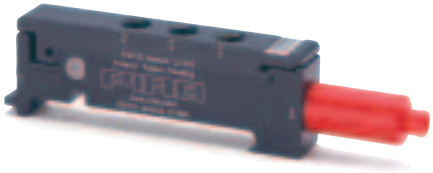
P3010 Pi12-3X1 WITH CONNECTIONS 3 X 1/8" NPSF



- Patented COAX® technology
- Low operating feed pressure
- Fast cycle times
- Inline design
- Modular functions available

TECHNICAL DATA

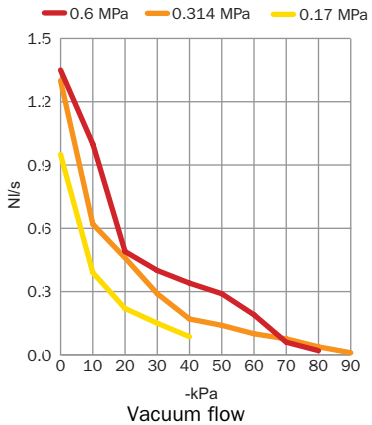
Description	Unit	Value
Feed pressure, max.	MPa	0.7
Noise level	dBA	66–68
Temperature range	°C	-10–50
Weight	g	110
Material		PP, PA, NBR, Al, SS

VACUUM FLOW

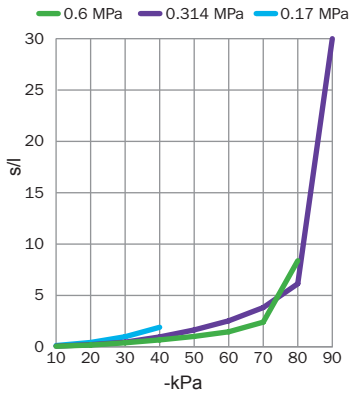
Feed pressure	Air consumption	Vacuum flow (Nl/s) at different vacuum levels (-kPa)										Max vacuum
MPa	Nl/s	0	10	20	30	40	50	60	70	80	90	-kPa
0.60	0.79	1.6	1.0	0.50	0.41	0.36	0.28	0.17	0.050	0.010	–	83
0.314	0.47	1.4	0.60	0.44	0.27	0.19	0.14	0.10	0.060	0.030	–	90
0.17	0.30	0.90	0.40	0.22	0.15	0.070	–	–	–	–	–	49

EVACUATION TIME

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
0.60	0.79	0.060	0.17	0.37	0.65	1.0	1.4	2.4	9.0	–	83
0.314	0.47	0.080	0.23	0.49	1.0	1.7	2.6	3.9	6.3	–	90
0.17	0.30	0.15	0.46	1.0	2.0	–	–	–	–	–	49



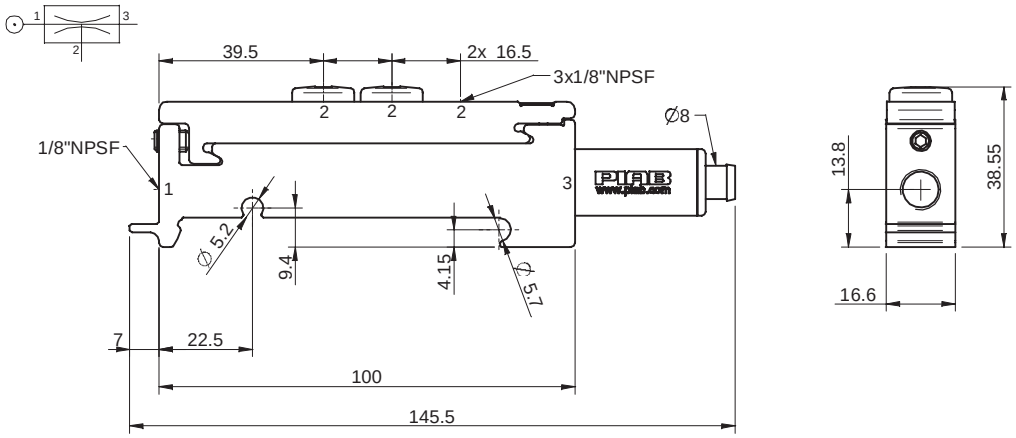
Vacuum flow



Evacuation time

ORDERING INFORMATION

Description	Art. No.
Vacuum pump P3010 Pi12-3, conn. 3 x 1/8”NPSF	0104279

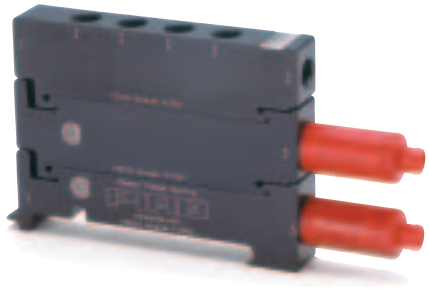


ORDERING INFORMATION, ACCESSORIES

Description	Art. No.
Sealing kit P3010, NBR sealings	0104201

The sealing kit includes flap valves, compressed air filter and vacuum filter.

P3010 Pi12-3X2 WITH CONNECTIONS 6 X 1/8" NPSF



- Patented COAX® technology
- Low operating feed pressure
- Fast cycle times
- Inline design
- Modular functions available

TECHNICAL DATA

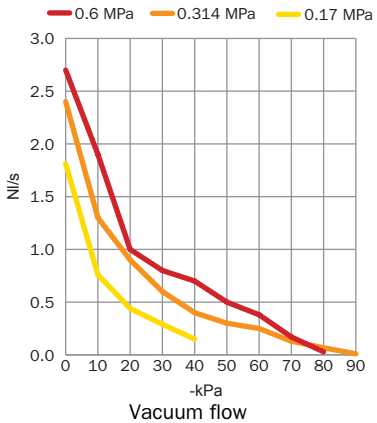
Description	Unit	Value
Feed pressure, max.	MPa	0.7
Noise level	dBA	66–68
Temperature range	°C	-10–50
Weight	g	257
Material		PP, PA, NBR, Al, SS

