



Diaphragm Valves

DESCRIPTION

200 Series

The **200 SERIES** is a range of diaphragm valve suitable for Dust collector applications, in particular for reverse pulse jet filter cleaning of filter bags, cartridges, envelope filters, ceramic filters and sintered metal fibre filters. The 200 Series valve has the inlet port at 90° to the outlet port. The 200 Series range comprises 7 models, from 3/4" to 3", all with threaded female gas connections. The 1 1/2" model is available in the single and double diaphragm versions, while the 2", 2 1/2" and 3" are all double diaphragm valves. The special design assures an extremely fast opening time, high flow rates and easy installation. The valves are constructed in die-cast aluminium and have an anodised protection treatment which protect them from corrosive and environmental agents. Bolts and screws are in stainless steel. The 200 Series is available in the following versions:

- **VNP**, with integrated solenoid pilot
- **VEM**, with remote pneumatic connection.

Upon request: Integral pilot valves with ATEX Certification: • ATEX II 3 D (94/9/CE) for the above approved model the correct code to use is VEM+PV 24V/DCX (solenoid coil is 24V-DC/12W and Din connector in conformity to the ATEX Directive 94/9/CE) (PLG9-ATEX). Remote pilot valves meet the requirements of: • ATEX II 2 GD when mounted with PXA Pilot or CXD Enclosure (94/9/CE)



GENERAL CHARACTERISTICS	
Fluids	Filtered air and oil free
Diaphragm	Standard NBR: -20°C / +120°C
	Optional Viton: -30°C / +200°C
	Nitrile: -40°C / +120°C
Pressure range	From 0,5 to 7,5 bar

CONSTRUCTIVE FEATURES - VALVE	
Cover	Die-cast aluminium (Anodised)
Body	Die-cast aluminium (Anodised)
Pilot Base	Brass (Chromed)
Pilot	Stainless Steel
Diaphragm	NBR
Bolts and screws	Stainless steel
Diaphragm Backing disk	Stainless steel
Diaphragm spring	Stainless steel

TYPE	Port size Ø	N° Diaph.	Pressure range (bar)		Weight Kg.	Coil	Kv	Cv
			min.	max				
VNP206	3/4"	1	0,5	7,5	0,55	YES	10	11,6
VNP208	1"	1	0,5	7,5	0,65	YES	21	24,4
VNP212	1 1/2"	1	0,5	7,5	1,4	YES	37	43,0
VNP214	1 1/2"	2	0,5	7,5	1,5	YES	44	51,2
VNP216	2"	2	0,5	7,5	2,5	YES	78	90,7
VNP220	2 1/2"	2	0,6	7,5	3,3	YES	96	112
VNP224	3"	2	0,6	5	7,55	YES	308	358
VEM206	3/4"	1	0,5	7,5	0,25	NO	10	11,6
VEM208	1"	1	0,5	7,5	0,35	NO	21	24,4
VEM212	1 1/2"	1	0,5	7,5	1,1	NO	37	43,0
VEM214	1 1/2"	2	0,5	7,5	1,2	NO	44	51,2
VEM216	2"	2	0,5	7,5	2,2	NO	78	90,7
VEM220	2 1/2"	2	0,6	7,5	3	NO	96	112
VEM224	3"	2	0,6	5	7,2	NO	308	358

ELECTRICAL CHARACTERISTICS - SOLENOID	
Coil insulation	Class H
Din Socket Connector	Pg9 Connection
Din Socket Standard	EN175301 - 803 / A/ISO 4400
Din Socket Optional	94/9/CE ATEX II 3GD T6
Isolation class Din socket	VDE 0110 - 1/89
Electrical protection	IP65 EN60529
Voltage Range	12V DC (-5%, +20%) 12W
	24V DC (-5%, +20%) 12W
	48 V DC (-10%, +20%) 9W
	110 V DC (-10%, +20%) 12W
	24V 50/60Hz (-10%, +20%) 16/12 VA
	48 V 50/60 Hz (-10%, +20%) 16/12 VA
	110/127 V 50/60 Hz (-10%, +20%) 19/14 VA
	220/240 V 50/60 Hz (-10%, +20%) 19/14 VA
Ambient temperature	-20°C / +60°C

