

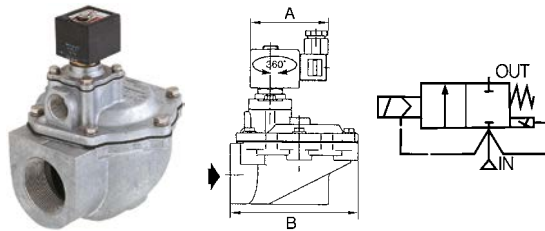
# Pulse diaphragm valve

for air pulse cleaning in dust collector systems



Art. No. 102991

Type No. MV 4214 G



Exemplary illustration

Environmental protection today demands state-of-the-art cleaning processes. Dust filter systems are an indispensable aid to pollution control.

The fabric filters installed in these systems are cleaned by blowing in compressed air pulses in quick succession counter to the main direction of flow.

The solenoid valves used for this purpose are characterised by the following application-specific design features:

- Angle type of construction to optimise the air flow
- Full cross-section at the valve seat
- Extremely fast opening and closing
- Quiet operation thanks to built-in silencers (can be retrofitted in sizes 1 1/2 to 2 1/2)
- Easy maintenance and repair because diaphragm and wearing parts are instantly available

The valves are not suitable as shut-off devices for standard applications.

## Technical data

Housing	aluminium
Thread	G 2
Internal parts	stainless steel
Protection IP	IP 65 (with connector socket fitted)
Electrical connection	ISO 4400 connector socket / cable socket
Diaphragms	CR
Vent port	G 3/4
Type	2
Medium temperature	-20 to 85 °C
Ambient temperature	-20 to 85 °C
B	168 mm
A	80 mm

## Commercial data

Customs tariff number	84818079
Country of origin	DE
eCl@ss 5.1.4	27220601
eCl@ss 9.0	27220601
UNSPSC_Code_v190501	40141605
UNSPSC_CodeDesc_v190501	Solenoid valves

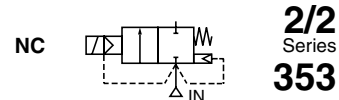
## Material informations

REACH SVHC1 substance name	lead
CAS no. SVHC 1	7439-92-1
RoHS materials notice	RoHS compliant
REACH Info	contains SVHC substance



## PULSE VALVES

dual stage, integral pilot  
threaded body 1 1/2 to 3 or  
compression fitting Ø 1 1/2



### FEATURES

- The diaphragm pulse valves are especially designed for dust collector service applications, combining high flow, long life and extremely fast opening and closing to produce reliable and economical operation
- Integral compression fittings for fast, easy, secure installation
- The high quality diaphragms are reinforced and wear resistant to guarantee a long operating life, even under harsh conditions
- The integral operators are provided with epoxy moulded F-class coils. Various optional waterproof and explosionproof solenoids for use in potentially explosive atmospheres (gas & dust) according to Directive ATEX 2014/34/EU can be mounted on the same basic valve
- The valves satisfy all relevant EC directives

### GENERAL

**Differential pressure (PS)** 0,35 - 8,5 bar [1 bar = 100kPa]  
**Ambient temperature range** -20 to +85°C

fluids (*)	temperature range (TS)	diaphragm (*)
air	-20 to +85 °C	CR (chloroprene)
	-20 to +120 °C	FPM (fluoroelastomer)

### MATERIALS IN CONTACT WITH FLUID

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified

<b>Body</b>	Aluminium
<b>Core tube</b>	Stainless steel
<b>Core and plugnut</b>	Stainless steel
<b>Core spring</b>	Stainless steel
<b>Sealings &amp; disc</b>	NBR (nitrile)
<b>Diaphragm</b>	CR or FPM
<b>Shading coil</b>	Copper
<b>Coil insulation class</b>	F
<b>Connector</b>	Spade plug (cable Ø 6 - 10 mm)
<b>Connector specification</b>	ISO 4400
<b>Electrical safety</b>	IEC 335

### ELECTRICAL CHARACTERISTICS

**Standard voltages** DC (=) : 24V  
AC (-) : 24V - 115V - 230V / 50 Hz  
(Other voltages and 60 Hz on request)

coil type	nominal power ratings				operator temperature range (TS) (°C)	protection	replacement coil	
	inrush ~	holding ~		hot/cold =			~	=
		(VA)	(VA)					
CMXX-FT	55	23	10,5	-	-20 to +85	IP65	230 V/50 Hz	24 V DC
CMXX-FF	-	-	-	14 / 19,7			400425-117	-
							-	400425-342

### SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)		prefix optional solenoids					catalogue number	FPM
				min.	max. (PS)	ATEX						
G	(mm)	(m³/h)	(l/min)		air (*)	SC	WP	SG	EM (T)	NF	aluminium	
<b>G - Threaded pipe connection</b>												
1 1/2	50	44	733	0,35	8,5	●	●	●	●	●	G353A047 <sup>(1)</sup>	V
2	66	77	1290	0,35	8,5	●	●	●	●	●	G353A050 <sup>(3)</sup>	V
2 1/2	66	92	1540	0,35	8,5	●	●	●	●	●	G353A051 <sup>(3)</sup>	V
3	76	170	2833	1	6	●	●	●	●	●	G353D060 <sup>(1) (2)</sup>	V
<b>Ø - Compression fitting pipe connection</b>												
1 1/2	50	44	733	0,35	8,5	●	●	●	●	●	G353A065 <sup>(1)</sup>	V

