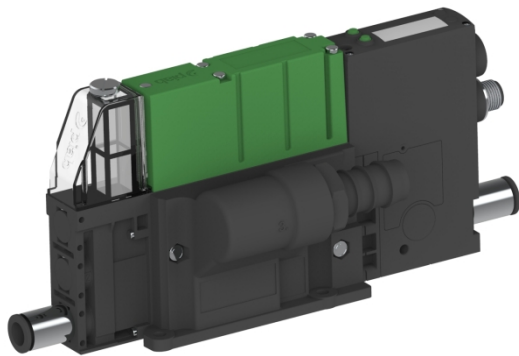


# piCOMPACT®23 SMART

SX12 x1, PNP/PNP or NPN/NPN, preset is PNP/PNP



- Configurable vacuum ejector based on COAX® technology with integrated controls.
- SX12 – Patented COAX® ejector for medium sized vacuum/robot handling systems with combined characteristics for high vacuum flow and deep vacuum level (85 -kPa).
- Optimized design for high reliability, high vacuum flow and fast cycle times.
- Visual indicator for low power supply.
- High vacuum performance.
- Easier maintenance and less dust sensitive thanks to external flap valves for cartridge(s) and reliable membrane valve design.
- Energy Saving (ES) function.
- Automatic Level Determination (ALD) will automatically set optimised ES shut-off and restart levels in every cycle based on actual conditions.
- Vacuum non-return valve included.
- Vacuum switch with OLED and gyro display, one digital output (Part Present) & one analog output.
- User-friendly GUI with a display menu allowing users to re-set parameters and re-configure features.
- Vacuum non-return valve included.
- Low noise level.
- Central silencer or central exhaust for lowest possible sound level and possibility to pipe away exhaust air.

## Technical data

Description	Unit	Value
Feed pressure, max	psi	101.5
Temperature range	°F	32-104
Total weight	oz	19.88
Material	-	PA, NBR, TPU, PC, TPE, FPM, PVC, CuZn, Al, Cu, Fe, SS, PP
Noise level range	dBA	50-52
Connection, compressed air	-	ø6mm push-in connector(s)
Connection, vacuum	-	ø8mm (5/16") push-in connector(s)
Supply voltage	VDC	24 (21.6 – 26.4)
Electrical input/output	-	PNP/PNP or NPN/NPN, preset is PNP/PNP
Electrical connection	-	Connector M12, 8p male
Switch output 1, max	mA	100
Analog output	V	1-5
Signal range (digital output)	-inHg	-29.9...41.3
Hysteresis	-inHg	Adjustable
Accuracy, of F.S. (Full Scale)	-	±3%

Display	-	OLED and gyro display
Typical current consumption	mA	200
Valve shift peak current	mA, ms	425<32
Maximum in rush current	mA	400
Manual override, electrically activated	-	Locking push style
Function, Vacuum / Blow-Off	-	NC vacuum + NC blow off
Response time	ms	18±6
Pressure drop	psi	0.6
Blow-Off flow at 0.5 MPa and no counter pressure	scfm	0-4.9
Blow-Off flow at 0.5 MPa and 0.1 MPa counter pressure	scfm	-

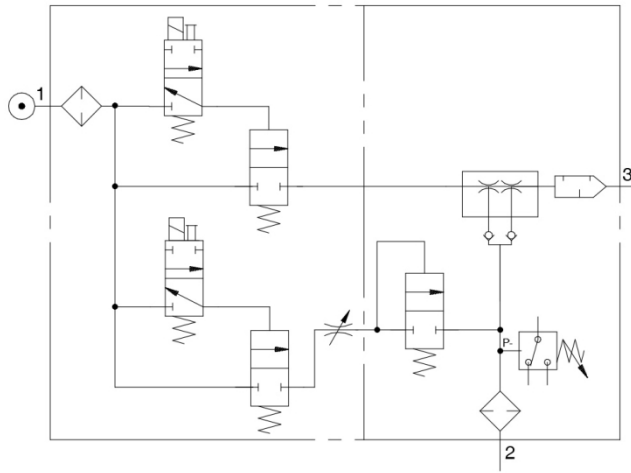
### Vacuum flow

Feed pressure pump / nozzle psi	Air consumption scfm	Vacuum flow (scfm) at different vacuum levels (-inHg)										Max vacuum -inHg
		0	3	6	9	12	15	18	21	24		
72.52 / 72.5	1.53	2.59	2.18	1.65	1.10	0.57	0.44	0.32	0.19	0.06	25.1	

### Evacuation time

Feed pressure pump / nozzle psi	Air consumption scfm	Evacuation time (s/cf) to reach different vacuum levels (-inHg)								Max vacuum m -inHg
		3	6	9	12	15	18	21	24	
72.52 / 72.5	1.53	2.32	5.69	10.6	19.1	34.5	54.2	84.4	175	25.1

