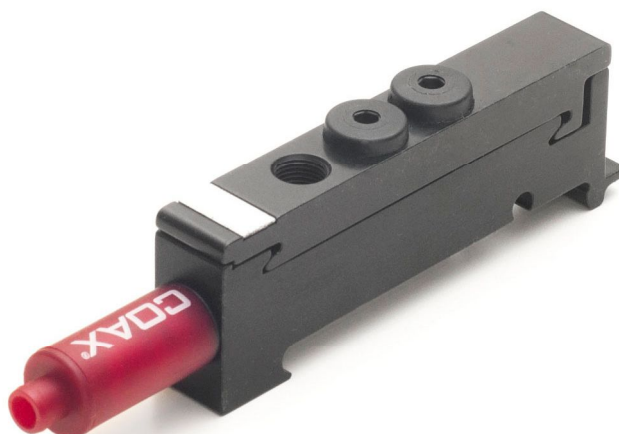
For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

piPUMP10X – Customer Code



Single unit or manifold mount		Air supply and mounting				Release functions	
Code	Number of channels	Code	Air connections	Code	Options	Code	Release functions
1	1 channel	4	ø4 (5/32") push-in connector(s)	EC	Ejectors stacked with central exhaust	CV	Blow off check valve
2	2 channels	6	ø6 push-in connector(s)	EX	Ejectors stacked without central exhaust		
3	3 channels	14	ø1/4" push-in connector(s)	EN	Ejectors stacked with central silencer		
4	4 channels	18	1/8" NPSF Common feed	X	No option		
5	5 channels						
6	6 channels						
7	7 channels						
8	8 channels						

P3010 family



Compact/stackable vacuum pumps are air-driven multistage ejector families, based on COAX® technology, they are equipped with integrated controls and special functions, such as on/off valve, blow-off valve, vacuum switch, energy saving function etc. They are configurable platforms, making it easy to specify the exact control functions needed for the system.

It is available with three-stage COAX® cartridge MINI. Choose an Si cartridge for extra vacuum flow, a Pi cartridge for high performance at low feed pressure or an Xi cartridge when high flow and deep vacuum is needed. The P3010 includes a flow-through silencer and a built-in vacuum filter for harsh environments. It is suitable for fast and reliable evacuation in sealed systems

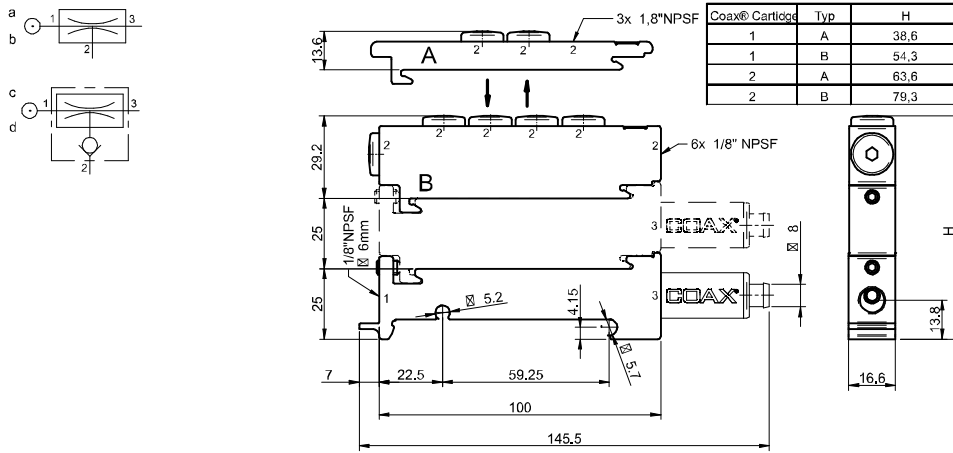
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MINI Pi12-3	0.32	0.44	1.40	0.60	0.44	0.27	0.19	0.14	0.10	0.060	0.030	—	90
MINI Si08-3	0.6	0.44	1.34	0.73	0.55	0.35	0.23	0.17	0.13	0.08	—	—	75
MINI Xi10-3	0.5	0.46	1.43	0.70	0.50	0.33	0.19	0.15	0.11	0.07	0.045	0.011	94

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
MINI Pi12-3	0.32	0.44	0.08	0.23	0.49	1.00	1.70	2.60	3.90	6.30	—	—	90
MINI Si08-3	0.6	0.44	0.10	0.25	0.48	0.80	1.30	2.30	4.60	—	—	—	75
MINI Xi10-3	0.5	0.46	0.09	0.26	0.50	0.90	1.5	2.2	3.4	5.2	8.8	—	94

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

Accessory descriptions



P3010 Quick release

The quick release function has a volume of 3–60 cm³. Quick release is done by accumulating and utilising the feed-air pressure as a boost. The ON/OFF is activated simultaneously with the P3010



P3010 ES

The P3010 has an integrated air-saving function (piSAVE onoff) that minimises the air consumption by controlling the incoming air flow to the pump. Large hysteresis is recommended for sealed vacuum handling applications such as metal sheet, glass or plastic handling. And small hysteresis is recommended if a very accurate vacuum level has to be maintained in the process. It has an adjustable ES switch level and is a pneumatic function.



Solenoid Valve

The solenoid valve is an electric 3/2 valve with a possibility for manual override. As it has push in connections it is quick and easy to mount. The body has three M5 ports. It is suitable for compressed air with a filtration of 40 µm.



Vacuum switch

A vacuum switch can be used for many different applications. It converts a vacuum signal into a electric or pneumatic signal. Vacuum switches are available in many different versions, from very small electro-mechanicals with pre-set settings to pneumatics or programmable fully electronics. Some switches are design to fit directly into the P3010 with an Ø 6 mm push-in.



AVM™2

The AVM™2 unit has built-in control and monitoring functions. The integrated energy saving function (ES) minimises the air consumption in sealed systems. It has valves for vacuum on/off and blow-off with electrical power failsafe function. The AVM™ has digital outputs, 16 pre-set combinations of vacuum levels, digital vacuum level display and a mechanical valve for blow-off flow adjustment.



CU

The CU has electric valves for vacuum on/off and blow-off and a mechanical valve for blow-off flow adjustment. It also has a special M12 4-pin cable assembly with LED for status of valve signal.

P3010 – Customer Code

P3010
Code
P3010

Code	Connection interface
00	Housing connection Ø6 mm
01	Housing connection 1/8"

Code	COAX® Cartridge module
AA	COAX® Cartridge module Si08-3 FS x1
AB	COAX® Cartridge module Si08-3 AFS x1
AC	COAX® Cartridge module Si08-3 FS x2
AD	COAX® Cartridge module Si08-3 AFS x2
AE	COAX® Cartridge module Pi12-3 FS x1
AF	COAX® Cartridge module Pi12-3 AFS x1
AG	COAX® Cartridge module Pi12-3 FS x2
AH	COAX® Cartridge module Pi12-3 AFS x2
AI	COAX® Cartridge module Xi10-3 FS x1
AJ	COAX® Cartridge module Xi10-3 AFS x1
AK	COAX® Cartridge module Xi10-3 FS x2
AL	COAX® Cartridge module X10-3 AFS x2

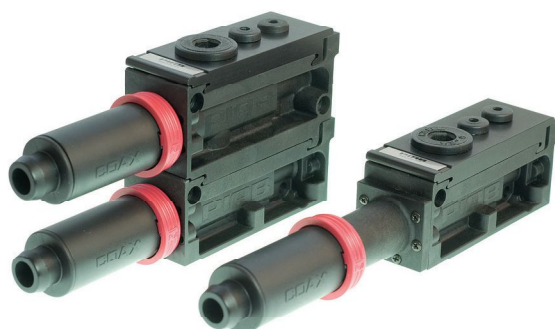
P3010 . 00 . AA . 01 . AA . 00

Code	Connection modules / function
01	Connection module high 6x1/8"
02	Connection module low 3x1/8"
04	Function Quick-release module 10/6 - 3
05	Function Quick-release module 8/6 - 30
06	Function Quick-release module 8/6 - 60
07	Function Quick-release module 10/6 - 30
08	Function Quick-release module 10/6 - 60
09	Function Quick-release module 1/4"/6 - 3 (NPSF)
10	Function Quick-release module 1/4"/6-30 (NPSF)
11	Function Quick-release module 1/4"/6-60 (NPSF)
12	Function Quick-release module 8/6-3
27	Function AVM™2 NO
28	Function AVM™2 NC (power off - NO)
29	Function CU NC
30	Function AVM™2 NO auto blow-off (1 sec)
31	Function AVM™2 NC auto blow-off (1 sec)
32	Function AVM™2 NC 2 (power off - NC)
33	Function CU NO

Code	Energy saving
AA	No energy saving (included in AVM2)
AB	Solenoid valve DS23
AC	piSAVE onoff 2/2 NO large hysteres
AD	piSAVE onoff 2/2 NO small hysteres

Code	Vacuum sensing
00	No vacuum sensing (included in AVM2)
01	Vacuum switch PNP NO MM8
02	Vacuum switch NPN NO MM8
05	Vacuum switch PNP NO LM8
09	Vacuum switch PNP NO DM8
10	Vacuum switch NPN NO DM8
11	Vacuum switch Inductive, adj. Knob
18	Vacuum switch VS4015 30 -kPa
19	Vacuum switch VS4015 50 -kPa
20	Vacuum switch VS4015 70 -kPa
21	Vacuum switch VS4016 30 -kPa
22	Vacuum switch VS4016 50 -kPa
23	Vacuum switch VS4016 70 -kPa

P5010 family



Compact/stackable vacuum pumps are air-driven multistage ejector families. based on COAX® technology. they are equipped with integrated controls and special functions. such as on/off valve. blow-off valve. vacuum switch. energy saving function etc. They are configurable platforms. making it easy to specify the exact control functions needed for the system.

It has a patented COAX® push-in technology that allows insertion and removal of the cartridge without tools. It is available two or three-stage COAX® cartridge MIDI. Choose an Si cartridge for extra vacuum flow. a Pi cartridge for high performance at low feed pressure or an Xi cartridge when high flow and deep vacuum is needed. The P5010 has an integrated flow-through silencer that is unaffected by dust and dirt. It provides substantially lower air-consumption as compared to conventional ejectors of similar sizes.

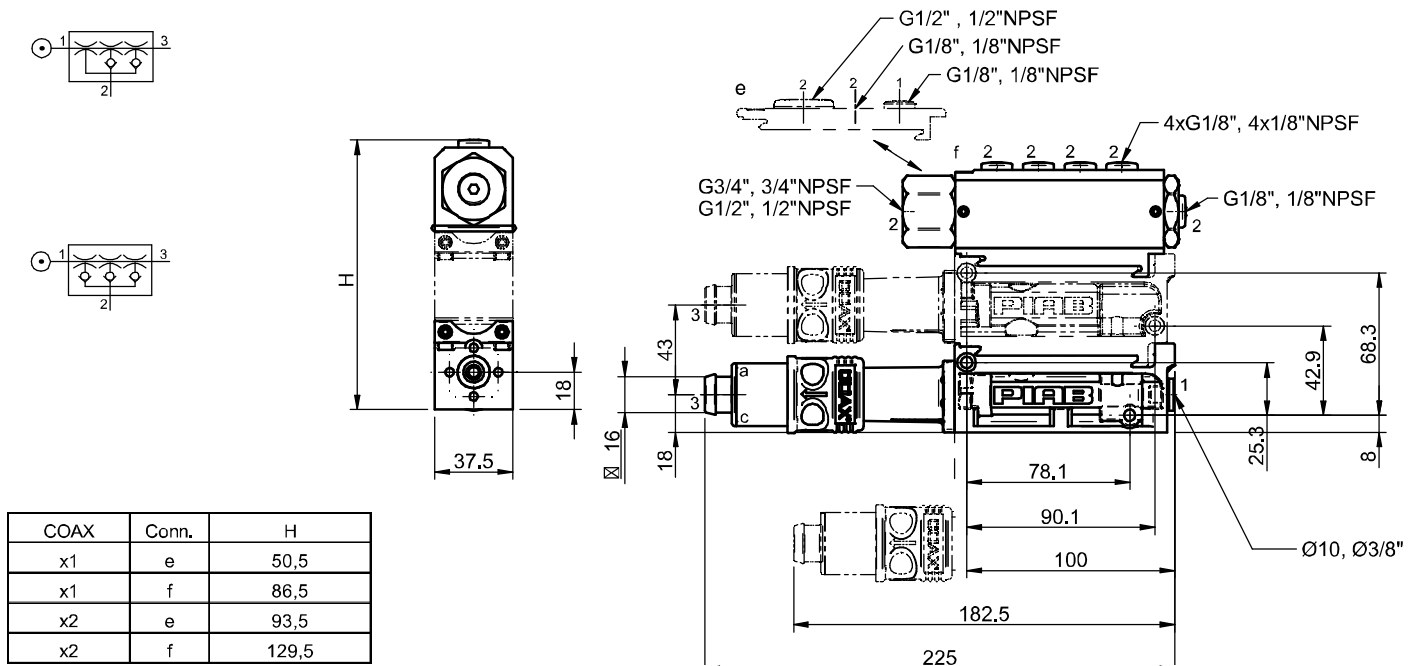
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
Pi48-2	0.31	2	2.8	2.5	1.8	1.1	0.65	0.5	0.35	0.25	0.1	—	90
Pi48-3	0.31	2.05	5.6	2.5	1.8	1.1	0.65	0.5	0.35	0.25	0.1	—	90
Si32-2	0.6	1.75	3.3	3	2.6	1.7	0.9	0.6	0.5	0.35	—	—	75
Si32-3	0.6	1.75	6	3.5	2.6	1.7	0.9	0.6	0.5	0.35	—	—	75
Xi40-2	0.45	1.83	2.8	2.3	1.6	1	0.73	0.58	0.43	0.32	0.18	0.03	95
Xi40-3	0.45	1.83	5.9	3	2	1.3	0.73	0.58	0.43	0.32	0.18	0.03	95

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
Pi48-2	0.31	2	0.03	0.07	0.13	0.26	0.46	0.7	1	1.6	4	90	
Pi48-3	0.31	2.05	0.02	0.06	0.12	0.25	0.45	0.7	1	1.6	4	90	
Si32-2	0.6	1.75	0.03	0.07	0.1	0.18	0.33	0.53	0.8	—	—	75	
Si32-3	0.6	1.75	0.02	0.05	0.1	0.18	0.33	0.53	0.8	—	—	75	
Xi40-2	0.45	1.83	0.04	0.09	0.17	0.28	0.44	0.63	0.9	1.3	2.3	95	
Xi40-3	0.45	1.83	0.022	0.062	0.12	0.22	0.37	0.57	0.84	1.2	2.2	95	

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

Accessory descriptions



AVM™2

The AVM™2 unit has built-in control and monitoring functions. The integrated energy saving function (ES) minimises the air consumption in sealed systems. It has valves for vacuum on/off and blow-off with electrical power failsafe function. The AVM™ has digital outputs, 16 pre-set combinations of vacuum levels, digital vacuum level display and a mechanical valve for blow-off flow adjustment.



CU

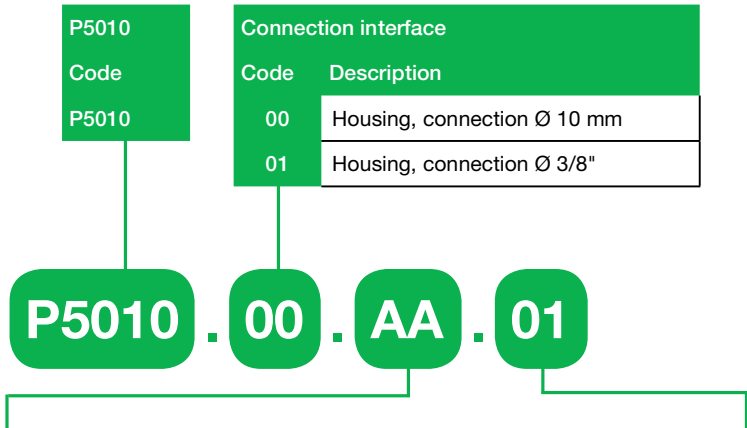
The CU has electric valves for vacuum on/off and blow-off and a mechanical valve for blow-off flow adjustment. It also has a special M12 4-pin cable assembly with LED for status of valve signal.



P5010 ES

The P5010 has an integrated air-saving function (piSAVE onoff) that minimises the air consumption by controlling the incoming air flow to the pump. Large hysteresis is recommended for sealed vacuum handling applications such as metal sheet, glass or plastic handling. And small hysteresis is recommended if a very accurate vacuum level has to be maintained in the process. It has an adjustable ES switch level and is a pneumatic function.

P5010 – Customer Code



Code
P5010

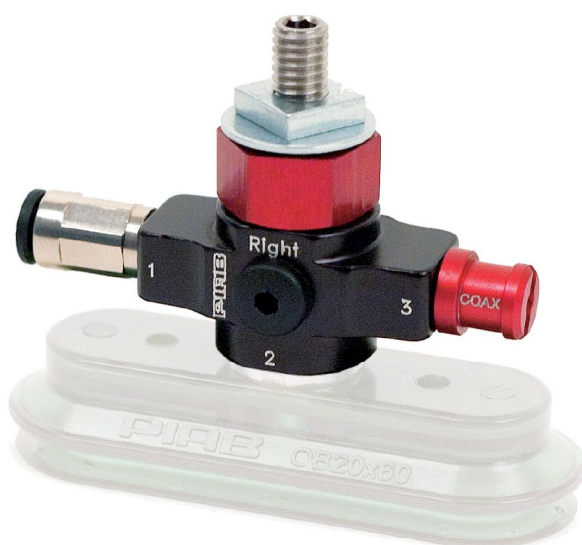
Connection interface	
Code	Description
00	Housing, connection Ø 10 mm
01	Housing, connection Ø 3/8"

P5010 . 00 . AA . 01

COAX® Push-in	
Code	Description
AA	COAX® push-in module Si32-2X1
AB	COAX® push-in module Si32-3X1
AC	COAX® push-in module Si32-2X1, non-return valve
AD	COAX® push-in module Si32-3X1, non-return valve
AE	COAX® push-in module Si32-2X2
AF	COAX® push-in module Si32-3X2
AG	COAX® push-in module Si32-2X2, non-return valve
AH	COAX® push-in module Si32-3X2, non-return valve
AI	COAX® push-in module Pi48-2X1
AJ	COAX® push-in module Pi48-3X1
AK	COAX® push-in module Pi48-2X1, non-return valve
AL	COAX® push-in module Pi48-3X1, non-return valve
AM	COAX® push-in module Pi48-2X2
AN	COAX® push-in module Pi48-3X2
AO	COAX® push-in module Pi48-2X2, non-return valve
AP	COAX® push-in module Pi48-3X2, non-return valve
AQ	COAX® push-in module Xi40-2X1
AR	COAX® push-in module Xi40-3X1
AS	COAX® push-in module Xi40-2X1, non-return valve
AT	COAX® push-in module Xi40-3X1, non-return valve
AU	COAX® push-in module Xi40-2X2
AV	COAX® push-in module Xi40-3X2
AW	COAX® push-in module Xi40-2X2, non-return valve
AX	COAX® push-in module Xi40-3X2, non-return valve

Connection modules/function	
Code	Description
01	Connection module low, G connection
02	Connection module high, G connection
03	Connection module low, NPSF connection
04	Connection module high, NPSF connection
05	Function AVM™2 NO, G connection
06	Function AVM™2 NC (power off - NO), G connection
07	Function AVM™2 NO, NPSF connection
08	Function AVM™2 NC (power off - NO), NPSF connection
09	Function CU NC, G connection
10	Function CU NC, NPSF connection
11	Function ES Vacustat 2/2 NO large hysteres
12	Function ES Vacustat 2/2 NO small hysteres
13	Function AVM™2 NO, automatic blow-off (1 sec), G connection
14	Function AVM™2 NC, automatic blow-off (1 sec), G connection
15	Function AVM™2 NC 2 (power off - NC), G connection
16	Function AVM™2 NO, automatic blow-off (1 sec), NPSF connection
17	Function AVM™2 NC, automatic blow-off (1 sec), NPSF connection
18	Function AVM™2 NC 2 (power off - NC), NPSF connection

VGS™2010 family



Piab VGS™ – A product design where different suction cups are integrated with vacuum cartridges based on the patented COAX® technology. The “vacuum gripper” makes selection, sizing and installation of a vacuum system easier. With a VGS™ you will enjoy the benefits of a more cost-efficient and reliable decentralized vacuum system. It has a low weight at 25–39 g.