VACUUM FLOW

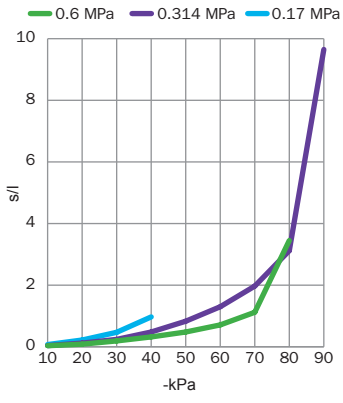
Feed pressure	Air consumption	Vacuum flow (Nl/s) at different vacuum levels (-kPa)										Max vacuum
MPa	Nl/s	0	10	20	30	40	50	60	70	80	90	-kPa
0.60	1.6	3.2	2.0	1.0	0.82	0.72	0.56	0.34	0.10	0.020	–	83
0.314	0.94	2.8	1.2	0.88	0.54	0.38	0.28	0.20	0.12	0.060	–	90
0.17	0.60	1.8	0.80	0.44	0.30	0.14	–	–	–	–	–	49

EVACUATION TIME

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
0.60	1.6	0.030	0.085	0.19	0.33	0.50	0.70	1.2	4.5	–	83
0.314	0.94	0.040	0.12	0.25	0.50	0.85	1.3	2.0	3.2	–	90
0.17	0.60	0.075	0.23	0.50	1.0	–	–	–	–	–	49



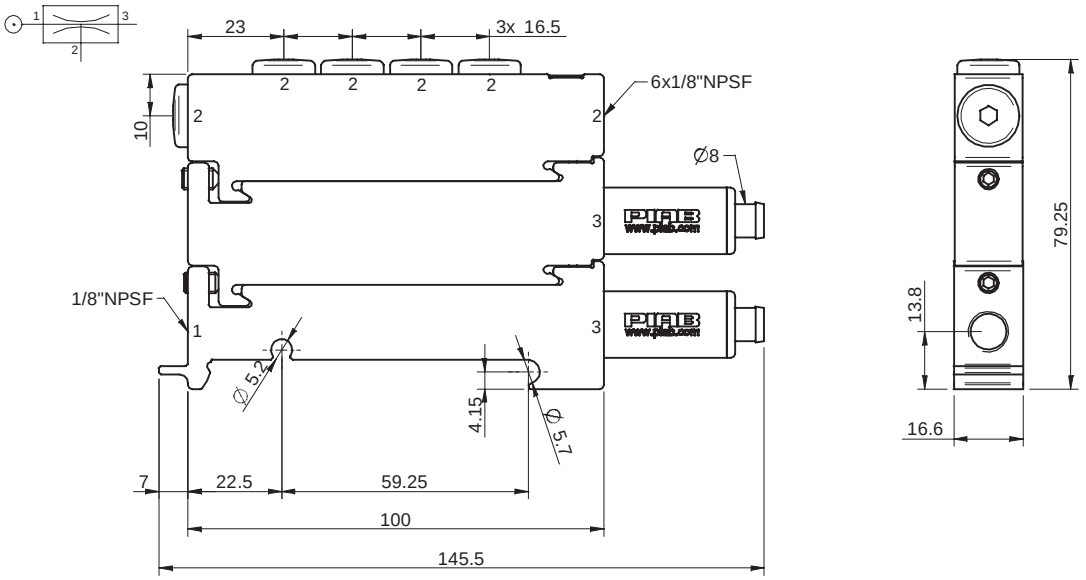
Vacuum flow



Evacuation time

ORDERING INFORMATION

Description	Art. No.
Vacuum pump P3010 Pi12-3x2, conn. 6 x 1/8”NPSF	0104281



ORDERING INFORMATION, ACCESSORIES

Description	Art. No.
Sealing kit P3010, NBR sealings	0104201

The sealing kit includes flap valves, compressed air filter and vacuum filter.

P3010 Pi12-3X1 WITH QUICK-RELEASE INCLUDING TANK 3 CM³

- Patented COAX® technology
- Low operating feed pressure
- Fast cycle times
- Inline design
- Modular functions available

TECHNICAL DATA

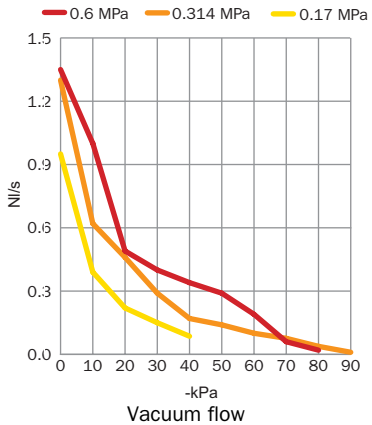
Description	Unit	Value
Feed pressure, max.	MPa	0.7
Noise level	dBA	66–68
Temperature range	°C	-10–50
Weight	g	168
Volume quick-release	cm^3	3
Material		PP, PA, NBR, Al, SS

VACUUM FLOW

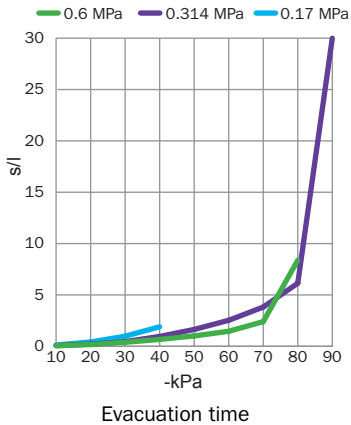
Feed pressure	Air consumption	Vacuum flow (Nl/s) at different vacuum levels (-kPa)										Max vacuum
MPa	Nl/s	0	10	20	30	40	50	60	70	80	90	-kPa
0.60	0.79	1.6	1.0	0.50	0.41	0.36	0.28	0.17	0.050	0.010	–	83
0.314	0.47	1.4	0.60	0.44	0.27	0.19	0.14	0.10	0.060	0.030	–	90
0.17	0.30	0.90	0.40	0.22	0.15	0.070	–	–	–	–	–	49

EVACUATION TIME

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
0.60	0.79	0.060	0.17	0.37	0.65	1.0	1.4	2.4	9.0	–	83
0.314	0.47	0.080	0.23	0.49	1.0	1.7	2.6	3.9	6.3	–	90
0.17	0.30	0.15	0.46	1.0	2.0	–	–	–	–	–	49



