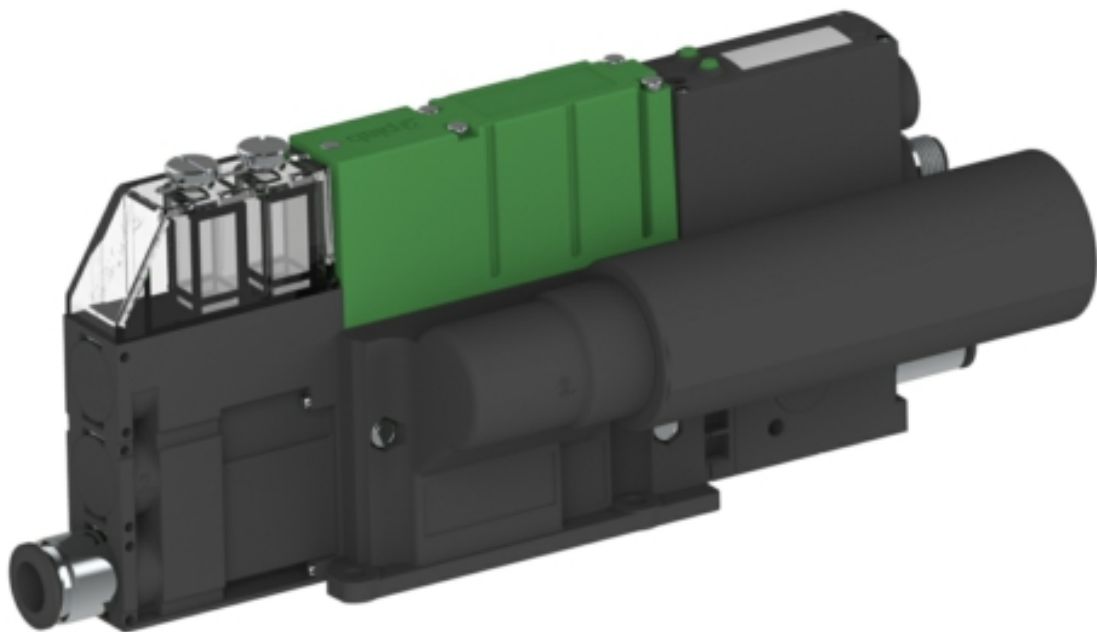


piCOMPACT® 23

SMART

SX42 x1



- ▶ Configurable vacuum ejector based on COAX® technology with integrated controls.
- ▶ SX42 – new Patented COAX® ejector for large sized vacuum/robot handling systems with combined characteristics for high vacuum flow and deep vacuum level (90 -kPa).
- ▶ Optimized design for high reliability, high vacuum flow and fast cycle times.
- ▶ High Speed valves with adaptive PWM (Pulse Width Modulation) to reduce heat generation and further improve reliability.

- ▶ 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.
- ▶ ACM - Automatic Condition Monitoring (ES mode active or not).Sensibility is adjustable
- ▶ ALD -Automatic Level Determination (ES shut-off level and Hyst).
- ▶ ATBO-Blow-off activated automatically after every vacuum cycle. Adjustable timer
- ▶ Vacuum non-return valve included.
- ▶ User-friendly GUI with a display menu allowing users to re-set parameters and re-configure features
- ▶ Vacuum non-return valve included.
- ▶ Cleanable and replaceable filter element
- ▶ IODD pre configured with SAC-Patented Self-Adhesion control (SAC) function, automatically removes self-created and unwanted vacuum from suction cups, recommended in ergonomic manipulators for glass and metal.
- ▶ IODD pre configured with IBO-Patented Blow-off function with an automatic stop (IBO) when vacuum is removed in order to minimize air consumption and fine tune cycle times. Intelligent self-learning algorithm understands system volume automatically and fast.
- ▶ IODD pre configured with ATBO-Blow-off activated automatically after every vacuum cycle. Adjustable.
- ▶ Available sensor data; temperature, voltage, acceleration, cycle analysis and more, to help predict maintenance. Sensor data communicated over IO-link but also visual in the display menu
- ▶ Process data available when vacuum completely removed (Blow-off completed).
- ▶ Low noise level
- ▶ IO-link Vacuum switch with a user-friendly GUI with a display menu allowing users to re-set parameters and re-configure features
- ▶ 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.	MPa	0.7
Temperature range	°C	0-40
Total weight	g	663
Material	-	PA, NBR, SS, TPE, Al, PU, CuZn, PVC
Noise level range	dBA	58-60
Connection, compressed air	-	ø8(5/16") push-in connector(s)
Connection, vacuum	-	ø10 push-in connector(s)
Supply voltage	VDC	24 (21.6 – 26.4)
Electrical input/output	-	IO-link
Electrical connection	-	Connector M12, 5p male
Switch output 1, max	mA	100
Signal range (digital output)	-kPa	-101.3...140
Hysteresis	-kPa	Adjustable
Safety classification	-	IP65
Humidity	%RH	35-85
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
In rush current	mA	800
Manual override, electrically activated	-	Yes, non-locking push style
Function, Vacuum / Blow-off	-	NC vacuum + NC blow off
Response time	ms	18±6
Pressure drop	MPa	0.04
Blow-off flow at 0.5 MPa and no counter pressure	NI/s	0-4.3
Blow-off flow at 0.5 MPa and 0.1 MPa counter pressure	NI/s	-
Baudrate	kBaud	38.4
Min cycle time	ms	5
PD	bytes	3
IO-Link Revision		1.1

Vacuum flow

Feed pressure pump / nozzle	Air consumption per pump / nozzle	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum	
		0	10	20	30	40	50	60	70	80	-kPa		
MPa	NI/s												
0.47 / 0.43	2.21	3.46	3.02	2.41	1.70	1.02	0.61	0.47	0.28	0.10		90	

Evacuation time

Feed pressure pump / nozzle	Air consumption per pump / nozzle	Evacuation time (s/l) to reach different vacuum levels (-kPa)									Max vacuum
		10	20	30	40	50	60	70	80	-kPa	
MPa	NI/s										
0.47 / 0.43	2.21	0.038	0.074	0.123	0.204	0.356	0.577	0.879	1.718		90

Ordering information

Description	Product code
<p>piCOMPACT®SX42 x1 High vacuum performance, SX42 (207-415 NI/min), Single, Standard, IO-link pre-configured, , ES Automatic level determination (ALD), Automatic timer based blow-off (ATBO), Self adhesion control (SAC), With non-return valve, IO-link display, 1 vacuum port, ø10 push-in connector(s), 1 channel, No split, ø8(5/16") push-in connector(s), Ejector(s) for individual mounts, central silencer, NC vacuum + NC blow off, IO-link, M12 5p connector(s)</p>	PCS.F.421.S.H211AD.F1P1.1X.8.EM.CCCC

Ordering information, accessories

Description	Art. No.
Filter element FM23-50, 4 pcs	0205487
Cable M12 4-pin fem, M12 4-pin male, L=2m	0118322
Cable M12 5-pin fem, M12 5-pin male L=2.5m	0212076