● : Available feature

- (1) Contains spring above the main diaphragm (2) Threaded pipe connection is external (male thread) (3) Spring above the main diaphragm on request

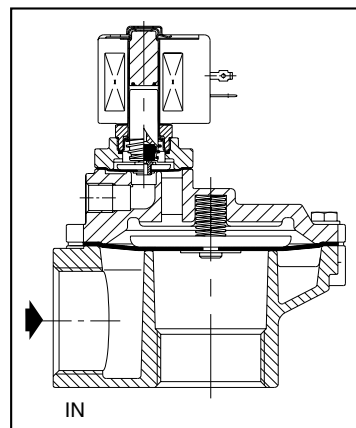


Figure shows catalogue number SC G353A047

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**OPTIONS**

- Waterproof enclosure with embedded screw terminal coil according to protection class IP67, CEE 10
- Explosionproof solenoids for hazardous locations according to ATEX and national standards
- **IECEX** certification
- Hose connection executions (3" only)
- Plug with visual indication and/or peak voltage suppression
- Electronic timer
- Valves can also be supplied with FPM (fluoroelastomer) diaphragms and seals. Use the appropriate optional suffix letter for identification

**INSTALLATION**

- The valves can be mounted in any position without affecting operation (if (1)+(3) catalog number).
- Threaded pipe connection is G (ISO 228/1) or compression fitting
- For compression fitting types tightness is achieved by the compressed gasket on the blow tube
- The use of the rubber gaskets as sealing members will allow a slight misalignment in piping when using compression fittings
- Other pipe threads are available on request
- Installation/maintenance instructions are included with each valve
- Spare parts kits and replacement coils are available

**DIMENSIONS (mm), WEIGHT (kg)**

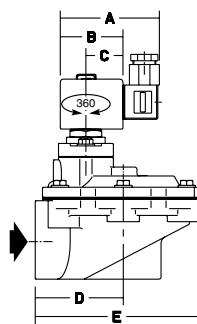


Fig. 1: Threaded pipe connection - aluminium

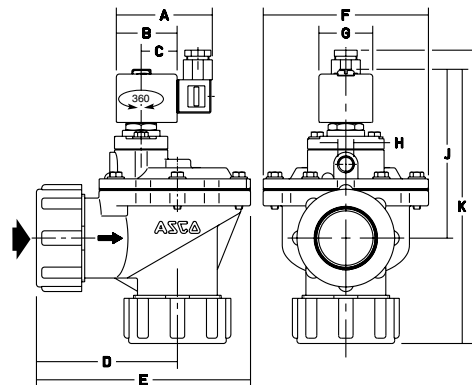
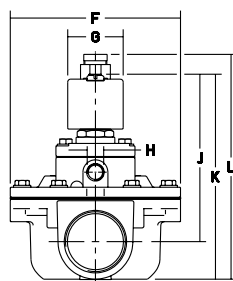


Fig. 2: Compression type fitting - aluminium

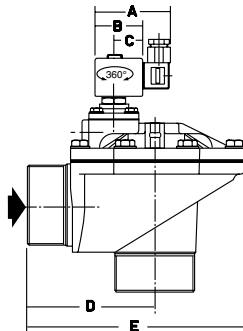
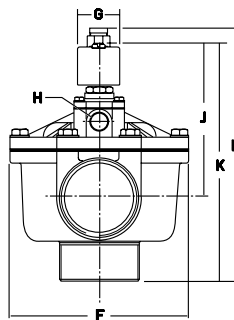


Fig. 3: External threaded type - aluminium



catalogue number	A	B	C	D	E	F	G	H	J	K	L	weight (1)	(C)
SC G353A047	80	50	30	71	130	136	45	G3/8	131	161	178	1,40	Fig. 1
SC G353A050	80	50	30	95	168	165	45	G3/4	165	210	227	2,90	Fig. 1
SC G353A051	80	50	30	95	168	165	45	G3/4	165	210	227	2,60	Fig. 1
SC G353D060	89	57	31	143	240	193	50	G1/2	165	257	271	4,10	Fig. 3
SC G353A065	80	50	30	117	177	136	45	G3/8	131	225	242	1,75	Fig. 2
<b>Atex II3D</b>													
SG G353A047	89	57	31	71	130	136	50	G3/8	131	161	174	1,40	Fig. 1
SG G353A050	89	57	31	95	168	165	50	G3/4	165	210	222	2,90	Fig. 1
SG G353A051	89	57	31	95	168	165	50	G3/4	165	210	222	2,60	Fig. 1
SG G353A065	89	57	31	117	177	136	50	G3/8	131	225	238	1,75	Fig. 2

(1) Incl. coil and connector (prefix SC or SG)

(C) construction type

**SPARE PARTS KITS**

catalogue number	Spare parts kit no.	
	~	=
SC G353A047	C113827	C113827
SG G353A065		
SC G353A050	C113685	C113686
SC G353A051		
SC G353D060	C123432	C123433

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