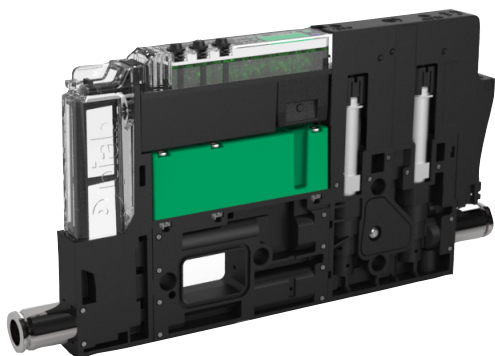


MANUAL

piCOMPACT®10X



Original manual language is English.



FEATURES

- ▶ Configurable vacuum ejector based on COAX technology with integrated controls
- ▶ Optimized design for high reliability and fast cycle times
- ▶ High Speed valves with adaptive PWM (Pulse Width Modulation) to reduce heat generation and further improve reliability
- ▶ Slim package (10mm width) and light weight thanks to high-performance plastic parts

INTENDED USE

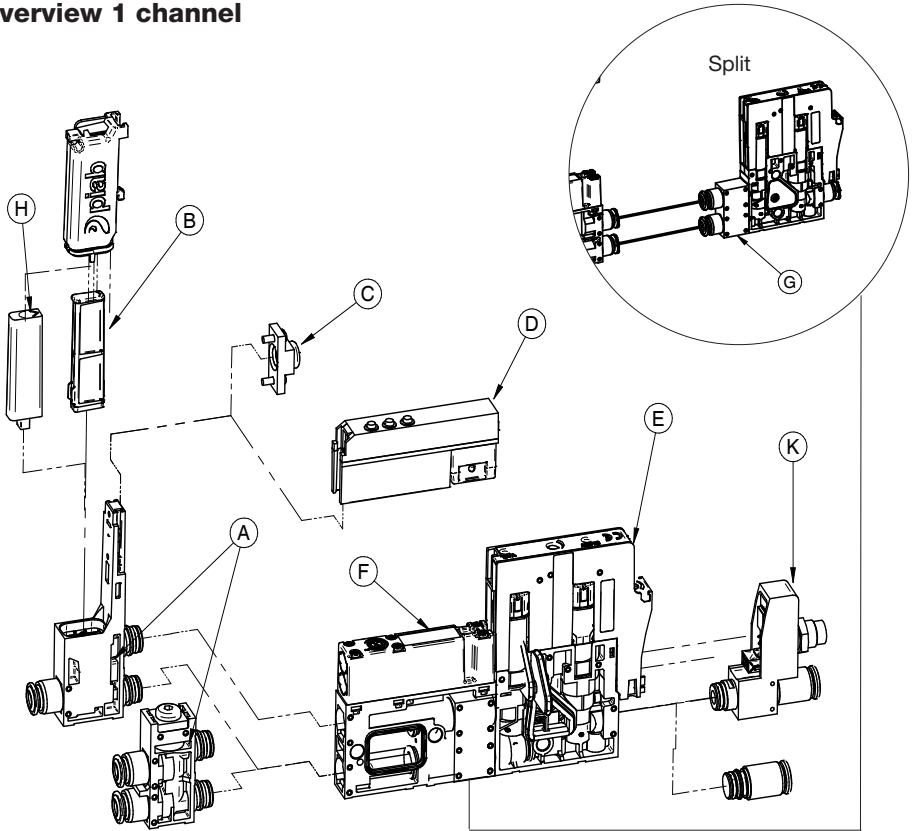
- ▶ The product shall be used to evacuate air (non liquids) from a volume to create vacuum for gripping, holding and processes
- ▶ The product can be used to blow air for surface cleaning and to remove vacuum from a volume
- ▶ The product can be used to detect and monitor vacuum
- ▶ The product shall be used in environments within the product's specifications and certifications
- ▶ The product shall be installed in accordance to installation instructions
- ▶ The product shall be maintained in accordance to maintenance instructions
- ▶ Troubleshooting shall be conducted in accordance to manual instructions
- ▶ The safety instructions shall be followed
- ▶ For professional use only.

MISUSE

- ▶ Result from readily predictable human behavior.
- ▶ The product shall not be used to evacuate liquids.
- ▶ The product shall not be used to evacuate solid content without the use of filter.
- ▶ The product shall not be used in a fully closed compartment (non ventilated) if not exhaust is piped away.
- ▶ The product shall not be used as stand alone safety system to fulfill international lifting norms.
- ▶ The exhaust shall not be restricted or blocked.
- ▶ The vacuum and exhaust port shall not simultaneous be blocked when unit is generating vacuum.
- ▶ The product shall not be used to create vacuum or blow for other purposes than the intended use.
- ▶ Vacuum and exhaust air can cause severe injuries, keep hands, legs, hair and eyes away from vacuum inlets and exhausts.
- ▶ Do not install or operate you product if damaged.
- ▶ Do not operate the product if compressed air line is not properly secured, loose compressed air lines can cause severe injuries.
- ▶ Using compressed air pressure and/or electrical voltage outside specification can cause severe damage due to performance loss.
- ▶ Blow-off functions or ejector exhaust shall not be used to pressurize sealed compartments such as cylinders and/or tank-volumes.

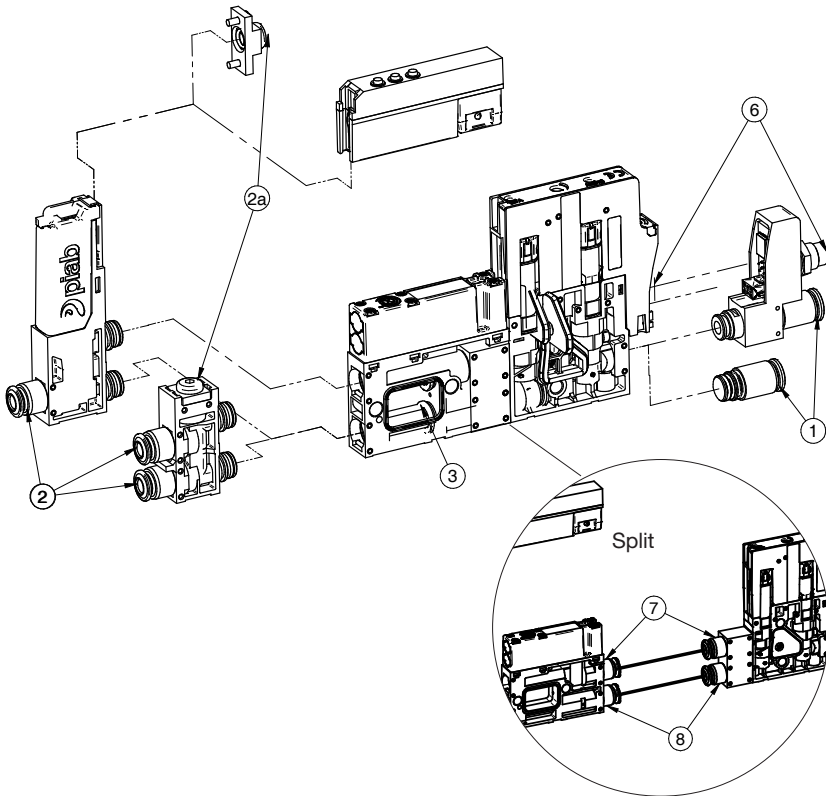
OVERVIEW

Overview 1 channel



Pos.	Description	Note
A	Vacuum connection block	
B	Vacuum filter	
C	Vacuum sensing port / Vacuum port	
D	Sensor A2DP	
E	Valve module	
F	1x COAX® cartridge / 2x COAX® cartridge	
G	Connection block	Only for split
H	Filter filler	
K	M8 adaptor 6p	