It is available with a two-stage COAX® cartridge MICRO. Choose Bi for low feed pressure, Si for high vacuum flow, Xi for extra vacuum and Ti at 0,4/0,6 MPa for extra capacity/dirt tolerance. This VGS™ is compatible with any suction cup with G1/8” male fitting.

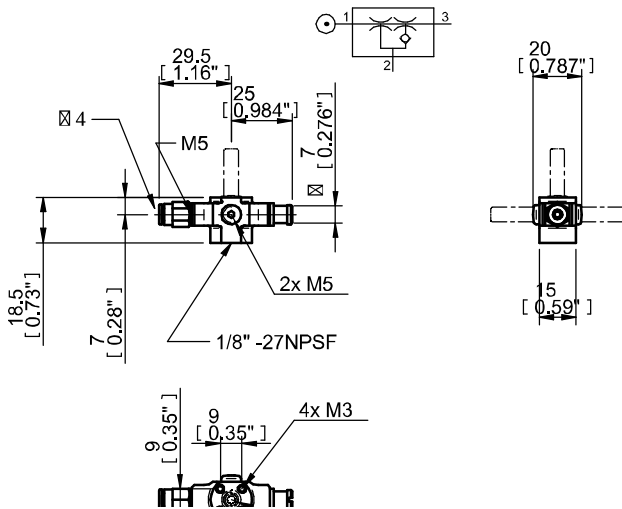
Vacuum flow

COAX® Cartridge	Feed pressure	Air consumption	Vacuum flow (NI/s) at different vacuum levels (-kPa)								Max vacuum
	MPa		NI/s	0	10	20	30	40	50	60	
MICRO Bi03-2	0.4	0.09	0.25	0.15	0.08	0.07	0.05	0.03	–	–	60
MICRO Si02-2	0.5	0.10	0.27	0.19	0.09	0.08	0.07	0.05	0.02	–	70
MICRO Ti05-2	0.4	0.09	0.25	0.15	0.08	0.07	0.05	0.03	–	–	60
MICRO Ti05-2	0.5	0.10	0.27	0.19	0.09	0.08	0.07	0.05	0.02	–	70
MICRO Xi2.5-2	0.6	0.12	0.28	0.21	0.12	0.08	0.07	0.06	0.04	0.02	75

Evacuation times

COAX® Cartridge	Feed pressure	Air consumption	Evacuation time (s/l) to reach different vacuum levels (-kPa)								Max vacuum
	MPa		NI/s	10	20	30	40	50	60	70	
MICRO Bi03-2	0.4	0.09	0.25	0.15	0.08	0.07	0.05	0.03	–	–	60
MICRO Si02-2	0.5	0.10	0.27	0.19	0.09	0.08	0.07	0.05	0.02	–	70
MICRO Ti05-2	0.4	0.09	0.25	0.15	0.08	0.07	0.05	0.03	–	–	60
MICRO Ti05-2	0.5	0.10	0.27	0.19	0.09	0.08	0.07	0.05	0.02	–	70
MICRO Xi2.5-2	0.6	0.12	0.28	0.21	0.12	0.08	0.07	0.06	0.04	0.02	75

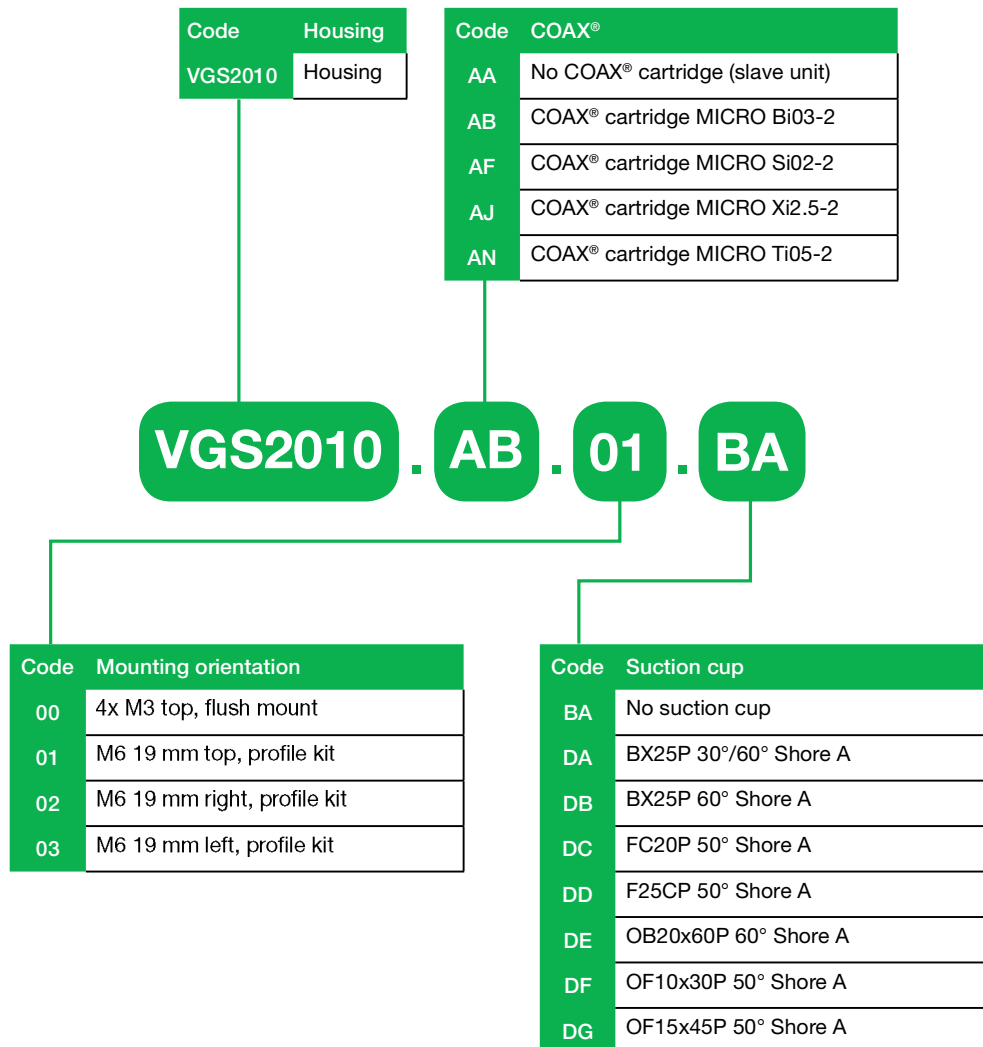
Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

VGS™ 2010 – Customer Code



VGS™3010 family



Piab VGS™ – A product design where different suction cups are integrated with vacuum cartridges based on the patented COAX® technology. The “vacuum gripper” makes selection, sizing and installation of a vacuum system easier. With a VGS™ you will enjoy the benefits of a more cost-efficient and reliable decentralized vacuum system. It has a low weight at 111–340 g.

It is available with two- or three-stage COAX® cartridge MINI. Choose a Di cartridge, for very harsh environments, combining high dust and high humidity levels, an Si cartridge for extra vacuum flow, a Pi cartridge for high performance at low feed pressure or an Xi cartridge when high flow and deep vacuum is needed. The three-stage cartridge will give extra high initial vacuum flow, which is suitable in high speed applications. The VGS™ is compatible with any suction cup with G3/8” male fitting.

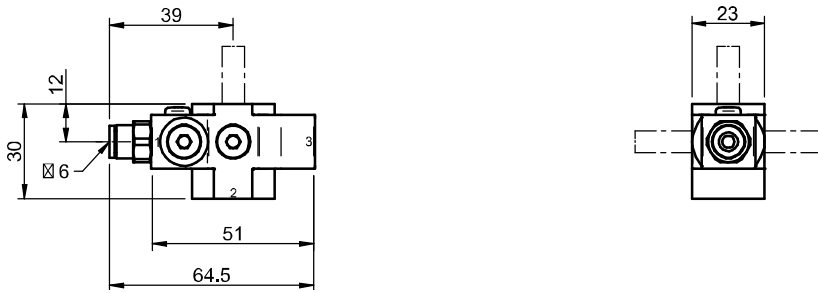
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MINI Pi12-2	0.32	0.44	0.68	0.6	0.44	0.27	0.19	0.14	0.1	0.06	0.03	—	90
MINI Pi12-3	0.32	0.44	1.4	0.6	0.44	0.27	0.19	0.14	0.1	0.06	0.03	—	90
MINI Si08-2	0.6	0.44	0.77	0.67	0.51	0.33	0.23	0.16	0.12	0.08	—	—	75
MINI Si08-3	0.6	0.44	1.34	0.73	0.55	0.35	0.23	0.17	0.13	0.08	—	—	75
MINI Xi10-2	0.5	0.46	0.75	0.63	0.49	0.33	0.19	0.15	0.11	0.07	0.04	0.011	94
MINI Xi10-3	0.5	0.46	1.43	0.7	0.5	0.33	0.19	0.15	0.11	0.07	0.04	0.011	94
MINI Di16-2	0.6	0.75	0.64	0.57	0.49	0.41	0.35	0.29	0.18	0.04	—	—	73

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
MINI Pi12-2	0.32	0.44	0.17	0.32	0.58	1.1	1.8	2.7	4.0	6.4	—	—	90
MINI Pi12-3	0.32	0.44	0.08	0.23	0.49	1	1.7	2.6	3.9	6.3	—	—	90
MINI Si08-2	0.6	0.44	0.14	0.31	0.55	0.9	1.4	2.1	3.1	—	—	—	75
MINI Si08-3	0.6	0.44	0.1	0.25	0.48	0.8	1.3	2	2.9	—	—	—	75
MINI Xi10-2	0.5	0.46	0.14	0.3	0.6	1	1.6	2.3	3.5	5.3	8.9	—	94
MINI Xi10-3	0.5	0.46	0.09	0.26	0.5	0.9	1.5	2.2	3.4	5.2	8.8	—	94
MINI Di16-2	0.6	0.75	0.17	0.35	0.58	0.84	1.15	1.58	2.49	—	—	—	73

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit [piab.com](https://www.piab.com). On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

VGS™3010 – Customer Code

Code	Housing
VGS3010	Housing

Code	COAX®
AA	No COAX® cartridge (slave unit)
AB	MINI Pi12-2
AC	MINI Pi12-3
AD	MINI Pi12-2, non-return valve
AE	MINI Pi12-3, non-return valve
AF	MINI Si08-2
AG	MINI Si08-3
AH	MINI Si08-2, non-return valve
AI	MINI Si08-3, non-return valve
AJ	MINI Xi10-2
AK	MINI Xi10-3
AL	MINI Xi10-2, non-return valve
AM	MINI Xi10-3, non-return valve
AN	MINI Di16-2

Code	Mounting orientation
00	4x M4 top, flush mount
01	M8 16 mm top
02	M8 16 mm right
03	M8 16 mm left
04	M8 27 mm top, profile kit
05	M8 27 mm right, profile kit
06	M8 27 mm left, profile kit
07	M6 22 mm top, profile kit
08	M6 22 mm right, profile kit
09	M6 22 mm left, profile kit
11	Ball joint VGS™3010 right
12	Ball joint VGS™3010 left
13	Lock-pin VGS™3010 right
14	Lock-pin VGS™3010 left
15	Level compensator LC30

VGS3010

AB

01

38

Suction cup

Visit piab.com for the full range of suction cups available for VGS™3010

VGS™3040 family



This is a product design where different suction cups can be integrated with vacuum cartridges based on the patented COAX® technology. The “vacuum gripper” makes selection, sizing and installation of a vacuum system easier. With a VGS™ you will enjoy the benefits of a more cost-efficient and reliable decentralized vacuum system. The VGS™ is compatible with any suction cup with G3/8” male fitting. It has a low weight at 204–340 g.

It is available with two- or three-stage COAX® cartridge MINI. Choose a Di cartridge, for very harsh environments, combining high dust and high humidity levels, an Si cartridge for extra vacuum flow, a Pi cartridge for high performance at low feed pressure or an Xi cartridge when high flow and deep vacuum is needed. The three-stage cartridge will give extra high initial vacuum flow, which is suitable in high speed applications.

It is available in lockpin 16, 19 or balljoint mountings, industry standard as well as level compensator to compensate for differences in level of object. It can also be fitted with different functions as energy saving, release or blow off.

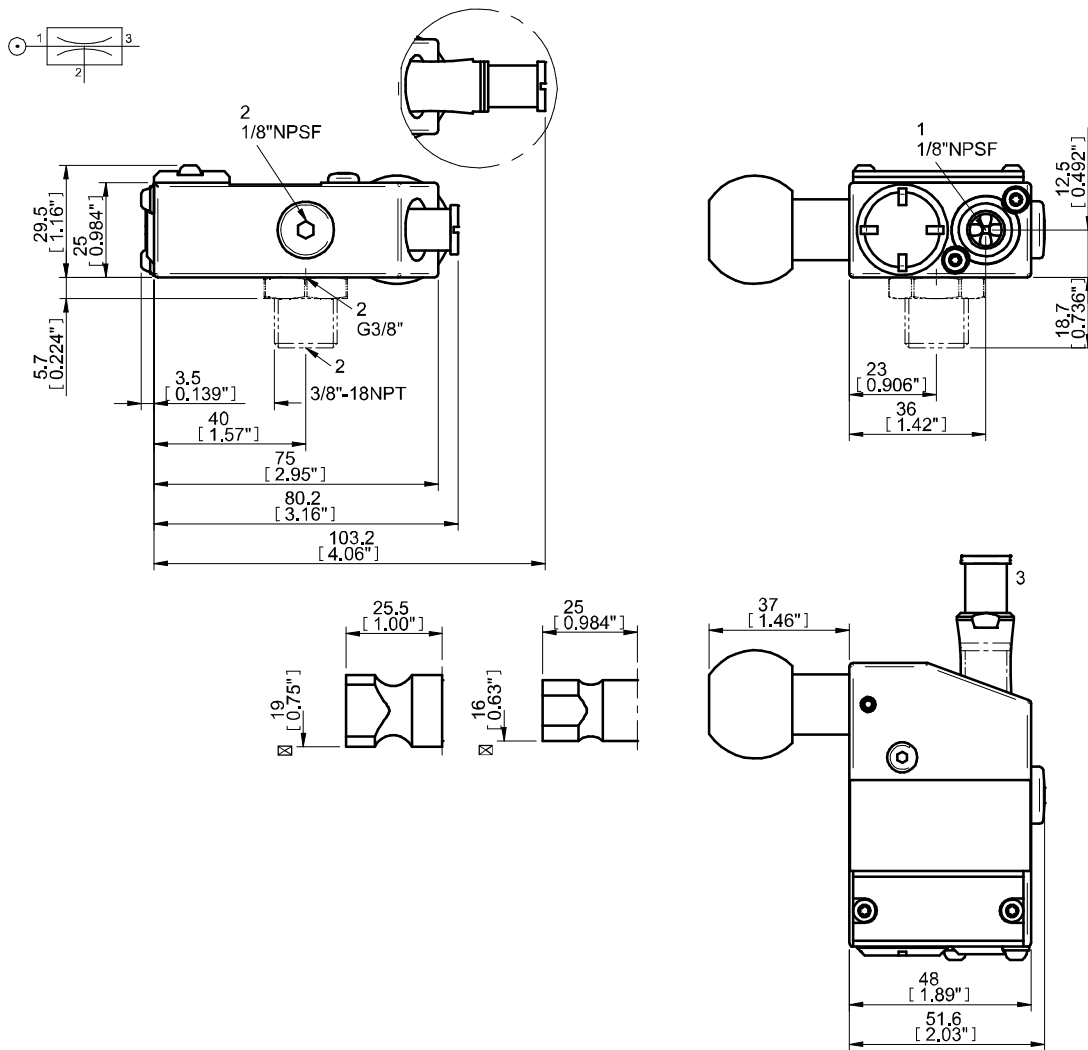
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MINI Si08-2	0.6	0.44	0.77	0.67	0.51	0.33	0.23	0.16	0.12	0.08	—	—	75
MINI Si08-3	0.6	0.44	1.34	0.73	0.55	0.35	0.23	0.17	0.13	0.08	—	—	75
MINI Xi10-2	0.5	0.46	0.75	0.63	0.49	0.33	0.19	0.15	0.11	0.07	0.045	0.011	94
MINI Xi10-3	0.5	0.46	1.43	0.7	0.5	0.33	0.19	0.15	0.11	0.07	0.045	0.011	94
MINI Pi12-2	0.32	0.44	0.68	0.6	0.44	0.27	0.19	0.14	0.1	0.06	0.03	—	90
MINI Pi12-3	0.32	0.44	1.4	0.6	0.44	0.27	0.19	0.14	0.1	0.06	0.03	—	90

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
MINI Si08-2	0.6	0.44	0.14	0.31	0.55	0.9	1.4	2.1	3.1	—	—	75	
MINI Si08-3	0.6	0.44	0.1	0.25	0.48	0.8	1.3	2	2.9	—	—	75	
MINI Xi10-2	0.5	0.46	0.14	0.3	0.6	1	1.6	2.3	3.5	5.3	8.9	94	
MINI Xi10-3	0.5	0.46	0.09	0.26	0.5	0.9	1.5	2.2	3.4	5.2	8.8	94	
MINI Pi12-2	0.32	0.44	0.17	0.32	0.58	1.1	1.8	2.7	4	6.4	—	90	
MINI Pi12-3	0.32	0.44	0.08	0.23	0.49	1	1.7	2.6	3.9	6.3	—	90	

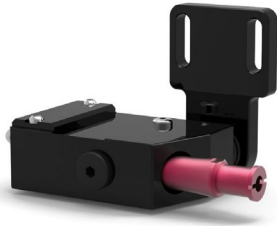
Dimensional drawing



Ordering information

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Accessory descriptions



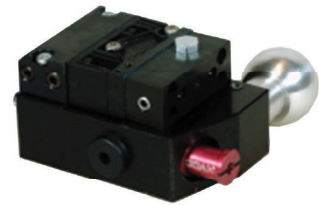
VGS™3040 with profile mount

It makes the attachment easy to a standard extrusion and profile systems with an adjustable position. This will give a quick setup and changeover.



