

# ASCO™ Solenoid Valves

2 way, NC, Direct Operated, Pad Mounting Body

## 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 CR70N, 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** 20 - 50 ms

fluids (*)	temperature range (TS) <sup>(1)</sup>	seal materials (*)
air, inert gas, water, oil hot water and steam <sup>(2)</sup>	0°C to +130°C (32°F to 266°F)	FPM (fluoroelastomer)
refrigerating fluids	-10°C to +90°C (14°F to 194°F)	CR70N (chloroprene)

## 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** FPM or CR70N

## 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%)  
 AC (~) : 24V/50-60 Hz - 110V/50 Hz (120 V/60Hz)  
 230V/50-60 Hz (+10% -15%)  
 (Other voltages and frequencies on request)

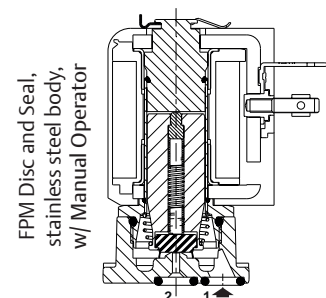
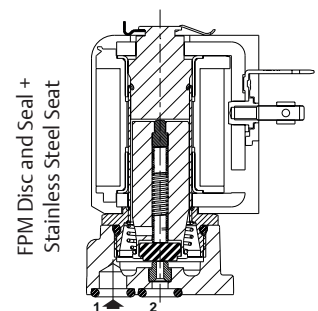
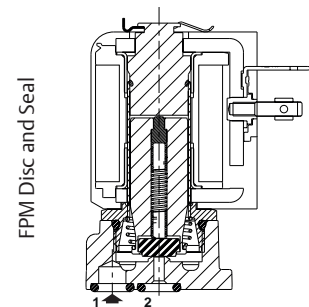
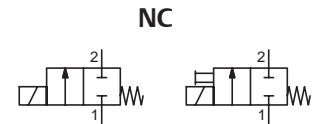
operator ambient temperature range (TS) °C (°F)	power ratings			replacement coil			Type
	holding ~		hot/cold =	~		=	
	(VA)	(W)	(W)	120 V/60 Hz, 110 V/50 Hz	230 V /50-60 Hz	24 V DC	
-10 to +60 (14 to 140)	-	-	5	-	-	533593-001	01
	14	9	9	533593-020	533593-003	533593-002	

## Options

- NSF 169, EC 1935 / 2004 approval, FPM disc and seals (Food Grade)

**(\*) 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.  
<sup>(2)</sup> Steam only for version with stainless steel seat or body.