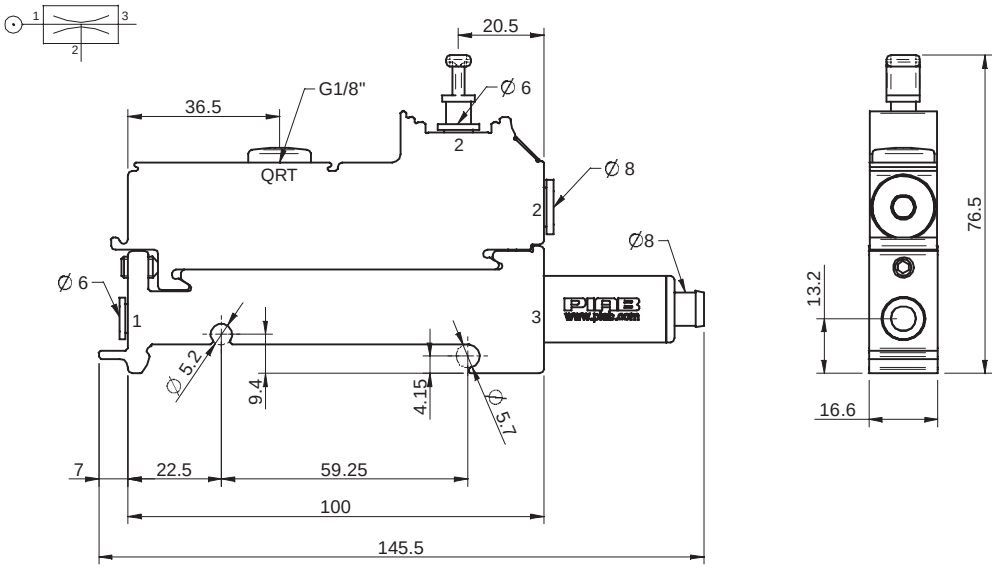
Vacuum flow



Evacuation time

ORDERING INFORMATION

Description	Art. No.
Vacuum pump P3010 Pi12-3, conn. push-in 8 and 6 mm, QR built-in tank 3 cm³	0104282

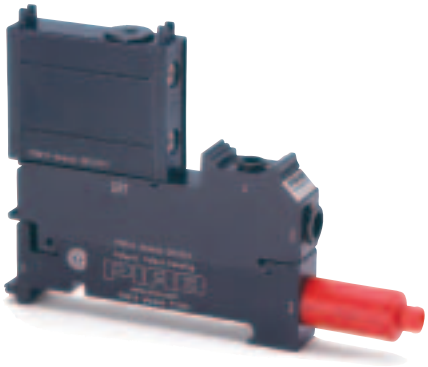


ORDERING INFORMATION, ACCESSORIES

Description	Art. No.
Sealing kit P3010, NBR sealings	0104201

The sealing kit includes flap valves, compressed air filter and vacuum filter.

P3010 Pi12-3X1 WITH QUICK-RELEASE AND TANK 30 CM³



- Patented COAX® technology
- Low operating feed pressure
- Fast cycle times
- Inline design
- Modular functions available

TECHNICAL DATA

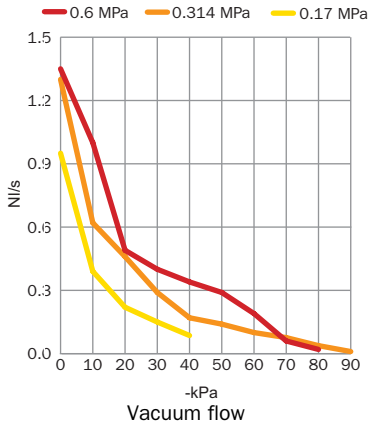
Description	Unit	Value
Feed pressure, max.	MPa	0.7
Noise level	dBA	66–68
Temperature range	°C	-10–50
Weight	g	207
Volume quick-release	cm^3	33
Material		PP, PA, NBR, Al, SS

VACUUM FLOW

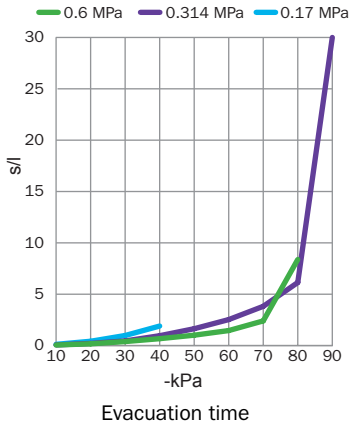
Feed pressure	Air consumption	Vacuum flow (Nl/s) at different vacuum levels (-kPa)										Max vacuum
MPa	Nl/s	0	10	20	30	40	50	60	70	80	90	-kPa
0.60	0.79	1.6	1.0	0.50	0.41	0.36	0.28	0.17	0.050	0.010	–	83
0.314	0.47	1.4	0.60	0.44	0.27	0.19	0.14	0.10	0.060	0.030	–	90
0.17	0.30	0.90	0.40	0.22	0.15	0.070	–	–	–	–	–	49

EVACUATION TIME

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
0.60	0.79	0.060	0.17	0.37	0.65	1.0	1.4	2.4	9.0	–	83
0.314	0.47	0.080	0.23	0.49	1.0	1.7	2.6	3.9	6.3	–	90
0.17	0.30	0.15	0.46	1.0	2.0	–	–	–	–	–	49



