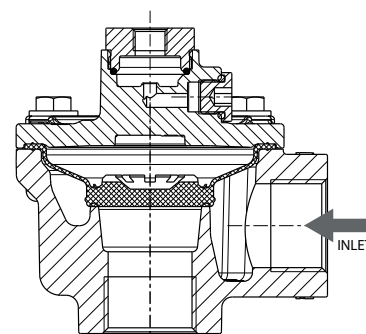
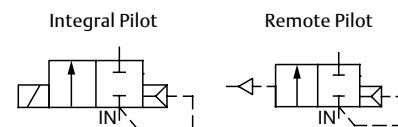
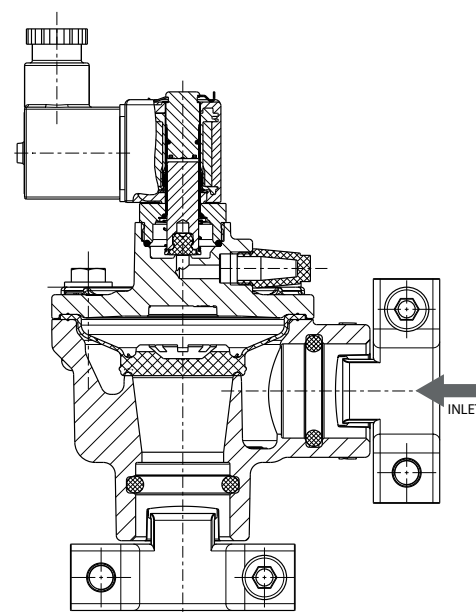


- The springless one-piece diaphragm pulse valves are especially designed for dust collector service applications, combining high flow, long life and extremely fast opening and closing to produce reliable and economical operation. The valves are selectable with integral or remote piloting.
- The high 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.
- Built-in silencers guarantee noise free operation and avoid foreign particles entering the valve.
- The integral operators are provided with epoxy moulded F-class coils.
- The valves satisfy all relevant EC directives.
- UL Recognized / CSA and RoHS compliant.



Threaded pipe connection



Quick Mount Clamp connection

## General Valve Information

Body	Aluminium	
Core tube, core spring, core and plugnut	Stainless Steel	
Shading coil	Copper	
Sealings and disc	NBR (Nitrile)	
Diaphragm	TPE / TPE-LT	
Temperature range	<b>TPE - Standard</b> Ambient -20°C to +85°C (-4°F to 185°F) Cleaning Fluid -15°C to +85°C (5°F to 185°F) Dusty Gas -20°C to +140°C (-4°F to 284°F)	<b>TPE - Low-Temp</b> Ambient -40°C to +60°C (-40°F to 140°F) Cleaning Fluid -40°C to +60°C (-40°F to 140°F) Dusty Gas -40°C to +60°C (-40°F to 140°F)

## Electrical Characteristic (1)

Relative Duty Time	10%, max. on time 1 min.
Coil insulation class	F - 155°C (311°F)
Electrical enclosure protection	Moulded enclosure IP 65
Electrical interface	Spade plug (Cable Ø 6 - 8 mm (0.24 - 0.32 inches)), DIN 46244
Electrical safety	IEC 335
Voltage	DC 24V; AC 24V/50-60Hz, 120/60 - 110/50V/Hz, 230V/50-60Hz