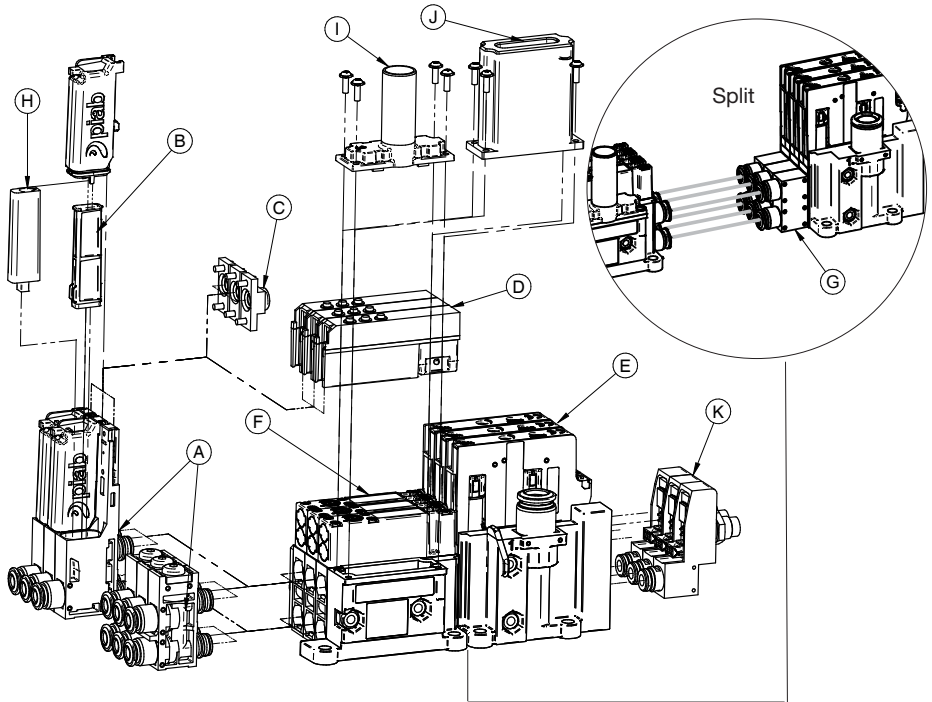
Connections 1 channel



Pos.	Description	Size
1	Compressed air	Ø4 / Ø6 / Ø¼"
2	Vacuum port	Ø4 / Ø6 / Ø¼"
2a	Vacuum sensing port / Vacuum port	M5 / Ø4
3	Exhaust	
6	Connector / M8 connector	6p / 6p
7*	Valve air connection split (vacuum)	Ø4 / Ø6 / Ø¼"
8*	Blow-off air connection split	Ø4 / Ø6 / Ø¼"

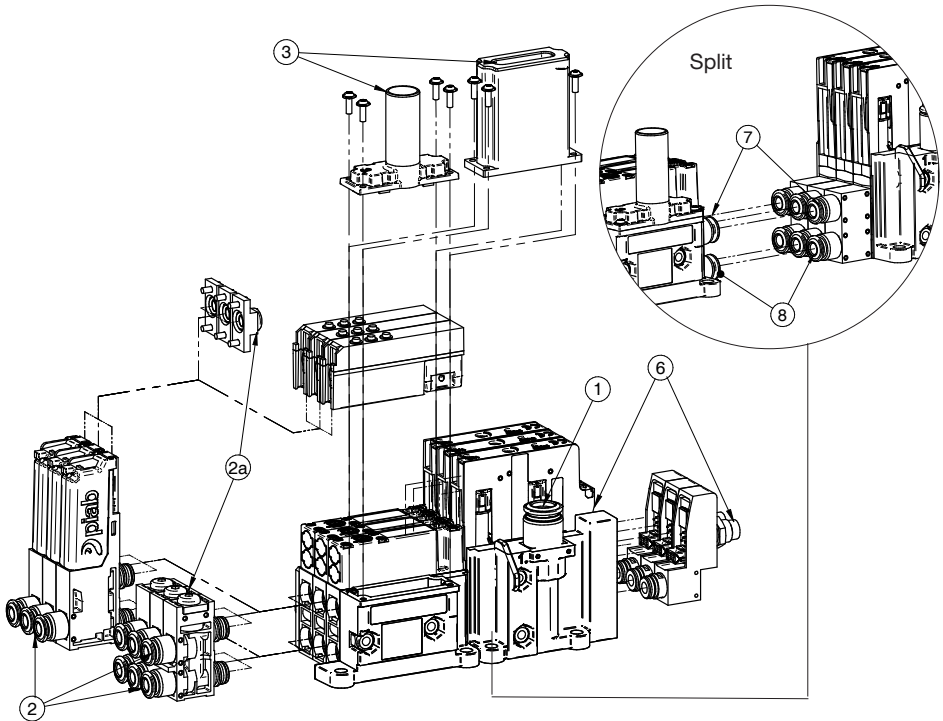
*Hose not included

Overview 1-3 channel(s)



Pos.	Description	Note
A	Vacuum connection block	
B	Vacuum filter	
C	Vacuum sensing port / Vacuum port	
D	Sensor A2DP	
E	Valve module	
F	1x COAX® cartridge / 2x COAX® cartridge	
G	Connection block	Only for split
H	Filter filler	
I	Central exhaust	
J	Silencer	
K	M8 adaptor 6p	

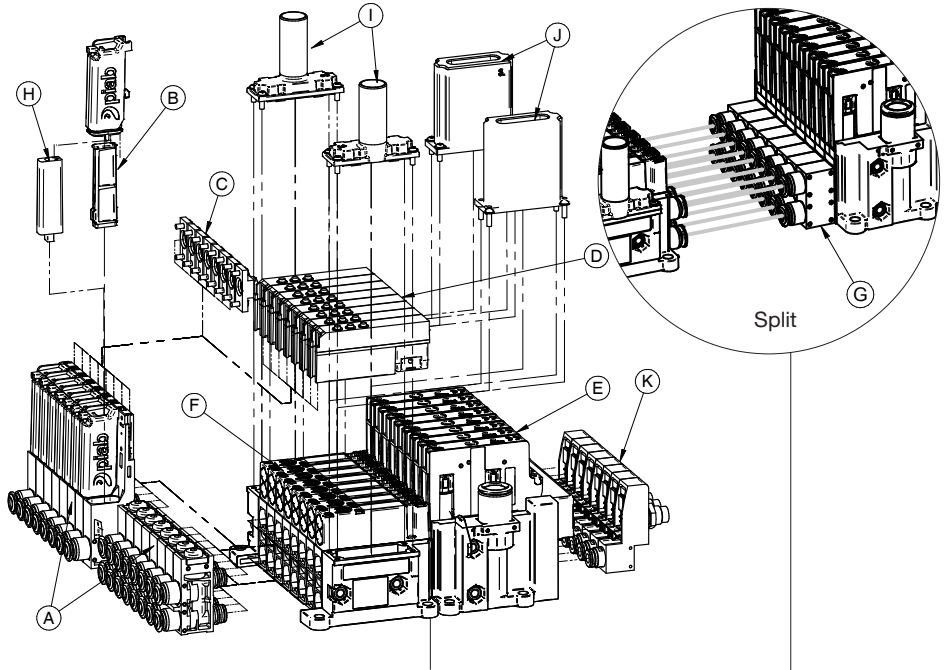
Connections 1-3 channel(s)