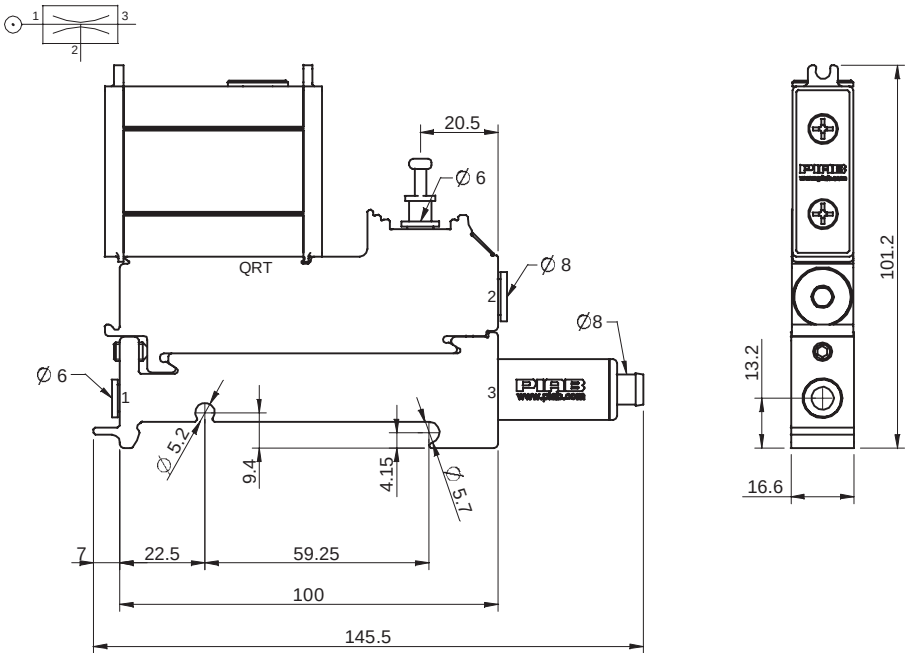
Vacuum flow



Evacuation time

ORDERING INFORMATION

Description	Art. No.
Vacuum pump P3010 Pi12-3, conn. push-in 8 and 6 mm, QR and tank 30 cm³	0104283

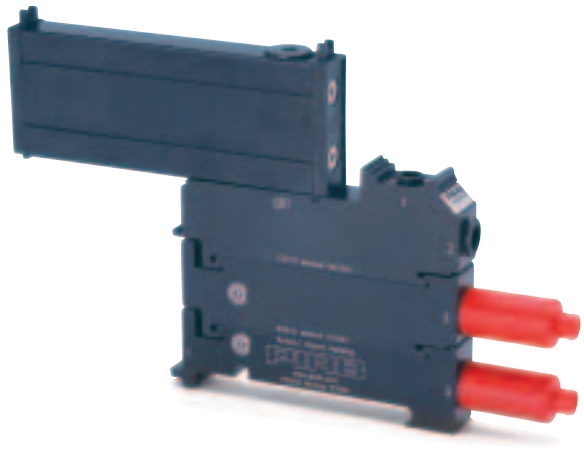


ORDERING INFORMATION, ACCESSORIES

Description	Art. No.
Sealing kit P3010, NBR sealings	0104201

The sealing kit includes flap valves, compressed air filter and vacuum filter.

P3010 Pi12-3X2 WITH QUICK-RELEASE AND TANK 60 CM³



- Patented COAX® technology
- Low operating feed pressure
- Fast cycle times
- Inline design
- Modular functions available

TECHNICAL DATA

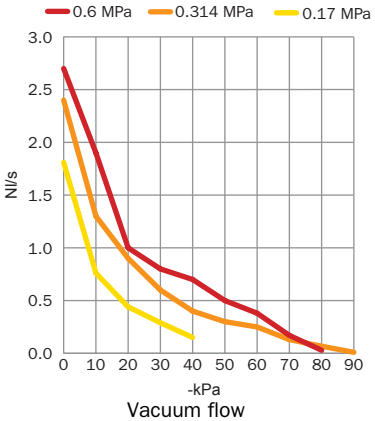
Description	Unit	Value
Feed pressure, max.	MPa	0.7
Noise level	dBA	66–68
Temperature range	°C	-10–50
Weight	g	320
Volume quick-release	cm^3	63
Material		PP, PA, NBR, Al, SS

VACUUM FLOW

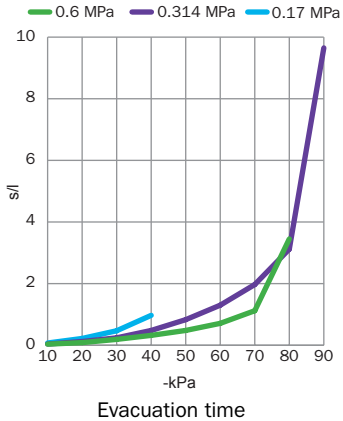
Feed pressure	Air consumption	Vacuum flow (Nl/s) at different vacuum levels (-kPa)										Max vacuum
MPa	Nl/s	0	10	20	30	40	50	60	70	80	90	-kPa
0.60	1.6	3.2	2.0	1.0	0.82	0.72	0.56	0.34	0.10	0.020	–	83
0.314	0.94	2.8	1.2	0.88	0.54	0.38	0.28	0.20	0.12	0.060	–	90
0.17	0.60	1.8	0.80	0.44	0.30	0.14	–	–	–	–	–	49

EVACUATION TIME

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
0.60	1.6	0.030	0.085	0.19	0.33	0.50	0.70	1.2	4.5	–	83
0.314	0.94	0.040	0.12	0.25	0.50	0.85	1.3	2.0	3.2	–	90
0.17	0.60	0.075	0.23	0.50	1.0	–	–	–	–	–	49