(1) More Information see pages 2 and 7

**Specifications**

Pipe Size (in)	Orifice Size	Flow Factor		Operating Pressure Differential bar (psi)		Coil Wattage (1)		Connection Type	Catalog Number	Electrical Interface (2)	Options (3)	Voltage Code					Dimension Type (4)
	mm (in)	Kv (m³/h)	Cv	Min	Max.	AC	DC					24/50-60	120/60, 110/50	230/50-60	24/DC	Remote	
2-Way Normally Closed Aluminum Valve, TPE (One-Piece Diaphragm)															Drawing		
3/4"	32 (1-1/4")	13	15	2 (30)	8,5 (125)			NPT- Thread	8353K111...	0X (Remote Pilot)	A00					00	4
								G-Thread	G353K111...		6AG					4	
								Clamp (NPT - Bonnet)	K353K111...		A00					2	
								Clamp (G - Bonnet)	K353K111...		A00					2	
						6,3	22	NPT- Thread	8353K111...	S1 - DIN Coil (w/ connector)	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)			NPT - Thread	8353K211...	0X (Remote Pilot)	A00					00	4
								G-Thread	G353K211...		6AG					4	
								Clamp (NPT - Bonnet)	K353K211...		A00					2	
								Clamp (G - Bonnet)	K353K211...		A00					2	
						6,3	22	NPT - Thread	8353K211...	S1 - DIN Coil (w/ connector)	A00	FQ	F0	FH	F1		3
								G-Thread	G353K211...		3						
								Clamp	K353K211...		1						

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

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

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

(4) Dimensions, see drawing(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

## How To Order

<p><b>Connection Type</b> ——— <b>G</b></p> <p>G = ISO 228/1 "G" body connections K = Quick Connect / Clamp (5) 8 = NPT inlet connection</p> <p><b>Product Series</b> ——— <b>353</b></p> <p>353 = Pulse Valves</p> <p><b>Revision</b> ——— <b>K</b></p> <p>K = Initial Release</p> <p><b>Pipe Size</b> ——— <b>1</b></p> <p>1 = 3/4" 2 = 1"</p> <p><b>Body Material</b> ——— <b>1</b></p> <p>1 = Aluminium 3 = Aluminium anodized</p> <p><b>Temperature range / Sealing</b> ——— <b>1</b></p> <p>1 = TPE Standard (Ambient: -20°C (-4°F) to 85°C (185°F). Dusty Gas -20°C (-4°F) to 140°C (284°F) 2 = TPE Low-Temp (Ambient: -40°C (-40°F) to 60°C (140°F). Dusty Gas -40°C (-40°F) to 60°C (140°F) <b>For temperature information see page 1</b></p>	<p style="text-align: center;"><b>G 353 K 1 1 1 S0 A00 F1</b></p> <p><b>Voltage</b></p> <p>00 = All remote valves no voltage required F1 = 24/DC Class F F0 = 120/60, 110/50 Class F FQ = 24V/50-60Hz Class F FH = 230/50-60 Class F <b>Other voltages on request</b></p> <p><b>Options</b></p> <p>A00 = w/out option 6AG = NPT Bonnet (Must select when ordering Clamp (K) connection &amp; Remote Pilot (0X) only) A01 = w/out silencer (only solenoid) 600 = Fitting for Tube 6mm (remote only) 601 = Fitting for Tube 8mm (remote only) 6AH = Clamp connection on inlet 9DQ = Inlet clamp connection only + fitting for tube 6mm (remote pilot + clamp only) 9DR = Inlet clamp connection only + fitting for tube 8mm (remote pilot + clamp only) 9DT = Inlet clamp connection only + without silencer (solenoid + clamp only) 9DU = Inlet clamp connection only + NPT bonnet and remote pilot connections (remote pilot + clamp connection only) <b>Further options on request</b></p> <p><b>Electrical interface &amp; explosion proof options</b></p> <p>0X = All remote pilot valves no voltages required S0 = Spade plug, 3x DIN 46244 without connector (equivalent to old <b>SC</b> prefix)(6) S1 = Spade plug, 3x DIN 46244, IP65 (equivalent to old <b>SC</b> prefix) (6) 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) (6) (7) (8) ... = <b>Other operators on request</b></p>
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(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) Dimensions on page 7 to find.

(7) Search prefix in [www.emerson.com/asco](http://www.emerson.com/asco) 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".

(8) Coils class F only.

