

1.6 Pneumatic Metering Pump Pneumados

1.6.1 Pneumatic Metering Pump Pneumados b



The ProMinent® Pneumados is a pneumatically operated diaphragm metering pump

Capacity range 0.76 – 16.7 l/h, 16 – 2 bar

The metering pump Pneumados has a pneumatic power end and can be used in places without electrical supply voltage, with suction stroke performed by spring force.

The compression stroke is provided by compressed air applied to a diaphragm, which drives the PTFE-coated metering diaphragm. The suction stroke is actuated by a spring-loaded force. The pump capacity is adjusted by the stroke length and stroke rate.

Your benefits

- No electrical supply voltage needed
- Material version PVDF and stainless steel
- Stroke rate of up to 180 strokes/min
- Spring-loaded valves for higher-viscosity media

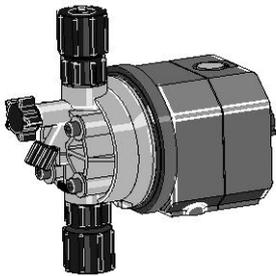
- Use wherever no electrical supply voltage is available

Technical details

- Compressed air requirement approx. 50 l/h, non-oiled compressed air preferred
- Length of the compressed air line between the valve and pump max. 1 metre
- Diaphragm deflection from the centre position

Field of application

- Metering and handling of animal feed
- Use in car wash facilities

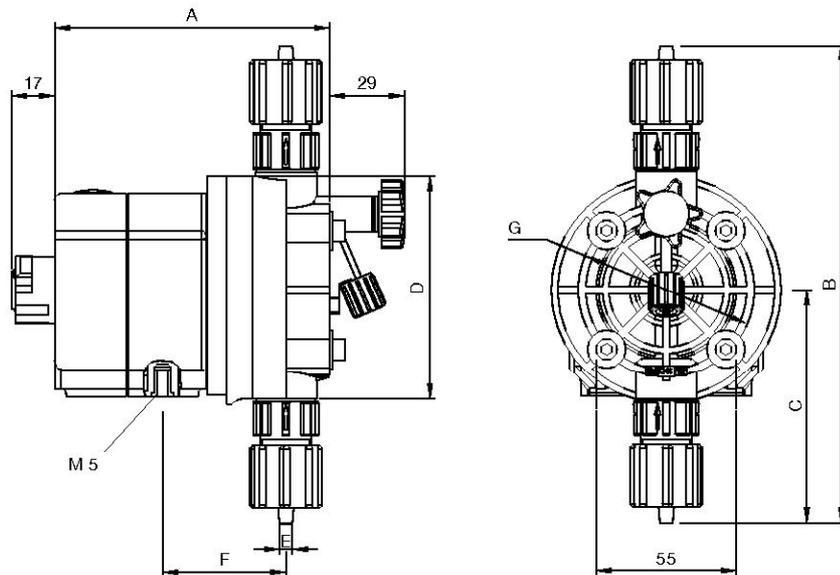


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Dimensional drawing for Pneumados b Material design PVDF

Type	A	D	E	F
1000	103	70	6x4	48
1601	105	70	6x4	49
1602	103	70	6x4	48
1005	107	90	8x5	48
0708	109	90	8x5	50
0413	109	90	8x5	50
0220	111	90	12x9	52

Type	B	C	G
1000	164	78	50
1601	176	90	50
1602	172	88	50
1005	189	92	66
0708	190	93	66
0413	181	88	66
0220	181	88	66



P_PN_0009_SW3

Dimensional drawing of Pneumados b, Material version PVC - dimensions in mm



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Technical Data

Pump type	Delivery rate at max. back pressure			Number of strokes Strokes/min	Connector sizes	Suction lift mWC	Shipping weight kg
	bar	l/h	ml/stroke				
PNDb 1000	10	0.76	0.07	180	6 x 4	6.0	1.0 - 1.7
PNDb 1601	16	1.00	0.09	180	6 x 4	6.0	1.0 - 1.7
PNDb 1602	16	1.70	0.16	180	6 x 4	6.0	1.0 - 1.7
PNDb 1005	10	3.80	0.35	180	8 x 5*	5.0	1.2 - 1.9
PNDb 0708	7	6.30	0.58	180	8 x 5	4.0	1.2 - 1.9
PNDb 0413	4	10.50	0.97	180	8 x 5	3.0	1.2 - 1.9
PNDb 0220	2	16.70	1.55	180	12 x 9	2.0	1.2 - 1.9

All data refers to water at 20 °C.

* Stainless steel version 6 x 4 mm

Filtered compressed air 6 bar ±10%

Air consumption at 1 m feed line 47 l/min

Max. stroke rate 180 strokes/min

Connectors

Material	Øo x Øi	Version
For PV	6, 8 and 12 mm	Hose nozzle with clamping ring
For stainless steel SS	6, 8 and 12 mm	Swagelok system screw connection

Materials in Contact With the Medium

	Liquid end	Intake/pressure connection	Ball seal	Seals	Balls
PVT	PVDF	PVDF	PVDF	PTFE	Ceramic
SST	Stainless steel M. No. 1.4404	Stainless steel M. No. 1.4404	Ceramic	PTFE	Ceramic

DEVELOPAN® metering diaphragm with PTFE coating.