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

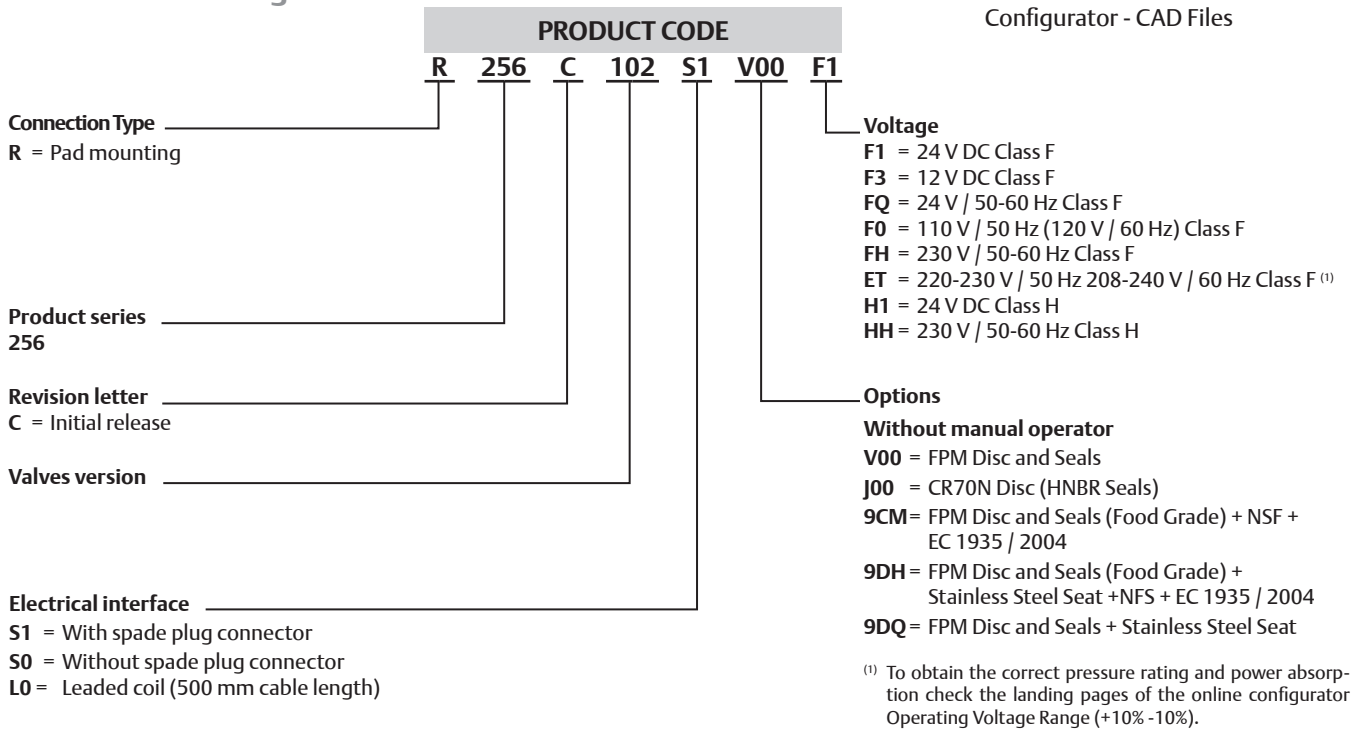
															15-DIGIT PRODUCT CODE								
orifice size	flow coefficient Kv		operating pressure differential bar (psi)						power coil (W)		thread type	dimensions / type <sup>(2)</sup>	brass	stainless steel	options		voltage code						
			max. (PS)												without manual operator	with manual operator	230 V/50-60 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>																							
FPM disc and seals, stainless steel seat <sup>(3)</sup>																							
pad mounting	1.6 (1/16)	0.10 (0.11)	1.59	0	-	30 (435)	-	30 (435)	-	30 (435)	-	5	R	01	R256C102S1	-	9DQ	-	FH	F0	FQ	F3	F1
					30 (435)	30 (435)	30 (435)	30 (435)	30 (435)	30 (435)	9	9	R	01	R256C119S1	-							
FPM disc and seals (Food Grade), stainless steel seat, NFS, EC 1935 / 2004 <sup>(3)</sup>																							
pad mounting	1.6 (1/16)	0.10 (0.11)	1.59	0	-	30 (435)	-	30 (435)	-	30 (435)	-	5	R	01	R256C102S1	-	9DH	-	FH	F0	FQ	F3	F1
					30 (435)	30 (435)	30 (435)	30 (435)	30 (435)	30 (435)	9	9	R	01	R256C119S1	-							
FPM disc and seals																							
pad mounting	2.4 (3/32)	0.18 (0.21)	2.99	0	-	18 (261)	-	18 (261)	-	18 (261)	-	5	R	01	R256C104S1	-	V00	-	FH	F0	FQ	F3	F1
					20 (290)	20 (290)	20 (290)	20 (290)	20 (290)	20 (290)	9	9	R	01	R256C121S1	-							
CR70N disc (HNBR seals)																							
pad mounting	3 (1/8)	0.18 (0.21)	2.99	0	-	15 (218)	-	15 (218)	-	15 (218)	-	5	R	01	R256C105S1	-	J00	-	FH	F0	FQ	F3	F1
					20 (290)	20 (290)	20 (290)	20 (290)	20 (290)	20 (290)	9	9	R	01	R256C122S1	-							
<b>NC - Normally closed, stainless steel body</b>																							
FPM disc and seals <sup>(3)</sup>																							
pad mounting	1.6 (1/16)	0.10 (0.11)	1.59	0	-	30 (435)	-	30 (435)	-	30 (435)	-	5	R	01	-	R256C111S1	V00	-	FH	F0	FQ	F3	F1
					30 (435)	30 (435)	30 (435)	30 (435)	30 (435)	30 (435)	9	9	R	01	-	R256C127S1							
	2.4 (3/32)	0.18 (0.21)	2.99	0	-	18 (261)	-	18 (261)	-	18 (261)	-	5	R	01	-	R256C113S1	V00	-	FH	F0	FQ	F3	F1
					20 (290)	20 (290)	20 (290)	20 (290)	20 (290)	20 (290)	9	9	R	01	-	R256C129S1							
CR70N disc (HNBR seals)																							
pad mounting	3 (1/8)	0.18 (0.21)	2.99	0	-	15 (218)	-	15 (218)	-	15 (218)	-	5	R	01	-	R256C114S1	J00	-	FH	F0	FQ	F3	F1
					20 (290)	20 (290)	20 (290)	20 (290)	20 (290)	20 (290)	9	9	R	01	-	R256C130S1							

<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: . 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



