

## Replacement parts set

Art. No. 129766

Type No. TSIMV112



no image available

Exemplary illustration

### Technical data

Medium temperature	-20 to 140 °C
Ambient temperature	-20 to 85 °C

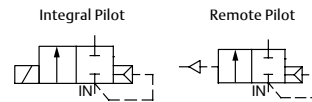
### Commercial data

Customs tariff number	84819000
Country of origin	CN
eCl@ss 5.1.4	27220601
eCl@ss 9.0	27220601
UNSPSC_Code_v190501	40141605
UNSPSC_CodeDesc_v190501	Solenoid valves

# ASCO™ Pulse Valves

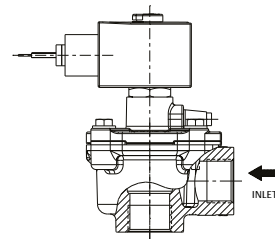
Series  
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- The springless one-piece diaphragm pulse valves are especially designed for dust collector service applications. Combining high flow, long life and extremely fast opening and closing to produce reliable and economical operation. The valves are selectable with integral or remote piloting.
- The high flow, angle type bodies, springless construction, in combination with the special diaphragm assemblies give the unique operating features required for dust collector service applications.
- Engineered to deliver a high-energy pulse of air while minimizing compressed air consumption. The valve delivers an average compressed air savings of 15%. Specific system savings can be calculated using this compressed air calculator: [Series 353 Air Savings Calculator](#)
- The design with patented Quick Mount Clamp connections eliminates the time consuming thread cutting and sealing resulting in maximum flexibility while the valve will be anchored to the pipes.
- Silencers guarantee noise free operation and avoid foreign particles entering the valve.
- The integral operators are provided with epoxy moulded F-class coils. Optional waterproof and explosionproof solenoids for use in potentially explosive atmospheres (gas & dust) also available.
- The valves satisfy all relevant EC directives.
- UL Recognized and / or CSA certified as applicable.
- RoHS compliant.



## General Valve Information

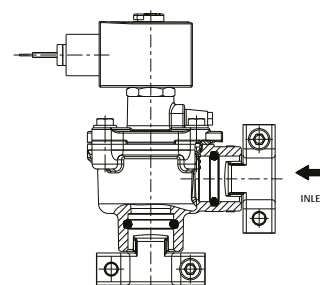
Body	Aluminium		
Core tube, core spring, core and plugnut	Stainless Steel		
Shading coil	Copper		
Sealings and disc	NBR (Nitrile), FKM		
Diaphragm	TPE / TPE-LT		
Temperature range	<b>TPE - Standard</b>	<b>TPE - Low-Temp</b>	
	Ambient -20°C to +85°C (-4°F to 185°F) Medium -20°C to +140°C (-4°F to 284°F)	Ambient -40°C to +60°C (-40°F to 140°F)	Medium -40°C to +60°C (-40°F to 140°F)



Threaded pipe connection

## Electrical

Watt Rating and Power Consumption				Spare Coil Part Number			
DC Watts	AC			General Purpose		Explosionproof	
	Watts	VA Holdings	VA Inrush	AC	DC	AC	DC
11.6	10.1	25	50	238610	238910	238614	238714
Standard Voltages: 12, 24, 120, 240 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz), 24V DC							



Quick Mount Clamp connection

## Solenoid Enclosures

Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.  
Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9.  
(To order, use H0 electrical option on page 3).

See Optional Features Section for other available options.  
Consult your local ASCO office for details on accessories.

