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.
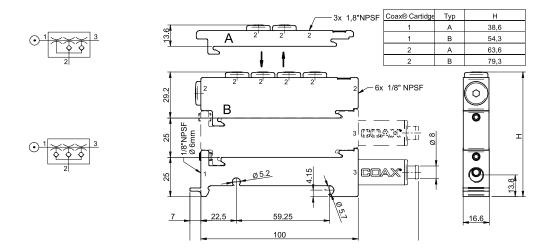
VACUUM FLOW

| COAX® Cartridge | Feed pressure | Air consumption | Vacuum flow (Nl/s) at different vacuum levels (-kPa) | | | | | | | | | | Max vacuum |
	MPa	Nl/s	0	10	20	30	40	50	60	70	80	90	-kPa
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 | Air consumption | Evacuation time (s/l) to reach different vacuum levels (-kPa) | | | | | | | | | Max vacuum |
	MPa	Nl/s	10	20	30	40	50	60	70	80	90	-kPa
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

Coax® Cartidge	Typ	H
1	A	38,6
1	B	54,3
2	A	63,6
2	B	79,3

3x 1,8"NPSF

6x 1/8" NPSF

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 cm^3. 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 ×1
AB	COAX® Cartridge module Si08-3 AFS* ×1
AC	COAX® Cartridge module Si08-3 FS ×2
AD	COAX® Cartridge module Si08-3 AFS* ×2
AE	COAX® Cartridge module Pi12-3 FS ×1
AF	COAX® Cartridge module Pi12-3 AFS* ×1
AG	COAX® Cartridge module Pi12-3 FS ×2
AH	COAX® Cartridge module Pi12-3 AFS* ×2
AI	COAX® Cartridge module Xi10-3 FS ×1
AJ	COAX® Cartridge module Xi10-3 AFS* ×1
AK	COAX® Cartridge module Xi10-3 FS ×2
AL	COAX® Cartridge module ×10-3 AFS* ×2

* AFS option has a non-return valve

P3010 . 00 . AA . 01 . AA . 00

Code	Connection modules / function
01	Connection module high 6×1/8"
02	Connection module low 3×1/8"
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 AVM™2)
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 AVM™2)
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