Pos.	Description	Size
1	Compressed air	Ø6 / Ø¼" / Ø8
2	Vacuum port	Ø4 / Ø6 / Ø¼"
2a	Vacuum sensing port / Vacuum port	M5 / Ø4
3	Central exhaust* / Silencer	Ø12 / -
6	Connector / M8 connector	6p / 6p
7*	Valve air connection split (vacuum)	Ø4 / Ø6 / Ø¼"
8*	Blow-off air connection split	Ø4 / Ø6 / Ø¼"

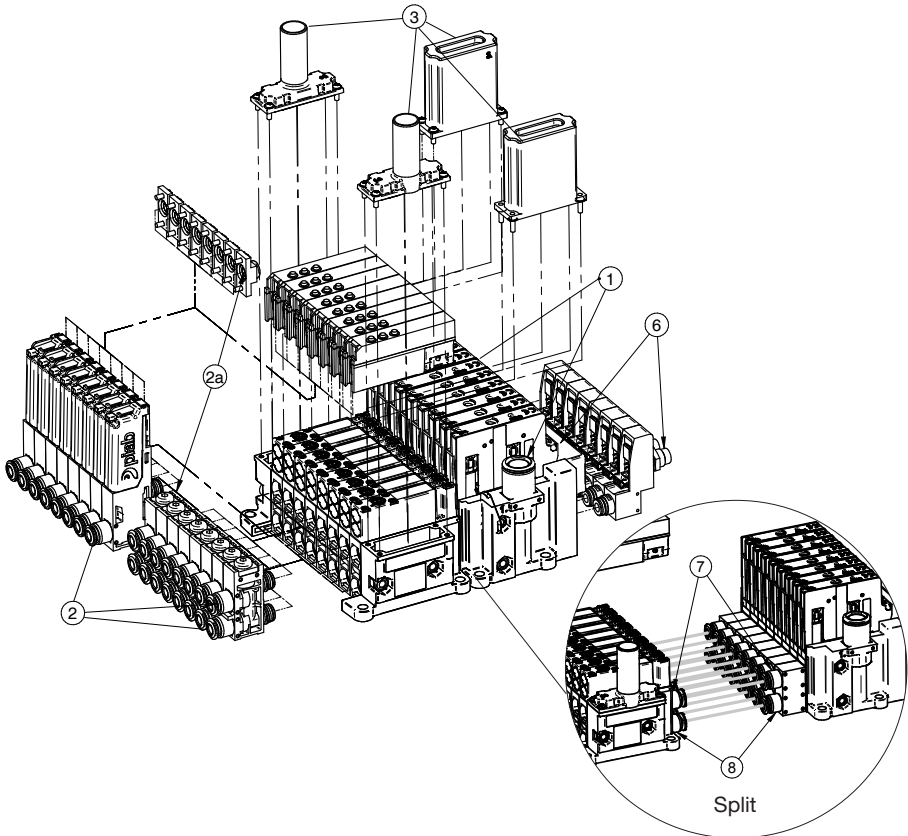
*Hose not included

Overview 4-8 channels



Pos.	Description	Note
A	Vacuum connection block	
B	Vacuum filter	
C	Vacuum sensing port / Vacuum port	
D	Sensor A2DP	
E	Valve module	
F	1x COAX® cartridge / 2x COAX® cartridge	
G	Connection block	Only for split
H	Filter filler	
I	2 x Central exhaust	
J	2 x Silencer	
K	M8 adaptor 6p	

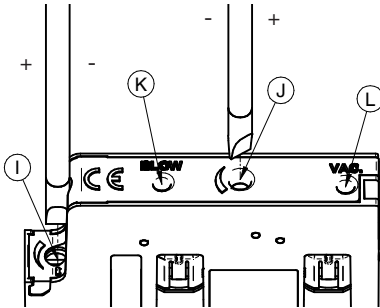
Connections 4-8 channels



Pos.	Description	Size
1	2x Compressed air	Ø6 / Ø¼" / Ø8
2	Vacuum port	Ø4 / Ø6 / Ø¼"
2a	Vacuum sensing port / Vacuum port	M5 / Ø4
3	Central exhaust* x 2 / Silencer x 2	Ø12 x 2/-
6	High Density D-sub / M8 connector	(26p / 44p) / 6p
7*	Valve air connection split (vacuum)	Ø4 / Ø6 / Ø¼"
8*	Blow-off air connection split	Ø4 / Ø6 / Ø¼"

*Hose not included

Valve module



Pos.	Description	Note
I	Time setting, automatic blow off (optional)	$\varnothing_{max} = 3,4 [0.133]$, default 0,5 sec
J	Flow setting, blow flow	$\varnothing_{max} = 3,9 [0.153]$
K	Manual override, blow-off valve	$\varnothing_{max} = 2,5 [0.098]$, push firm to activate
L	Manual override, vacuum valve	$\varnothing_{max} = 2,5 [0.098]$, push firm to activate

Pneumatic diagram

1. Compressed air, 2. Vacuum, 3. Exhaust

	Vacuum NC	Vacuum NO
Without non-return valve		
With non-return valve		
	Vacuum NC & Blow-off NC	Vacuum NO & Blow-off NC
Without non-return valve		
With non-return valve		

Pneumatic diagram, Cleanroom installation

1. Compressed air, 2. Vacuum, 3. Exhaust

	Vacuum NC	Vacuum NC & Blow-off NC
Without non-return valve		
With non-return valve		

INSTALLATION

Pneumatic installation

piCOMPACT®10X can be installed in any orientation. Ensure that the exhaust from the ejector is not blocked. When connecting oil free compressed air and vacuum hoses to the unit, it is important to choose proper pipe dimensions to prevent pressure drops. Avoid restrictive inner diameters, long piping distances, sharp bends and small sized connections.

Pneumatic technical information (per channel)

	Unit	COAX®							
		Bi03-2		Xi2.5-2		Si02-2		Ti05-2	
		x1	x2	x1	x2	x1	x2	x1	x2
Feed pressure, pump at opt.	MPa [psi]	0.22 [31.2]	0.24 [34.5]	0.51 [74.5]	0.53 [76.9]	0.60 [87.6]	0.62 [89.9]	0.43 [62.4]	0.50 [72.5]
Feed pressure, nozzle at opt.	MPa [psi]	0.20 [29.0]		0.50 [72.5]		0.60 [87.0]		0.40 [58.0]	
Max vacuum at opt. pressure	-kPa [-inHg]	82 [24.2]		91 [26.9]		75 [22.1]		84 [24.8]	
Air consumption at opt. pressure	NI/s [scfm]	0.14 [0.297]	0.28 [0.593]	0.13 [0.275]	0.26 [0.551]	0.11 [0.233]	0.22 [0.466]	0.23 [0.487]	0.46 [0.974]
Max vacuum flow at opt. pressure	NI/s [scfm]	0.21 [0.445]	0.34 [0.720]	0.23 [0.487]	0.37 [0.784]	0.11 [0.233]	0.42 [0.890]	0.31 [0.657]	0.53 [1.12]
Flow, blow off at 0.6 MPa	NI/s [scfm]	1.01 [2.14]							

Pneumatic installation, cont.

Min. recommended hose diameter, outer/inner diameter (mm)

Cartridge	Vacuum	Compressed air		
		1 unit	2-3 units	4-8 units*
Si, Bi, Xi	4/2 (6/4)**	4/2	6/4	6/4
Ti	6/4	4/2 (6/4)**	6/4	8/6

**) Min. recommended hose diameters are valid for hose lengths up to 2m (6 ft). For longer lengths, use larger hose diameters to avoid reduced vacuum flow performance and the risk for false vacuum signals from sensors/switches.*

****) If 2x Si, Bi, Ti and Xi are used in each unit*

If 7-8 units are used in a manifold with a push-in, please use both compressed air supply ports for optimum performance.