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## Specifications

Pipe Size (in)	Orifice Size		Flow Factor		Operating Pressure Differential bar (psi)		Wattage (1)		Connection Type	Catalog Number	Electrical Interface (2)	Options (3)	Voltage Code					Dimension Type (4)								
	mm (in)	Kv (m <sup>2</sup> /h)	Cv	Min	Max.	AC	DC	24/60, 24/50					120/60, 110/50	230/50-60	24/DC	Remote										
<b>2-Way Normally Closed Aluminum Valve, TPE (One-Piece Diaphragm)</b>															Figure											
3/4"	32 (1-1/4)	13	15	2	30	8,5 (125)	10.1	11.6	NPT - Thread	8353K111...	0X (Remote Pilot)	A00	00			4										
									G-Thread	G353K111...						4										
									Clamp (NPT - Bonnet)	K353K111...						2										
									Clamp (G - Bonnet)	K353K111...						2										
									10.1	11.6								NPT - Thread	8353K111...	C0-leaded	A00	FQ	F0	FH	F1	3
																		G-Thread	G353K111...							3
																		Clamp	K353K111...							1
1"	32 (1-1/4)	20	23	2	30	8,5 (125)	10.1	11.6	NPT - Thread	8353K211...	0X (Remote Pilot)	A00	00			4										
									G-Thread	G353K211...						4										
									Clamp (NPT - Bonnet)	K353K211...						2										
									Clamp (G - Bonnet)	K353K211...						2										
									10.1	11.6								NPT - Thread	8353K211...	C0-leaded	A00	FQ	F0	FH	F1	3
																		G-Thread	G353K211...							3
																		Clamp	K353K211...							1
1 1/2"	55 (1-1/2)	49	57	2	30	8,5 (125)	10.1	11.6	NPT - Thread	8353K311...	0X (Remote Pilot)	A00	00			8										
									G-Thread	G353K311...						8										
									Clamp (NPT - Bonnet)	K353K311...						6										
									Clamp (G - Bonnet)	K353K311...						6										
									10.1	11.6								NPT - Thread	8353K311...	C0-leaded	A00	FQ	F0	FH	F1	7
																		G-Thread	G353K311...							7
																		Clamp	K353K311...							5

(1) Detailed technical information on the following page(s).

(3) More options for each construction type on the following page(s).

(2) Electrical operator types on the following page(s).

(4) Dimensions, see figure(s) for each construction type on the following page(s).

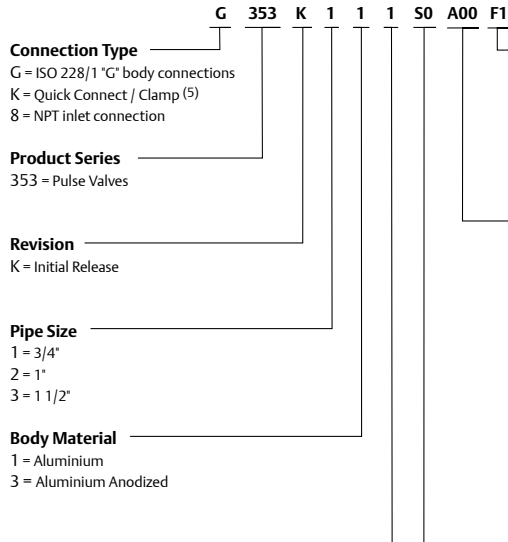
## Quick Mount Clamp Connection - Remote Pilot Valves

Pipe Size (in)	Connection Type	Catalog Number (Standard)	Catalog Number (Low-Temp)	Valve Details
3/4"	Clamp (NPT - Bonnet)	K353K1110X6AG00	K353K1120X6AG00	3/4", Clamp, Remote, NPT Bonnet
	Clamp (G - Bonnet)	K353K1110XA0000	K353K1120XA0000	3/4", Clamp, Remote, G Bonnet
1"	Clamp (NPT - Bonnet)	K353K2110X6AG00	K353K2120X6AG00	1", Clamp, Remote, NPT Bonnet
	Clamp (G - Bonnet)	K353K2110XA0000	K353K2120XA0000	1", Clamp, Remote, G Bonnet
1 1/2"	Clamp (NPT - Bonnet)	K353K3110X6AG00	K353K3120X6AG00	1 1/2", Clamp, Remote, NPT Bonnet
	Clamp (G - Bonnet)	K353K3110XA0000	K353K3120XA0000	1 1/2", Clamp, Remote, G Bonnet

# ASCO™ Pulse Valves

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## How To Order



### Further options on request

### Temperature (ambient) + Coil Type

Material - Temperature range	Coil Type
1 = TPE Standard (Ambient: -20°C to 85°C, Fluid: -15°C to 140°C)	Standard Coil
2 = TPE Low-Temp (Ambient: -40°C to 60°C, Fluid: -40°C to 60°C)	Standard Coil
3 = TPE Standard (Ambient: -20°C to 85°C, Fluid: -15°C to 140°C)	MXX RHII for SO only
4 = TPE Low-Temp (Ambient: -40°C to 60°C, Fluid: -40°C to 60°C)	MXX RHII for SO only