Metering reproducibility of ±2% when used in accordance with operating instructions. Permissible ambient temperature -10 °C to +50 °C.



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1.6.2 Identity Code Ordering System

Pneumados product range, version b

1

PNDb	Type	Capacity	
		bar	l/h
	1000	10.0	0.76
	1601	16.0	1.00
	1602	16.0	1.70
	1005	10.0	3.80
	0708	7.0	6.30
	0413	4.0	10.50
	0220	2.0	16.70
Liquid end/Valve material			
	PV	PVDF/PVDF	
	SS	SS Stainless steel 1.4404/1.4404	
Seal/diaphragm material			
	S	Metakorin diaphragm with Viton-B seal	
	T	Standard diaphragm with PTFE seal	
Liquid end version			
	0	Non-bleed, without valve spring only for SS	
	1	Non-bleed, with valve spring only for SS	
	2	With bleed valve, without valve spring only for PV	
	3	With bleed valve, with valve spring only for PV	
Hydraulic connectors			
	0	Standard connection as per technical data	
Version			
	0	With ProMinent logo	
Power connector			
	0	G 1/4 connector, compressed air 6 bar	
	1	6 x 4 connector, compressed air 6 bar	
Control type			
	0	Single-acting (standard), without control valves	
	1	Electropneumatic actuation, with electric clock generator 24 V DC, solenoid valve 24 V DC, wall bracket and mounting material for solenoid valve	
Approvals			
	01	CE	



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1.6.3 Ordering Example for Installation Accessories

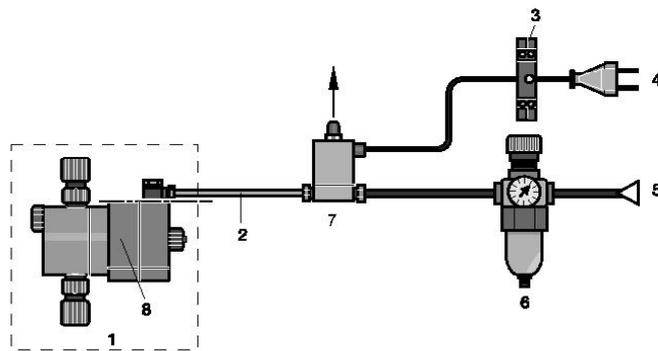
	Order no.
1 x PVC foot valve with filter and Ø 6 back check valve	924557
1 x PVC injection valve with Ø 6 - R 1/2 ball check valve	924680
1 x 5 m suction, discharge and compressed air line, PE 6 x 4 mm	1004492
1 x compressed air connector for Pneumados G 1/4 - 6 mm quick release connector LCK 1/4"	354641
1 x Pneumados wall bracket including fixtures and fittings	1030028

For electrical controller

	Order no.
1 x 3/2-way solenoid valve MHE3, 24 V DC, with connection fittings 6/4mm	1030275
1 x retaining bracket for solenoid valve	1030276
1 x sound absorber for solenoid valve	1030277
1 x electrical pulse generator 30-180 strokes/min., 24Vdc	1030351

Electrical/Pneumatic controller

Schematic diagram



- 1 Pneumados supply limit
- 2 PE 6x4 max. 1 m
- 3 Electrical pulse generator
- 4 230 V/50-60 Hz mains connector
- 5 Compressed air 6 bar
- 6 Maintenance unit
- 7 3/2 way solenoid valve with sound absorber
- 8 Pneumados

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1.6.4 Spare Parts Kits

Replacement parts kit for Pneumados b consisting of

- 1 Metering diaphragm
- 1 Suction connector compl.
- 1 Discharge connector compl.
- 2 Valve balls
- 1 Set of seals
- 1 Connecting kit

Stainless steel version without suction and discharge valve compl.

Type		Order no.
Type 1000	PPT, NPT, PVT	1023107
	SST	1001729
Type 1601	PPT, NPT, PVT	1023108
	SST	1001730
Type 1602	PVT, PPT, NPT	1023109
	SST	1001731
Type 1005	PVT, PPT, NPT	1023110
	SST	1001732
Type 0708	PVT, PPT, NPT	1023111
	SST	1001733
Type 0413	PVT, PPT, NPT	1023112
	SST	1001734
Type 0220	PVT, PPT, NPT	1023113
	SST	1001735

Accessories

- Foot Valves see page → 1-44
- Injection Valve see page → 1-47
- Hoses, Pipes see page → 1-57
- Suction Lances, Suction Kit Without Level Switch see page → 1-62
- Connector Parts/Fittings see page → 1-84

Spare Parts

- Custom Valve Balls/Valve Springs See page → 1-83

