

# ASCO™ Solenoid Valves

3 way, NC, Direct Operated, Pad Mounting Body

3/2  
Series  
**356**

## Features & Benefits

- Wide range of flow and pressure ratings
- Quick disassembly of core tube for easy maintenance of internal parts
- Standard disc seal made of RUBY, FPM suitable for a wide range of operating temperatures and compatible with many fluids
- Standard manual operator allows an easy installation (stainless steel version only)
- UL429 and EN 60335 certified
- NSF 169 and EC 1935 / 2004 certified see “15-DIGIT PRODUCT CODE”
- Designed for sub-base mounting or directly on the equipment
- Solenoid valve with stainless steel seat, suitable for overheated water and steam
- The solenoid valves satisfy all relevant EU and EAC directives

## General

**Differential pressure** See «SPECIFICATIONS» [1 bar = 100 kPa]  
**Ambient temperature range** -10°C to +60°C (14°F to 140°F)  
**Maximum viscosity** 40 cSt (mm<sup>2</sup>/s)  
**Response time** 10 - 30 ms

fluids (*)	temperature range (TS) <sup>(1)</sup>	seal materials (*)
air, inert gas, water, oil	-10°C to +170°C (14°F to 338°F)	RUBY
hot water and steam	0°C to +130°C (32°F to 266°F)	FPM (fluoroelastomer)

## Materials in contact with fluid

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

**Body** Brass or stainless steel, AISI 316  
**Shading coil** Copper  
**Core tube** Stainless steel  
**Core and plugnut** Stainless steel  
**Springs** Stainless steel  
**Seal** RUBY or FPM

## Electrical characteristics

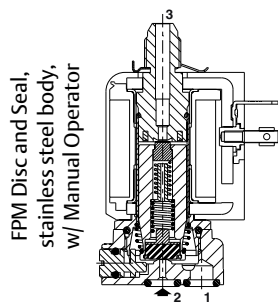
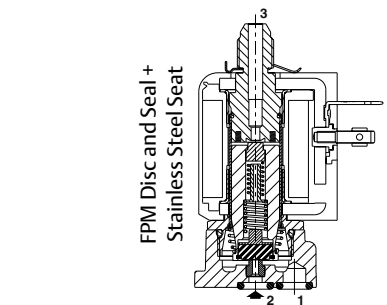
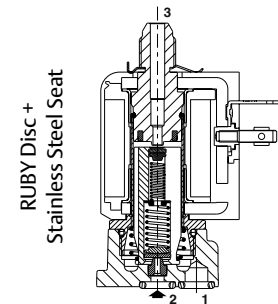
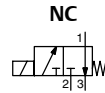
**Coil insulation class** F (H - approval pending)  
**Connector** Spade plug (cable Ø 6-10 mm)  
**Connector specification** ISO 4400 / EN 175301-803, form A  
**Electrical safety** IEC 335  
**Electrical enclosure protection** Moulded IP67 (EN 60529) with plug-connector  
**Standard voltages** DC (=): 12 - 24V (+10% -5%)  
 (Other voltages and frequencies on request) AC (~): 24V/50-60 Hz - 110V/50 Hz (120 V/60Hz) 230V/50-60 Hz (+10% -5%)

operator ambient temperature range (TS) °C (°F)	power ratings		replacement coil			Type	
	holding		~				
	(VA)	(W)	120 V/60 Hz	230 V /50-60 Hz	= 24 V DC		
-10 to +60 (14 to 140)	14	9	9	533593-020	533593-003	533593-002	01

## Options

- NSF 169, EC 1935 / 2004 approval, FPM/RUBY disc and seals (Food Grade)  
 The use of rigid sealings (RUBY) with gaseous fluids implies a slight leakage, generally limited at 2 scc/min at 1 bar pressure (0.002 l/min).

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified.  
<sup>(1)</sup> The minimum ambient temperature of the solenoid valve is determined by the limitations of minimum temperature indicated.