### Electrical interface & explosion proof options

0X = All remote pilot valves no voltages required (6)
S0 = Spade plug, 3x DIN 46244 without connector (equivalent to old <b>SC</b> prefix)(7)
S1 = Spade plug, 3x DIN 46244, IP65 (equivalent to old <b>SC</b> prefix) (7)
C0 = Moulded coil with leads, conduit hub 1/2" NPT zinc plated carbon steel, watertight types 2, 3, 3S, 4, 4X, green RHII coil
SG = Moulded coil with connector, epoxy encapsulated, ATEX II 3GD Ex ec IIC Gc / II 3GD Ex tc IIIC Dc, zone 22 (equivalent to <b>SG</b> prefix) (7) (9)
FN = Aluminium enclosure, 1/2" NPT conduit, IECEx/ATEX II 2G Ex db IIC Gb / II 2D Ex tb IIIC Db, zone 1-21 (equivalent to <b>NF</b> prefix) (7) (9)
MV = Steel enclosure, M20 cable gland, IECEx/ATEX II 2G Ex eb mb IIC Gb/II 2D Ex tb IIIC Db, zone 1-21 (equivalent to <b>EM</b> prefix) (7) (9)
A7 = Moulded enclosure, epoxy encapsulated, integrated cable, IECEx/ATEX II 2G Ex mb IIC Gb / II 2D Ex mb IIIC Db, zone 1-21 (equivalent to <b>PV</b> prefix) (7) (9)
MA = Water Proof Enclosure, Zinc plated steel (epoxy coated), IP67 (equivalent to <b>WP</b> prefix) (7) (9)
H0 = Moulded coil with leads, epoxy encapsulated, conduit hub 1/2" NPT zinc plated carbon steel Types 7 and 9, Class 1 Div 1, UL/CSA (equivalent to <b>EF</b> prefix) (7) (9)
VA = Moulded coil, 1/2" NPT aluminum junction box, Ex d mb II CT3~T6 Gb, Ex mBd 21 tD A21 Directive Chinese Standard GB
... = <b>Other operators on request</b>

(5) Selecting G for Connection Type will also include G thread for the Remote Pilot Port and selecting 8 for Connection Type will include NPT thread for the Remote Pilot Port. To select the thread type on the Remote Pilot Port for the Clamp Connections, please choose the appropriate Option in digits 11-13 (i.e. 6AG for NPT thread).

(6) NON-ATEX VERSIONS 353-SERIES USABLE IN ATEX ZONES

This product category does not require certification. There is no potential ignition risk to the products themselves. These product categories are named simple mechanical products. These products can be used in specific explosion zones 1 and 21 in compliance with our installation instructions. Pulse Valves and their accessories are capable for use in explosive atmospheres in the form of gas, steam, mists and dust.

(7) Dimensions on page 10 to 12 to find.

(8) Search prefix in [www.Emerson.com/asc0](http://www.Emerson.com/asc0) to get detailed technical information. Please note that the valve pressure ratings with some of the ATEX enclosures will be reduced. To obtain the correct pressure rating please check the landing pages of the "2-Way Solenoid Pulse Valve Configurator".

(9) Coils class F only.