Use hose clamps and or cable ties to avoid tension and damage to the hose and hose connectors

Compressed air quality

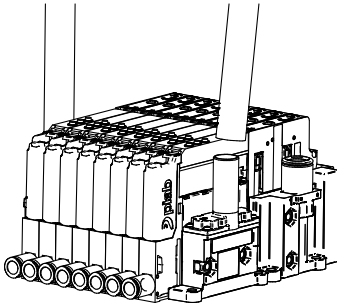
Quality of the compressed air shall fulfil the requirements in DIN ISO 8573-1 class 4.

Clean room installation (1-8 channels)

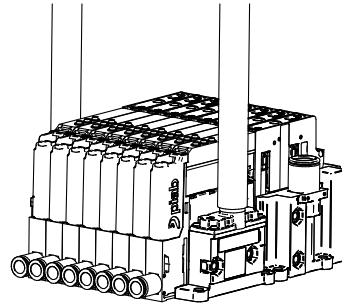
For clean room installation mount the hose on the exhaust with a hose clamp.

Note: the quality of the compressed air shall fulfil the requirements in DIN ISO 8573-1 class 4.

1



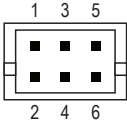
2



Electrical installation

Electrical connection 1-3 channel, pin configuration

1-3 channels, 6p,



Pin No.	Name	Description
1	V _{sys}	Supply voltage, 24 VDC (V ⁺)
2	GND	Common, 0 VDC (V ⁻)
3	V1	Vacuum on, PNP / NPN
4	S1	Switch output, max 100 mA, PNP / NPN
5	A	Analog output, 1-5 VDC
6	V2*	Blow off on, PNP / NPN

*It is recommended to always have compressed air supplied to the piCOMPACT® when the blow-off valve (NC) is actuated.

Electrical connection 1-3 channel, cable

Use cable ties to avoid tension and damage to the cable and the piCOMPACT®10X ejector

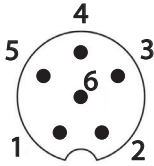
0201750 Cable L=0.3m, conn 6p/M12 8p male PVC

0201749 Cable L=2.5m, conn 6p Torsional PUR

0202328 Cable L=5m, conn 6p Torsional PUR

Electrical connection 1-8 channel, pin configuration

1-8 channels, M8, 6p



Pin No.	Name	Description
1	V _{sys}	Supply voltage, 24 VDC (V ⁺)
2	A	Analog output, 1-5 VDC
3	GND	Common, 0 VDC (V ⁻)
4	V1	Vacuum on, PNP / NPN
5	V2*	Blow off on, PNP / NPN
6	S1	Switch output, max 100 mA, PNP / NPN

*It is recommended to always have compressed air supplied to the piCOMPACT® when the blow-off valve (NC) is actuated.

Electrical connection 1-8 channel, cable

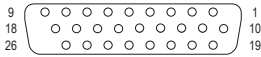
Use cable ties to avoid tension and damage to the cable and the piCOMPACT®10X ejector

0203013 Cable L=4m, M8 6p Torsional PUR

0204975 Cable L=5m, M8 6p PUR

Electrical connection 4-6 channels, pin configuration

4-6 channels, HD D-Sub 26p



Pin No.						Name	Description
Ch1	Ch2	Ch3	Ch4	Ch5	Ch6		
20	12	22	15	16	18	V1	Vacuum on, PNP / NPN
19	21	4	23	7	17	S1	Switch output, max 100 mA, PNP / NPN
11	13	14	24	25	26	A	Analog output, 1-5 VDC
10	3	5	6	8	9	V2*	Blow off on, PNP / NPN
1						V _{sys}	Supply voltage, 24 VDC (V ⁺)
2						GND	Common, 0 VDC (V)

*It is recommended to always have compressed air supplied to the piCOMPACT® when the blow-off valve (NC) is actuated.

Electrical connection 4-6 channel, cable

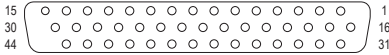
Use cable ties to avoid tension and damage to the cable and the piCOMPACT®10X ejector

0209442 Cable L=2.5m, HD D-Sub 26p Torsional

0209445 Cable L=5m, HD D-Sub 26p Torsional

Electrical connection 7-8 channel, pin configuration

7-8 channels, HD D-Sub 44p



Pin No.								Name	Description
Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8		
32	18	34	21	22	24	25	27	V1	Vacuum on, PNP / NPN
31	33	4	35	7	23	39	26	S1	Switch output, max 100 mA, PNP / NPN
17	19	20	36	37	38	40	41	A	Analog output, 1-5 VDC
16	3	5	6	8	9	10	11	V2*	Blow off on, PNP / NPN
1								V _{sys}	Supply voltage, 24 VDC (V ⁺)
2								GND	Common, 0 VDC (V)

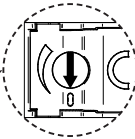
*It is recommended to always have compressed air supplied to the piCOMPACT® when the blow-off valve (NC) is actuated.

Electrical connection 7-8 channel, cable

Use cable ties to avoid tension and damage to the cable and the piCOMPACT®10X ejector

0209447 Cable L=2.5m, HD D-Sub 44p Torsional

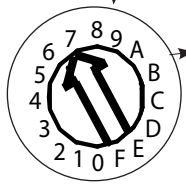
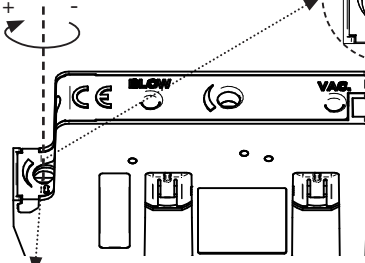
OPERATIONAL



Time setting, Automatic Timer Blow-Off (ATBO) (Optional only for ES units)

The automatic blow-off time will be increased when turning the rotary switch clockwise. For shorter times turn it counter clockwise.

To deactivate turn the rotary switch until the arrow points downwards in position "0".

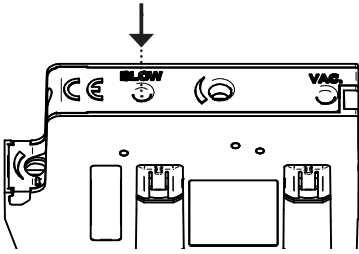
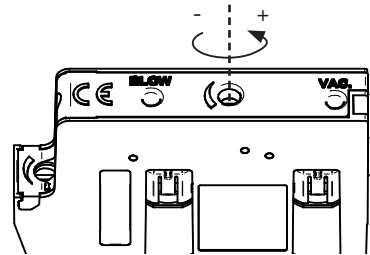


ATBO-positions-conversion to blow-off times

Rotary switch Positions on pump (figs not visible on pump)	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Blow-off time (s)	off	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.5	2.0	2.5	3.0

Flow setting, blow-off flow

Blow-off flow decreases when turning the screw clockwise. For increasing flow, turn it counter clockwise

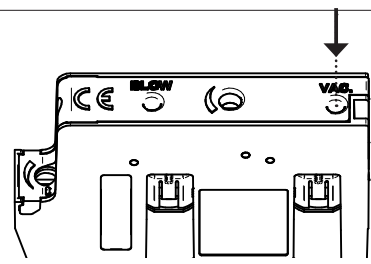


Blow-off valve manually override

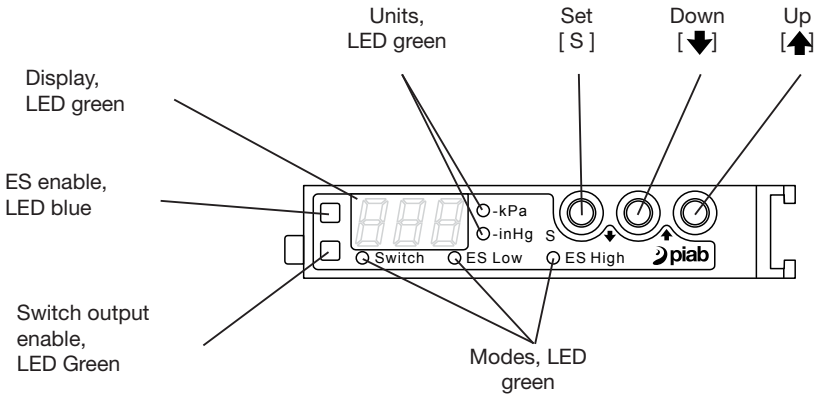
Push firm to manually activate the blow-off valve