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**Specifications <sup>(1)</sup>**

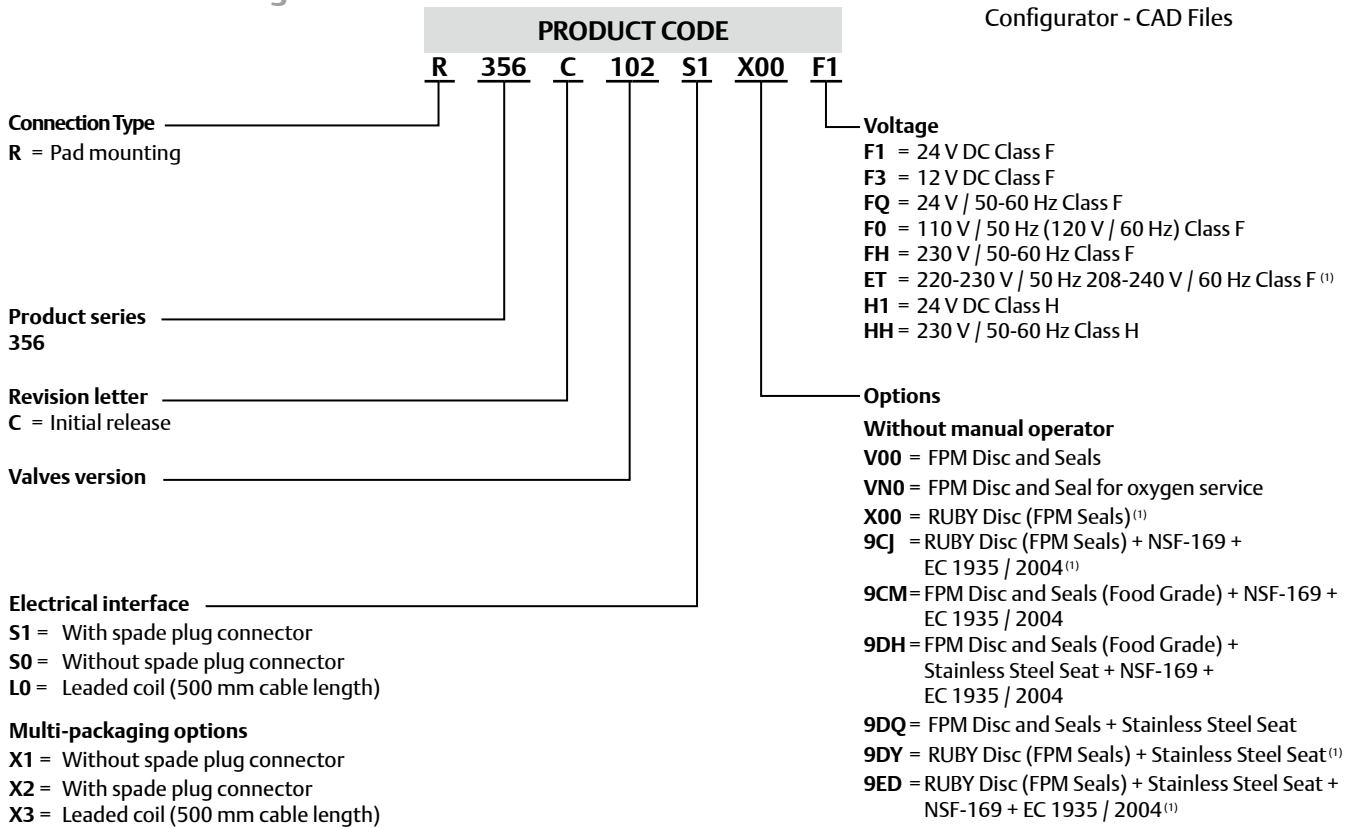
														15-DIGIT PRODUCT CODE									
orifice size	flow coefficient Kv		operating pressure differential bar (psi)						power coil (W)		thread type	dimensions / type <sup>(2)</sup>	brass	stainless steel	options		voltage code						
			max. (PS)												without manual operator	with manual operator	230 V/50-60 Hz	110 V/50 Hz	120 V/60 Hz	24 V/50-60 Hz	12 V/DC	24 V/DC	
	mm (in)	m <sup>3</sup> /h (Cv)	l/min	min.	~	=	~	=	~	=					~	=							
<b>NC - Normally closed, brass body</b>																							
RUBY disc (FPM seals), stainless steel seat <sup>(3)</sup>																							
pad mounting	1.5 (1/16)	0.08 (0.09)	1.33	0	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	9	9	R	01	R356C118S1	-	9DY	-	FH	F0	FQ	F3	F1
RUBY disc (FPM seals), stainless steel seat, NSF-169, EC 1935 / 2004 <sup>(3)</sup>																							
pad mounting	1.5 (1/16)	0.08 (0.09)	1.33	0	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	9	9	R	01	R356C118S1	-	9ED	-	FH	F0	FQ	F3	F1
FPM disc and seals, stainless steel seat <sup>(3)</sup>																							
pad mounting	1.6 (1/16)	0.08 (0.09)	1.33	0	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	9	9	R	01	R356C119S1	-	9DQ	-	FH	F0	FQ	F3	F1
FPM disc and seals (Food Grade), stainless steel seat, NSF-169, EC 1935 / 2004 <sup>(3)</sup>																							
pad mounting	1.6 (1/16)	0.08 (0.09)	1.33	0	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	9	9	R	01	R356C119S1	-	9DH	-	FH	F0	FQ	F3	F1
<b>NC - Normally closed, stainless steel body</b>																							
RUBY disc (FPM seals) <sup>(3)</sup>																							
pad mounting	1.5 (1/16)	0.08 (0.09)	1.33	0	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	9	9	R	01	-	R356C126S1	X00	-	FH	F0	FQ	F3	F1
RUBY disc (FPM seals), NSF-169, EC 1935 / 2004 <sup>(3)</sup>																							
pad mounting	1.5 (1/16)	0.08 (0.09)	1.33	0	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	9	9	R	01	-	R356C126S1	9CJ	-	FH	F0	FQ	F3	F1
FPM disc and seals <sup>(3)</sup>																							
pad mounting	1.6 (1/16)	0.08 (0.09)	1.33	0	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	13 (189)	9	9	R	01	-	R356C127S1	V00	-	FH	F0	FQ	F3	F1