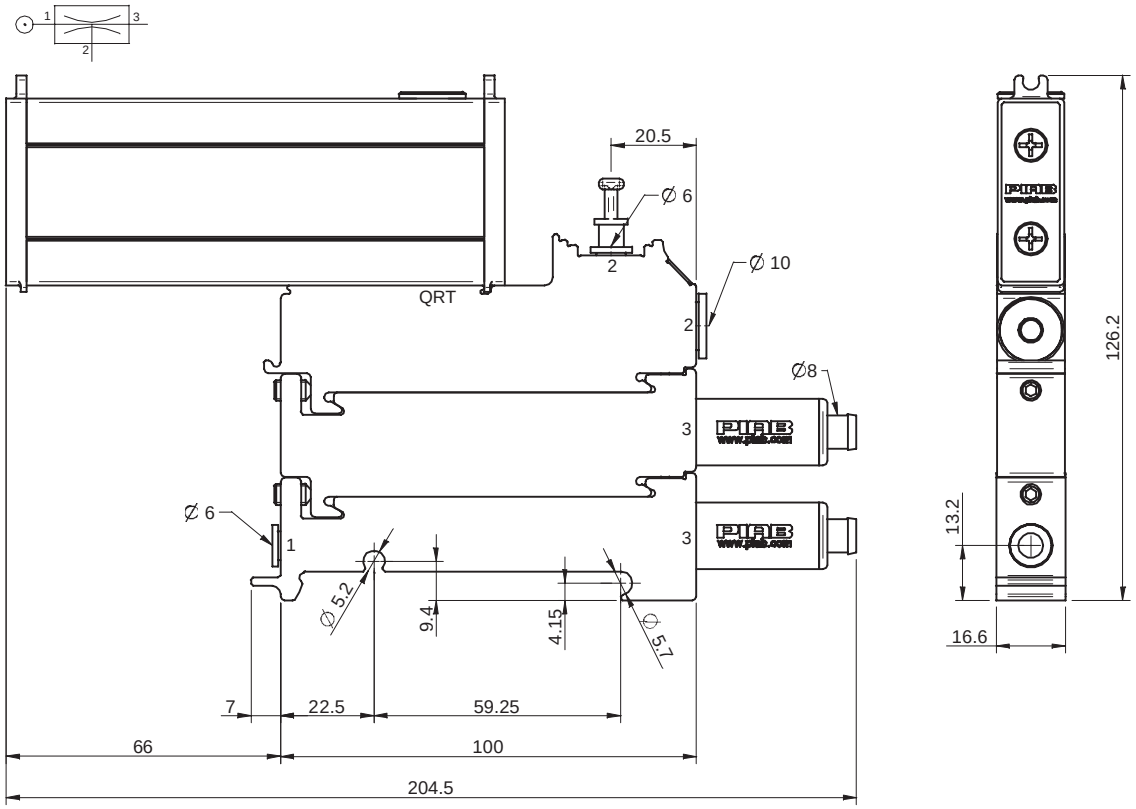
Vacuum flow



Evacuation time

ORDERING INFORMATION

Description	Art. No.
Vacuum pump P3010 Pi12-3x2, conn. 6 x 1/8" NSPF, QR and tank 60 cm³	0104284

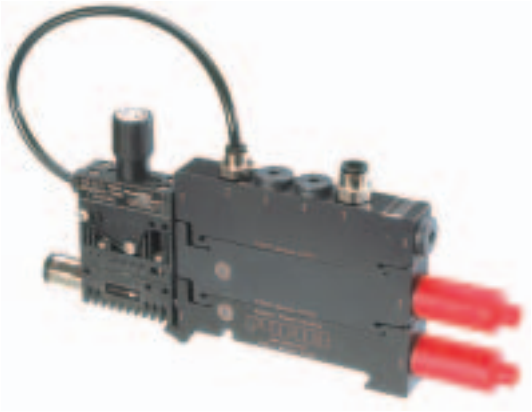


ORDERING INFORMATION, ACCESSORIES

Description	Art. No.
Sealing kit P3010, NBR sealings	0104201

The sealing kit includes flap valves, compressed air filter and vacuum filter.

P3010 Pi12-3X2 WITH ENERGY-SAVING SYSTEM



- Patented COAX® technology
- Low operating feed pressure
- Fast cycle times
- Inline design
- Modular functions available

TECHNICAL DATA

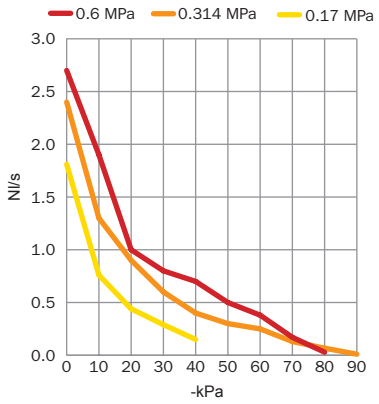
Description	Unit	Value
Feed pressure, max.	MPa	0.7
Noise level	dBA	66–68
Temperature range	°C	-10–50
Weight	g	300
Material		PP, PA, NBR, Al, SS
Hysteresis	kPa	<7
Lifespan	cycles	>10 000 000

VACUUM FLOW

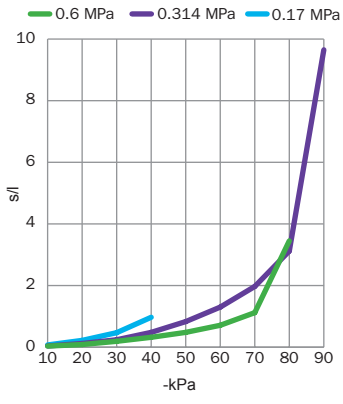
Feed pressure	Air consumption	Vacuum flow (Nl/s) at different vacuum levels (-kPa)										Max vacuum
MPa	Nl/s	0	10	20	30	40	50	60	70	80	90	-kPa
0.60	1.6	3.2	2.0	1.0	0.82	0.72	0.56	0.34	0.10	0.020	–	83
0.314	0.94	2.8	1.2	0.88	0.54	0.38	0.28	0.20	0.12	0.060	–	90
0.17	0.60	1.8	0.80	0.44	0.30	0.14	–	–	–	–	–	49

EVACUATION TIME

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
0.60	1.6	0.030	0.085	0.19	0.33	0.50	0.70	1.2	4.5	–	83
0.314	0.94	0.040	0.12	0.25	0.50	0.85	1.3	2.0	3.2	–	90
0.17	0.60	0.075	0.23	0.50	1.0	–	–	–	–	–	49