VGS™3040 with level compensator

It is available with level compensator to compensate for differences in level of object.



VGS™3040 with piSAVE onoff

It has an integrated energy-saving device, piSAVE onoff, results in very low air consumption in sealed applications. The built-in blow off check valve will provide a fast release of the object. It has an adjustable vacuum controlled 2/2 NO valve and is available with large hysteresis for object handling and small hysteresis for process applications.



VGS™3040 with piSAVE release

It has a built-in quick release for fast release of object. It works with an internal or separate feed of air. It equalises pressure in the suction cups to provide fast release of the product. The piSAVE release will provide an extra fast release by accumulating and utilising the feed-air pressure as a boost. It has an ON/OFF activated simultaneously with the ejector and no additional controls required — use a single 3/2 control valve for the ejector and piSAVE release.



VGS™3040 with blow off

It has a built-in blow off check valve for fast release of object. Prevents vacuum from being pulled through the blow-off lines, which means faster response time and completely independent vacuum units.

VGS™3040 – Customer Code

Code	Housing
VGS3040	Housing

Code	COAX® cartridge
AB	COAX® cartridge MINI Pi12-2
AC	COAX® cartridge MINI Pi12-3
AD	COAX® cartridge MINI Pi12-2, non-return valve
AE	COAX® cartridge MINI Pi12-3, non-return valve
AF	COAX® cartridge MINI Si08-2
AG	COAX® cartridge MINI Si08-3
AH	COAX® cartridge MINI Si08-2, non-return valve
AI	COAX® cartridge MINI Si08-3, non-return valve
AJ	COAX® cartridge MINI Xi10-2
AK	COAX® cartridge MINI Xi10-3
AL	COAX® cartridge MINI Xi10-2, non-return valve
AM	COAX® cartridge MINI Xi10-3, non-return valve

Code	Mounting style
00	No mounting style
01	Mounting Lock pin 16 mm
02	Mounting Lock pin 19 mm
03	Mounting Ball joint
04	Mounting Lock pin 16 mm level compensator
05	Mounting Lock pin 19 mm level compensator
06	Mounting Ball joint level compensator
07	Mounting Extrusion mount level compensator
08	Mounting Profile mount
09	Mounting Profile mount

VGS3040 . AB . 01 . AA . 01 . AA

Code	Energy saving
AA	No energy saving
AB	piSAVE onoff 65 -kPa
AC	piSAVE onoff, Adjustable (factory set at 45 -kPa)

Code	Release function
01	Release Blow-off
02	piSAVE release internal
03	piSAVE release external

Code	Vacuum connection
AA	G3/8" female
AB	G3/8" male - 3/8" NPT male adapter

VGS™5010 family



Piab VGS™ – A product design where different suction cups are integrated with vacuum cartridges based on the patented COAX® technology. The “vacuum gripper” makes selection, sizing and installation of a vacuum system easier. With a VGS™ you will enjoy the benefits of a more cost-efficient and reliable decentralized vacuum system. It has a low weight at 413–679 g.

The VGS™5010 is specially designed for handling larger parts, such as car body sheets as it is compatible with any suction cup with G1/2” male fitting. It is also available with a two or three-stage COAX® cartridge MIDI. Choose an Si cartridge for extra vacuum flow, a Pi cartridge for high performance at low feed pressure or an Xi cartridge when high flow and deep vacuum is needed. The three-stage cartridge will give extra high initial vacuum flow, suitable in high speed applications.

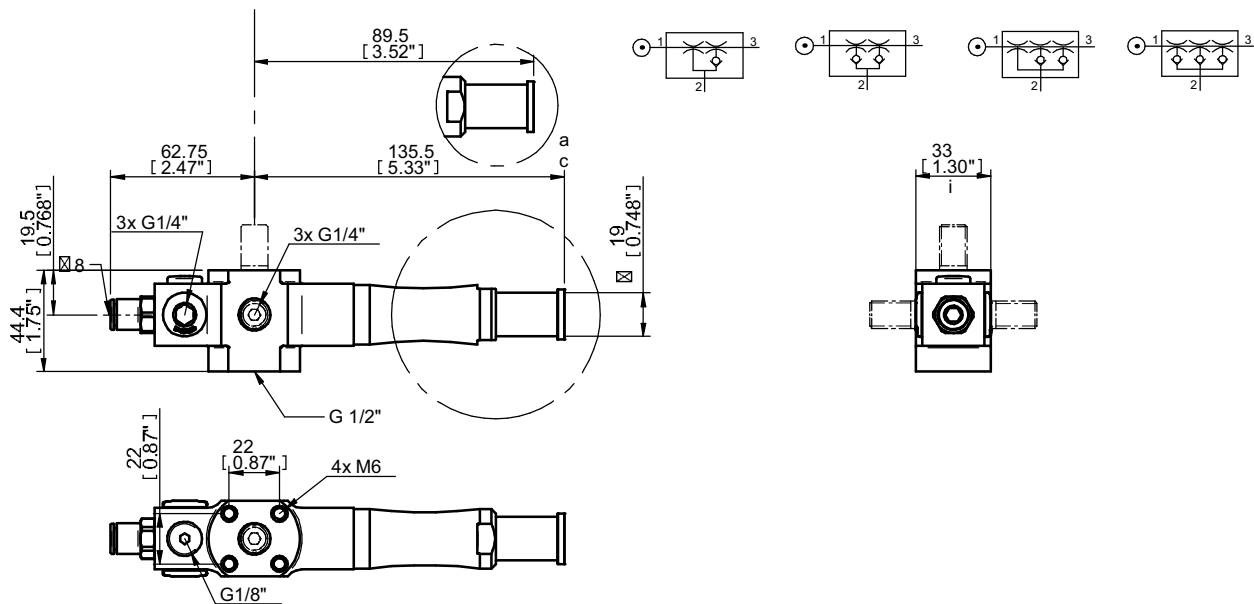
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MIDI Pi48-2	0.31	2	2.8	2.5	1.8	1.1	0.65	0.5	0.35	0.25	0.1	—	90
MIDI Pi48-3	0.31	2.05	5.6	2.5	1.8	1.1	0.65	0.5	0.35	0.25	0.1	—	90
MIDI Si32-2	0.6	1.75	3.3	3	2.6	1.7	0.9	0.6	0.5	0.35	—	—	75
MIDI Si32-3	0.6	1.75	6	3.5	2.6	1.7	0.9	0.6	0.5	0.35	—	—	75
MIDI Xi40-2	0.45	1.83	2.8	2.3	1.6	1	0.73	0.58	0.43	0.32	0.18	0.03	95
MIDI Xi40-3	0.45	1.83	5.9	3	2	1.3	0.73	0.58	0.43	0.32	0.18	0.03	95

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
MIDI Pi48-2	0.31	2	0.03	0.07	0.13	0.26	0.46	0.7	1	1.6	4	90	
MIDI Pi48-3	0.31	2.05	0.02	0.06	0.12	0.25	0.45	0.7	1	1.6	4	90	
MIDI Si32-2	0.6	1.75	0.03	0.07	0.1	0.18	0.33	0.53	0.8	—	—	75	
MIDI Si32-3	0.6	1.75	0.02	0.05	0.1	0.18	0.33	0.53	0.8	—	—	75	
MIDI Xi40-2	0.45	1.83	0.04	0.09	0.17	0.28	0.44	0.63	0.9	1.3	2.3	95	
MIDI Xi40-3	0.45	1.83	0.022	0.062	0.12	0.22	0.37	0.57	0.84	1.2	2.2	95	

Dimensional drawing



Ordering information

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VGS™5010 – Customer Code

Code	Housing
VGS5010	Housing

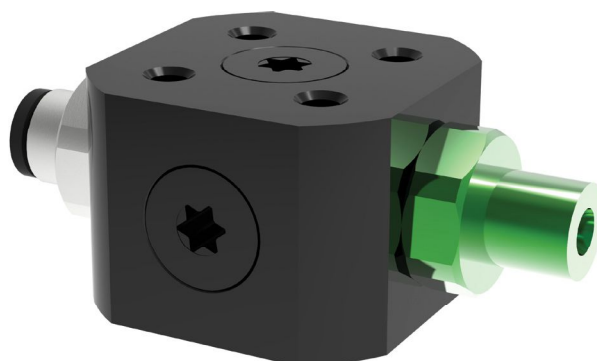
Code	COAX® cartridge
AA	No COAX® cartridge (slave unit)
AB	COAX® cartridge MIDI Pi48-2
AC	COAX® cartridge MIDI Pi48-3
AD	COAX® cartridge MIDI Pi48-2, non-return valve
AE	COAX® cartridge MIDI Pi48-3, non-return valve
AF	COAX® cartridge MIDI Si32-2
AG	COAX® cartridge MIDI Si32-3
AH	COAX® cartridge MIDI Si32-2, non-return valve
AI	COAX® cartridge MIDI Si32-3, non-return valve
AJ	COAX® cartridge MIDI Xi40-2
AK	COAX® cartridge MIDI Xi40-3
AL	COAX® cartridge MIDI Xi40-2, non-return valve
AM	COAX® cartridge MIDI Xi40-3, non-return valve

Code	Mounting style
00	4x M6 top, flush mount
01	4x M6 top, angle bracket
02	M12 20 mm top
03	M12 20 mm right
04	M12 20 mm left
05	M12 20 mm top, angle bracket
06	M12 20 mm right, angle bracket
07	M12 20 mm left, angle bracket

VGS5010 . AB . 00 . BA

Code	Suction cup
BA	No suction cup
CO	BF110P 30°/60° Shore A
CP	BF110P 60° Shore A
CQ	BX110P 30°/60° Shore A
CR	BX110P 60° Shore A
CS	F110P 30°/60° Shore A
CT	F110P 60° Shore A
CU	OB65x170P 30°/60° Shore A
CV	OB65x170P 60° Shore A
CX	BL50-3P 30°/70° Shore A
CY	BX75P 30°/60° Shore A
CZ	BX75P 60° Shore A

COAX® in piGRIP®



This is a fully decentralized vacuum unit based on patented COAX® technology. It provides the quickest response time and very high energy efficiency. The COAX® in piGRIP® is available with a variation of two stage COAX® MICRO cartridges. The COAX® in piGRIP® is compatible with any suction cup with G1/8" male fitting.

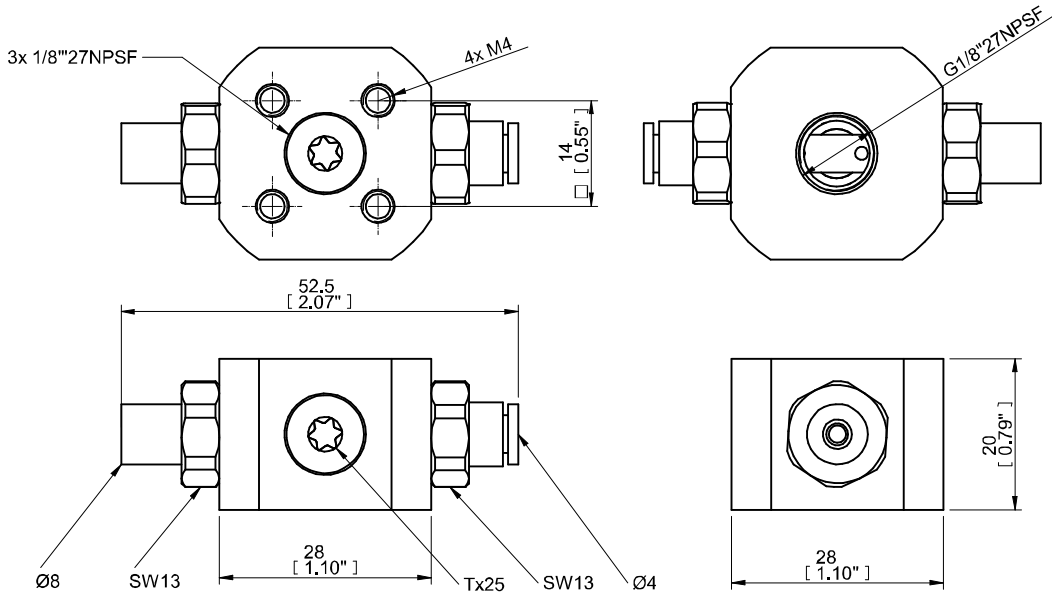
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)									Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	
MICRO Bi03-2	0.18	0.14	0.23	0.15	0.06	0.04	0.035	0.023	0.013	0.006	—	83
MICRO Si02-2	0.6	0.12	0.28	0.21	0.12	0.08	0.07	0.06	0.04	0.02	—	75
MICRO Ti05-2	0.4	0.27	0.32	0.28	0.23	0.17	0.1	0.07	0.04	0.02	0.004	84
MICRO Xi2.5-2	0.5	0.13	0.24	0.17	0.1	0.06	0.04	0.03	0.02	0.01	0.01	92

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)									Max vacuum -kPa
			10	20	30	40	50	60	70	80		
MICRO Bi03-2	0.18	0.14	0.5	1.4	3.9	6.4	10	16	28	51	83	
MICRO Si02-2	0.6	0.12	0.41	1.01	2.01	3.3	4.9	6.9	10.2	—	75	
MICRO Ti05-2	0.4	0.27	0.33	0.73	1.2	2	3.1	5	8.3	16.6	84	
MICRO Xi2.5-2	0.5	0.13	0.49	1.23	2.48	4.5	7.3	11.3	18	28	92	

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

piCLASSIC



It is available with a three-stage COAX® cartridge MIDI. Choose an Si cartridge for extra vacuum flow, a Pi cartridge for high performance at low feed pressure or an Xi cartridge when high flow and deep vacuum is needed. This pump has a substantially lower air consumption compare to competition, it is compact with no moving parts. It can be configured with 1–6 cartridges. This pump can easily be upgraded with more capacity if needed. And it is also easy to disassemble for maintenance.

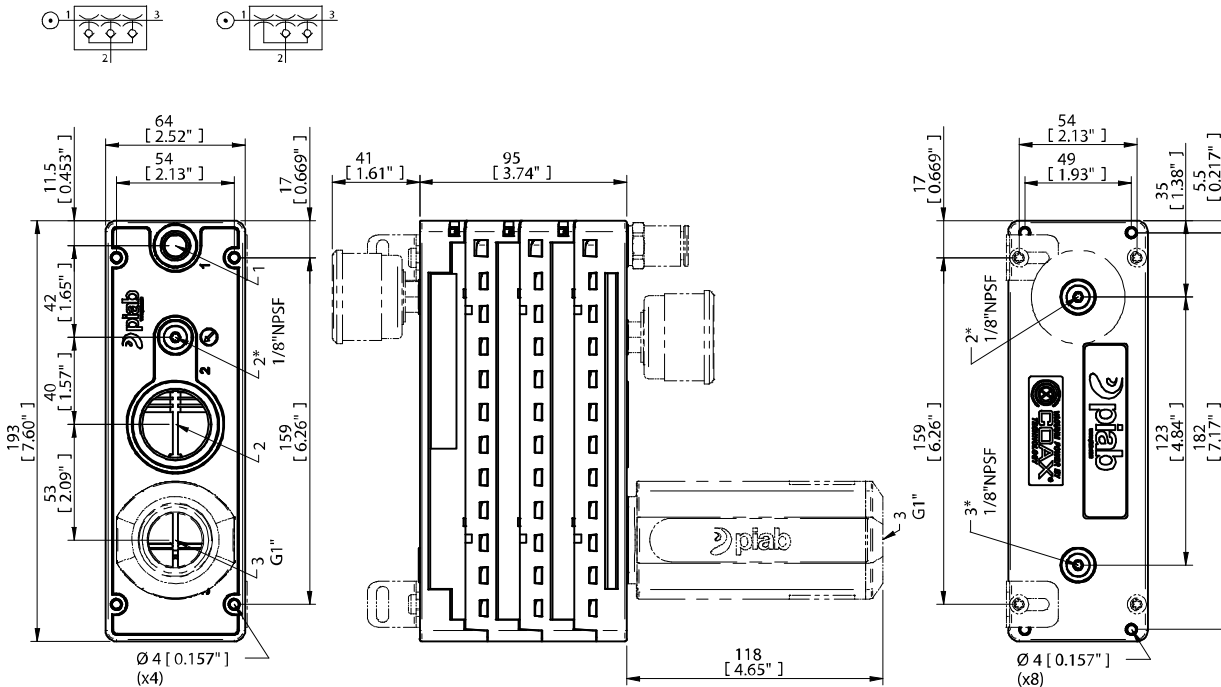
Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MIDI Si32-3 x1	0.6	1.75	6	3.5	2.6	1.7	0.9	0.6	0.5	0.35	—	—	75
MIDI Si32-3 x2	0.6	3.5	12	7	5.2	3.4	1.8	1.2	1	0.7	—	—	75
MIDI Si32-3 x3	0.6	5.25	18	10.5	7.8	5.1	2.7	1.8	1.5	1.1	—	—	75
MIDI Si32-3 x4	0.6	7	24	14	10.4	6.8	3.6	2.4	2	1.4	—	—	75
MIDI Si32-3 x5	0.6	8.75	25.5	15.8	12.4	8.5	4.5	3	2.5	2.1	—	—	75
MIDI Si32-3 x6	0.6	10.5	28.8	17.9	14.8	10.2	5.4	3.6	3	2.2	—	—	75
MIDI Pi48-3 x1	0.31	2.05	5.6	2.5	1.8	1.1	0.65	0.5	0.35	0.25	0.1	—	90
MIDI Pi48-3 x2	0.31	4	11.2	5	3.6	2.2	1.3	1	0.7	0.5	0.2	—	90
MIDI Pi48-3 x3	0.31	6	16.8	7.5	5.4	3.3	1.95	1.5	1.05	0.75	0.3	—	90
MIDI Pi48-3 x4	0.31	8	22.4	10	7.2	4.4	2.6	2	1.4	1	0.4	—	90
MIDI Pi48-3 x5	0.31	10	23.8	11.3	8.6	5.5	3.25	2.5	1.75	1.25	0.5	—	90
MIDI Pi48-3 x6	0.31	12	26.9	12.8	10.3	6.6	3.9	3	2.1	1.5	0.6	—	90
MIDI Xi40-3 x1	0.45	1.83	5.9	3	2	1.3	0.73	0.58	0.43	0.32	0.18	0.03	95
MIDI Xi40-3 x2	0.45	3.66	11.8	6	4	2.6	1.46	1.16	0.86	0.64	0.36	0.06	95
MIDI Xi40-3 x3	0.45	5.49	17.7	9	6	3.9	2.19	1.74	1.29	0.96	0.54	0.09	95
MIDI Xi40-3 x4	0.45	7.32	23.6	12	8	5.2	2.92	2.32	1.72	1.28	0.72	0.12	95
MIDI Xi40-3 x5	0.45	9.15	25.1	13.5	9.5	6.5	3.65	2.9	2.15	1.6	0.9	0.15	95
MIDI Xi40-3 x6	0.45	11	28.3	15.3	11.4	7.8	4.38	3.44	2.58	1.92	1.08	0.18	95

Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)									Max vacuum -kPa
			10	20	30	40	50	60	70	80	90	
MIDI Si32-3 x1	0.6	1.75	0.02	0.05	0.1	0.18	0.33	0.53	0.8	—	—	75
MIDI Si32-3 x2	0.6	3.5	0.01	0.025	0.05	0.09	0.17	0.27	0.4	—	—	75
MIDI Si32-3 x3	0.6	5.25	0.007	0.017	0.033	0.06	0.11	0.18	0.27	—	—	75
MIDI Si32-3 x4	0.6	7	0.005	0.013	0.025	0.045	0.083	0.13	0.2	—	—	75
MIDI Si32-3 x5	0.6	8.75	0.005	0.012	0.022	0.036	0.066	0.11	0.16	—	—	75
MIDI Si32-3 x6	0.6	10.5	0.004	0.01	0.018	0.03	0.055	0.09	0.13	—	—	75
MIDI Pi48-3 x1	0.31	2.05	0.02	0.06	0.12	0.25	0.45	0.7	1	1.6	4	90
MIDI Pi48-3 x2	0.31	4	0.01	0.03	0.06	0.13	0.23	0.35	0.5	0.8	2	90
MIDI Pi48-3 x3	0.31	6	0.007	0.02	0.04	0.08	0.15	0.23	0.33	0.53	1.33	90
MIDI Pi48-3 x4	0.31	8	0.005	0.015	0.03	0.06	0.11	0.18	0.25	0.4	1	90
MIDI Pi48-3 x5	0.31	10	0.005	0.014	0.028	0.05	0.09	0.14	0.2	0.32	0.8	90
MIDI Pi48-3 x6	0.31	12	0.004	0.013	0.025	0.04	0.08	0.12	0.17	0.27	0.67	90
MIDI Xi40-3 x1	0.45	1.83	0.022	0.062	0.12	0.22	0.37	0.57	0.84	1.2	2.2	95
MIDI Xi40-3 x2	0.45	3.66	0.011	0.031	0.06	0.11	0.19	0.29	0.42	0.6	1.1	95
MIDI Xi40-3 x3	0.45	5.49	0.007	0.021	0.04	0.07	0.12	0.19	0.28	0.4	0.73	95
MIDI Xi40-3 x4	0.45	7.32	0.006	0.016	0.03	0.055	0.09	0.14	0.21	0.3	0.55	95
MIDI Xi40-3 x5	0.45	9.15	0.005	0.014	0.026	0.044	0.07	0.11	0.17	0.24	0.44	95
MIDI Xi40-3 x6	0.45	11	0.005	0.012	0.022	0.04	0.06	0.1	0.14	0.2	0.37	95

Dimensional drawing



*) Sensing port

PCL.XXXX.S. **AB**

	1	2
AB	G1/4"	G1"
12B	Ø12	G1"

Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

Accessory descriptions



piCLASSIC Energy saving

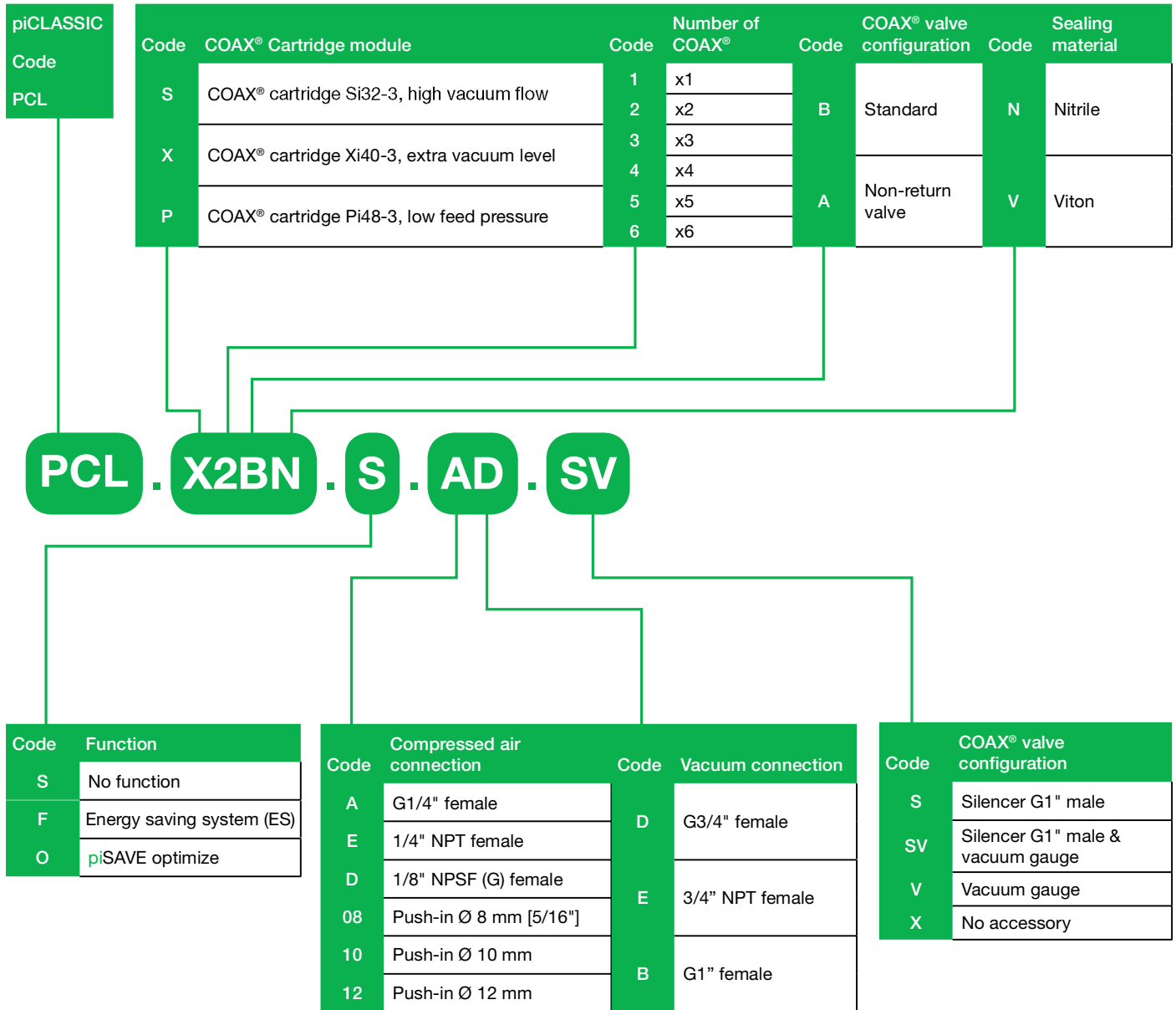
piCLASSIC has an integrated air-saving function (piSAVE onoff) that minimises the air consumption by controlling the incoming air flow to the pump. Large hysteresis is recommended for sealed vacuum handling applications such as metal sheet, glass or plastic handling. And small hysteresis is recommended if a very accurate vacuum level has to be maintained in the process. It has an adjustable ES switch level and is a pneumatic function.



piCLASSIC piSAVE optimize

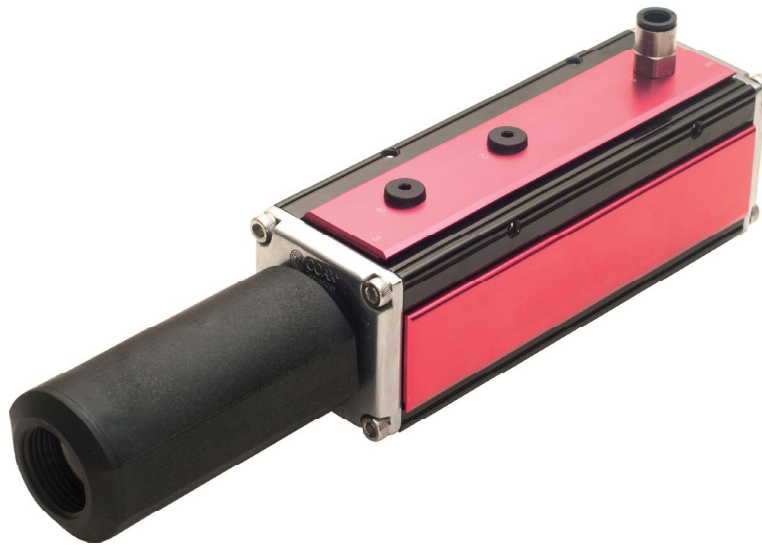
The piSAVE optimize is a vacuum controlled proportional pressure regulator, a fully pneumatic device suitable for air-driven ejectors/pumps. The feed pressure to the vacuum pump/ejector is automatically regulated and controlled to maintain the set vacuum level. Air/energy usage is kept to a minimum for the application (optimized). It is recommended for leaking and sealed applications to save energy and secure the right vacuum level.

piCLASSIC – Customer Code





P6010



As with the majority of our pumps, it is available with the patented COAX® technology and with a three-stage COAX® cartridge MIDI. Choose an Si cartridge for extra vacuum flow, a Pi cartridge for high performance at low feed pressure or an Xi cartridge when high flow and deep vacuum is needed. The P6010 consumes substantially less air compared to conventional ejectors. It also has quicker evacuation times and a low noise level. It is available with multiple connection alternatives. It can be configured with 1–4 cartridges.

Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
Pi48-3	0.31	2	5.6	2.5	1.8	1.1	0.65	0.5	0.35	0.25	0.1	—	90
Si32-3	0.6	1.75	6	3.5	2.6	1.7	0.9	0.6	0.5	0.35	—	—	75/52*
Xi40-3	0.45	1.83	5.9	3	2	1.3	0.73	0.58	0.43	0.32	0.18	0.03	95/51*
Pi48-3 x2	0.31	4	11.2	5	3.6	2.2	1.3	1	0.7	0.5	0.2	—	90
Si32-3 x2	0.6	3.5	12	7	5.2	3.4	1.8	1.2	1	0.7	—	—	75/52*
Xi40-3 x2	0.45	3.66	11.8	6	4	2.6	1.46	1.16	0.86	0.64	0.36	0.06	95/51*
Pi48-3 x3	0.31	6	16.8	7.5	5.4	3.3	1.95	1.5	1.05	0.75	0.3	—	90
Si32-3 x3	0.6	5.25	18	10.5	7.8	5.1	2.7	1.8	1.5	1.05	—	—	75/52*
Xi40-3 x3	0.45	5.49	17.7	9	6	3.9	2.19	1.74	1.29	0.96	0.54	0.09	95/51*
Pi48-3 x4	0.31	8	22.4	10	7.2	4.4	2.6	2	1.4	1	0.4	—	90
Si32-3 x4	0.6	7	24	14	10.4	6.8	3.6	2.4	2	1.4	—	—	75/52*
Xi40-3 x4	0.45	7.32	23.6	12	8	5.2	2.92	2.32	1.72	1.28	0.72	0.12	95/51*

* Without/with 1x flap valve.

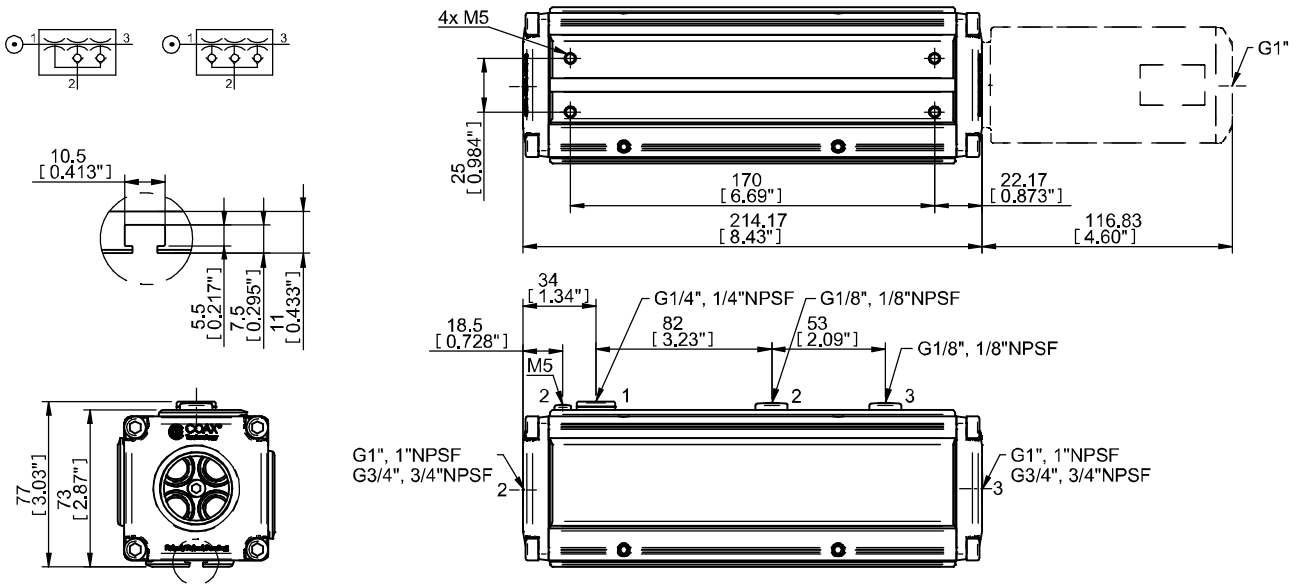
Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
Pi48-3	0.31	2	0.02	0.06	0.12	0.25	0.45	0.7	1	1.6	4	90	
Si32-3	0.6	1.75	0.02	0.05	0.1	0.18	0.33	0.53	0.8	—	—	75/52*	
Xi40-3	0.45	1.83	0.022	0.062	0.12	0.22	0.37	0.57	0.84	1.2	2.2	95/51*	
Pi48-3 x2	0.31	4	0.01	0.03	0.06	0.125	0.23	0.35	0.5	0.8	2	90	

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)									Max vacuum -kPa
			10	20	30	40	50	60	70	80	90	
Si32-3 x2	0.6	3.5	0.01	0.025	0.05	0.09	0.17	0.27	0.4	—	—	75/52*
Xi40-3 x2	0.45	3.66	0.011	0.031	0.06	0.11	0.19	0.29	0.42	0.6	1.1	95/51*
Pi48-3 x3	0.31	6	0.0067	0.02	0.04	0.083	0.15	0.23	0.33	0.53	1.33	90
Si32-3 x3	0.6	5.25	0.0067	0.017	0.033	0.06	0.11	0.17	0.27	—	—	75/52*
Xi40-3 x3	0.45	5.49	0.0073	0.021	0.04	0.073	0.12	0.19	0.28	0.4	0.73	95/51*
Pi48-3 x4	0.31	8	0.005	0.015	0.03	0.063	0.11	0.175	0.25	0.4	1	90
Si32-3 x4	0.6	7	0.005	0.0125	0.025	0.045	0.083	0.13	0.2	—	—	75/52*
Xi40-3 x4	0.45	7.32	0.0055	0.0155	0.03	0.055	0.093	0.14	0.21	0.3	0.55	95/51*

* Without/with 1x flap valve.

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

Accessory descriptions



P6010 Classic

Very similar to the P6010 with the patented COAX® technology. The connections can be made on the long side of the ejector and is retro-compatible with Piab's Classic model in regard to mounting.



P6010 AVM™2

The AVM™2 unit has built-in control and monitoring functions. The integrated energy saving function (ES) minimises the air consumption in sealed systems. It has valves for vacuum on/off and blow-off with electrical power failsafe function. The AVM™ has digital outputs, 16 pre-set combinations of vacuum levels, digital vacuum level display and a mechanical valve for blow-off flow adjustment.



P6010 CU

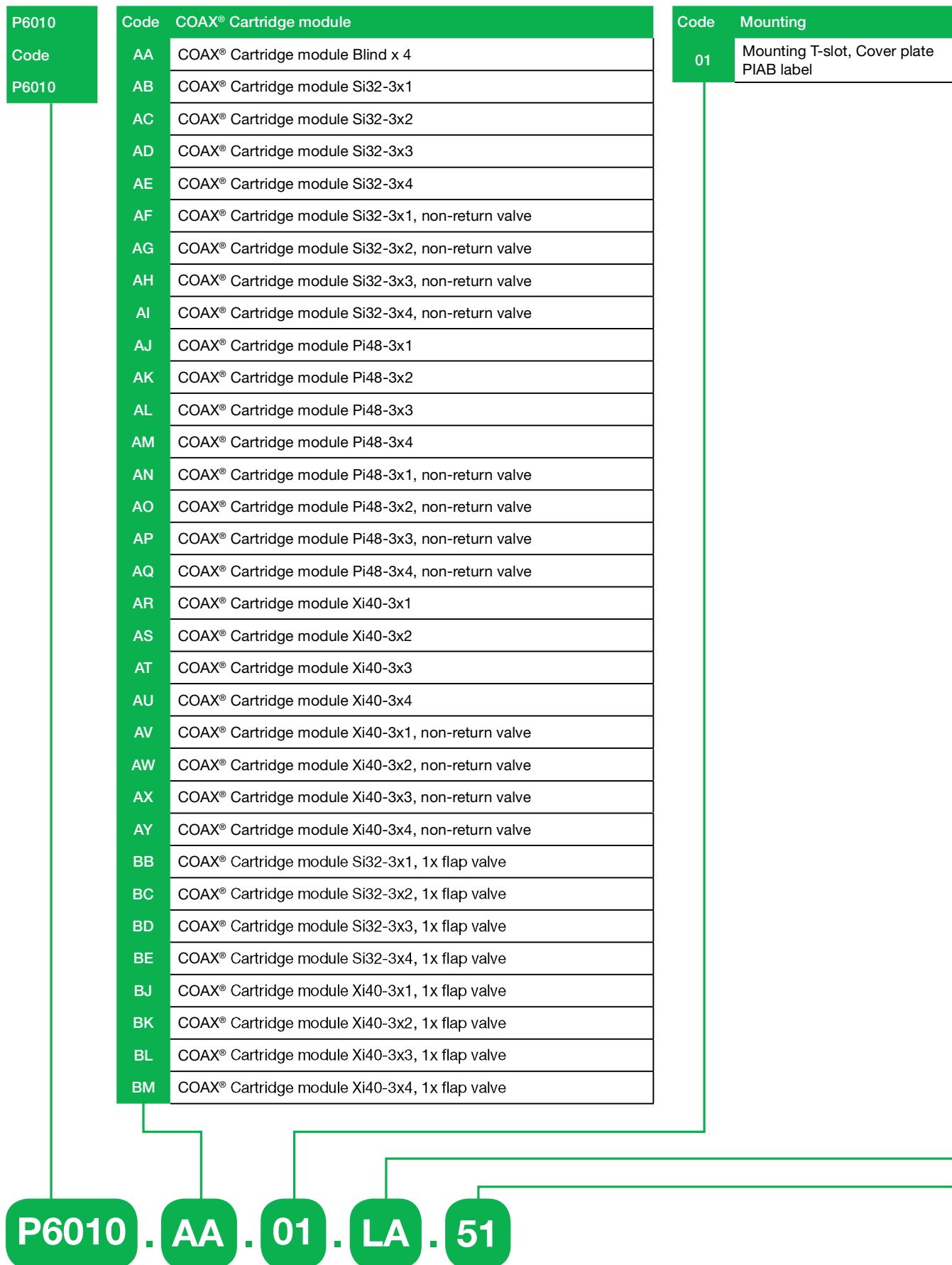
The CU has electric valves for vacuum on/off and blow-off and a mechanical valve for blow-off flow adjustment. It also has a with special M12 4-pin cable assembly with LED for status of valve signal.