<sup>(1)</sup> All performances are referred to Ambient Temperature = +60°C  
<sup>(2)</sup> For dimensions, see drawing(s) for each construction type on the following page(s)  
<sup>(3)</sup> Steam: . RUBY Sealing PS max. 8 bar (max. temperature of fluid 170°C)  
. FPM Sealing PS max. 2.8 bar (max. temperature of fluid 130°C)  
(\*) Ensure that the compatibility of the fluids in contact with the materials is verified.

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## Product selection guide

Configurator - CAD Files



### Voltage

- F1 = 24 V DC Class F
- F3 = 12 V DC Class F
- FQ = 24 V / 50-60 Hz Class F
- F0 = 110 V / 50 Hz (120 V / 60 Hz) Class F
- FH = 230 V / 50-60 Hz Class F
- ET = 220-230 V / 50 Hz 208-240 V / 60 Hz Class F <sup>(1)</sup>
- H1 = 24 V DC Class H
- HH = 230 V / 50-60 Hz Class H

### Options

#### Without manual operator

- V00 = FPM Disc and Seals
- VN0 = FPM Disc and Seal for oxygen service
- X00 = RUBY Disc (FPM Seals) <sup>(1)</sup>
- 9CJ = RUBY Disc (FPM Seals) + NSF-169 + EC 1935 / 2004 <sup>(1)</sup>
- 9CM = FPM Disc and Seals (Food Grade) + NSF-169 + EC 1935 / 2004
- 9DH = FPM Disc and Seals (Food Grade) + Stainless Steel Seat + NSF-169 + EC 1935 / 2004
- 9DQ = FPM Disc and Seals + Stainless Steel Seat
- 9DY = RUBY Disc (FPM Seals) + Stainless Steel Seat <sup>(1)</sup>
- 9ED = RUBY Disc (FPM Seals) + Stainless Steel Seat + NSF-169 + EC 1935 / 2004 <sup>(1)</sup>

<sup>(1)</sup> To obtain the correct pressure rating and power absorption check the landing pages of the online configurator.  
Operating Voltage Range (+10% -10%).