<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 - 1/4" - AC (~)</b>					
R256C119/121/122/ 127/129/130	<b>M200706</b>	<b>V00</b>	-	-	-
<b>NC - Normally closed - 1/4" - DC (=)</b>					
R256C102/104/105/ 119/121/122/111/ 113/114/127/129/130	<b>M200714</b>	<b>V00</b>	-	-	-
		FPM Disc and Seals (Food Grade) + NSF + EC 1935 / 2004 + Stainless Steel Seat	FPM Disc and Seals (Food Grade) + NSF + EC 1935 / 2004	FPM Disc and Seals + Stainless Steel Seat	CR70N Disc (HNBR Seals)
<b>NC - Normally closed - 1/4" - AC (~)</b>					
R256C119/121/122/ 127/129/130	<b>M200706</b>	<b>9DH</b>	<b>9CM</b>	<b>9DQ</b>	<b>J00</b>
<b>NC - Normally closed - 1/4" - DC (=)</b>					
R256C102/104/105/ 119/121/122/111/ 113/114/127/129/130	<b>M200714</b>	<b>9DH</b>	<b>9CM</b>	<b>9DQ</b>	<b>J00</b>

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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)

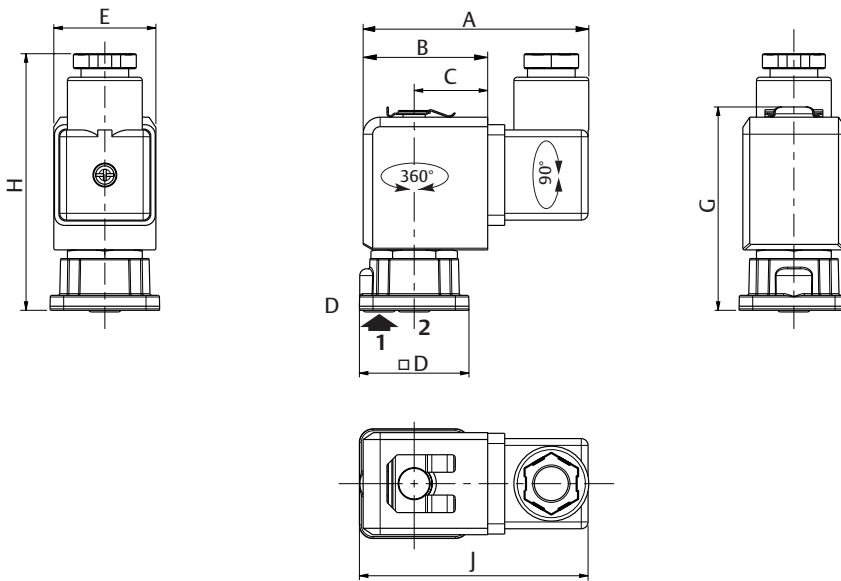
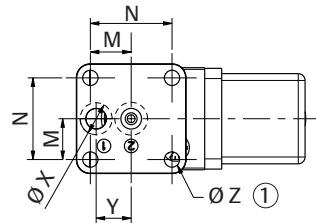
Configurator - CAD Files



### TYPE 01

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

NC [brass body, FPM (disc and seals) or CR70N disc (HNBR seals)]: R256C104/105/121/122



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>	
R256C104/105/121/122	mm	66.3	36.6	21.6	32.2	30	59.75	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	2.35	2.97	2.64	0.47	0.94	0.37	0.40	0.18	0.53	(Lbs)

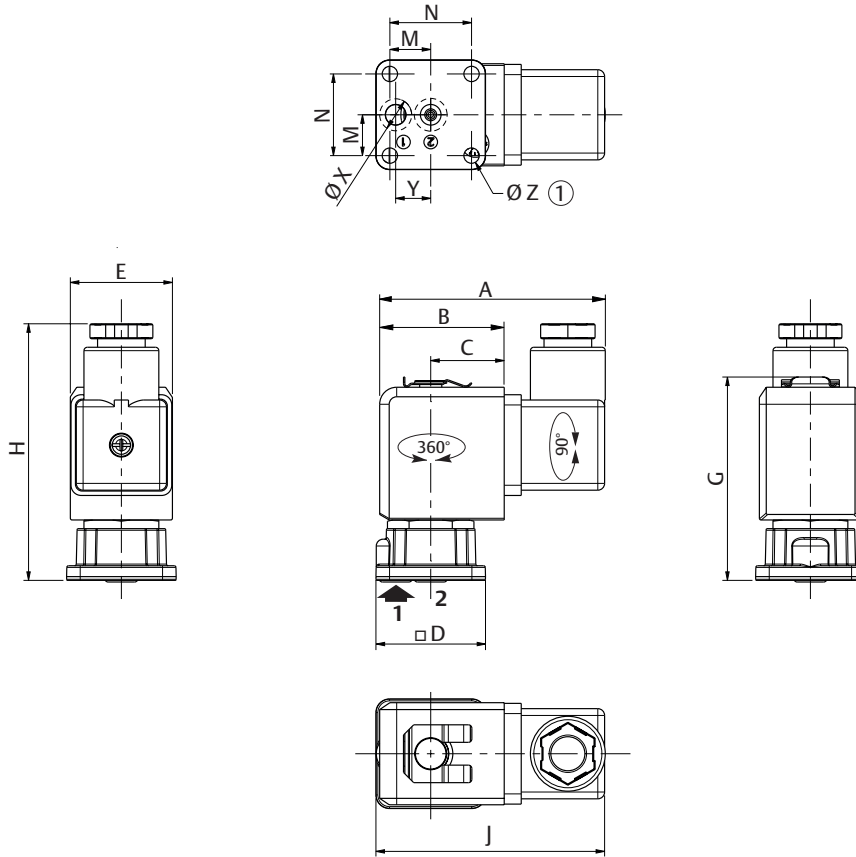
<sup>(1)</sup> Incl. coil(s) and connector(s).