P6010 PCC

Different vacuum pumps need different feed pressure for optimum performance. The PCC is programmable for constant vacuum level, as the input signal regulates the feed pressure to maintain a constant vacuum level. It has an integrated analogue vacuum sensor.

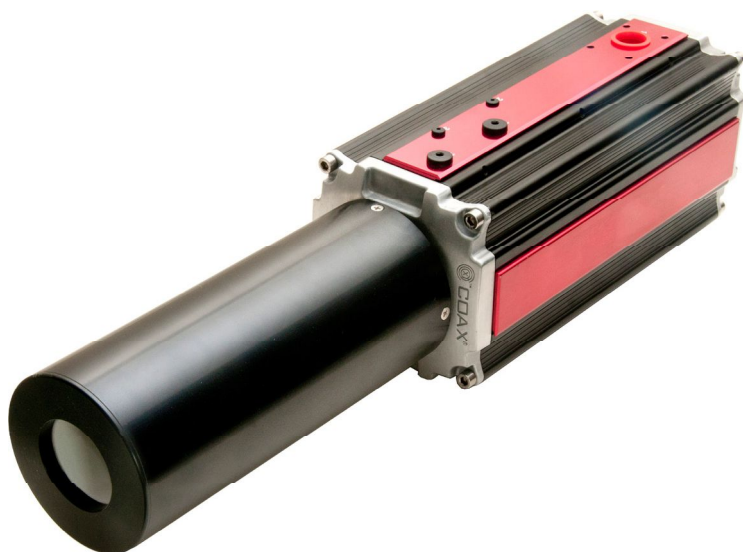
P6010 – Customer Code



Code	Cover/Function plates
LA	Cover plate G thread connections, Cover plate plain
LB	Function PCC Vacuum, Cover plate G thread connections
LI	Cover plate Classic G thread connections, Cover plate plain
LJ	Cover plate NPSF thread connections, Cover plate plain
LK	Cover plate Classic NPSF thread connections, Cover plate plain
LT	Function PCC Vacuum, Cover plate NPSF thread connections
LU	Function AVM™2 NO, Cover plate G thread connections
LV	Function AVM™2 NC, Cover plate G thread connections
LW	Function AVM™2 NO, Cover plate NPSF thread connections
LX	Function AVM™2 NC, Cover plate NPSF thread connections
LY	Function CU NC, Cover plate G thread connections
LZ	Function CU NC, Cover plate NPSF thread connections
MA	Function AVM™2 NO, Cover plate G thread connections SB
MB	Function AVM™2 NC, Cover plate G thread connections SB
MC	Function AVM™2 NO, Cover plate NPSF thread connections SB
MD	Function AVM™2 NC, Cover plate NPSF thread connections SB
ME	Function CU NC, Cover plate G thread connections SB
MF	Function CU NC, Cover plate NPSF thread connections SB

Code	Cover/Function plates
51	Connections 2x G1"
52	Connections 2x G1", silencer 1"
53	Connections 2x G3/4"
54	Connections 2x G3/4", silencer 3/4"
55	Connections 2x 1" NPSF
56	Connections 2x 1" NPSF, silencer 1"
57	Connections 2x 3/4" NPSF
58	Connections 2x 3/4" NPSF, silencer 3/4"

P6040



The P6040 comes with the patented COAX® technology. It is available with a three-stage COAX® cartridge MIDI. Choose an Si cartridge for extra vacuum flow, a Pi cartridge for high performance at low feed pressure or an Xi cartridge when high flow and deep vacuum is needed. This pump has a substantially lower air consumption compare to competition, it is compact with no moving parts. It can be configured with 5–16 cartridges.

Vacuum flow

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MIDI Pi48-3 x5	0.3	10	28	12.5	9	5.5	3.25	2.5	1.75	1.25	0.5	—	90
MIDI Pi48-3 x6	0.3	12	33.6	15	10.8	6.6	3.9	3	2.1	1.5	0.6	—	90
MIDI Pi48-3 x7	0.3	14	39.2	17.5	12.6	7.7	4.55	3.5	2.45	1.75	0.7	—	90
MIDI Pi48-3 x8	0.3	16	44.8	20	14.4	8.8	5.2	4	2.8	2	0.8	—	90
MIDI Pi48-3 x9	0.3	18	50.4	22.5	16.2	9.9	5.85	4.5	3.15	2.25	0.9	—	90
MIDI Pi48-3 x10	0.3	20	56	25	18	11	6.5	5	3.5	2.5	1	—	90
MIDI Pi48-3 x11	0.3	22	61.6	27.5	19.8	12.1	7.15	5.5	3.85	2.75	1.1	—	90
MIDI Pi48-3 x12	0.3	24	67.2	30	21.6	13.2	7.8	6	4.2	3	1.2	—	90
MIDI Pi48-3 x13	0.3	26	72.8	32.5	23.4	14.3	8.45	6.5	4.55	3.25	1.3	—	90
MIDI Pi48-3 x14	0.3	28	78.4	35	25.2	15.4	9.1	7	4.9	3.5	1.4	—	90
MIDI Pi48-3 x15	0.3	30	84	37.5	27	16.5	9.75	7.5	5.25	3.75	1.5	—	90
MIDI Pi48-3 x16	0.3	32	89.6	40	28.8	17.6	10.4	8	5.6	4	1.6	—	90
MIDI Si32-3 x5	0.6	8.75	30	17.5	13	8.5	4.5	3	2.5	1.75	—	—	75/52*
MIDI Si32-3 x6	0.6	10.5	36	21	15.6	10.2	5.4	3.6	3	2.1	—	—	75/52*
MIDI Si32-3 x7	0.6	12.25	42	24.5	18.2	11.9	6.3	4.2	3.5	2.45	—	—	75/52*
MIDI Si32-3 x8	0.6	14	48	28	20.8	13.6	7.2	4.8	4	2.8	—	—	75/52*
MIDI Si32-3 x9	0.6	15.75	54	31.5	23.4	15.3	8.1	5.4	4.5	3.15	—	—	75/52*
MIDI Si32-3 x10	0.6	17.5	60	35	26	17	9	6	5	3.5	—	—	75/52*
MIDI Si32-3 x11	0.6	19.25	66	38.5	28.6	18.7	9.9	6.6	5.5	3.85	—	—	75/52*
MIDI Si32-3 x12	0.6	21	72	42	31.2	20.4	10.8	7.2	6	4.2	—	—	75/52*
MIDI Si32-3 x13	0.6	22.75	78	45.5	33.8	22.1	11.7	7.8	6.5	4.55	—	—	75/52*
MIDI Si32-3 x14	0.6	24.5	84	49	36.4	23.8	12.6	8.4	7	4.9	—	—	75/52*
MIDI Si32-3 x15	0.6	26.25	90	52.5	39	25.5	13.5	9	7.5	5.25	—	—	75/52*

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MIDI Si32-3 x16	0.6	28	96	56	41.6	27.2	14.4	9.6	8	5.6	—	—	75/52*
MIDI Xi40-3 x5	0.45	9.15	29.5	15	10	6.5	3.65	2.9	2.15	1.6	0.9	0.15	95/51*
MIDI Xi40-3 x6	0.45	10.98	35.4	18	12	7.8	4.38	3.48	2.58	1.92	1.08	0.18	95/51*
MIDI Xi40-3 x7	0.45	12.81	41.3	21	14	9.1	5.11	4.06	3.01	2.24	1.26	0.21	95/51*
MIDI Xi40-3 x8	0.45	14.64	47.2	24	16	10.4	5.84	4.64	3.44	2.56	1.44	0.24	95/51*
MIDI Xi40-3 x9	0.45	16.47	53.1	27	18	11.7	6.57	5.22	3.87	2.88	1.62	0.27	95/51*
MIDI Xi40-3 x10	0.45	18.3	59	30	20	13	7.3	5.8	4.3	3.2	1.8	0.3	95/51*
MIDI Xi40-3 x11	0.45	20.13	64.9	33	22	14.3	8.03	6.38	4.73	3.52	1.98	0.33	95/51*
MIDI Xi40-3 x12	0.45	21.96	70.8	36	24	15.6	8.76	6.96	5.16	3.84	2.16	0.36	95/51*
MIDI Xi40-3 x13	0.45	23.79	76.7	39	26	16.9	9.49	7.54	5.59	4.16	2.34	0.39	95/51*
MIDI Xi40-3 x14	0.45	25.62	82.6	42	28	18.2	10.22	8.12	6.02	4.48	2.52	0.42	95/51*
MIDI Xi40-3 x15	0.45	27.45	88.5	45	30	19.5	10.95	8.7	6.45	4.8	2.7	0.45	95/51*
MIDI Xi40-3 x16	0.45	29.28	94.4	48	32	20.8	11.68	9.28	6.88	5.12	2.88	0.48	95/51*

* Without/with 1x flap valve.

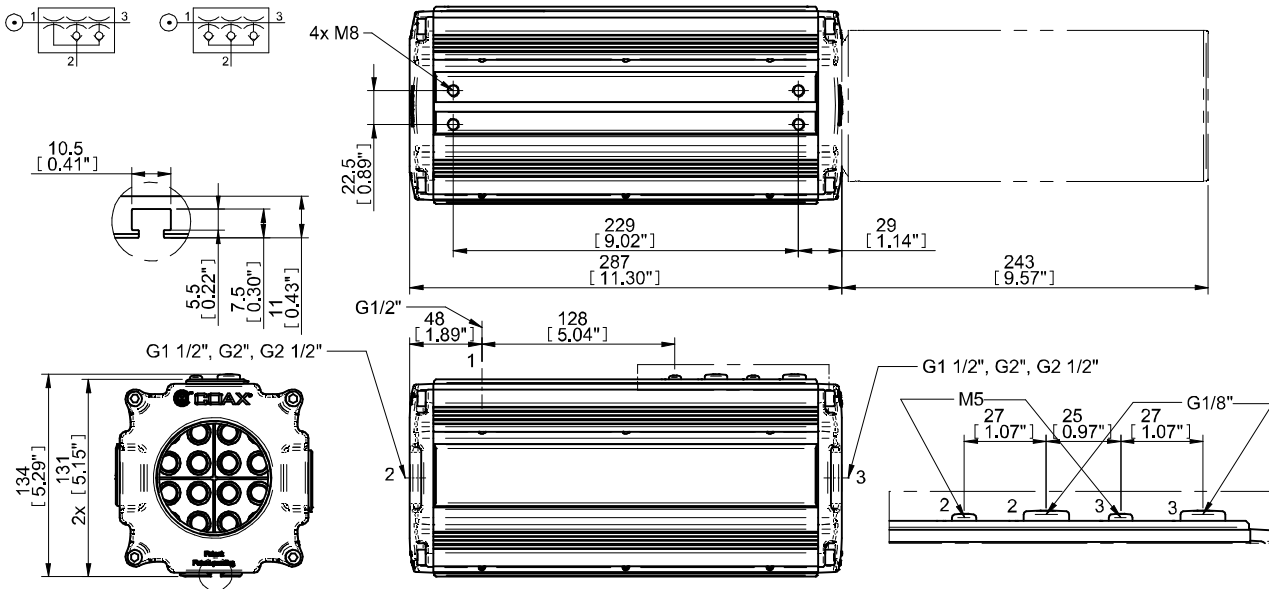
Evacuation times

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
MIDI Pi48-3 x5	0.3	10	0.004	0.012	0.024	0.05	0.09	0.14	0.2	0.32	0.8	90	
MIDI Pi48-3 x6	0.3	12	0.0033	0.01	0.02	0.042	0.075	0.12	0.17	0.27	0.67	90	
MIDI Pi48-3 x7	0.3	14	0.0029	0.0086	0.017	0.036	0.064	0.1	0.14	0.23	0.57	90	
MIDI Pi48-3 x8	0.3	16	0.0025	0.0075	0.015	0.031	0.056	0.088	0.13	0.2	0.5	90	
MIDI Pi48-3 x9	0.3	18	0.0022	0.0067	0.013	0.028	0.05	0.078	0.11	0.18	0.44	90	
MIDI Pi48-3 x10	0.3	20	0.002	0.006	0.012	0.025	0.045	0.07	0.1	0.16	0.4	90	
MIDI Pi48-3 x11	0.3	22	0.0018	0.0055	0.011	0.023	0.041	0.064	0.091	0.15	0.36	90	
MIDI Pi48-3 x12	0.3	24	0.0017	0.005	0.01	0.021	0.038	0.058	0.083	0.13	0.33	90	
MIDI Pi48-3 x13	0.3	26	0.0015	0.0046	0.0092	0.019	0.035	0.054	0.077	0.12	0.31	90	
MIDI Pi48-3 x14	0.3	28	0.0014	0.0043	0.0086	0.018	0.032	0.05	0.071	0.11	0.29	90	
MIDI Pi48-3 x15	0.3	30	0.0013	0.004	0.008	0.017	0.03	0.047	0.067	0.11	0.27	90	
MIDI Pi48-3 x16	0.3	32	0.0013	0.0038	0.0075	0.016	0.029	0.044	0.063	0.1	0.25	90	
MIDI Si32-3 x5	0.6	8.75	0.004	0.01	0.02	0.036	0.066	0.11	0.16	—	—	75/52*	
MIDI Si32-3 x6	0.6	10.5	0.0033	0.0083	0.017	0.03	0.055	0.088	0.13	—	—	75/52*	
MIDI Si32-3 x7	0.6	12.25	0.0029	0.0071	0.014	0.026	0.047	0.076	0.11	—	—	75/52*	
MIDI Si32-3 x8	0.6	14	0.0025	0.0063	0.013	0.023	0.041	0.066	0.1	—	—	75/52*	
MIDI Si32-3 x9	0.6	15.75	0.0022	0.0056	0.011	0.02	0.037	0.059	0.089	—	—	75/52*	
MIDI Si32-3 x10	0.6	17.5	0.002	0.005	0.01	0.018	0.033	0.053	0.08	—	—	75/52*	
MIDI Si32-3 x11	0.6	19.25	0.0018	0.0045	0.0091	0.016	0.03	0.048	0.073	—	—	75/52*	
MIDI Si32-3 x12	0.6	21	0.0017	0.0042	0.0083	0.015	0.028	0.044	0.067	—	—	75/52*	
MIDI Si32-3 x13	0.6	22.75	0.0015	0.0038	0.0077	0.014	0.025	0.041	0.062	—	—	75/52*	
MIDI Si32-3 x14	0.6	24.5	0.0014	0.0036	0.0071	0.013	0.024	0.038	0.057	—	—	75/52*	
MIDI Si32-3 x15	0.6	26.25	0.0013	0.0033	0.0067	0.012	0.022	0.035	0.053	—	—	75/52*	
MIDI Si32-3 x16	0.6	28	0.0013	0.0031	0.0063	0.011	0.021	0.033	0.05	—	—	75/52*	
MIDI Xi40-3 x5	0.45	9.15	0.0044	0.012	0.024	0.044	0.074	0.11	0.17	0.24	0.44	95/51*	

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
MIDI Xi40-3 x6	0.45	10.98	0.0037	0.01	0.02	0.037	0.062	0.095	0.14	0.2	0.37	95/51*	
MIDI Xi40-3 x7	0.45	12.81	0.0031	0.0089	0.017	0.031	0.053	0.081	0.12	0.17	0.31	95/51*	
MIDI Xi40-3 x8	0.45	14.64	0.0028	0.0078	0.015	0.028	0.046	0.071	0.11	0.15	0.28	95/51*	
MIDI Xi40-3 x9	0.45	16.47	0.0024	0.0069	0.013	0.024	0.041	0.063	0.093	0.13	0.24	95/51*	
MIDI Xi40-3 x10	0.45	18.3	0.0022	0.0062	0.012	0.022	0.037	0.057	0.084	0.12	0.22	95/51*	
MIDI Xi40-3 x11	0.45	20.13	0.002	0.0056	0.011	0.02	0.034	0.052	0.076	0.11	0.2	95/51*	
MIDI Xi40-3 x12	0.45	21.96	0.0018	0.0052	0.01	0.018	0.031	0.048	0.07	0.1	0.18	95/51*	
MIDI Xi40-3 x13	0.45	23.79	0.0017	0.0048	0.0092	0.017	0.029	0.044	0.065	0.092	0.17	95/51*	
MIDI Xi40-3 x14	0.45	25.62	0.0016	0.0044	0.0086	0.016	0.027	0.041	0.06	0.086	0.16	95/51*	
MIDI Xi40-3 x15	0.45	27.45	0.0015	0.0041	0.008	0.015	0.025	0.038	0.056	0.08	0.15	95/51*	
MIDI Xi40-3 x16	0.45	29.28	0.0014	0.0039	0.0075	0.014	0.023	0.036	0.053	0.075	0.14	95/51*	

* Without/with 1x flap valve.