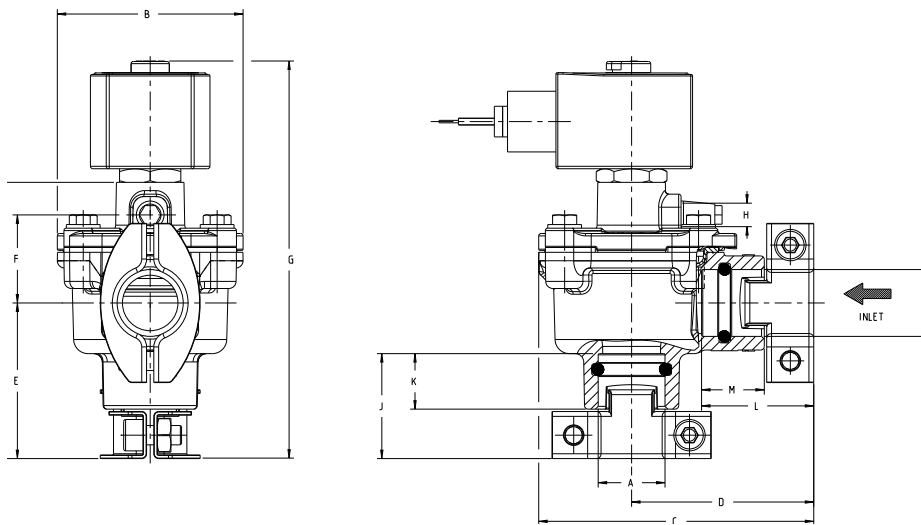
# ASCO™ Pulse Valves

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**Dimensions: mm (inches)**

**Version with Quick Mount Clamp connection**

**Fig.1: Integral pilot operated (shown with RedHat II Coil)**



**Fig.2: Remote pilot operated**

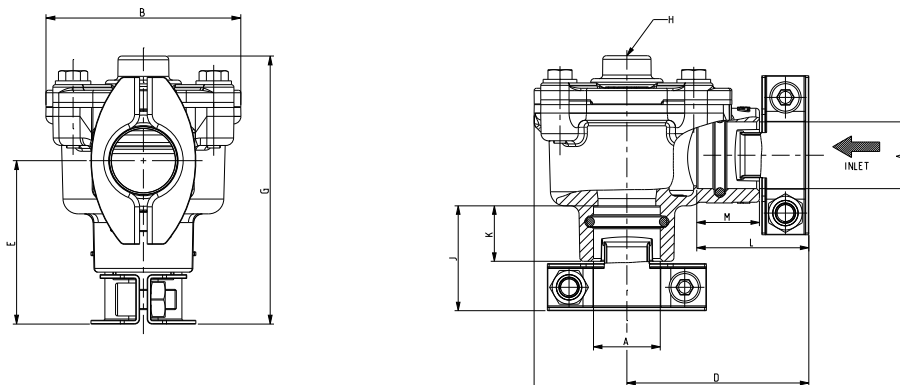


Fig.	A	B	C	D	E	F	G	H	J	K	L	M	N	Weight kg (lbs)
1	3/4"	77 (3.032)	114 (4.488)	76 (2.992)	65 (2.559)	36 (1.417)	152 (5.984)	G1/8" NPT 1/8"	43.5 (1.713)	23 (0.906)	46.5 (1.831)	26 (1.024)	114 (4.488)	0.76 (1.68)
	1"	77 (3.032)	120 (4.724)	82 (3.228)	71 (2.795)	40 (1.575)	162 (6.378)	G1/8" NPT 1/8"	44.5 (1.752)	23 (0.906)	44.5 (1.752)	23 (0.906)	124 (4.882)	0.90 (1.98)
2	3/4"	77 (3.032)	114 (4.488)	75.5 (2.972)	64.5 (2.539)	-	106 (4.173)	G1/8" NPT 1/8"	43.5 (1.713)	23 (0.906)	46.5 (1.831)	26 (1.024)	-	0.56 (1.23)
	1"	77 (3.032)	120 (4.724)	81.5 (3.209)	70.5 (2.776)	-	116 (4.567)	G1/8" NPT 1/8"	44.5 (1.752)	23 (0.906)	44.5 (1.752)	23 (0.906)	-	0.69 (1.53)

# ASCO™ Pulse Valves

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## Dimensions: mm (inches)

### Version with threaded pipe connection

Fig.3: Integral pilot operated (shown with RedHat II Coil)