Dimensions: mm (inches)

Version with Quick Mount Clamp connection

Fig.1: Integral pilot operated

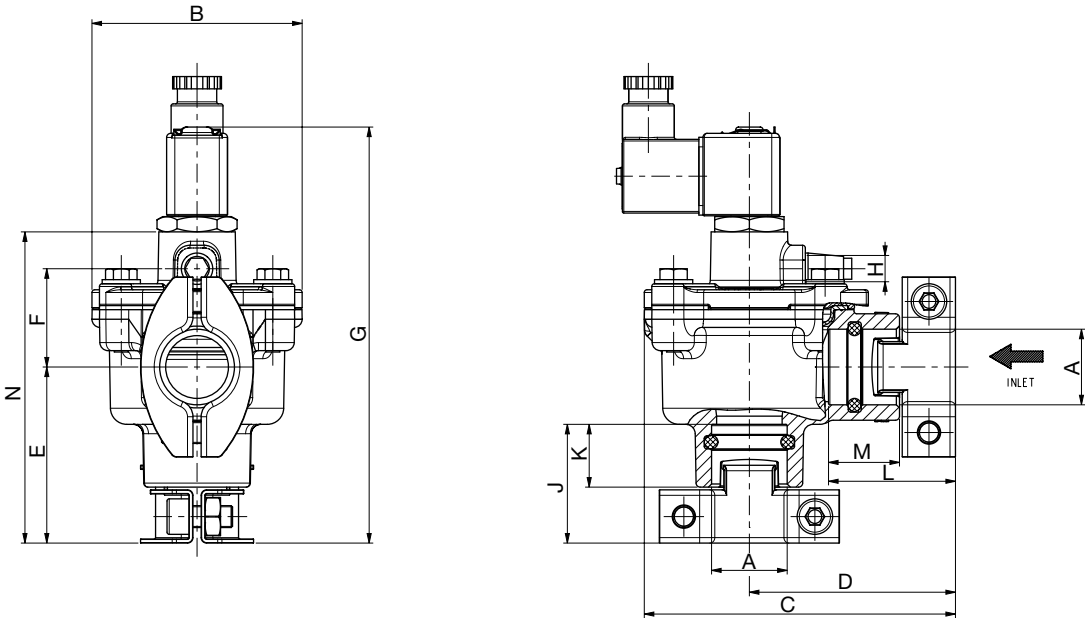


Fig.2: Remote pilot operated

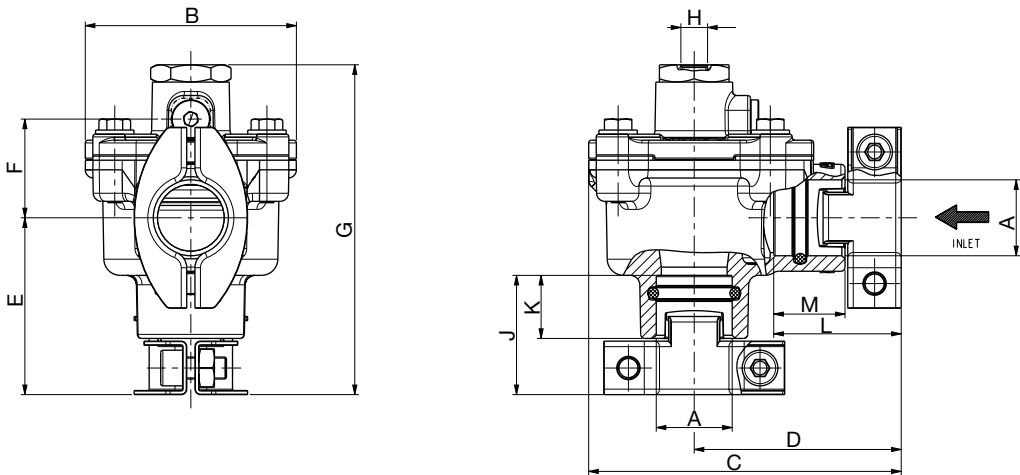


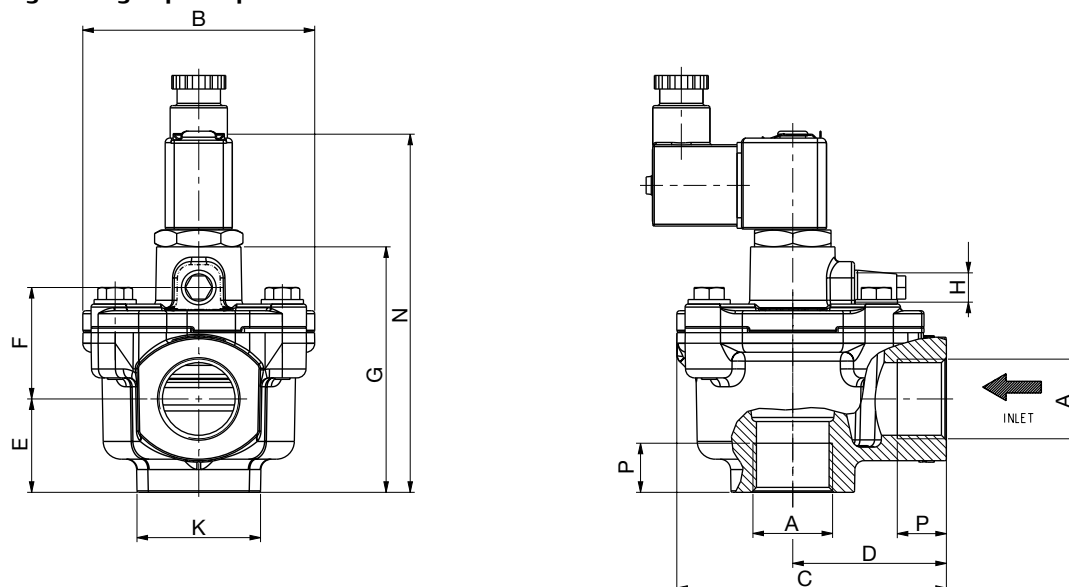
Fig.	A	B	C	D	E	F	G	H	J	K	L	M	N	Weight kg (lbs)
1	G 3/4"	77	114	76	65	36	152	G1/8"	43.5	23	46.5	26	114	0,76
	NPT 3/4"	(3.032)	(4.488)	(2.992)	(2.559)	(1.417)	(5.984)	NPT 1/8"	(1.713)	(0.906)	(1.831)	(1.024)	(4.488)	(1.68)
	G 1"	77	120	82	71	40	162	G1/8"	44.5	23	44.5	23	124	0,90
2	NPT 1"	(3.032)	(4.724)	(3.228)	(2.795)	(1.575)	(6.378)	NPT 1/8"	(1.752)	(0.906)	(1.752)	(0.906)	(4.882)	(1.98)
	3/4"	77	114	75.5	64,5	36	120.5	G1/8"	43.5	23	46.5	26	-	0,66
	NPT 3/4"	(3.032)	(4.488)	(2.972)	(2.539)	(1.417)	(4.744)	NPT 1/8"	(1.713)	(0.906)	(1.831)	(1.024)	-	(1.46)
	G 1"	77	120	81.5	70,5	40	130.5	G1/8"	44.5	23	44.5	23	-	0,80
	NPT 1"	(3.032)	(4.724)	(3.209)	(2.776)	(1.575)	(5.138)	NPT 1/8"	(1.752)	(0.906)	(1.752)	(0.906)	-	(1.76)

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Dimensions: mm (inches)