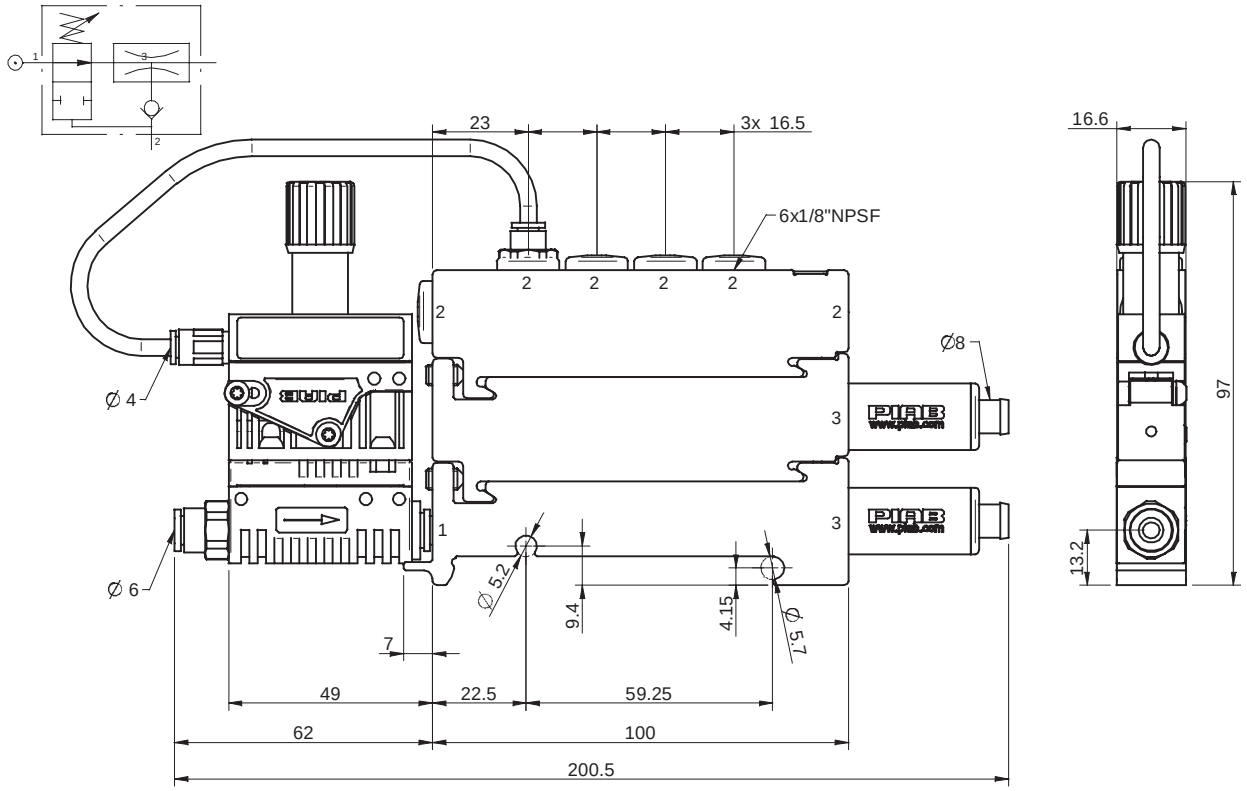
Vacuum flow



Evacuation time

ORDERING INFORMATION

Description	Art. No.
Vacuum pump P3010 Pi12-3x2, conn. 4x1/8"NPSF, ES	0106224



ORDERING INFORMATION, ACCESSORIES

Description	Art. No.
Sealing kit P3010, NBR sealings	0104201

The sealing kit includes flap valves, compressed air filter and vacuum filter.

P3010 Pi12-3X1 AVM™

- Patented COAX® technology
- An M12 8-pin electrical interface makes installation easy.
- Two vacuum switches with signal output.
- Valves for vacuum on/off and blow-off.
- Blow-off adjustment valve for flow-rate control.
- Automatic energy-saving function – can be switched off forleaking applications.
- PNP or NPN selectable.
- Reversed polarity protection.

TECHNICAL DATA

Description	Unit	Value
Feed pressure, max.	MPa	0.7
Noise level	dBA	66–68
Material		PA, NBR, Al, SS, PMMA, ABS
Temperature range	°C	0–50
Weight	g	250
Voltage	VDC	24 (22-30)
Current consumption	mA	110
Ripple, max. (on power supply)	V_p	1 V_{rms}, 50–60 Hz
Flow, blow-off	Nl/s	0–7.5
Current, max. output load	mA	100
Hysteresis	kPa	6 ±1
Safety classification		IP65
Display		LED indicators

TECHNICAL DATA, SPECIFIC

Description	Unit	Value					
		0110307	0110308	0110309	0110313	0110314	0110315
Function, on/off		NO	NO	NO	NC	NC	NC
Signal range	-kPa	30/50	30/70	50/70	30/50	30/70	50/70

VACUUM FLOW

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
0.60	0.79	1.6	1.0	0.50	0.41	0.36	0.28	0.17	0.050	0.010	–	83
0.314	0.47	1.4	0.60	0.44	0.27	0.19	0.14	0.10	0.060	0.030	–	90
0.17	0.30	0.90	0.40	0.22	0.15	0.070	–	–	–	–	–	49