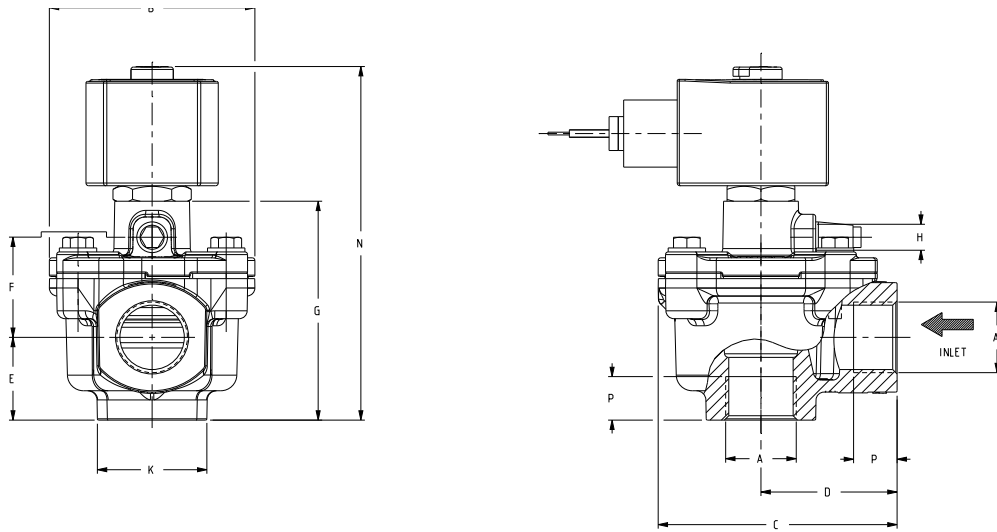


Fig.4: Remote pilot operated

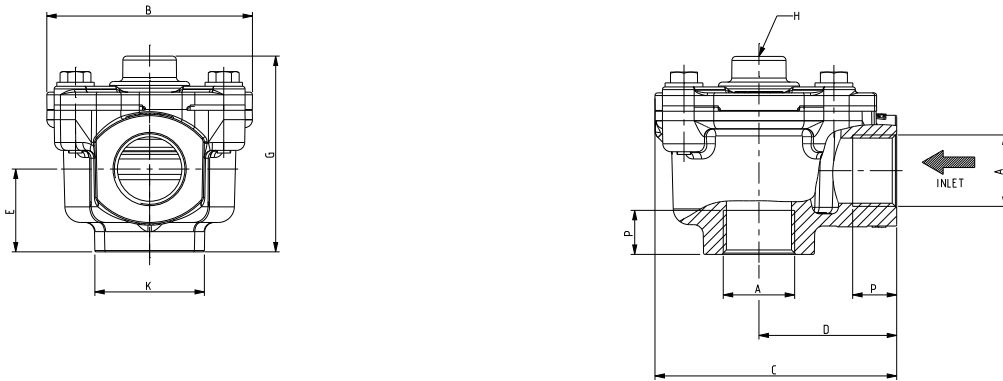


Fig.	A	B	C	D	E	F	G	H	K	N	P	Weight kg (lbs)
3	G 3/4"	77	90	51	31	37	81.5	G 1/8"	41	119	16	0.57
	NPT 3/4"	(3.032)	(3.543)	(2.008)	(1.221)	(1.457)	(3.209)	NPT 1/8"	(1.614)	(4.685)	(0.630)	(1.26)
3	G 1"	77	90	51	31	37	81.5	G 1/8"	41	119	16	0.53
	NPT 1"	(3.032)	(3.543)	(2.008)	(1.221)	(1.457)	(3.209)	NPT 1/8"	(1.614)	(4.685)	(0.630)	(1.17)
4	G 3/4"	77	89.5	51	31	-	73.3	G 1/8"	41	-	16	0.41
	NPT 3/4"	(3.032)	(3.524)	(2.008)	(1.221)	-	(2.886)	NPT 1/8"	(1.614)	-	(0.630)	(0.90)
4	G 1"	77	89.5	51	31	-	73.3	G 1/8"	41	-	16	0.38
	NPT 1"	(3.032)	(3.524)	(2.008)	(1.221)	-	(2.886)	NPT 1/8"	(1.614)	-	(0.630)	(0.83)

# ASCO™ Pulse Valves

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Dimensions: mm (inches)

## Version with Quick Mount Clamp connection

Fig.5: 1 1/2" Integral pilot operated (shown with RedHat II Coil)