HOW TO ORDER:

VEM/VNP 2 08 110/50

VNP: with integral pilot
VEM: without pilot

2: "200 SERIES"

VALVE CONNECTION DIAMETER:

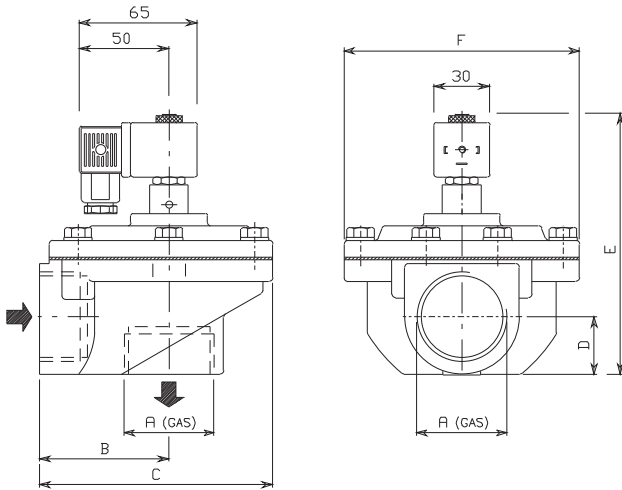
- 06 = 3/4"
- 08 = 1"
- 12 = 1 1/2" (single diaphragm)
- 14 = 1 1/2" (double diaphragm)
- 16 = 2"
- 20 = 2 1/2"
- 24 = 3"

Voltage and frequency required.