**Repair Kits and Service Parts - Spare Parts Kits**

		Spare parts kits no. (*)						
		FPM Disc and Seals	-	-	-	-	-	-
<b>NC - Normally closed - AC (~)</b>								
R356C119/127	M200706	V00	-	-	-	-	-	-
<b>NC - Normally closed - DC (=)</b>								
R356C119/127	M200708	V00	-	-	-	-	-	-
		FPM Disc and Seals (Food Grade) + NSF + EC 1935 / 2004 + Stainless Steel Seat	RUBY Disc (FPM Seals) + Stainless Steel Seat + NSF + EC 1935 / 2004	RUBY Disc (FPM Seals) + NSF + EC 1935 / 2004	FPM Disc and Seals (Food Grade) + NSF + EC 1935 / 2004	FPM Disc and Seals + Stainless Steel Seat	RUBY Disc (FPM Seals) + Stainless Steel Seat	RUBY Disc (FPM Seals)
<b>NC - Normally closed - 1/4" - AC (~)</b>								
R356C119/127	M200706	9DH	-	-	9CM	9DQ	-	X00
R356C118/126	M200709	-	9ED	9CJ	-	-	9DY	-
<b>NC - Normally closed - 1/4" - DC (=)</b>								
R356C119/127	M200708	9DH	-	-	9CM	9DQ	-	X00
R356C118/126	M200709	-	9ED	9CJ	-	-	9DY	-

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## Installation

- The solenoid valves can be mounted in any position without affecting operation
- Mounting on single or joinable subbase or on supply rail, four mounting holes
- Installation/maintenance instructions are included with each valve

## Dimensions mm (inches), Weight kg (Lbs)

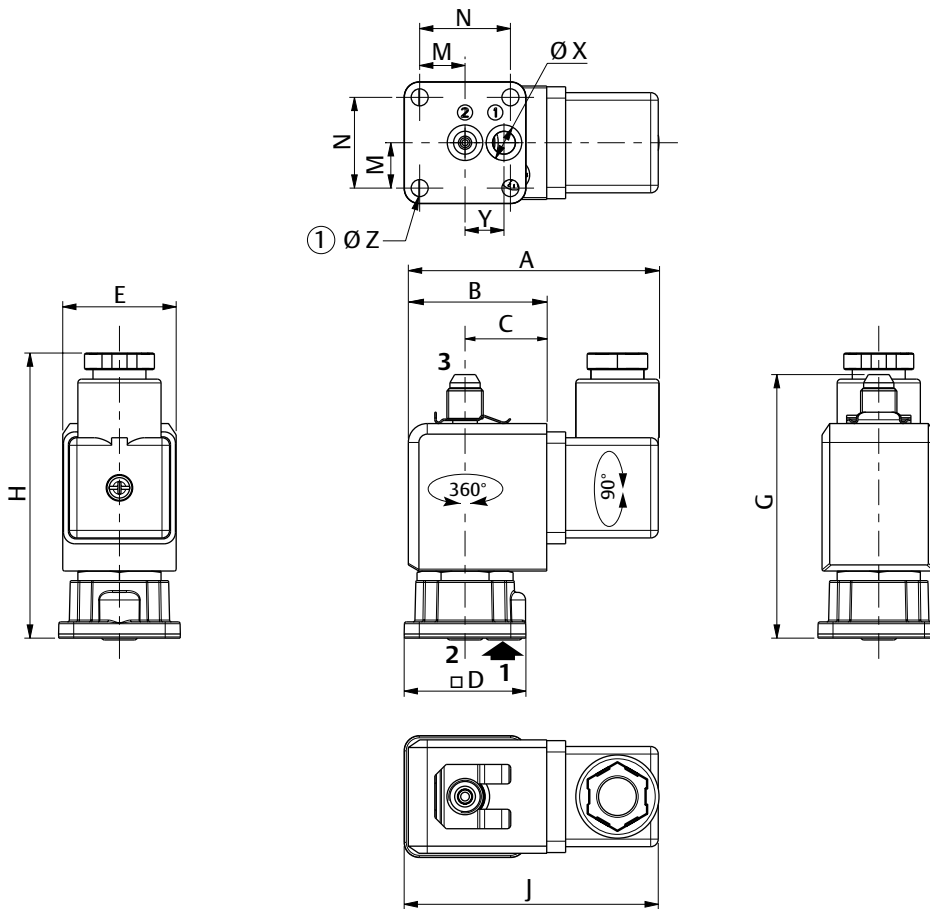
Configurator - CAD Files



### TYPE 01

Electrical interface "S1"  
Coil size 30 mm - Thermoplastic moulded  
IEC 335 / ISO 4400  
IP67