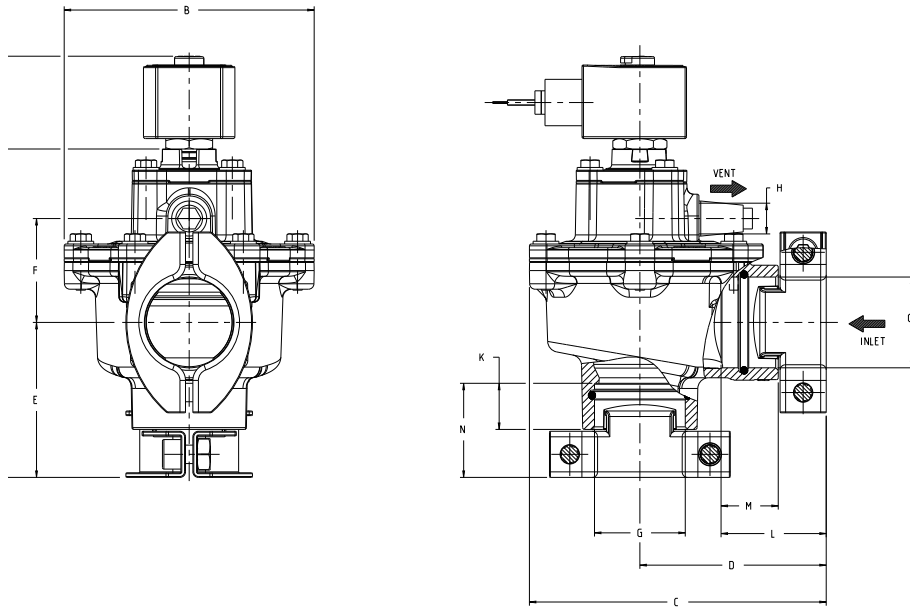


Fig.6: 1 1/2" Remote pilot operated

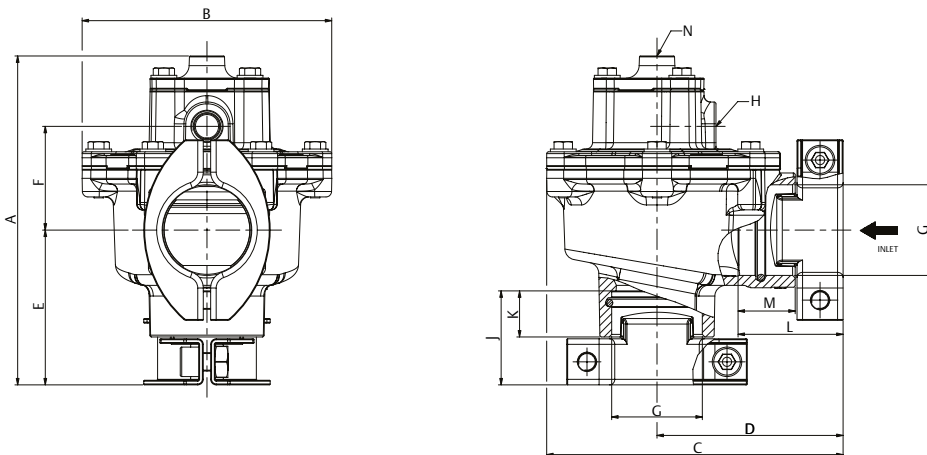


Fig.	A	B	C	D	E	F	G	H	J	K	L	M	N	Weight kg (lbs)
5	183.6 (7.228)	135.5 (5.335)	161 (6.339)	101 (3.976)	84 (3.307)	56.3 (2.217)	1 1/2"	G3/8"	216 (8.504)	25 (0.984)	57 (2.244)	31 (1.220)	51 (5.008)	1.78 (3.92)
6	178.5 (7.028)	135.5 (5.335)	161 (6.339)	101 (3.976)	84 (3.307)	56.5 (2.224)	1 1/2"	G3/8"	51 (2.008)	25 (0.984)	57 (5.244)	31 (1.220)	G 1/4"	1.68 (3.70)

# ASCO™ Pulse Valves

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Dimensions: mm (inches)

Version with threaded pipe connection

Fig.7: 1 1/2" Integral pilot operated (shown with RedHat II Coil)

