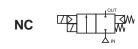


# **SOLENOID VALVES**

high pressure, dual flow pilot operated for LPG applications 3/4



2/2 Series 291

## **FEATURES**

- The normally closed LPG valves are especially designed to meet the particular heavy duty requirements of LPG applications
- Dual flow execution, for use in prepaid systems
- Explosion proof operator, intended for use in potentially explosive areas, according to Directive ATEX 94/9/EC
- Easy electrical installation by means of the moulded-in supply cables, standard length of 2 meter
- · ASCO Numatics components satisfy all relevant EC directives

#### **GENERAL**

Differential pressure 0 - 25 bar [1 bar = 100kPa]
Ambient temperature range -20 to +65°C (FPM execution)
-40 to +65°C (PTFE execution)

fluids (*)	temperature range (TS)	seal materials (*)
LPG / Liquid	-20 to +65°C	FPM (fluoroelastomer)
LPG / Liquid	-40 to +65°C	PTFE (**)

#### **MATERIALS IN CONTACT WITH FLUID**

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

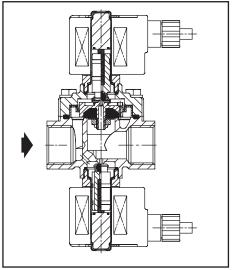
(\*\*) Specify suffix T behind catalogue number for the PTFE execution

**Body** Brass

Core tubeStainless steelCore and plugnutStainless steelCore discFPM or PTFERider ringPTFE

Springs Stainless steel





#### **ELECTRICAL CHARACTERISTICS**

Coil insulation class F
Electrical safety IEC 335
Standard voltages DC (=) 24

S DC (=) 24V - 48V;

	power	ratings	operator						
prefix	holding	hot/cold	ambient temperature	electrical enclosure		replacem	nent coil	type (1)	
option	~	=	range (TS)	Salety Code	protection (EN 60529)	~	=	type (1)	
	(W)	(W)	(W) (C°)		, , , ,	230V/50/60 Hz	24V/DC		
PV	10,5	-	-40 to +65	II 2 G Ex mb II T3	moulded IP67	(2)	(2)	01	
(WS)EM	-	12,0 / 16,8	-40 to +40	II 2 G Ex e mb II T3	SS / moulded IP65	(2)	(2)	02	
sc	10,5	12,0 / 16,8	-40 to +65	EN 60730	moulded IP65	400425-117	400625-142	03 & 04	

Refer to the dimensional drawings on page 22

<sup>2)</sup> Multiple coils kits available under ATEX, contact us

- Not available

#### SPECIFICATIONS

<u> </u>		IFICA	11014														
   p	ipe	orifice size		flow coefficient Kv			operating pressure differential (bar)				prefi	ix option	basic				
8	size							may DC		NEMA		ATEX /	IECEx		IDGE	catalogue	
		Low	High	Lo	w	Hi	gh	min	max. PS		7&9	Ex <b>d</b>	Ex e mb	Ex mb	EEx <b>nA</b>	IP65	number
	G	(mm)	(mm)	(m <sup>3</sup> /h)	(l/min)	(m <sup>3</sup> /h)	(l/min)		~ =		EF	NF	EM	PV	ZN	SC	
	NC -	Norm	ally cl	osed													
	3/4	2,4	19	0,15	2,5	4,0	66,7	0	25	17	-	-	0		-	•	G291A321

■ Available feature Available feature in DC only Available feature in AC only

Not available

\* For description of solenoids see pages 31-40



## **ADDITIONAL OPTIONS**

- Other explosion proof enclosures for use in zone 1/21-2/22, categories 2-3 to ATEX Directive 94/9/EC
- Explosionproof and watertight solenoids according to "NEMA" standards

#### INSTALLATION

- The valves can be mounted in any position without affecting operation
- Pipe connection identifiers: G = pipe thread according to ISO 228/1
- Installation/maintenance instructions are included with each valve
- PV solenoids have a standard cable length of 2 meters. Other lengths in full meters are available on request

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





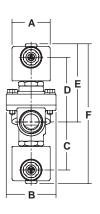
**TYPE 01** Prefix "PV" Solenoid Epoxy encapsulated EN-IEC 60079-0. 60079-18. 61241-0. 61241-18 II 2 G/D Ex mb II / Ex mD

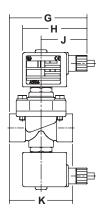
#### TYPE 02



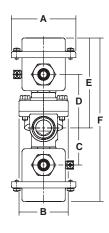
Prefix "EM" and "WSEM" Solenoid Zinc plated steel, epoxy coated (EM) Stainless steel, AISI 316 (WSEM) EN-IEC 60079-0, 60079-7, 60079-18, 61241-0, 61241-1 II 2 G/D Ex e mb II / Ex tD IP67

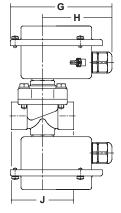
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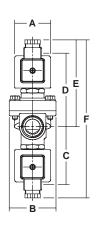


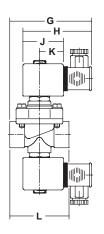
TYPE 03 Prefix "SC" Solenoid Epoxy moulded IEC 335 / ISO 4400 IP65



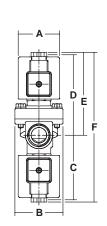
TYPE 04 Prefix "SC" Solenoid Epoxy moulded IEC 335 / ISO 4400 IP65

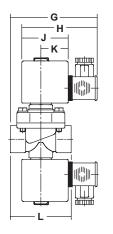
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G291A321





type	AC/DC	prefix option	catalogue number	spare parts kits	Α	В	С	D	E	F	G	Н	J	К	L	weight
01	~	PV	G291A321	PVC139678	45	58	56	75	91	163	90	75	54	73	-	1,7 Kg
02	=	(WS)EM	G291A321	EMC139679	76	58	44	63	106	193	120	82	73	-	-	2,1 Kg
03	~	SC	G291A321	C139678	45	58	72	91	108	196	102	85	50	30	73	1,5 Kg
04	=	SC	G291A321	C139679	50	58	78	97	100	181	105	91	56	33	73	1,9 Kg