## Version with threaded pipe connection

**Fig.3: Integral pilot operated**



**Fig.4: Remote pilot operated**

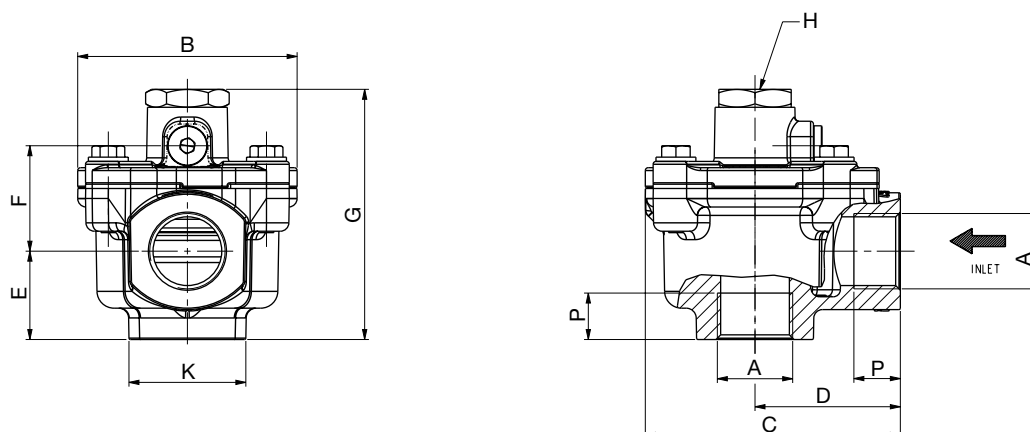


Fig.	A	B	C	D	E	F	G	H	K	N	P	Weight kg (lbs)
3	G 3/4" NPT 3/4"	77 (3.032)	90 (3.543)	51 (2.008)	31 (1.221)	37 (1.457)	81,5 (3.209)	G 1/8" NPT 1/8"	41 (1.614)	119 (4.685)	16 (0.630)	0,57 (1.26)
	G 1" NPT 1"	77 (3.032)	90 (3.543)	51 (2.008)	31 (1.221)	37 (1.457)	81,5 (3.209)	G 1/8" NPT 1/8"	41 (1.614)	119 (4.685)	16 (0.630)	0,53 (1.17)
4	G 3/4" NPT 3/4"	77 (3.032)	89,5 (3.524)	51 (2.008)	31 (1.221)	37 (1.457)	88 (3.465)	G 1/8" NPT 1/8"	41 (1.614)	-	16 (0.630)	0,47 (1.04)
	G 1" NPT 1"	77 (3.032)	89,5 (3.524)	51 (2.008)	31 (1.221)	37 (1.457)	88 (3.465)	G 1/8" NPT 1/8"	41 (1.614)	-	16 (0.630)	0,44 (0.97)

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## 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.
- Waterproof enclosure with embedded screw terminal coil according to CEE 10 (IP67)
- Further versions on request.

## Installation

- The package consists of a pulse valve, solenoid (pre-assembled) and connector (supplied loose).
- The pulse valves can be mounted in any position without affecting operation.
- Threaded connections G (ISO 228/1), NPT, or patented Quick Mount Clamp connection.
- Installations with pipe lengths of more than 3 meters (9.8 feet) must be tested under operating conditions.
- Pipe diameters of 6 mm (0.24 inches) are recommended for all installations.
- In the patented Quick Mount Clamp connection tightness is achieved by the o-ring sealing on the pipes (3/4" = 26,4 (1.0") to 27,4 (1.1") and 1" = 33,2 (1.3") to 34,2 (1.4") according to ISO 4200.
- Installation and maintenance instructions are included with each valve.
- Declarations of conformity are available on request.

### 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. Piping lengths of up to 3 meters (9.8 feet) have only a minor influence on the pulse time.