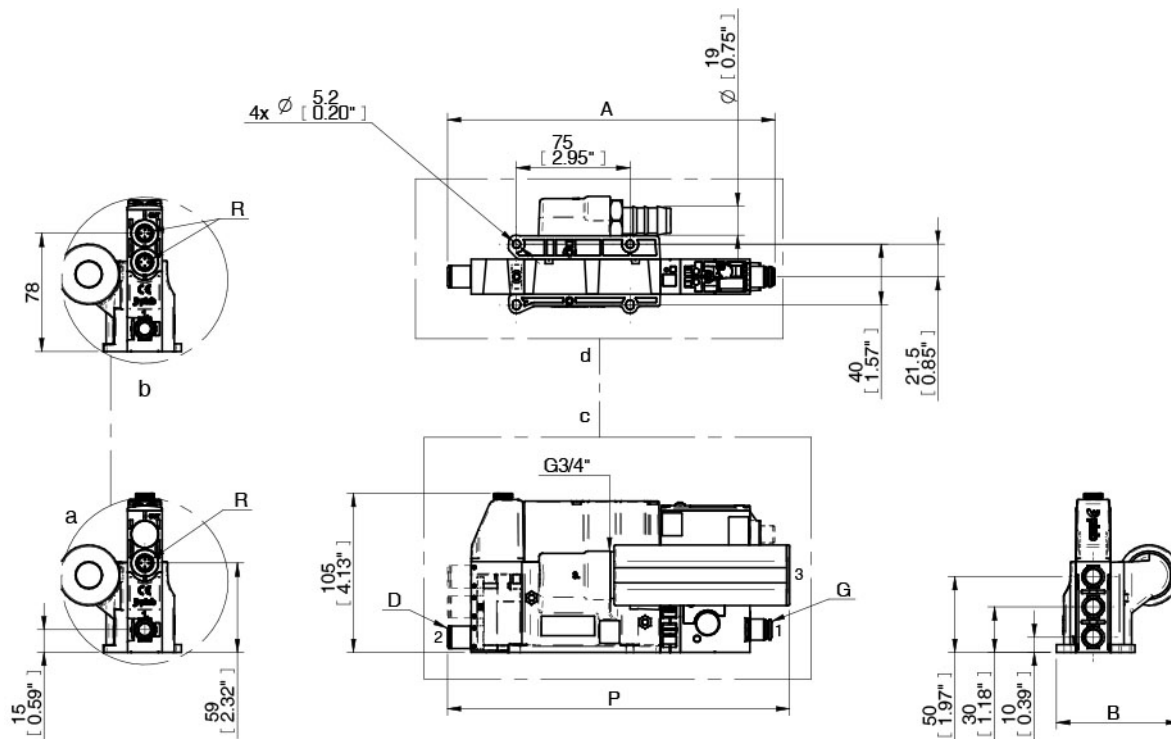
## Dimensional drawing



A 215.4 [8.48"]  
 B 77.3 [3.04"]  
 D  $\varnothing 8$   
 G  $\varnothing 6$   
 R M12 8p connector(s)

a M12 8p connector(s)  
 d Ejector(s) for individual mounts,  
 central exhaust

Note: Filter and vacuum sensor are optional



## Ordering information – Current configuration

Description piCOMPACT®23 SMART	Product code PCS.F.121.S.AAA.S18.1X.6.EL.CCAB
Vacuum characteristics	High vacuum performance
Nozzle model	SX12 (73-146 NI/min [2.58-5.16 scfm])
Nozzle rows	Single
Chemical resistance	Standard
Communication interface	Standard IO input/output
Control functions	Elec. ES, vacuum & external blow-off
Additional vacuum functions	No extra vacuum control
Non-return valve	With non-return valve
Vacuum sensing	One digital output, S1 = Part Present [-kPa] and One analog output ,1-5 VDC = S2
Vacuum filter	Vacuum filter 50 $\mu$ m
Vacuum port(s)/channel	1 vacuum port
Number of channels	1 channel
Split control from vacuum	No split
Air connection	$\varnothing 6$ mm push-in connector(s)
Options	Ejector(s) for individual mounts, central exhaust
Valve configuration	NC vacuum + NC blow off
Electrical input/output	PNP/PNP or NPN/NPN, preset is PNP/PNP
Electrical interface	M12 8p connector(s)

## Ordering information, accessories

Description	Art. No.
Filter element FM23-50, 4 pcs	0205487
Cable M12 8-pin female, PUR, L=2m	0110238
Cable M12 8-pin female, PUR, L=5m	0117746
Y-cable M12 8-pin female, 2xM12 4-pin male, PNP, PUR, L=0.5m	0207535
Y-cable M12 8-pin female, 2xM12 4-pin male, NPN, PUR, L=0.5m	0207534
Cable extension M12 8p fem, M12 8p male, L=2.5m	0208046

**Values specified in this data sheet are tested at (unless otherwise stated):**

- 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 20-70%.
- Compressed air quality, DIN ISO 8573-1 class 4.