Vacuum valve manually override

Push firm to manually activate the vacuum valve

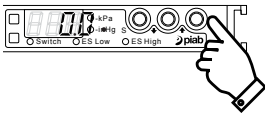


Interface

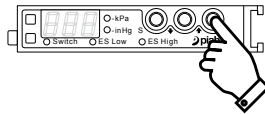


Setting the pressure unit

Changing the pressure unit to -kPa



1. Press and hold [↑]

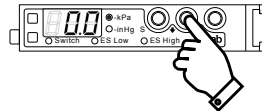


2. Display turned off.
3. Wait 3 sec.
4. Release [↑].

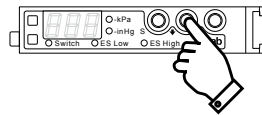


5. Unit showing *-kPa*

Changing the pressure unit to -inHg



1. Press and hold [↓]



2. Display will be turned off.
3. Wait 3 sec.
4. Release [↓].

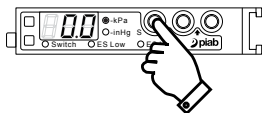


5. Unit showing *-inHg*

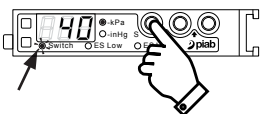
Setting the switch, ES low and ES high value

Optional only for ES units

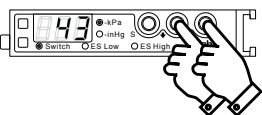
Changing switch value



1. Press and hold [S]
2. Wait 3 sec.
3. Release [S]
4. Press [S] to select switch mode



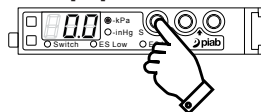
5. Press [↓] or [↑] to set the switch value



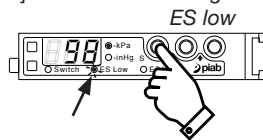
6. Leave it for 5 sec.

Changing ES low & high value

1. Press and hold [S]



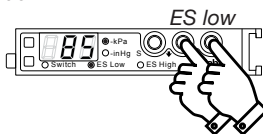
2. Wait 3 sec.
3. Release [S]
4. Press [S] to select ES low/high mode



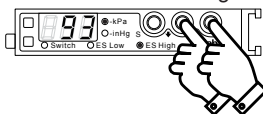
ES high



5. Press [↓] or [↑] to set the ES low/high value

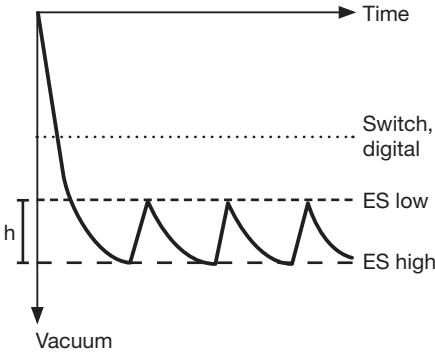


ES high



6. Leave it for 5 sec.

Vacuum chart

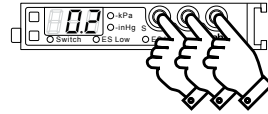


h=hysteresis

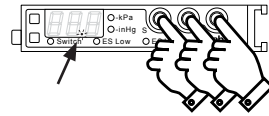
Switch < ES low < ES high
Order cannot be changed

Zero resetting

Setting the display value to zero



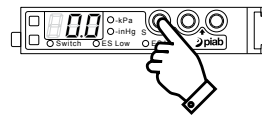
1. Press and hold [S]+[↓]+[↑]



2. Display showing flashing dot.
3. Wait 5 sec.
4. Release [S]+[↓]+[↑]



5. Display showing 0.00



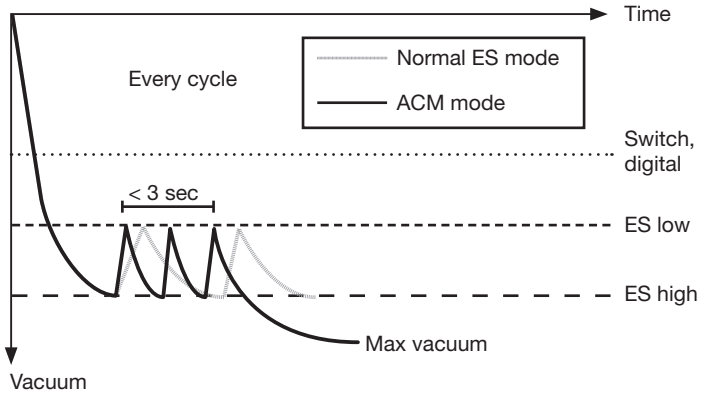
6. Press [S] to set value to zero
7. Leave it for 5 sec.

It is possible only with an atmospheric pressure equivalent to ±3% or less of F.S.(Full Scale)

ACM (Automatic “ES” Condition monitoring)

Optional only for ES units

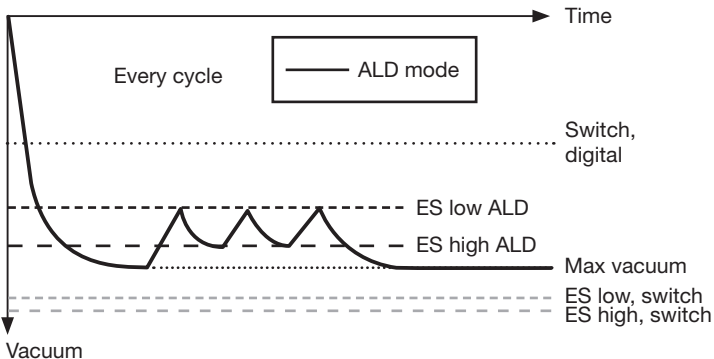
To protect the life span of the valves, an automatic override function is implemented. If the supply valve is restarted 2 times within 3 sec, the ES function is deactivated for the rest of the cycle. A nice feature if leakage occasionally can occur. The feature can also be used to monitor the wear of the suction cups. When ES is off, it may be time to change suction cups.



ALD (Automatic “ES” Level Determination)

Optional only for ES units

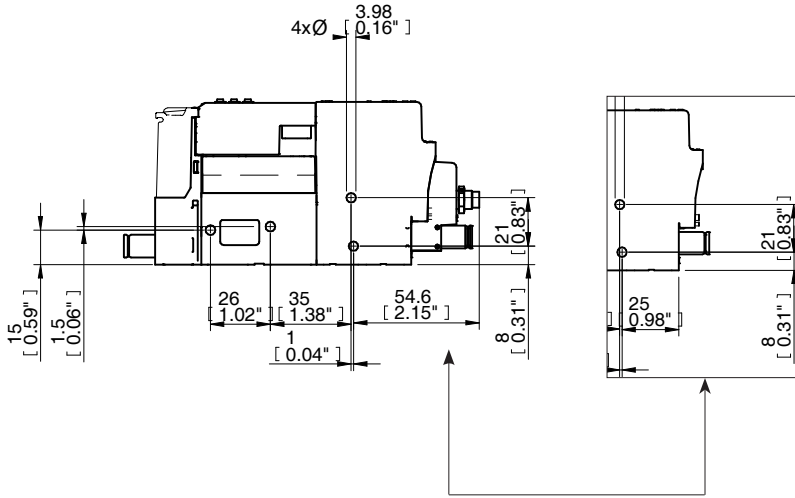
The unit will measure max achievable vacuum on the object every cycle and automatically set an optimized ES level and hysteresis- The calculation is re-calculated every cycle to give the most reliable condition every time a new object is handled. The calculation is based on set part present signal level and max achievable vacuum measured by an analog sensor.