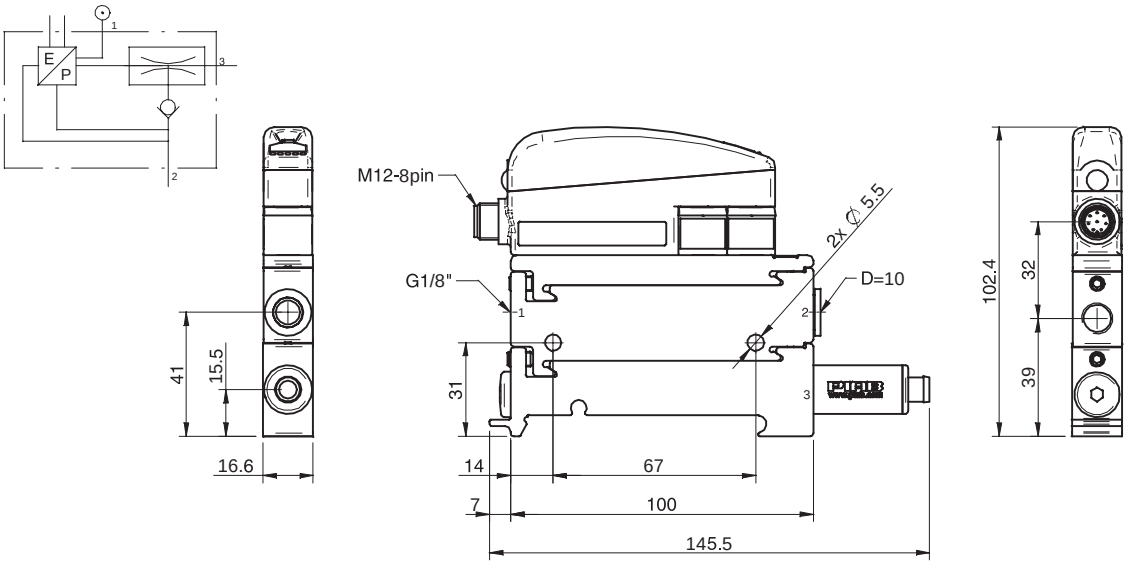
EVACUATION TIME

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
0.60	0.79	0.060	0.17	0.37	0.65	1.0	1.4	2.4	9.0	–	83
0.314	0.47	0.080	0.23	0.49	1.0	1.7	2.6	3.9	6.3	–	90
0.17	0.30	0.15	0.46	1.0	2.0	–	–	–	–	–	49

ORDERING INFORMATION

Description	Art. No.
P3010 AVM™ Pi12-3 NO 30/50	0110307
P3010 AVM™ Pi12-3 NO 30/70	0110308
P3010 AVM™ Pi12-3 NO 50/70	0110309
P3010 AVM™ Pi12-3 NC 30/50	0110313
P3010 AVM™ Pi12-3 NC 30/70	0110314
P3010 AVM™ Pi12-3 NC 50/70	0110315

NO = Normally open valve for vacuum on/off, NC = Normally closed valve for vacuum on/off



ORDERING INFORMATION, ACCESSORIES

Description	Art. No.
Cable 2m 0.25 x 7 PUR with electrical connector M12 8-pin	0110238

P3010 Pi12-3X2 AVM™

- Patented COAX® technology
- An M12 8-pin electrical interface makes installation easy.
- Two vacuum switches with signal output.
- Valves for vacuum on/off and blow-off.
- Blow-off adjustment valve for flow-rate control.
- Automatic energy-saving function – can be switched off forleaking applications.
- PNP or NPN selectable.
- Reversed polarity protection.

TECHNICAL DATA

Description	Unit	Value
Feed pressure, max.	MPa	0.7
Noise level	dBA	66–68
Material		PA, NBR, Al, SS, PMMA, ABS
Temperature range	°C	0–50
Weight	g	330
Voltage	VDC	24 (22-30)
Current consumption	mA	110
Ripple, max.	V_P	1 V_{rms}, 50–60 Hz
Flow, blow-off	Nl/s	0–7.5
Current, max. output load	mA	100
Hysteresis	kPa	6 ±1
Safety classification		IP65
Display		LED indicators

TECHNICAL DATA, SPECIFIC

Description	Unit	Value					
		0110310	0110311	0110312	0110316	0110317	0110318
Function, on/off		NO	NO	NO	NC	NC	NC
Signal range	-kPa	30/50	30/70	50/70	30/50	30/70	50/70

VACUUM FLOW

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
0.60	1.6	3.2	2.0	1.0	0.82	0.72	0.56	0.34	0.10	0.020	–	83
0.314	0.94	2.8	1.2	0.88	0.54	0.38	0.28	0.20	0.12	0.060	–	90
0.17	0.60	1.8	0.80	0.44	0.30	0.14	–	–	–	–	–	49

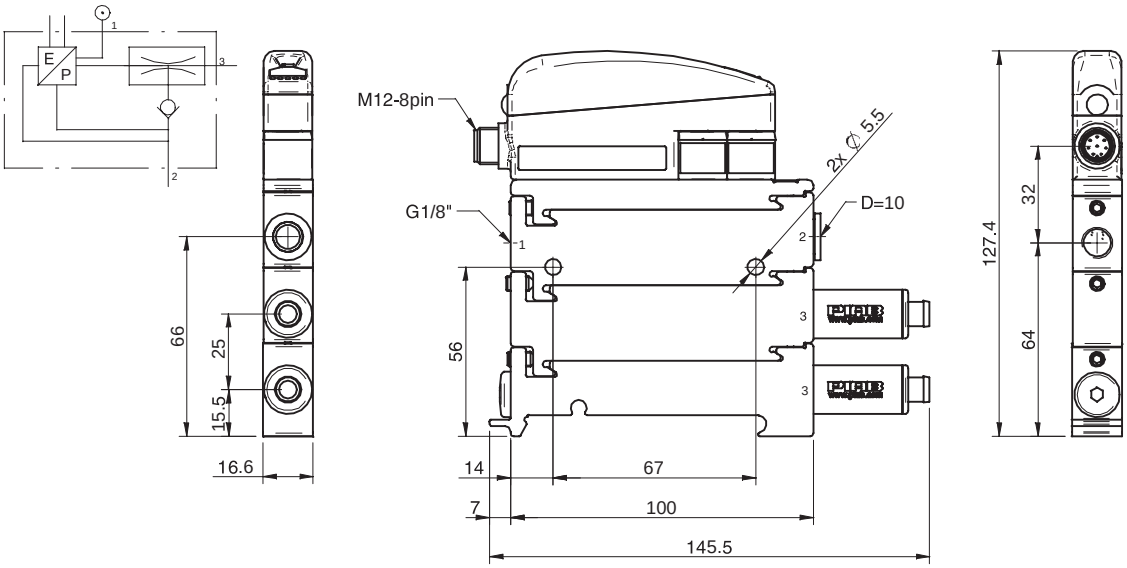
EVACUATION TIME

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
0.60	1.6	0.030	0.085	0.19	0.33	0.50	0.70	1.2	4.5	–	83
0.314	0.94	0.040	0.12	0.25	0.50	0.85	1.3	2.0	3.2	–	90
0.17	0.60	0.075	0.23	0.50	1.0	–	–	–	–	–	49

ORDERING INFORMATION

Description	Art. No.
P3010 AVM™ Pi12-3 x 2 NO 30/50	0110310
P3010 AVM™ Pi12-3 x 2 NO 30/70	0110311
P3010 AVM™ Pi12-3 x 2 NO 50/70	0110312
P3010 AVM™ Pi12-3 x 2 NC 30/50	0110316
P3010 AVM™ Pi12-3 x 2 NC 30/70	0110317
P3010 AVM™ Pi12-3 x 2 NC 50/70	0110318