NC (brass body, FPM disc and seals, stainless steel seat): R356C118/119



① 4 mounting holes, Ø Z

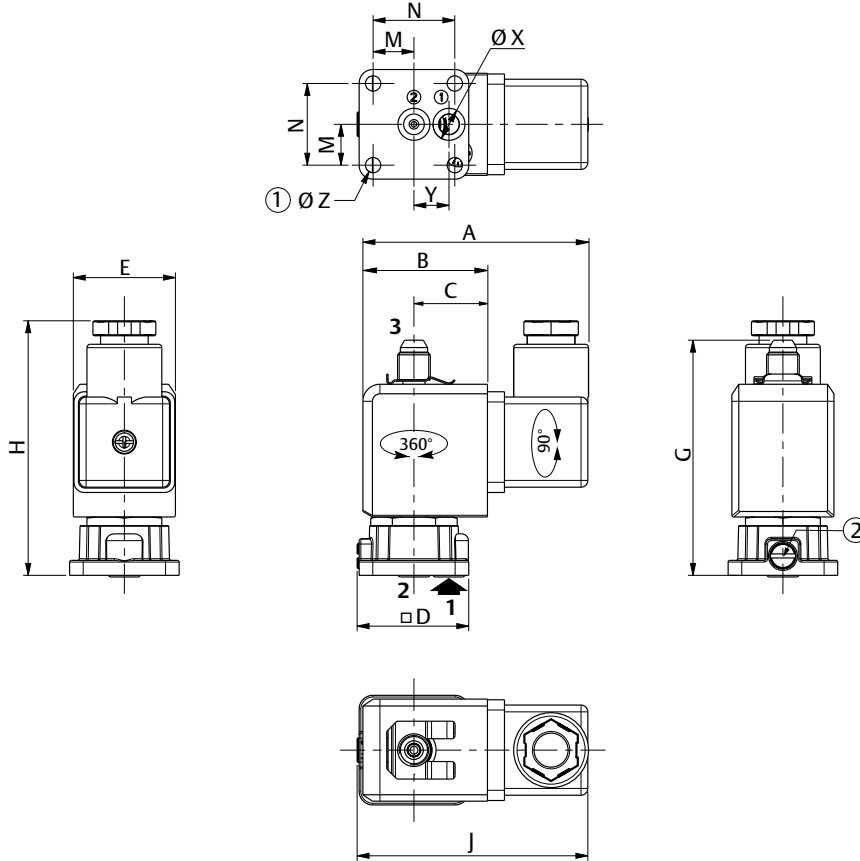
size 30		A	B	C	□D	E	G	H	J	M	N	ØX	Y	ØZ	weight <sup>(1)</sup>	
R356C118/119	mm	66.3	36.6	21.6	32.2	30	69.7	75.4	67.2	12	24	9.4	10.3	4.5	0.240	kg
	(in)	2.61	1.44	0.85	1.26	1.18	2.74	2.97	2.64	0.47	0.94	0.37	0.40	0.18	0.53	(Lbs)

<sup>(1)</sup> Incl. coil(s) and connector(s).

**Dimensions mm (inches), Weight kg (Lbs)**

Configurator - CAD Files

NC (stainless steel body): R356C126/127



- ① 4 mounting holes, Ø Z
- ② Manual operator location (except R256C126)

size 30		A	B	C	□D	E	G	H	J	M	N	ØX	Y	ØZ	weight <sup>(1)</sup>	
R356C126/127	mm	66.3	36.6	21.6	32.8	30	69.1	74.8	67.8	12	24	9.4	10.3	4.5	0.240	kg
	(in)	2.61	1.44	0.85	1.26	1.18	2.74	2.97	2.64	0.47	0.94	0.37	0.40	0.18	0.53	(Lbs)

<sup>(1)</sup> Incl. coil(s) and connector(s).