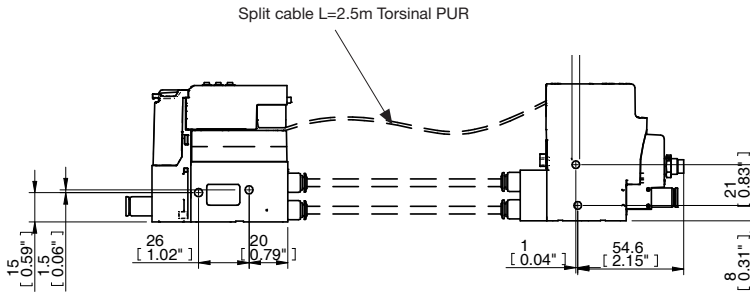
If manually change ES low and ES high it will deactivate ALD function. To reactivate ALD return ES low and ES high to default value.

MOUNTING

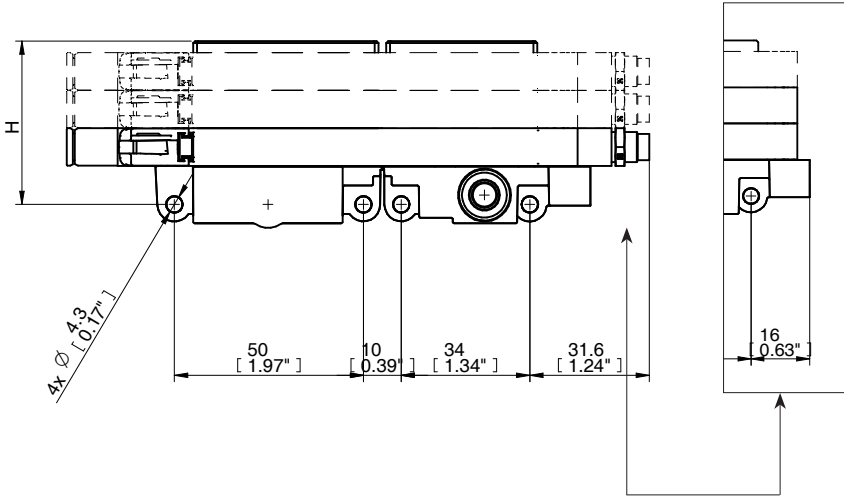
1 channel



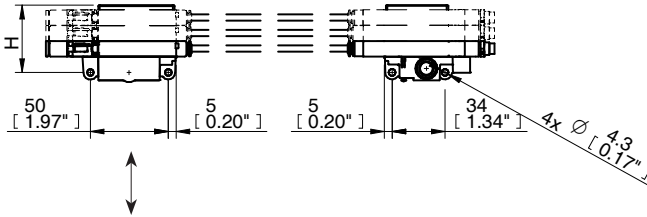
Split



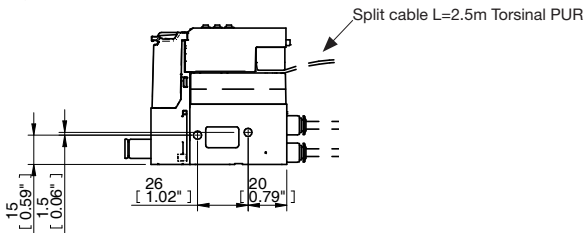
1-3 channels



Split, manifold mount



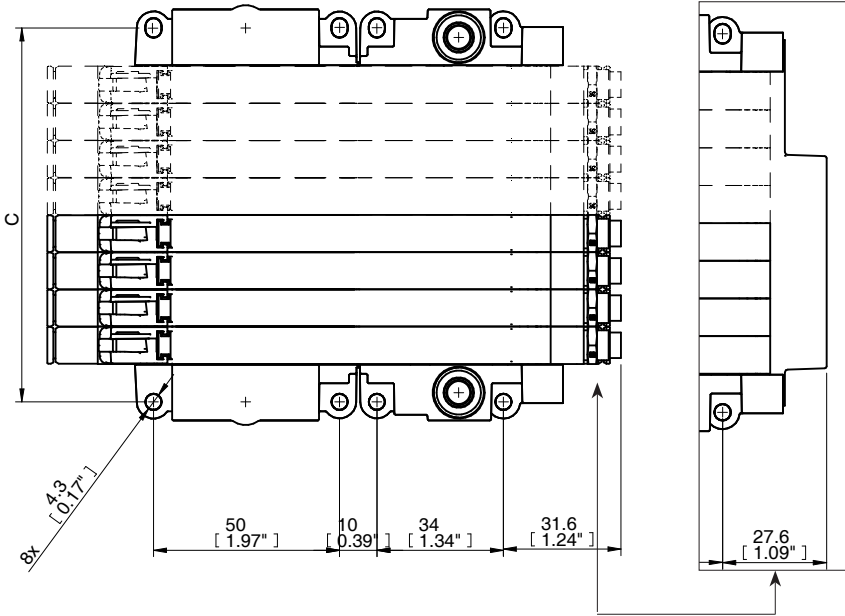
Split, individual mount



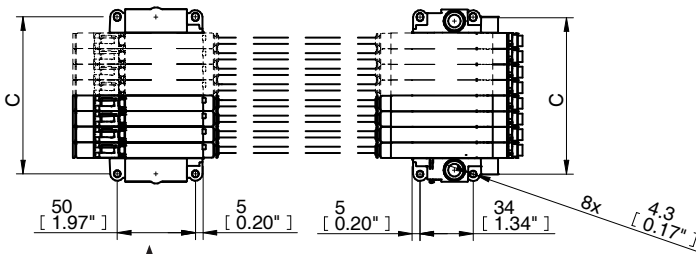
	Unit	1 channel	2 channels	3 channels
H	mm [in]	23.2 [0.91"]	33.2 [1.33"]	43.2 [1.72"]