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

[Configurator - CAD Files](#)

NC (brass body, FPM disc and seals, stainless steel seat): R256C102/119



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>	
R256C102/119	mm	66.3	36.6	21.6	32.2	30	59.75	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	2.35	2.97	2.64	0.47	0.94	0.37	0.40	0.18	0.53	(Lbs)

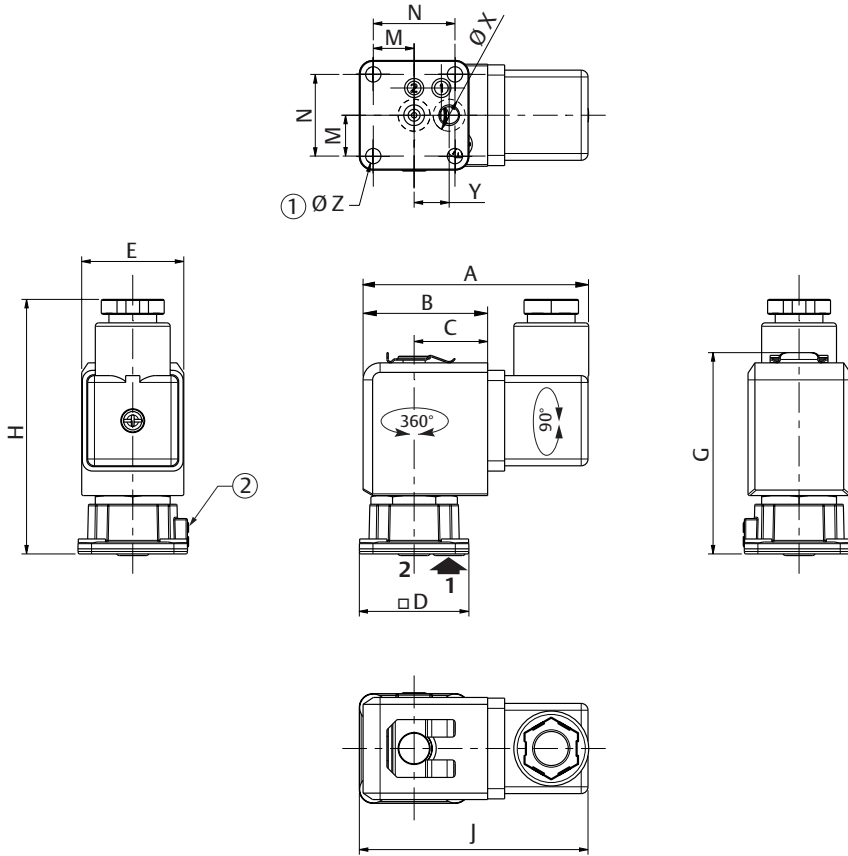
<sup>(1)</sup> Incl. coil(s) and connector(s).

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

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NC (stainless steel body): R256C111/113/114/127/129/130



- ① 4 mounting holes, Ø Z
- ② Manual operator location (except R256C114/130)

size 30		A	B	C	□D	E	G	H	J	M	N	ØX	Y	ØZ	weight <sup>(1)</sup>	
R256C111/113/114/127/ 129/130	mm	66.3	36.6	21.6	32.2	30	59.15	74.8	67.2	12	24	9.4	10.3	4.5	0.240	kg
	(in)	2.61	1.44	0.85	1.26	1.18	2.33	2.94	2.64	0.47	0.94	0.37	0.40	0.18	0.53	(Lbs)

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

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