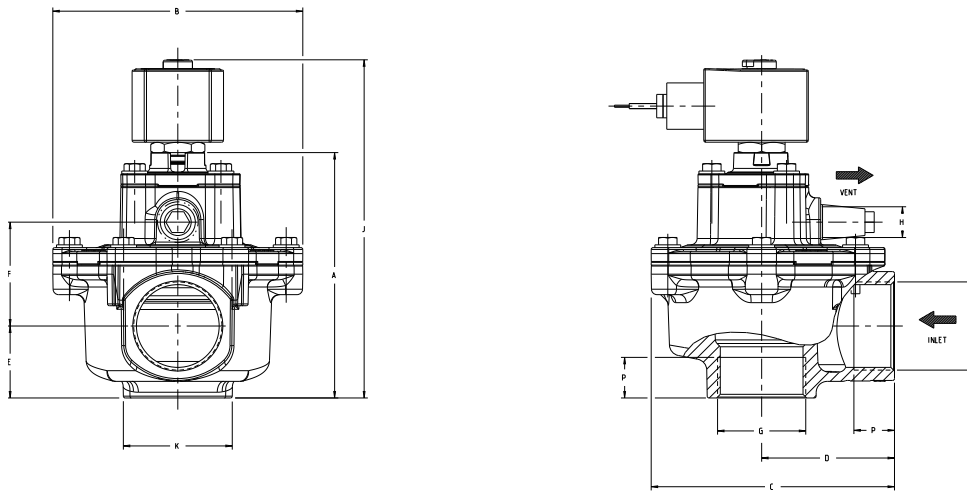


Fig.8: 1 1/2" Remote pilot operated

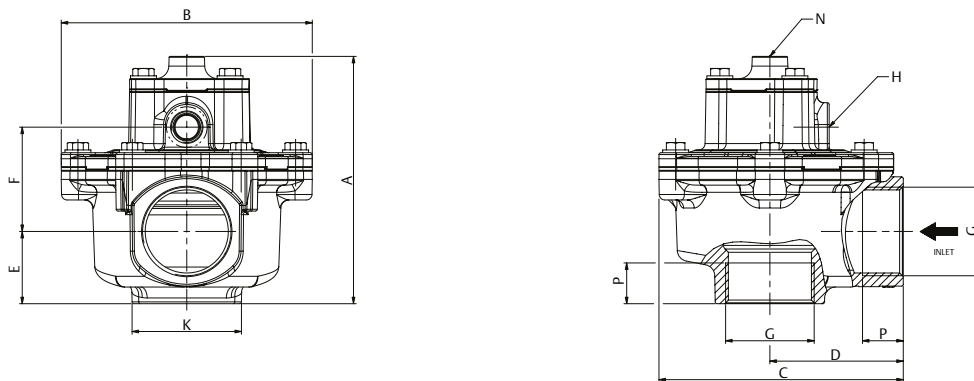


Fig.	A	B	C	D	E	F	G	H	J	K	N	P	Weight kg (lbs)
7	133 (5.236)	135.5 (5.335)	132 (5.197)	72 (2.835)	39 (1.535)	56.5 (2.224)	1 1/2"	G 3/8"	171 (6.732)	-	59 (2.323)	22 (0.867)	1.24 (2.73)
8	133.5 (5.256)	135.5 (5.335)	132 (5.197)	72 (2.835)	39 (1.535)	56.5 (2.224)	1 1/2"	G 3/8"	-	59 (2.323)	G 1/4"	22 (0.867)	1.14 (2.51)

### Special designs and accessories

- ASCO Series E909 sequential controller to pilot valve Series 262 / 257.
- ASCO Series 110 / 125 pilot boxes containing 2 to 12 pilot solenoid valves
- The springless one-piece diaphragm pulse valves and the pilot valves can be equipped with explosion-proof solenoids in accordance with ATEX directives and national standards.
- Further versions on request.

### Installation

- The package consists of a pulse valve, solenoid (pre-assembled).
- The pulse valves can be mounted in any position without affecting operation. A strainer or filter for compressed air cleaning to be installed as close as possible to the air reservoir.
- Threaded connections G (ISO 228/1), NPT, or patented Quick Mount Clamp connection.
- In the patented Quick Mount Clamp connection tightness is achieved by the o-ring sealing on the pipes (3/4" = 26.4mm (1.0") to 27.4mm (1.1"); 1" = 33.2mm (1.3") to 34.2mm (1.4") and 1 1/2" = 47.8mm (1.88") to 48.8mm (1.92")) according to ISO 4200.
- Installation and maintenance instructions are included with each valve.
- Declarations of conformity are available on request.
- Version Ex e mb Magnet housings have a cable gland with internal strain relief for cables with an outside diameter of 7 to 12 mm and the housing is equipped with an internal and external connection option for an earthing or equipotential bonding conductor.
- The Ex d enclosure is equipped with a cable entry with 1/2" NPT thread - M20 x 1.5 is optionally available. The housings are supplied without cable gland.

### Remote Pilot

- When connecting the piping to the G or NPT 1/8" connection in the valve bonnet, the external ASCO™ pilot valve must be mounted as close as possible to the main pulse valve.
- Installations with pipe lengths of more than 3 meters (9.8 feet) must be tested under operating conditions.
- Pipe diameters of 8 mm (0.31 inches) or 6 mm (0.24 inches) are recommended.

### Explanations of temperatures

Valve temperature range	The temperature range for the pulse valve is determined by selecting the diaphragm (TPE or TPE-LT).
Operator ambient temperature range	The ambient temperature range for the operator is determined by the selected power level and type of protection.
Total temperature range	The temperature range of the entire pulse valve is determined by the limits of the two temperature ranges listed above.
Medium temperature range	Temperature range with the TPE standard diaphragm is -20°C (-4°F) to 140°C (284°F). Temperature range with the TPE low-temp diaphragm is -40°C (-40°F) to 60°C (140°F)

### Rebuild Kits <sup>(1)</sup>

Pipe Size (in)	Base Catalog 353	Diaphragm Kit (1pc)	Diaphragm Kit (10 pcs)	Clamp Kit (1x)
<b>TPE Standard</b>				
3/4"	353K111	M200697	M200699	M200701
1"	353K211			M200702
1 1/2"	353K311	M200755	M200756	M200761
<b>TPE Low-Temp</b>				
3/4"	353K112	M200698	M200700	M200701
1"	353K212			M200702
1 1/2"	353K312	M200757	M200758	M200761

(1) See installation and maintenance instruction for detailed information.