English

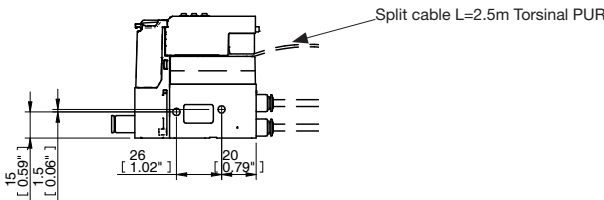
4-8 channels



Split, manifold mount

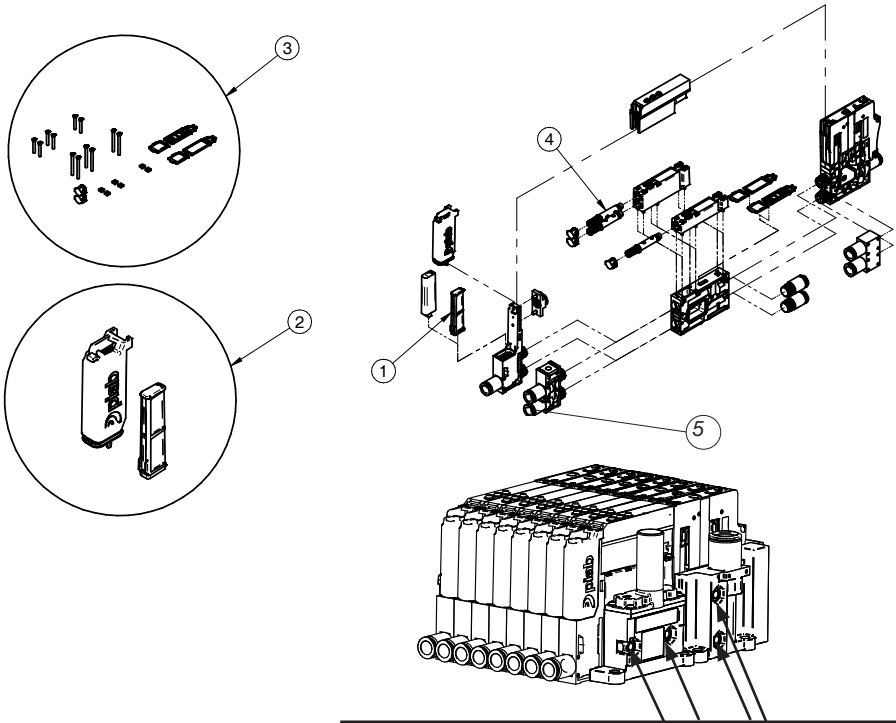


Split, individual mount



	Unit	4 ch	5 ch	6 ch	7 ch	8 ch
C	mm [in]	60.5 [2.38"]	70.5 [2.78"]	80.5 [3.17"]	90.5 [3.56"]	100.5 [3.96"]

MAINTENANCE, Exploded view



Warning! Warranty void if these screws are loosened or tightened.

Before installation and when maintaining the piCOMPACT®10X check the product and attachment for damages or wear (such as hoses, hose clamps, clips etc) and replace the damage or worn parts as described in the maintenance section.

Spare parts

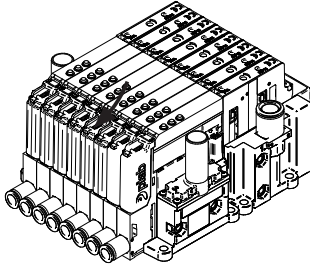
Pos	Art. No	Description
1	0201747	Filter element FM10-50, 5 pcs-piCOMPACT®10x/piPUMP10x
2	0201748	Filter holder kit FM10-50-piCOMPACT®10x/piPUMP10x
3	0201737	Spare Part Kit piCOMPACT®10x/piPUMP10x
4	0106966	COAX® cartridge MICRO Bi03-2
4	0113591	COAX® cartridge MICRO Si02-2
4	0123098	COAX® cartridge MICRO Ti05-2
4	0120297	COAX® cartridge MICRO Xi2.5-2
5	0209025	Push-in connector 4 mm, EC10, 5 pcs
5	0209026	Push-in connector 6 mm, EC10, 5 pcs
5	0209027	Push-in connector 1/4", EC10, 5 pcs

Spare part Cables

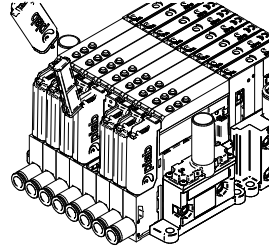
Art. No	Description
0201749	Cable L=2.5m, conn 6p Torsional PUR
0202328	Cable L=5m, conn 6p Torsional PUR
0201750	Cable L=0.3m, conn 6p/M12 8p male PVC
0209442	Cable L=2.5m, HD D-Sub 26p Torsional
0209445	Cable L=5m, HD D-Sub 26p Torsional
0209447	Cable L=2.5m, HD D-Sub 44p Torsional
0203013	Cable L=4m, M8 6p Torsional PUR
0209898	Y-Cable L=0.5m, M8 6-pin fem, 2xM12 5-pin male, PUR
0204975	Cable L=5m, M8 6p PUR

Replacements for vacuum sensor, COAX® cartridge, filter and non-return valve

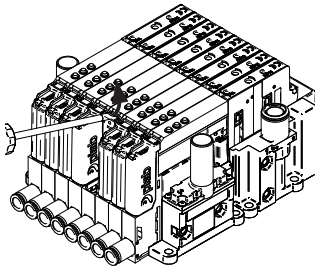
1. Push spring to release filter holder



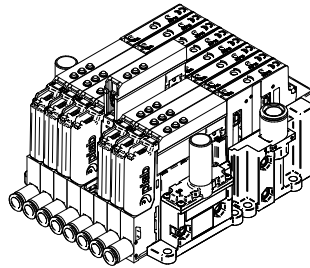
2. Remove filter holder



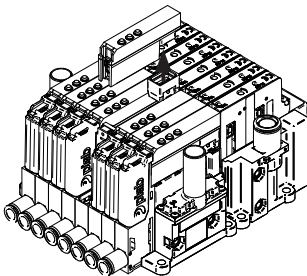
3. Use the slot to release the switch



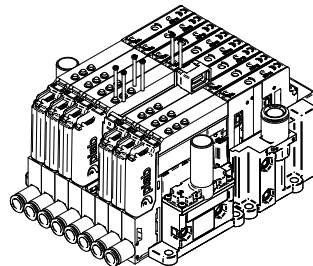
4. Gently release the switch



5. Unplug the switch



6. Unscrew the torx

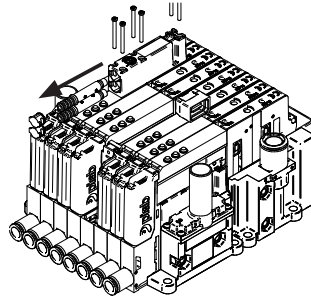
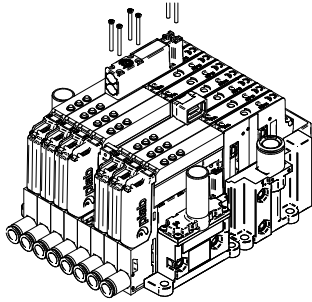


7. Remove the COAX® cartridge house

8. Remove the COAX® cartridge

1. Remove the COAX® cartridge house

2. Remove the COAX® cartridge



Cleaning instructions

For COAX® cartridge, filter and non-return valve

Rinse in water or use compressed air to blow off. Let dry before reinstalling.

Technical data (per channel)

Pneumatic technical information

	Unit	COAX®							
		Bi03-2		Xi2.5-2		Si02-2		Ti05-2	
		x1	x2	x1	x2	x1	x2	x1	x2
Opt. feed pressure, pump	MPa [psi]	0.22 [31.2]	0.24 [34.5]	0.51 [74.5]	0.53 [76.9]	0.60 [87.6]	0.62 [89.9]	0.43 [62.4]	0.50 [72.5]
Opt. feed pressure, nozzle	MPa [psi]	0.20 [29.0]		0.50 [72.5]		0.60 [87.0]		0.40 [58.0]	
Max vacuum at opt. pressure	-kPa [-inHg]	82 [24.2]		91 [26.9]		75 [22.1]		84 [24.8]	
Air consumption at opt. pressure	NI/s [scfm]	0.14 [0.297]	0.28 [0.593]	0.13 [0.275]	0.26 [0.551]	0.11 [0.233]	0.22 [0.466]	0.23 [0.487]	0.46 [0.974]
Max vacuum flow at opt. pressure	NI/s [scfm]	0.21 [0.445]	0.34 [0.720]	0.23 [0.487]	0.37 [0.784]	0.11 [0.233]	0.42 [0.890]	0.31 [0.657]	0.53 [1.12]
Flow, blow off at 0.6 MPa	NI/s [scfm]	1.01 [2.14]							

General electric characteristics

Supply voltage	24 ±10% V
Current consumption	<200 mA

Valve module

Function on/off	Normally closed (NC/NC 2) or normally open (NO)
Function blow-off	Normally closed (NC)
Air consumption blow-off/release	0-1.01 NI/s at 6 bar [0-2.14 scfm at 87 psi]
Manual override	Yes, non-locking push style

Other data / environmental data

Temperature range	-10 - 50°C [14-122°F]
Air humidity	% RH 35-85
Materials	PA, NBR, SS, POM, TPE, PVC



Values specified are tested at:

Room temperature (20°C [68°F] ± 3°C [5.5°F]).
 Standard atmosphere (101.3 [29.9 inHg] ± 1.0 kPa [0.3 inHg]).
 Relative humidity 0-100%.
 Compressed air quality, DIN ISO 8573-1 class 4.