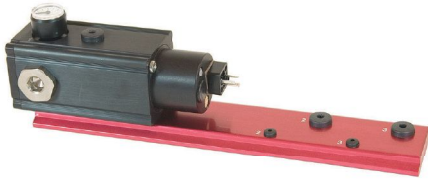
Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

Accessory descriptions



P6040 V30

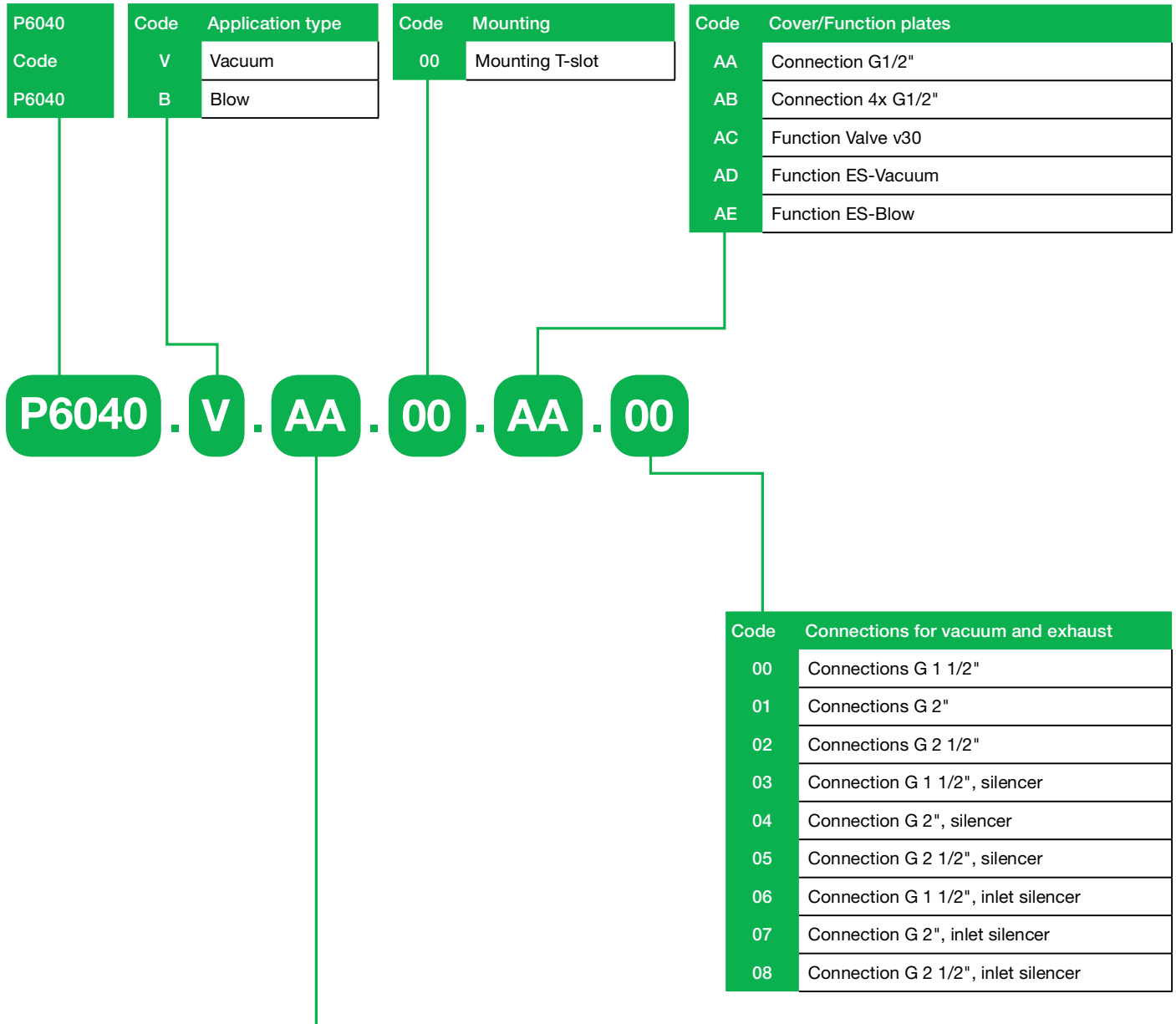
Piab P6040 multi stage ejector with Si, Pi or Xi COAX® technology. Modular design for flexible performance. Compact and durable with no moving parts. Electric 3/2 valve for on/off. Manometer for feed pressure control



P6040 ES Vacuum

Piab P6040 multi stage ejector with Si, Pi or Xi COAX® technology. Modular design for flexible performance. Compact and durable with no moving parts. Electrically operated air-saving device. Adjustable vacuum controlled 2/2 NO valve. Manometer for feed pressure control. Recommended for non-leaking system.

P6040 – Customer Code



Code												COAX® Cartridge module
x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16	
AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	COAX® Cartridge module Pi48-3
AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	COAX® Cartridge module Pi48-3, non-return valve
AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	COAX® Cartridge module Pi48-3, 1x flap valve
BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	COAX® Cartridge module Si32-3
BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	COAX® Cartridge module Si32-3, non-return valve
CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	COAX® Cartridge module Si32-3, 1x flap valve
CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	COAX® Cartridge module Xi40-3
DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	COAX® Cartridge module Xi40-3, non-return valve
DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	COAX® Cartridge module Xi40-3, 1x flap valve



Round pump



This round pump is available with the energy efficient COAX® cartridges. It is designed for high vacuum flow with 6x COAX® Si MIDI cartridges. Still it is small, compact and lightweight (1.6 kg). Easy to mount and install with integrated hose connectors.

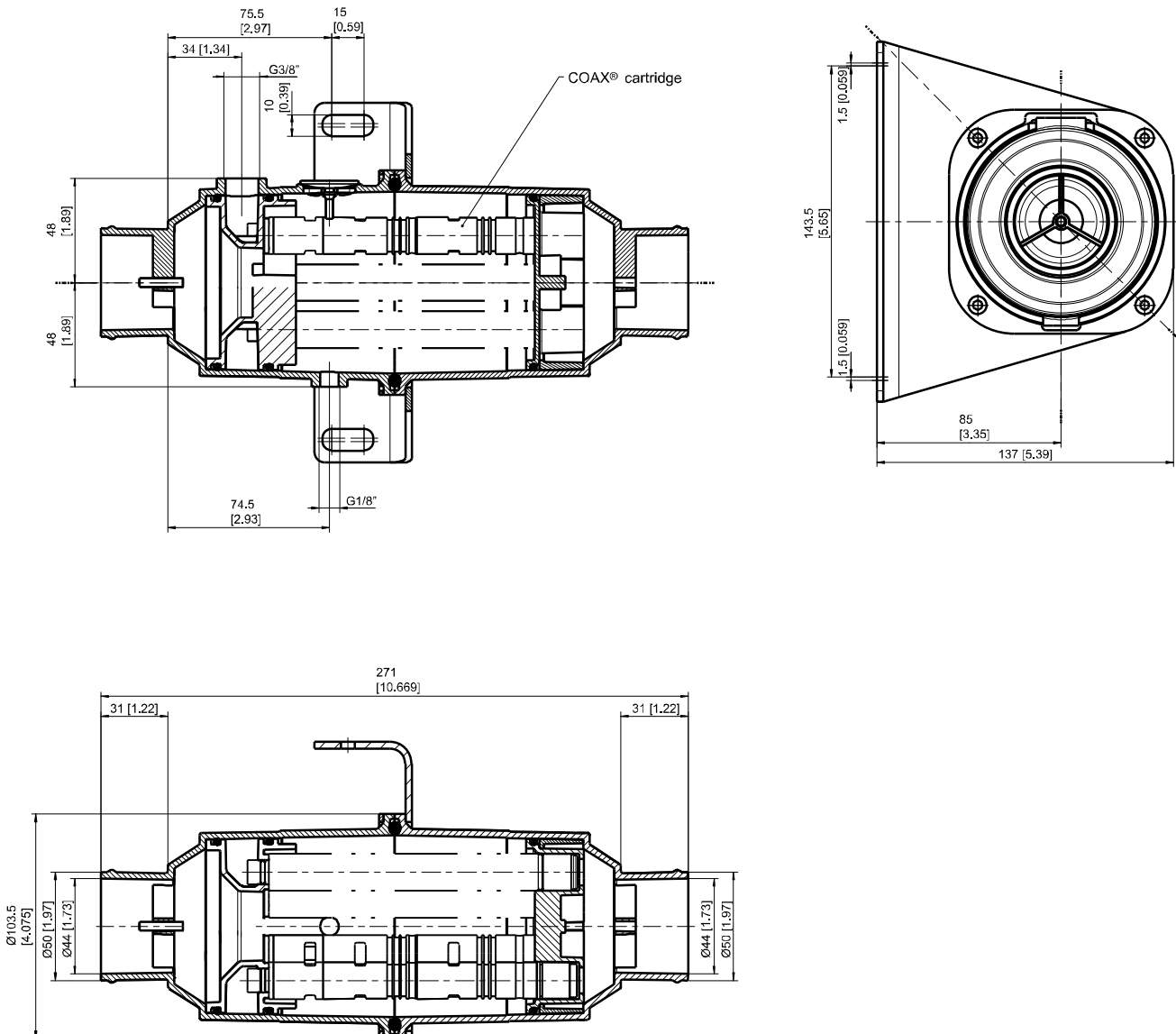
Vacuum flow

COAX® Cartridge	Feed pressure	Air consumption	Vacuum flow (NI/s) at different vacuum levels (-kPa)								Max vacuum
	MPa	NI/s	0	10	20	30	40	50	60	70	-kPa
MIDI Si32-3 x6	0.4	7.5	30	17.4	11.4	7.2	4.8	2.4	0.6	—	60
MIDI Si32-3 x6	0.5	9	34.2	19.8	13.2	8.4	5.1	3.72	2.1	1.08	70
MIDI Si32-3 x6	0.6	10.5	36	21	15.6	10.2	5.4	3.6	3	2.1	75

Evacuation times

COAX® Cartridge	Feed pressure	Air consumption	Evacuation time (s/l) to reach different vacuum levels (-kPa)							Max vacuum
	MPa	NI/s	10	20	30	40	50	60	70	-kPa
MIDI Si32-3 x6	0.4	7.5	0.005	0.012	0.023	0.04	0.07	0.167	—	60
MIDI Si32-3 x6	0.5	9	0.003	0.01	0.018	0.035	0.058	0.1	0.167	70
MIDI Si32-3 x6	0.6	10.5	0.003	0.008	0.017	0.03	0.055	0.088	0.133	75

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

MINI L pumps family



This family of pumps provides a large vacuum flow even though they are very small in size and lightweight. Vacuum level to 75 -kPa. Some pumps in this family are available with connection plate in aluminium or composite PA. These are recommended to use when the handled product is made of porous material such as cardboard, wood or paper.

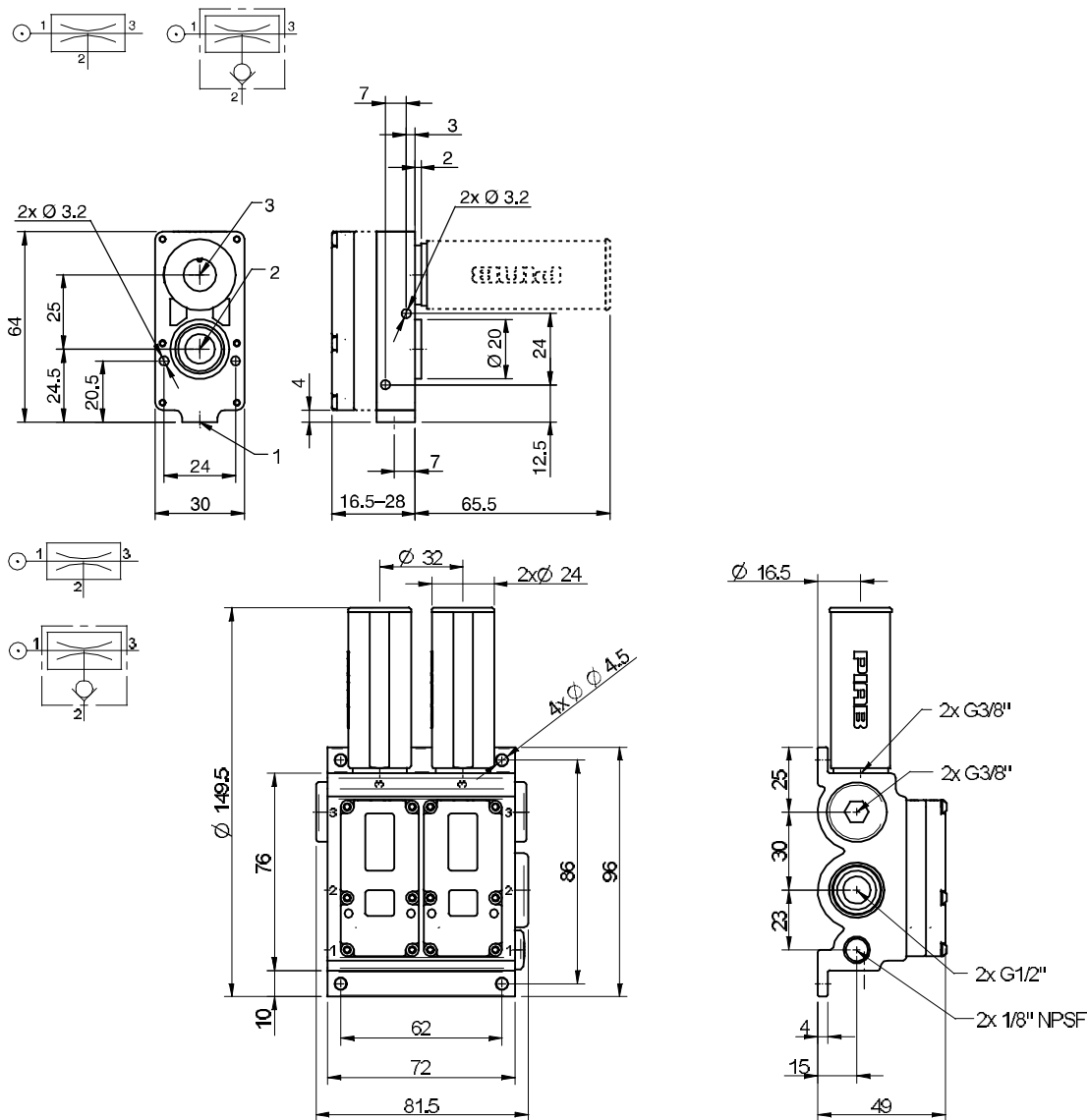
Vacuum flow

Pump name	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)								Max vacuum -kPa
			0	10	20	30	40	50	60	70	
L7	0.6	0.49	0.72	0.49	0.29	0.25	0.2	0.16	0.1	0.067	75
L14	0.6	0.98	1.5	1	0.57	0.45	0.39	0.32	0.24	0.13	75
L28	0.6	2	2.6	1.7	1.1	0.89	0.74	0.55	0.36	0.17	75
L56	0.6	4	5.1	3.5	2	1.7	1.4	1.1	0.81	0.43	75

Evacuation times

Pump name	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)							Max vacuum -kPa
			10	20	30	40	50	60	70	
L7	0.6	0.49	0.093	0.31	0.72	1.2	1.8	2.6	3.8	75
L14	0.6	0.98	0.064	0.17	0.36	0.59	0.88	1.3	1.8	75
L28	0.6	2	0.047	0.11	0.2	0.32	0.46	0.69	1.1	75
L56	0.6	4	0.023	0.053	0.1	0.16	0.23	0.33	0.5	75

Dimensional drawing



Ordering information

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MINI M-L pumps family



This pump family with its very small size and low weight provide extra vacuum level to 84 -kPa. Some models are available with the connection plate in aluminium or composite PA. These are recommended to use when the handled product is made of a sealed material or a non-porous material such as plastic, metal or glass.

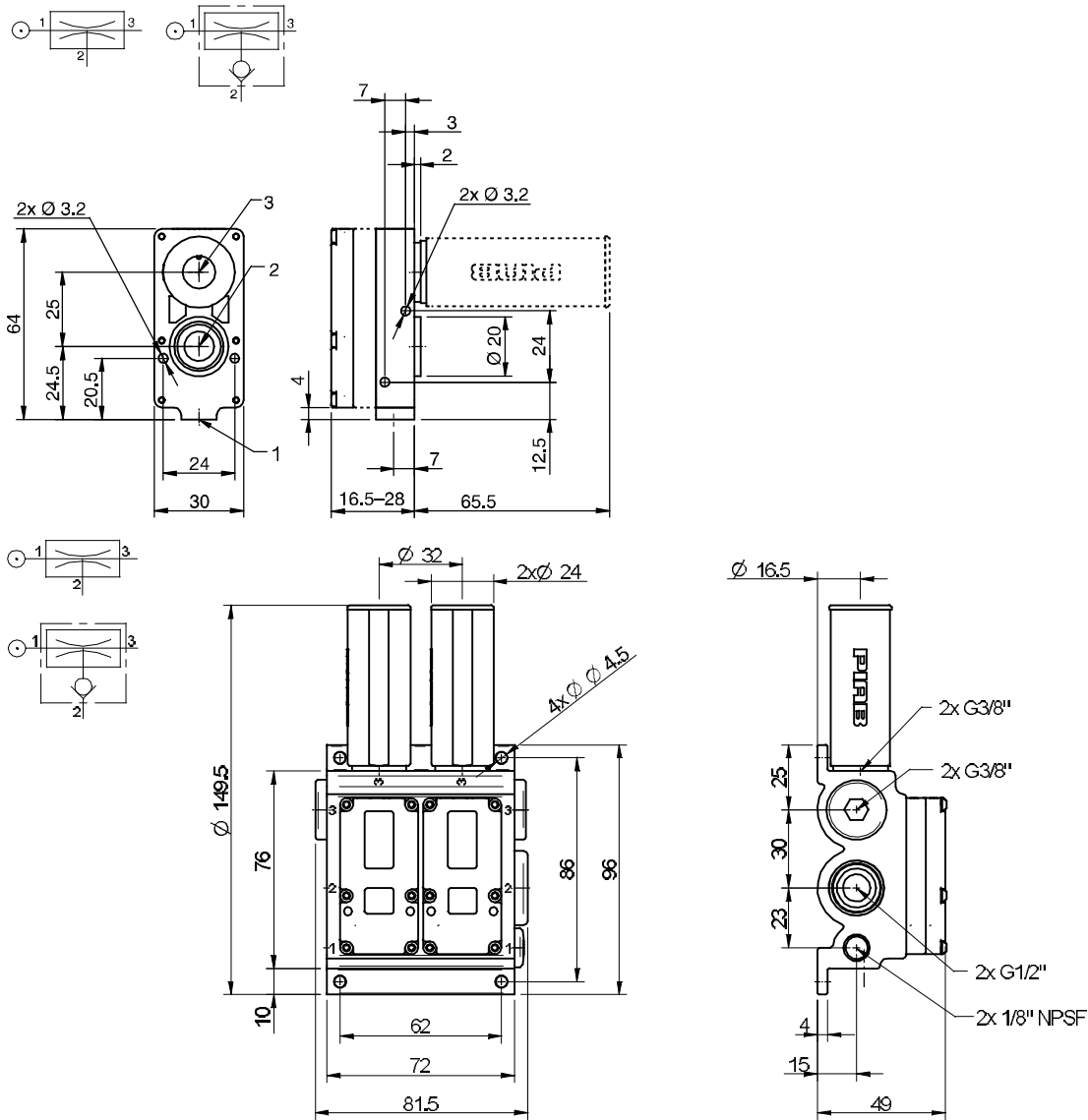
Vacuum flow

Pump name	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)									Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	
M5L	0.38	0.38	0.58	0.3	0.22	0.18	0.14	0.1	0.08	0.04	0.01	81
M5L	0.6	0.55	0.73	0.5	0.26	0.14	0.12	0.1	0.08	0.05	0.02	84
M10L	0.38	0.76	1.1	0.57	0.39	0.35	0.3	0.21	0.12	0.06	0.02	81
M10L	0.6	1.1	1.3	0.91	0.48	0.29	0.26	0.21	0.13	0.09	0.03	84
M20L	0.38	1.5	2	1.2	0.76	0.67	0.53	0.41	0.33	0.19	0.02	81
M20L	0.6	2.2	2.4	1.7	0.95	0.57	0.48	0.38	0.29	0.19	0.06	84
M40L	0.38	3	4	2.2	1.4	1.2	1	0.71	0.43	0.19	0.05	81
M40L	0.6	4.4	4.8	3.1	1.7	1.1	0.93	0.74	0.57	0.36	0.11	84

Evacuation times

Pump name	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)									Max vacuum -kPa
			10	20	30	40	50	60	70	80		
M5L	0.38	0.38	0.2	0.61	1.2	1.8	2.6	3.8	5.9	11.1	81	
M5L	0.6	0.55	0.13	0.36	1	1.8	2.8	4	5.7	9.4	84	
M10L	0.38	0.76	0.13	0.31	0.57	0.9	1.3	2	3.2	7.1	81	
M10L	0.6	1.1	0.079	0.2	0.5	0.92	1.4	2.1	3	5	84	
M20L	0.38	1.5	0.052	0.14	0.26	0.42	0.64	1	1.7	3.7	81	
M20L	0.6	2.2	0.038	0.1	0.24	0.43	0.68	1	1.5	2.5	84	
M40L	0.38	3	0.03	0.074	0.13	0.21	0.32	0.5	0.95	1.6	81	
M40L	0.6	4.4	0.031	0.064	0.13	0.22	0.34	0.5	0.7	1.3	84	

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

MINI X-L pumps family



This pump family with its very small size and low weight provide extra vacuum level to 93 -kPa. Some models are available with the connection plate in aluminium or composite PA. These are recommended to use when the handled product is made of a sealed material or a non-porous material such as plastic, metal or glass.