Pipe Size (in)	Rebuild Kit TPE Standard diaphragm		Rebuild Kit TPE Low-Temp diaphragm	
	3/4" - 1"	1 1/2"	3/4" - 1"	1 1/2"
Base Catalog 353	353K111 353K211	353K311	353K112 353K212	353K312
Operator	Rebuild kit			
SC	M200695	M200759	M200696	M200760
EF	M200849	M200863	M200850	M200864
EV	M200851	M200865	M200852	M200866

# ASCO™ Pulse Valves

**Series  
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## Electrical characteristics

**Coil insulation class** F

**Electrical safety** IEC 335

**Voltages**

DC (=) 24 V, permissible voltage tolerance  $\pm 10\%$

AC (~) 24V / 50-60Hz, 120/60 - 110/50V/Hz, 230V / 50-60Hz (other voltages on request)

Digits	Solenoid operator	Max. power		Operator ambient temperature EN °C (°F)	Electrical Enclosure and Connections	Safety code	Electrical enclosure protection (EN 60529)	Replacement coil 24V/50-60 Hz	Replacement coil 230V/50/60 Hz	Replacement coil 120/60-110/50 Hz	Replacement coil 24 V/DC
		AC	DC								
S0	SC without Connector (SD, SC US)	6,3	22	-40 to +75 (-40 to +167)	Spade plug, 3x DIN 46244 without connector	-	IP65, moulded	400129-502	400129-528	400127-225	400127-642
S1	SC IP65 ISO 4400	6,3	22	-40 to +75 (-40 to +167)	Cable gland connector EN175301-803A (ISO 4400) for cables with an O.D. from 6 to 10 mm (0.24 to 0.39 inches)	-	IP65, moulded	400129-502	400129-528	400127-225	400127-642
C0	FT	10,1	11,6	-40 to 55 (-40 to 131)	Epoxy Coil with integrated 1/2" NPT conduit and 18" (458 mm) leads	-	Ordinary location	238610-005-D	238610-058-D	238610-032-D	238710-006-D
H0	EF	10,1	11,6	-40 to 55 (-40 to 131)	Epoxy Coil with integrated 1/2" NPT conduit and 18" (458 mm) leads	Class I, Division 1	NEMA type 7 and 9, zinc plated carbon steel	On Request	On Request	On Request	On Request
H1	EV	10,1	11,6	-40 to 55 (-40 to 131)	Epoxy Coil with integrated 1/2" NPT Stainless Steel conduit and 18" (458 mm) leads	Class I, Division 1	NEMA type 7 and 9, stainless steel	On Request	On Request	On Request	On Request

(1) 50 Hz frequency only

(2) 115 V 50 Hz

# ASCO™ Pulse Valves

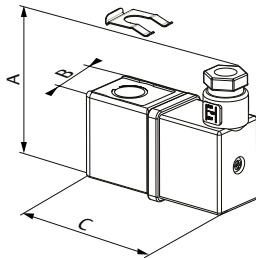
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## Dimensions: mm (inch)



### Type 01

"S1", "S0" Solenoid  
with spade plug connector size 22 - 11mm (0.43 inches)  
EN 175301-803 Industry standard form B / IP65



A	B	C	Weight kg (lbs)
49 (1.929)	22 (0.866)	61 (2.401)	0.08 (0.18)

## Dimensions: mm (inch)



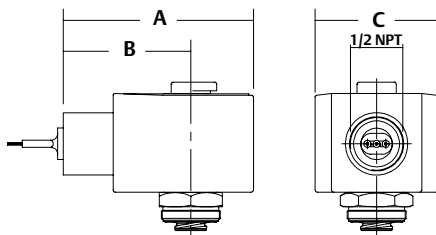
### Type 06

"EF", "EV" Solenoid  
Epoxy encapsulated  
Type 7, 9



### Type 07

"C0" RedHat II coil Class F  
Epoxy encapsulated  
Type 2 Dripproof, Types 2 and 3S Raintight and Types 4  
and 4X Watertight



A	B	C	Weight kg (lbs)
49 (1.929)	22 (0.866)	61 (2.401)	0.08 (0.18)

Availability, design and specifications are subject to change without notice. All rights reserved.