## 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.
Dusty gas temperature range	The dusty gas temperature range with the TPE standard diaphragm is -20°C (-4°F) to 140°C (284°F). The dusty gas temperature range with the TPE low-temp diaphragm is -40°C (-40°F) to 60°C (140°F)

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

Remote Pilot				
Pipe Size (in)	Base Catalog 353	Diaphragm Kit	Diaphragm Kit	Clamp Kit
		(1pc)	(10 pcs)	(1x)
TPE Standard				
3/4"	353K111	M200697	M200699	M200701
1"	353K211			M200702
TPE Low-Temp				
3/4"	353K112	M200698	M200700	M200701
1"	353K212			M200702

Integral Pilot					
Pipe Size (in)	Base Catalog 353	Spare Parts Kit	Diaphragm Kit	Diaphragm Kit	Clamp Kit
			(1pc)	(10 pcs)	(1x)
TPE Standard					
3/4"	353K111	M200695	M200697	M200699	M200701
1"	353K211				M200702
TPE Low-Temp					
3/4"	353K112	M200696	M200698	M200700	M200701
1"	353K212				M200702

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

## Electrical characteristics

Coil insulation class **F**  
 Electrical safety **IEC 335**  
 Voltages **DC (=) 24 V, permissible voltage tolerance  $\pm 10\%$**   
**AC (~) 24V / 50-60Hz, 1120/60 - 110/50V/Hz, 230V / 50-60Hz (other voltages on request)**

Pilot operated (1)	Max. power		Operator ambient temperature	Safety code	Electrical enclosure protection (EN 60529)	Replacement coil / Spare parts kit				Type (3)
	AC	DC				~			=	
	~	=	°C (°F) (2)			24V/50-60 Hz	230V/50/60 Hz	120/60-110/50 Hz	24 V/DC	
Basic Power										
S1, S0	6,3	22	-40 to +75 (-40 to +167)	EN 60730	IP65, moulded	400129-502	400129-528	400129-225	400127-642	01
SG	6,3	22	-10 to +60 (-14 to +140)	I/3 GD Exec I/IC T6-T4 Gc, Ext c I/IC T110°C Dc	IP65X, moulded	M2004090SGA00FQ (4)	M2004090SGA00FH (4)	M2004090SGA00F0 (4)	M2004090SGA00F1 (4)	02

(1) Electrical interface as described in the order code. Other versions are available on request.

(2) Temperature range can be limited by sealings.

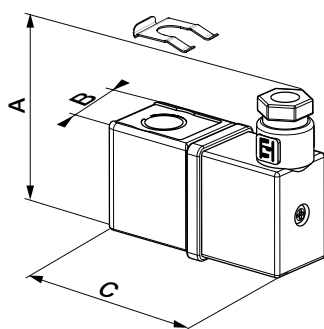
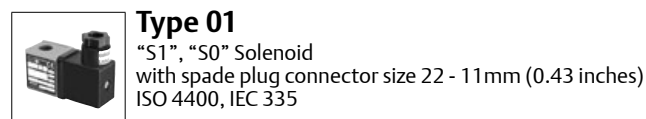
(3) Refer to the dimensional drawings below.

(4) ATEX Coil Kit "SG" available, please contact us.

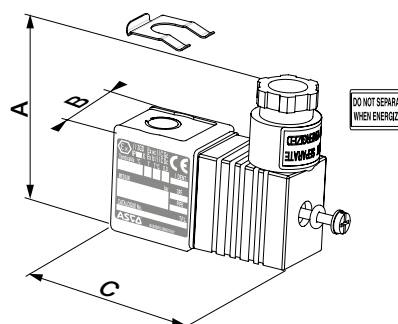
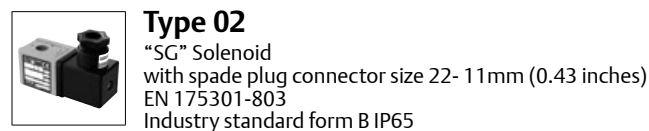
## Electrical Connections

Electrical Interface	Connection
SG, S1	Cable gland connector EN175301-803A (ISO 4400) for cables with an O.D. from 6 to 10 mm (0.24 to 0.39 inches).

## Dimensions: mm (inch)



A	B	C	Weight kg (lbs)
49 (1,929)	22 (0.866)	61 (2.401)	0,08 (0.18)



A	B	C	Weight kg (lbs)
49 (1,929)	22 (0.866)	61 (2.401)	0,08 (0.18)