Technical data sensor A2DP

Description	Unit	Value
Overpressure, max.	MPa [psi]	0.4 [58.0]
Material	-	PC, LCP, TPE, PA
Temperature range	°C [F]	-10 - 50 [32-122]
Signal range	-kPa [-inHg]	0-101 [29.9]
Hysteresis	kPa [inHg]	ES _{high} - ES _{low} =settable
Safety classification	-	IP54
Max output load S1, digital output	V	0.08
Analog output	V	1-5
Humidity	%RH	35-85
Response time	ms	<1
Accuracy	-	±3% of F.S. (Full Scale)
Ripple (Supply voltage)	VP	10%
Vibration resistant	Hz	10-55
Shock resistant	G	10
Display	-	3 digit num LED display

Default setting

Description	Default value
Unit	-kPa
Switch value	40 -kPa
ES low value*	98 -kPa
ES high value*	99 -kPa
Filtering (analog switch)	0 ms

* ALD (Automatic Level determination) activated with default values.

For more information see www.piab.com/support/manuals/man_0201555_piCOMPACT®10X_master.pdf

Error code

Code	Cause	Solution
E 1	Electric overload detection for SW / Short-circuit protection for SW	Check sensor A2DP output wiring for S1 / S2
E 2	Pressure not within adjustable range	Only possible if atmospheric pressure equivalent to ±3% or less of F.S. (Full Scale).
E 3	Internal error	Unplug power from piCOMPACT®, then plug it back in.



WARNING! Do not install or operate your piCOMPACT®10X if damaged during transport, handling or use. Damage may result in bursting and cause injury or property damage.

- (GB) Safety
- (DK) Advarselsymboler
- (DE) Warnsymbole
- (ES) Señales de advertencia
- (FR) Sécurité

- (IT) Segnali di avvertenza
- (NL) Waarschuwingsymbolen
- (NO) Sikkerhet
- (PT) Sinais Avisadores

- (SE) Säkerhet
- (FI) Varoitusmerkit
- (ZH) 安全
- (PL) Bezpieczeństwo
- (RU) Безопасность



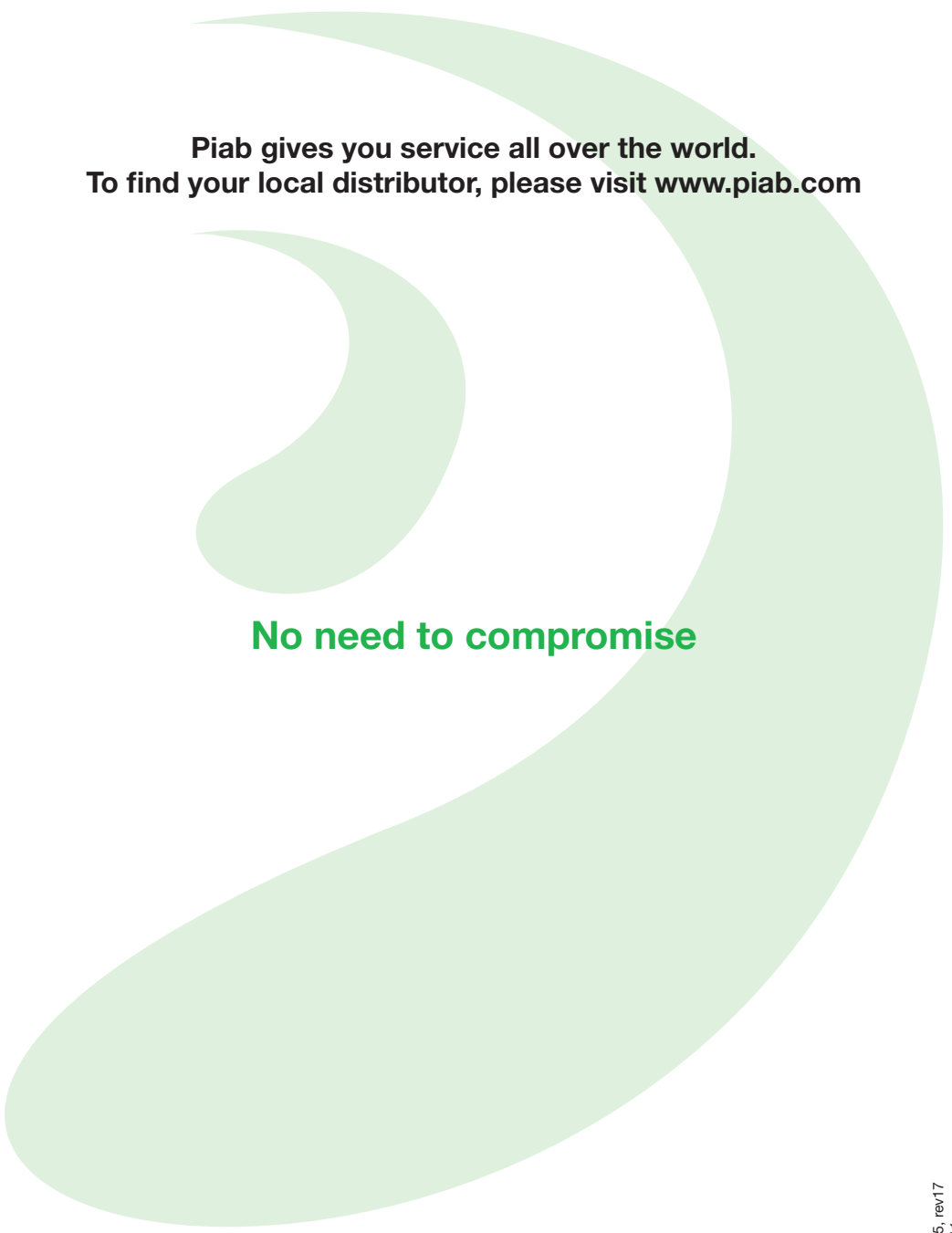
- Vacuum force
- Vakuumkraft
- Vakuumkraft
- Fuerza de vacío
- Force d'aspiration
- Potenza di aspirazione
- Vacuumkracht
- Vakuumkraft
- Vácuo ligado
- Vakuumkraft
- Siła ssania
- Voimakas imu
- Сила вакуума
- 真空力



- Exhaust
- Udblæs
- Abluft
- Aire procedente
- Evacuation de l'air
- Aria di scarico
- Uitlaatlucht
- Eksos
- Saida de ar
- Utblås
- Poistoilma
- Wylot
- Выхлоп
- 排気



- Unrestricted exhaust
- Forbudt blokere udblæsningen
- Abluft nicht blockieren
- Prohibido bloquear la salida del aire
- Interdit de bloquer l'évacuation de l'air
- Lo scarico della pompa non deve
- essere ostruito
- Pompuitlaat vrijhouden
- Forbudt å blokkere eksos
- O escape da bomba deve ser livre
- Förbjudet blockera utblås
- Ulospuhalluksen esto kielletty
- Nieograniczony wylot
- Неограниченный выхлоп
- 排気口を塞がないで下さい。



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No need to compromise

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