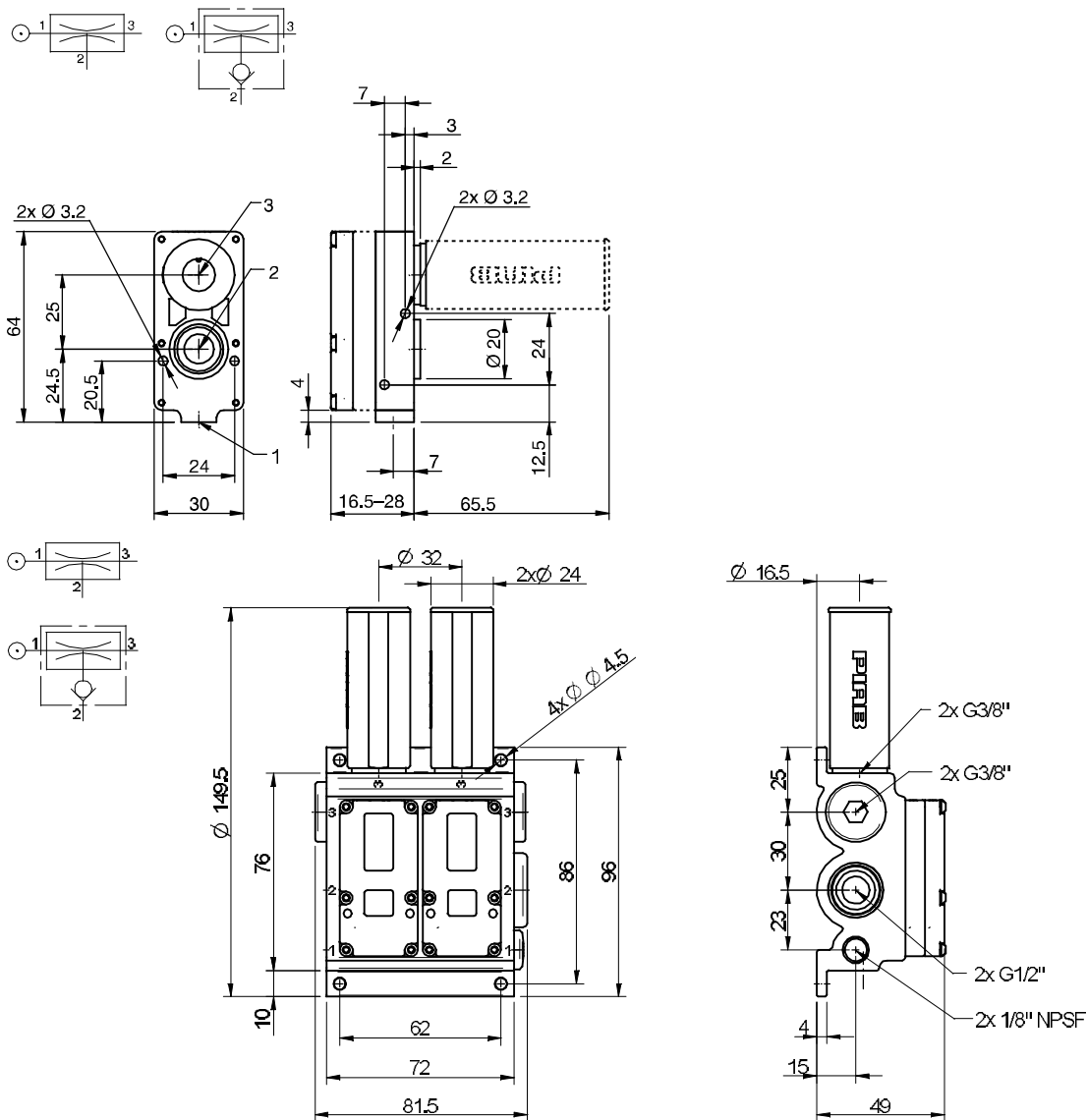
Vacuum flow

Pump name	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
X5L	0.4	0.39	0.48	0.24	0.12	0.11	0.1	0.086	0.071	0.057	0.03	0.006	93
X10L	0.4	0.79	0.76	0.35	0.24	0.21	0.16	0.13	0.1	0.07	0.04	0.01	93
X20L	0.4	1.6	1.9	1	0.5	0.44	0.38	0.3	0.25	0.17	0.1	0.02	93
X40L	0.4	3.1	3.2	1.5	1	0.9	0.7	0.6	0.5	0.4	0.17	0.038	93

Evacuation times

Pump name	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
X5L	0.4	0.39	0.17	0.82	1.7	2.7	3.9	5.4	7.4	10.6	22.5	93	
X10L	0.4	0.79	0.11	0.47	0.94	1.5	2.2	3.1	4.3	6.6	14	93	
X20L	0.4	1.6	0.055	0.2	0.4	0.65	0.97	1.4	1.9	2.7	5.1	93	
X40L	0.4	3.1	0.038	0.12	0.22	0.33	0.48	0.68	1.2	2.2	3.2	93	

Dimensional drawing



Ordering information

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MAXI MLL pumps family



MLL 200/400



MLL800



MLL1200

This is probably the largest compressed-air driven pump in the market. Some of the models have an optional energy saving feature.

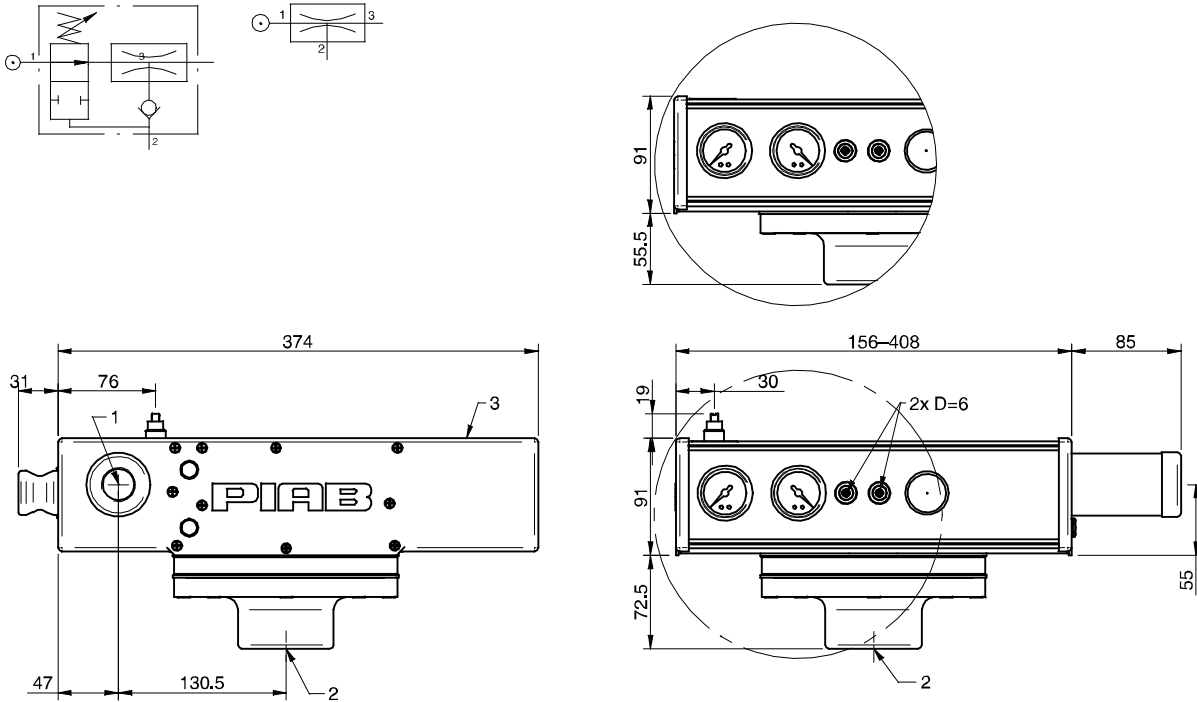
Vacuum flow

Pump name	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MLL200	0.6	14	48	27	18.1	9.5	4.8	3.3	2.4	1.1	0.48	0.01	91
MLL400	0.6	28	92	52	35	18.4	9.2	6.4	4.6	2.2	0.92	0.02	91
MLL800	0.6	56	176	99	67	35	17.6	12.3	8.8	4.2	1.8	0.04	91
MLL1200	0.6	84	255	143	97	51	26	17.9	12.8	6.1	2.6	0.05	91

Evacuation times

Pump name	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
MLL200	0.6	14	0.003	0.008	0.014	0.03	0.06	0.1	0.16	0.29	0.82	91	
MLL400	0.6	28	0.0015	0.004	0.007	0.015	0.03	0.05	0.08	0.15	0.41	91	
MLL800	0.6	56	0.0008	0.0018	0.0035	0.008	0.014	0.024	0.04	0.072	0.2	91	
MLL1200	0.6	84	0.0005	0.0012	0.0023	0.0052	0.009	0.016	0.027	0.048	0.14	91	

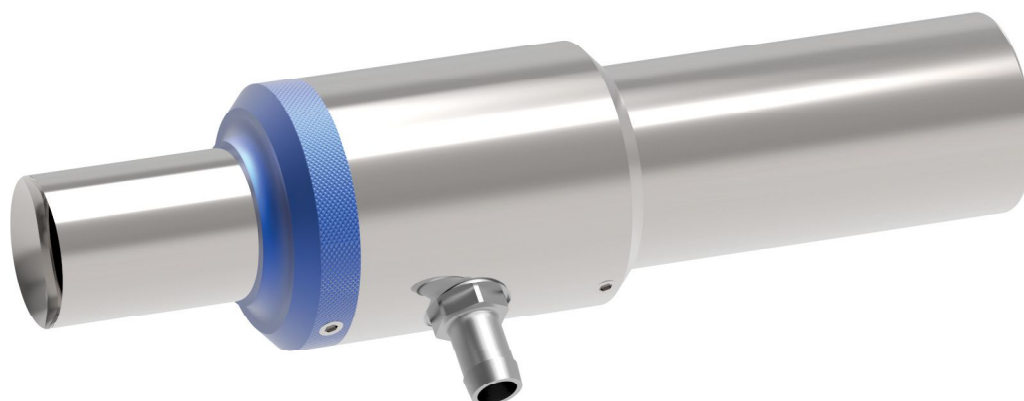
Dimensional drawing



Ordering information

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Ejector 300

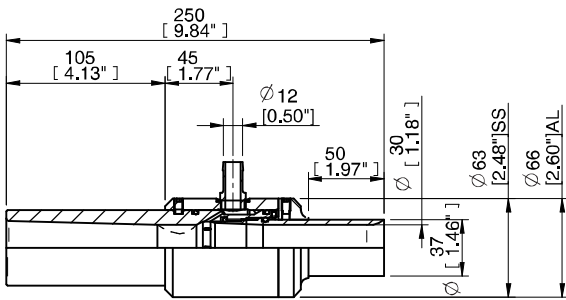


This is a compact ejector pump which is normally used when a large flow with low vacuum is desired. The air consumption and capacity can be adjusted. Small amounts of material and contaminants can be conveyed. This product is available in stainless steel or aluminium. When it is fitted with an insert, the ejector changes characteristics providing higher vacuum at lower flow. It is delivered with a 3/8" hose nipple for the compressed air connection.

Vacuum flow

Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at 0 -kPa		Max vacuum (-kPa)	
		Ejector 300	With insert	Ejector 300	With insert
0.1	8.3	55	32	3.5	5
0.2	13.3	85	47	6	11
0.3	18.3	110	59	8	16
0.4	23.3	126	64	10.5	20
0.5	28.3	141	64	12	21.5
0.6	33.3	152	59	12.5	21.8

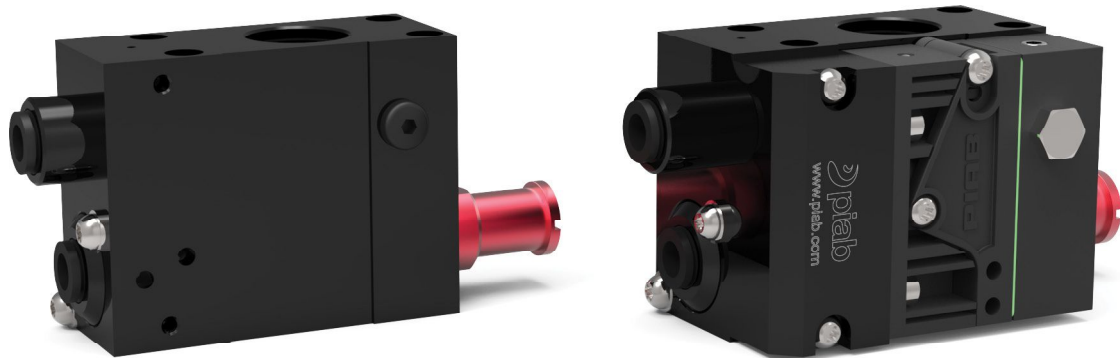
Dimensional drawing



Ordering information

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piSECURE



This vacuum pump combines high security and the most energy-efficient solution for sealed material, COAX® technology with automatic air-saving function. It has a check valve that traps vacuum in sealed applications and an integrated energy saving device that results in virtually no energy consumption. It is an excellent product when working with vacuum handling devices that have to comply and fulfil legislated lifting norms for handling devices, for example (DIN/SS) – EN 13155, ASME Standard B30.20, etc.

As the piSECURE uses the two stage COAX® MINI Xi10-2 ejector it will provide a fast evacuation to 94 -kPa. It is suitable to use as decentralized (one per cup) for maximum safety. It also has an integrated blow-off release valve for fast and reliable release of object. The optional air saving function (piSECURE ES) can save up to 99% of consumption.

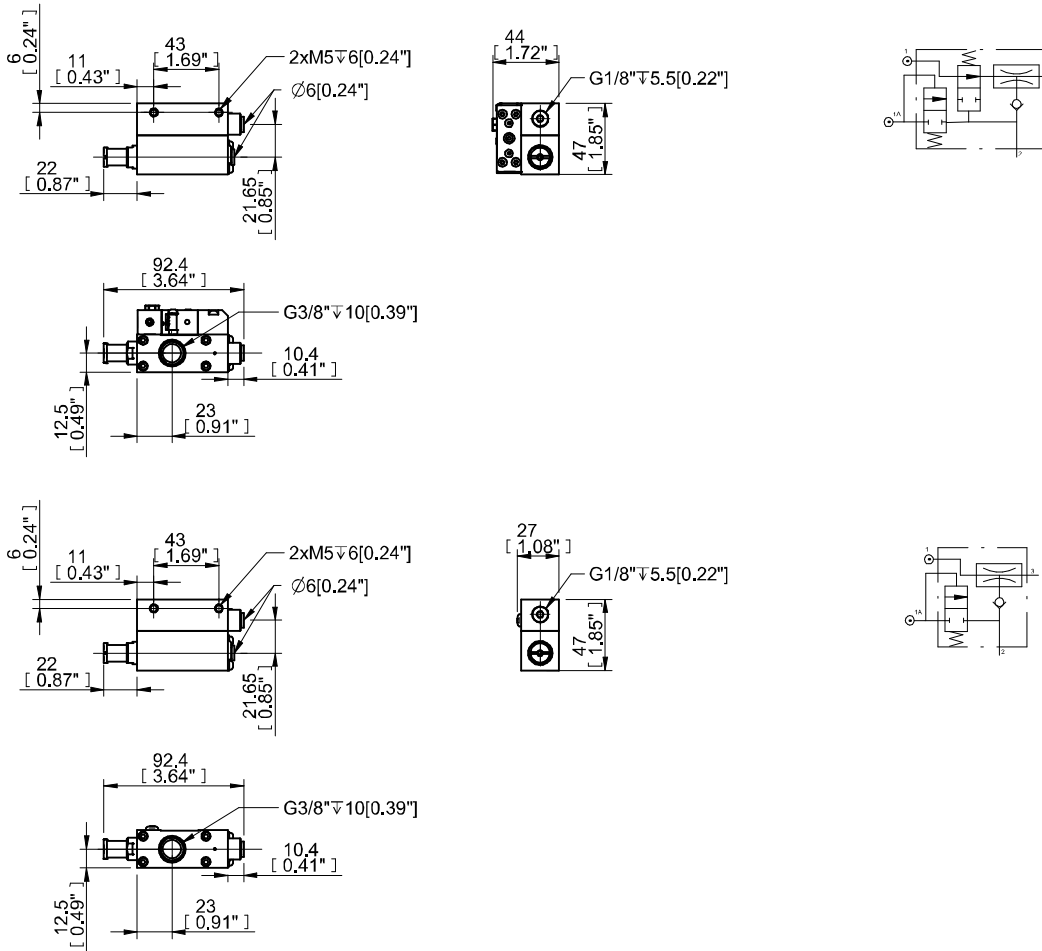
Vacuum flow

COAX® cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MINI Xi10-2	0.45	0.42	0.75	0.61	0.45	0.28	0.19	0.15	0.11	0.07	0.043	0.003	92
MINI Xi10-2	0.5	0.46	0.75	0.63	0.49	0.33	0.19	0.15	0.11	0.07	0.045	0.011	94
MINI Xi10-2	0.6	0.54	0.74	0.63	0.53	0.42	0.3	0.16	0.11	0.08	0.041	0.01	93

Evacuation times

COAX® cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80	90		
MINI Xi10-2	0.45	0.42	0.15	0.3	0.6	1.1	1.6	2.3	3.5	5.3	9.6	92	
MINI Xi10-2	0.5	0.46	0.14	0.3	0.6	1	1.6	2.3	3.5	5.3	8.9	94	
MINI Xi10-2	0.6	0.54	0.15	0.3	0.5	0.8	1.3	2	3.1	4.8	8.7	93	

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

Vacuum Check Valve VT-1H with COAX®



This vacuum pump combines high security and the most energy-efficient solution for sealed material, COAX® technology with automatic air-saving function. It has a check valve that traps vacuum in sealed applications and an integrated energy saving device that results in virtually no energy consumption. It is an excellent product when working with vacuum handling devices that have to comply and fulfil legislated lifting norms for handling devices, for example (DIN/SS) – EN 13155, ASME Standard B30.20, etc.