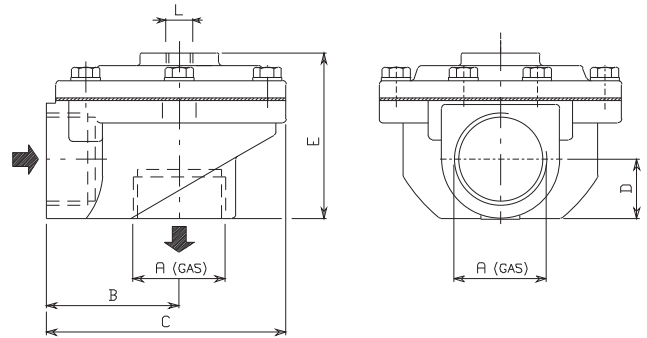
DIMENSIONS

200 Series

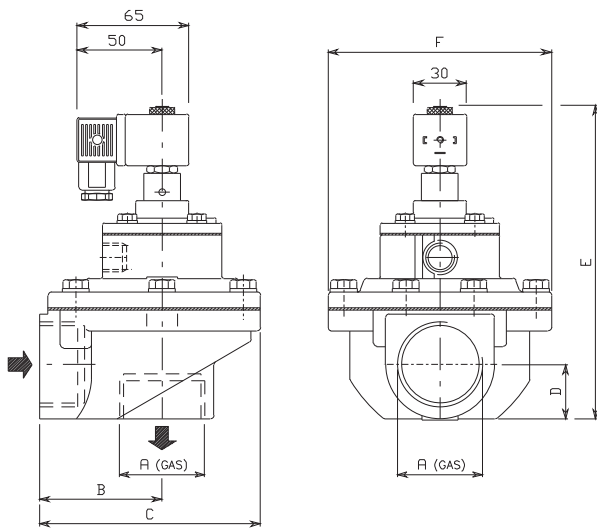
VNP 206 - 208 - 212



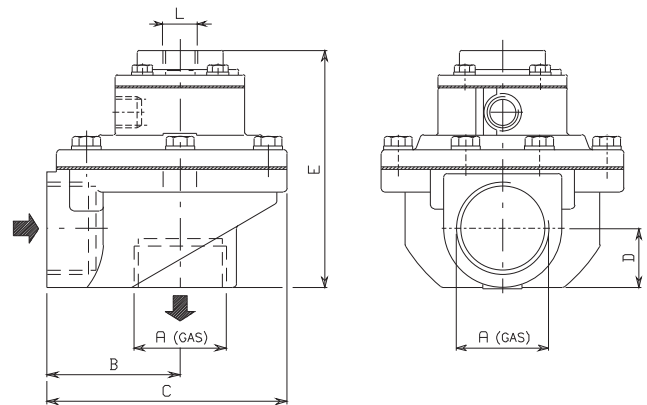
VEM 206 - 208 - 212



VNP 214 - 216 - 220 - 224



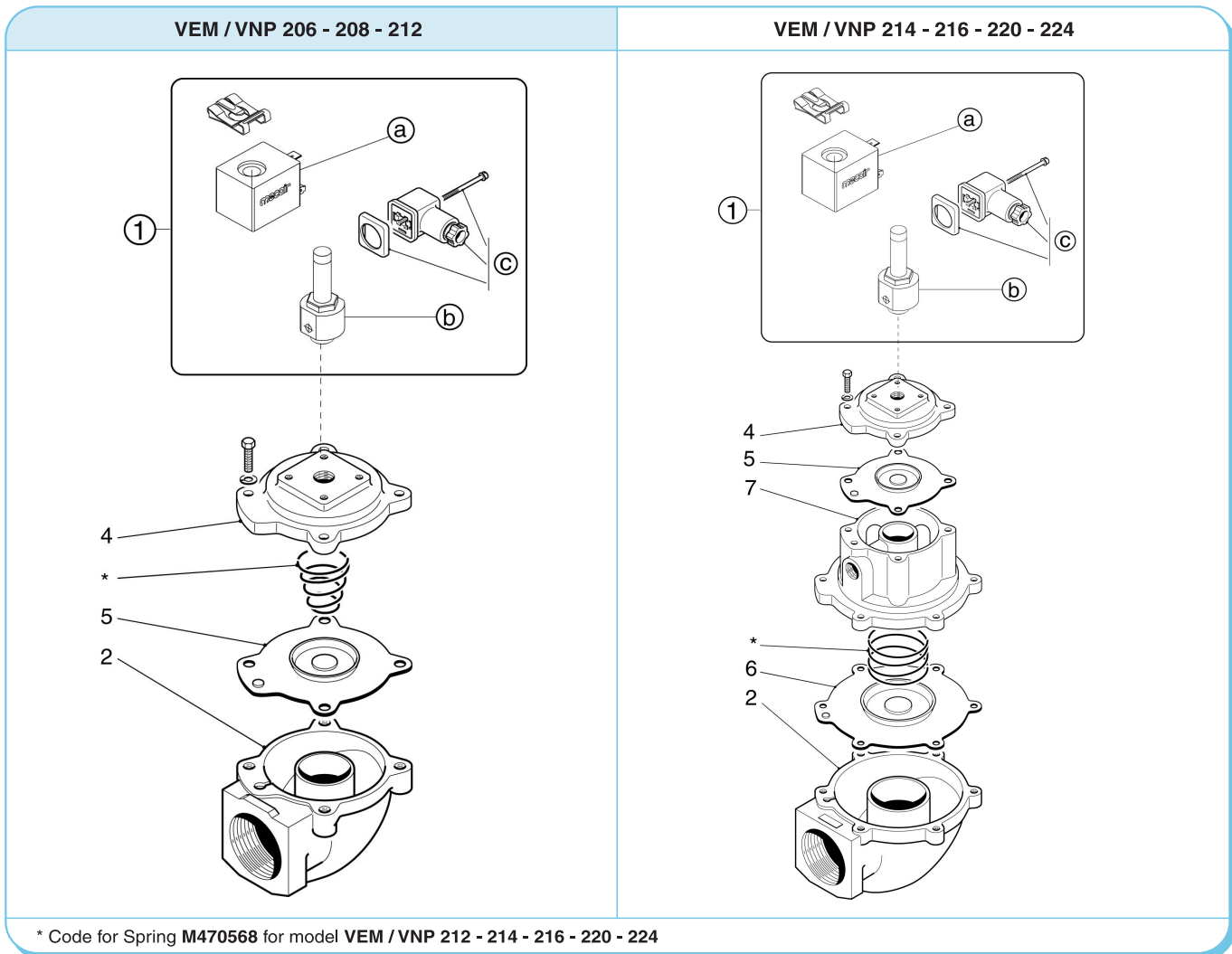
VEM 214 - 216 - 220 - 224



MODEL	Ø A	B	C	D	E	F	Weight Kg.	MODEL	E	Ø L	Weight Kg.	Pressure range (bar) min max		Diaph. N°
VNP 206	3/4"	41	75	18	119	60	0,55	VEM 206	59	1/4"	0,25	0,5	7,5	1
VNP 208	1"	52	90	23	123	74	0,65	VEM 208	63	1/4"	0,35	0,5	7,5	1
VNP 212	1 1/2"	72	130	31	153	135	1,40	VEM 212	93	1/4"	1,10	0,5	7,5	1
VNP 214	1 1/2"	72	130	31	186	135	1,50	VEM 214	126	1/4"	1,20	0,5	7,5	2
VNP 216	2"	90	165	35	206	160	2,50	VEM 216	146	1/4"	2,20	0,5	7,5	2
VNP 220	2 1/2"	116	199	47	226	190	3,30	VEM 220	166	1/4"	3,00	0,6	7,5	2
VNP 224	3"	145	275	92	285	265	7,55	VEM 224	225	1/4"	7,3	0,6	5	2

SPARE PARTS

200 Series



* Code for Spring M470568 for model VEM / VNP 212 - 214 - 216 - 220 - 224

STANDARD Version

OPTIONAL Version

Standard	POS	DESCRIPTION	CODE
Standard	1	a) Solenoid (*)	a) SB3 - ../.. (*)
		b) Pilot group complete with base and ferrule	b) CP1/4
		c) Din Connector PG9EN175301-803 IP65	c) PLG9

(*) Specify Voltage and Frequency