NO = Normally open valve for vacuum on/off, NC = Normally closed valve for vacuum on/off



ORDERING INFORMATION, ACCESSORIES

Description	Art. No.
Cable 2m 0.25 x 7 PUR with electrical connector M12 8-pin	0110238

P3010 Pi12-3X1 PUMP MODULES

- Patented COAX® technology
- Low operating feed pressure
- Fast cycle times
- Inline design
- Modular functions available

TECHNICAL DATA

Description	Unit	Value
Feed pressure, max.	MPa	0.7
Noise level	dBA	66–68
Temperature range	°C	-10–50
Material		PP, PA, Al, SS, NBR

TECHNICAL DATA SPECIFIC

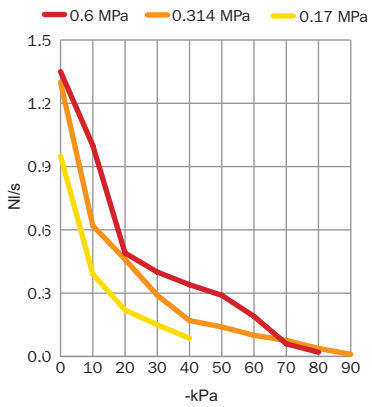
Description	Unit	Value			
		0104657	0104656	0106183	0104658
Weight	g	74	63	63	78

VACUUM FLOW

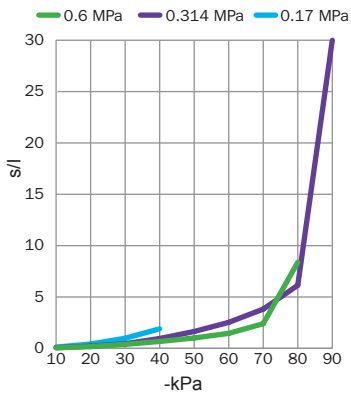
Feed pressure	Air consumption	Vacuum flow (Nl/s) at different vacuum levels (-kPa)										Max vacuum
MPa	Nl/s	0	10	20	30	40	50	60	70	80	90	-kPa
0.60	0.79	1.6	1.0	0.50	0.41	0.36	0.28	0.17	0.050	0.010	–	83
0.314	0.47	1.4	0.60	0.44	0.27	0.19	0.14	0.10	0.060	0.030	–	90
0.17	0.30	0.90	0.40	0.22	0.15	0.070	–	–	–	–	–	49

EVACUATION TIME

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
0.60	0.79	0.060	0.17	0.37	0.65	1.0	1.4	2.4	9.0	–	83
0.314	0.47	0.080	0.23	0.49	1.0	1.7	2.6	3.9	6.3	–	90
0.17	0.30	0.15	0.46	1.0	2.0	–	–	–	–	–	49



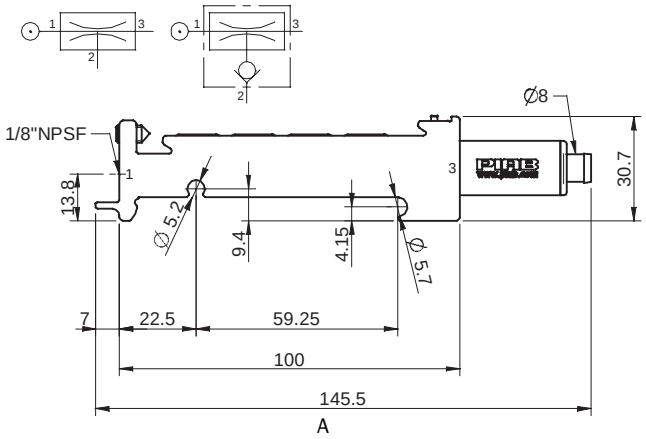
Vacuum flow



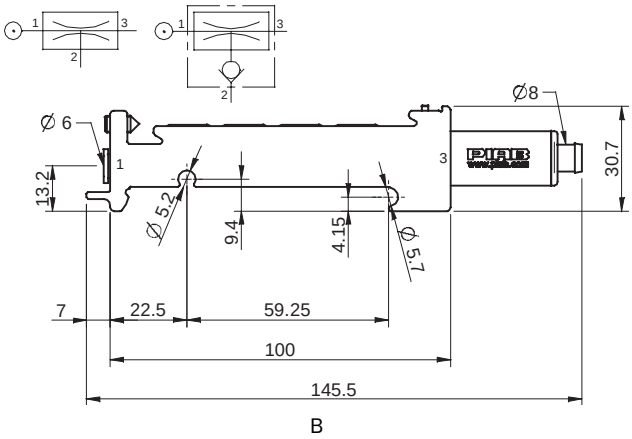
Evacuation time

ORDERING INFORMATION

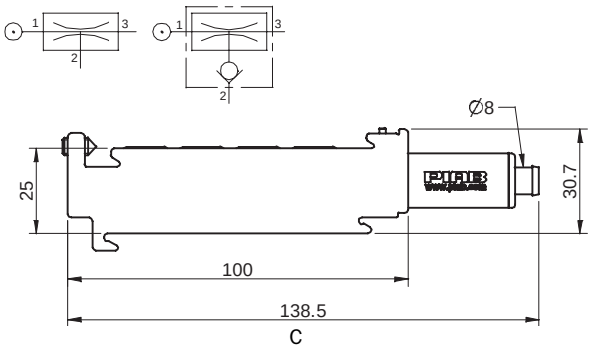
	Description	Art. No.
A	Vacuum pump module P3010 Pi12-3, conn. compressed air 1/8"NPSF	0104657
B	Vacuum pump module P3010 Pi12-3, conn. compressed air push-in Ø6 mm	0104656
B	Vacuum pump module P3010 Pi12-3, conn. compressed air push-in Ø6 mm, non-return valve	0106183
C	Vacuum pump module P3010 Pi12-3, extra	0104658



A



B



C

ORDERING INFORMATION, ACCESSORIES

Description	Art. No.
Sealing kit P3010, NBR sealings	0104201

The sealing kit includes flap valves, compressed air filter and vacuum filter.