It has the two-stage COAX® cartridge MINI Pi12-2 integrated and is available in lock pin 16, 19 or ball joint mountings, industry standard. It is also available with level compensator to compensate for differences in level of object.

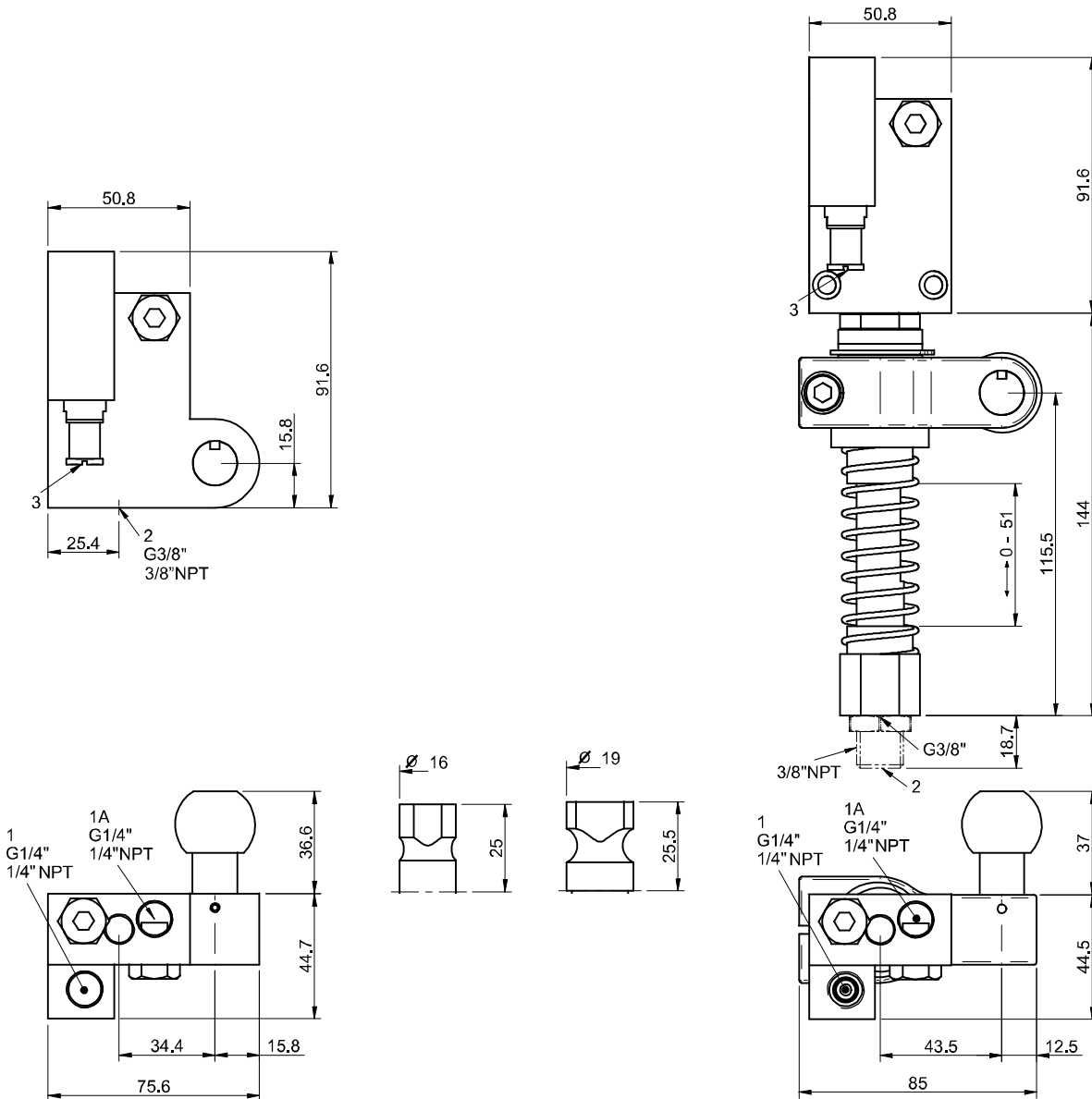
Vacuum flow

COAX® cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80		
MINI Pi12-2	0.32	0.44	0.68	0.6	0.44	0.27	0.19	0.14	0.1	0.06	0.03	90	

Evacuation times

COAX® cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80			
MINI Pi12-2	0.32	0.44	0.17	0.32	0.58	1.1	1.8	2.7	4	6.4	90		

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

Vacuum Check Valve VT-1H Vacustat with COAX®



This vacuum pump combines high security and the most energy-efficient solution for sealed material, COAX® technology with automatic air-saving function. It has a check valve that traps vacuum in sealed applications and an integrated energy saving device that results in virtually no energy consumption. It is an excellent product when working with vacuum handling devices that have to comply and fulfil legislated lifting norms for handling devices, for example (DIN/SS) – EN 13155, ASME Standard B30.20, etc.

It has the two-stage COAX® cartridge MINI Pi12-2 integrated and is available in lock pin 16, 19 or ball joint mountings, industry standard. It is also available with level compensator to compensate for differences in level of object. This pump has an integrated energy-saving device, Vacustat that results in virtually no air consumption in sealed applications.

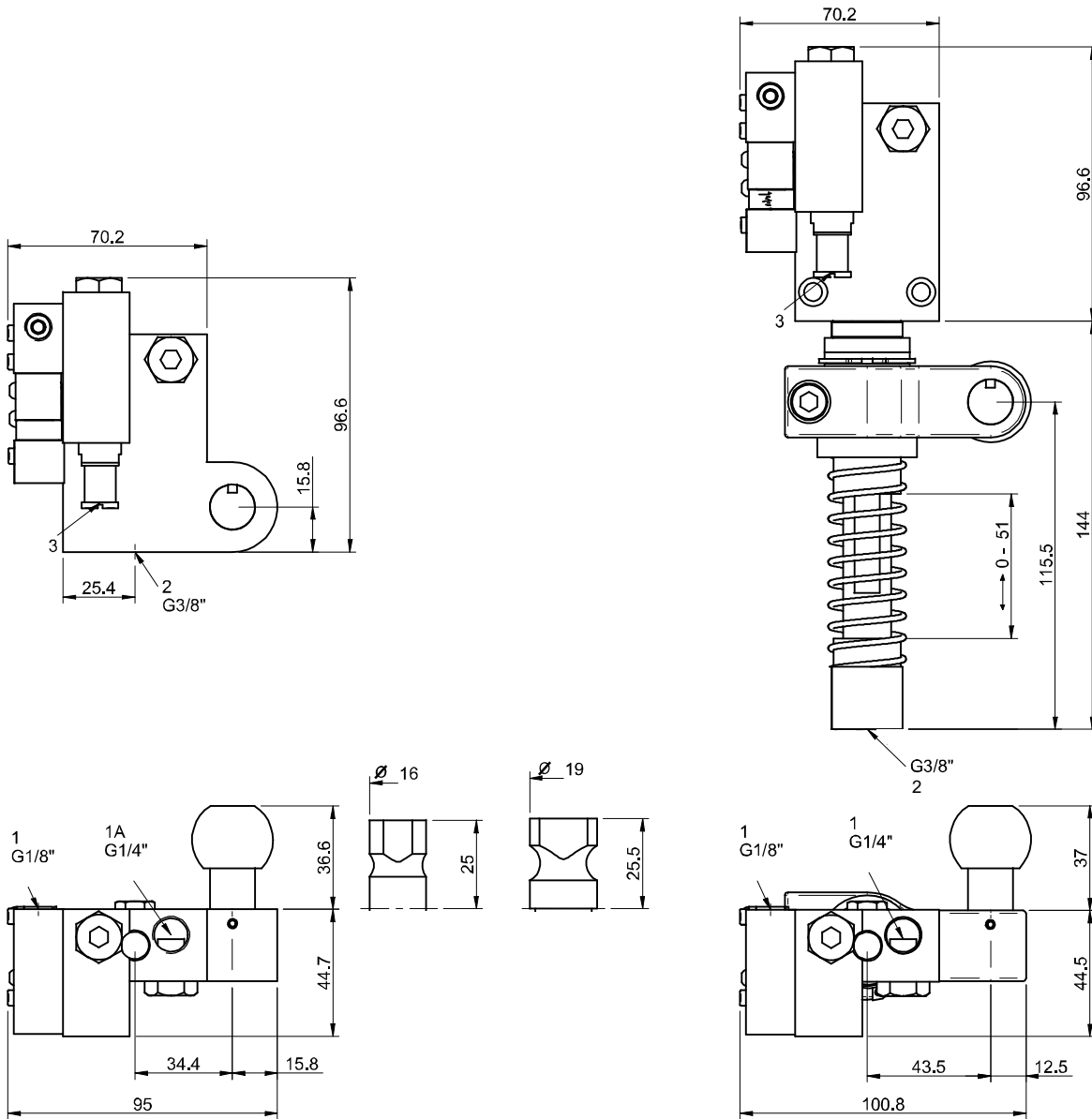
Vacuum flow

COAX® cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80		
MINI Pi12-2	0.32	0.44	0.68	0.6	0.44	0.27	0.19	0.14	0.1	0.06	0.03	90	

Evacuation times

COAX® cartridge	Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)										Max vacuum -kPa
			10	20	30	40	50	60	70	80			
MINI Pi12-2	0.32	0.44	0.17	0.32	0.58	1.1	1.8	2.7	4	6.4	90		

Dimensional drawing



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

Classic H40



A traditional Piab vacuum pump developed to be used within the chemical industry or in chemically aggressive environments. It can achieve higher vacuum levels, even down to 99.8 -kPa. It is available with connection plate in composite PPS. We recommend it to be used with practically zero leakage present and in nonporous applications.

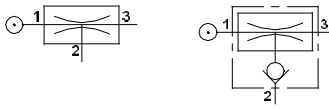
Vacuum flow

Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)												Max vacuum -kPa
		0	10	20	30	40	50	60	70	80	90	95	99	
0.6	2.6	2.8	2.1	1.5	0.9	0.4	0.3	0.2	0.14	0.1	0.095	0.019	0.005	99.8

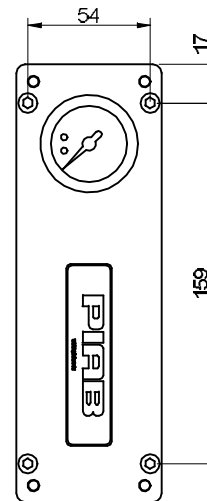
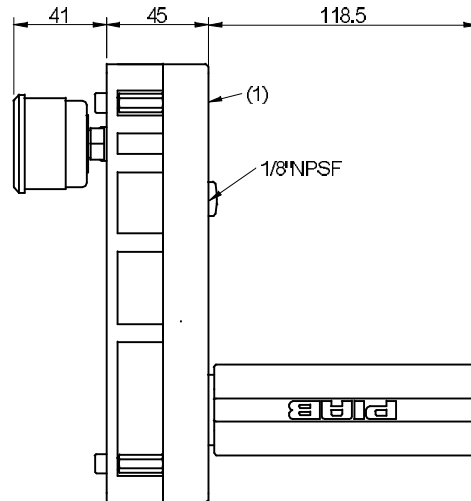
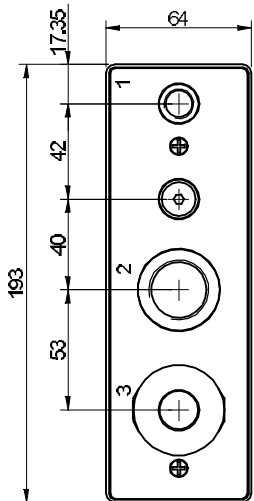
Evacuation times

Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)												Max vacuum -kPa
		10	20	30	40	50	60	70	80	90	95	99	99,5	
0.6	2.6	0.032	0.075	0.15	0.32	0.64	1.1	1.7	2.6	3.9	5.5	9.8	12	99.8

Dimensional drawing



	1	2	3
D	1/8" NPSF	3/4"	3/4"
AD	3/4"	3/4"	3/4"
E	1/4" NPT	3/4" NPT	3/4" NPT



Ordering information

For a complete list of available pumps and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register and get full access to all resources available.

Classic H120



A traditional Piab vacuum pump developed to be used within the chemical industry or in chemically aggressive environments. It can achieve higher vacuum levels, even down to 100.8 -kPa. It is available with connection plate in composite PPS or aluminium. We recommend it to be used with practically zero leakage present and in nonporous applications.

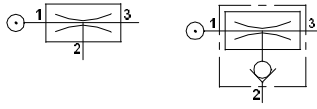
Vacuum flow

Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)													Max vacuum -kPa
		0	10	20	30	40	50	60	70	80	90	95	99		
0.6	7.6	8.4	6.6	4.7	2.7	1.5	1.2	0.86	0.62	0.43	0.1	0.05	0.01	100.8	

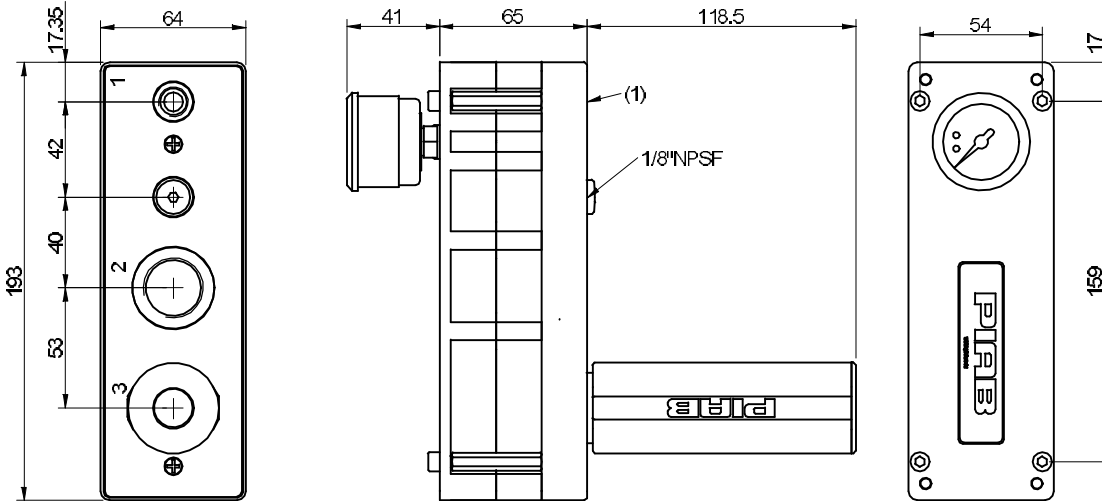
Evacuation times

Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)														Max vacuum -kPa
		10	20	30	40	50	60	70	80	90	95	99	99,5	100,3		
0.6	7.6	0.018	0.033	0.06	0.11	0.18	0.27	0.42	0.62	1.3	2.1	4.2	5.4	8.3	100.8	

Dimensional drawing



	1	2	3
D	1/8"NPSF	3/4"	3/4"
AD	3/4"	3/4"	3/4"
E	1/4"NPT	3/4"NPT	3/4"NPT



Ordering information

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Lab Vac LVH40



This vacuum pump is tailor-made for laboratory applications, such as degassing, vacuum filtering, gel drying and rotation evaporation. It can achieve high vacuum levels to 20 mbar abs. with a maximum vacuum flow of 9 m³/h. There is no risk for “back draft” which can cause damaged test samples. Its low noise level, easy installation and maintenance is widely appreciated.

It has a high chemical resistance, with an option to have with Kalrez sealing material which normally makes the chemical resistance unsurpassed.

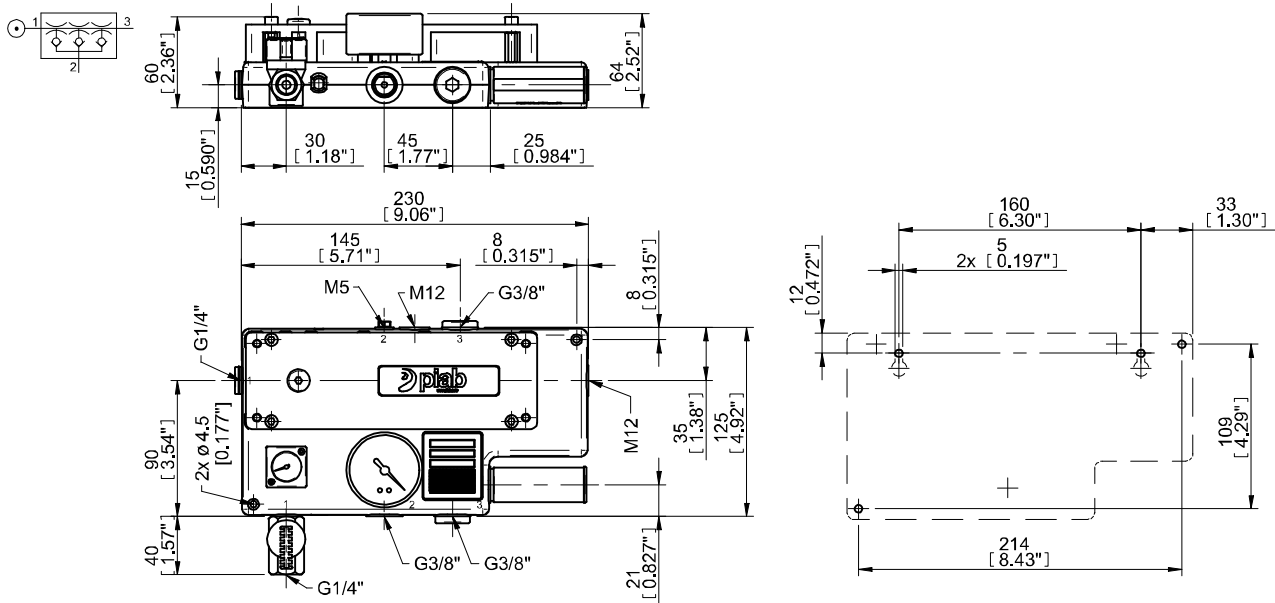
Vacuum flow

Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)											Max vacuum -kPa
		0	10	20	30	40	50	60	70	80	90	95	
0.60	2.6	2.5	1.8	1.3	0.7	0.53	0.35	0.24	0.16	0.12	0.06	0.02	98

Evacuation times

Feed pressure MPa	Air consumption NI/s	Evacuation time (s/l) to reach different vacuum levels (-kPa)											Max vacuum -kPa
		10	20	30	40	50	60	70	80	90	95		
0.60	2.6	0.04	0.09	0.18	0.41	0.71	1.09	1.65	2.48	3.91	6.01	98	

Dimensional drawing



Ordering information

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