Optional	POS	DESCRIPTION	CODE
Optional	1	Solenoid (*)	a) SB3 - 24/DCX
		b) Pilot group complete with base and ferrule	b) CP1/4
		c) Din Connector (3GD IP65 T6)	c) PLG9 - ATEX

Version in conformity to European Directive 94/9/CE ATEX (cod. PV-24/DCX)

POS	DESCRIPTION	CODE						
		VEM/VNP206	VEM/VNP208	VEM/VNP212	VEM/VNP214	VEM/VNP216	VEM/VNP220	VEM/VNP224
1	Pilot group complete with solenoid (*) and din connector	PV - ../.. (*)	PV - ../.. (*)	PV - ../.. (*)	PV - ../.. (*)	PV - ../.. (*)	PV - ../.. (*)	PV - ../.. (*)
1+4	Pilot group complete with solenoid (*), din connector, top cover and screws	PVM06 - ../.. (*)	PVM08 - ../.. (*)	PVM12 - ../.. (*)	PVM06 - ../.. (*)	PVM06 - ../.. (*)	PVM06 - ../.. (*)	PVM08 - ../.. (*)
2	Valve Body	M300201	M300204	M300211	M300211	M300218	M300222	M300237
7	Intermediate cover (Double diaphragm)	-	-	-	M310098	M310100	M310101	M310102
4	Top Cover	M310082	M310086	M310092	M310082	M310082	M310082	M310086
5	Diaphragm	DB 16	DB 18	DB 112	DB 16	DB 16	DB 16	DB 18
6	Diaphragm (Secondary)	-	-	-	DB 114	DB 116	DB 120	DB 124

(*) Specify Voltage and Frequency

DEFECT / FAULT

The valve does not open or vibrate

The valve remains open or closed continuously