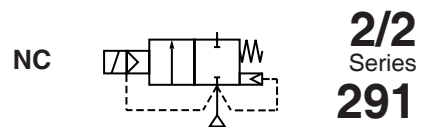




SOLENOID VALVES

high pressure, pilot operated
for CNG applications
3/8 to 1/2



FEATURES

- The normally closed high pressure valves are especially designed to meet the particular heavy duty requirements of CNG applications
- Stainless steel body material to achieve a compact and reliable design
- The high quality PEEK piston guarantees a long operating life and a large temperature range
- Valves can withstand a burst pressure beyond 1400 bar
- 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 cable, standard length 2 meter
- All components satisfy all relevant EC directives

GENERAL

Differential pressure 10 - 350 bar [1 bar = 100kPa]
Ambient temperature range -40 to +70°C

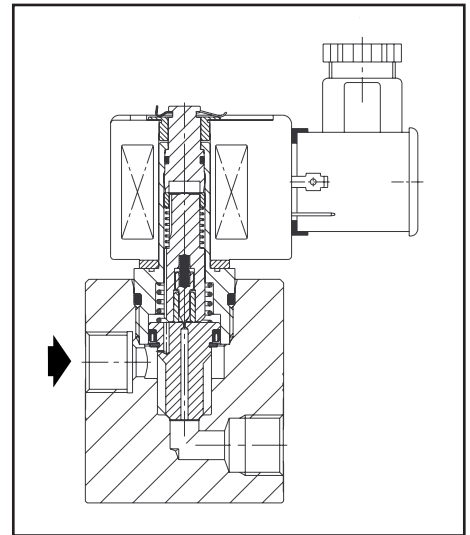
fluid (*)	temperature range (TS)	seal materials (*)
CNG	-40 to +70°C	FPM (fluorelastomer) High-grade PTFE / 302 Stainless steel



MATERIALS IN CONTACT WITH FLUID

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

Body	303 Stainless steel
Core	Aluminium bronze
Piston	PEEK
Core and plugnut	430F Stainless steel
Core spring	301 Stainless steel
Sealing (U-cup)	FPM High-grade PTFE / 302 Stainless steel
O-ring	FPM



ELECTRICAL CHARACTERISTICS

Standard voltages:
 DC (-): 24V - 48V
 AC (-): 24V - 48V - 115V - 230V / 50 Hz

SAFETY CODE

Ex II 2G EEx m II T4 (gas)
 Ex II 2G EEx em II T3 (gas)

AC (-) Solenoids ((WS)EM operator only)

power level (watt)	insulation class	maximum ambient ⁽¹⁾ temp. "T" classification			
		T6 (G)	T5 (G)	T4 (G)	T3 (G)
10,0	F	-	-	-	40°C

DC (-) Solenoids ((WS)EM and PV operator)

power level (watt)	insulation class	maximum ambient ⁽¹⁾ temp. "T" classification			
		T6 (G)	T5 (G)	T4 (G)	T3 (G)
11,2	F	-	-	65°C	40°C

⁽¹⁾ Make sure that the selected ambient temperature does not exceed the allowable valve temperature characteristics as specified on the appropriate valve catalogue sheets.

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)		catalogue number	
				min.	max. (PS)		
∅	(mm)	(m³/h)	(l/min)		CNG	DC only	AC & DC
					~/=		
NC - Normally closed							
3/8	8	0,96	16	10	350	PV ∅291A410	(WS)EM ∅291A410
1/2	12	2,30	38	10	350	PV ∅291A420	(WS)EM ∅291A420

∅ Select G for ISO 228/1 or C for SAE

OPTIONS

- Other explosionproof 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 = combination thread according to ISO 228/1, C = SAE
- Installation/maintenance instructions are included with each valve.
- Spare parts kits and replacement coils are available.

DIMENSIONS (mm), WEIGHT (kg)



TYPE 01

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

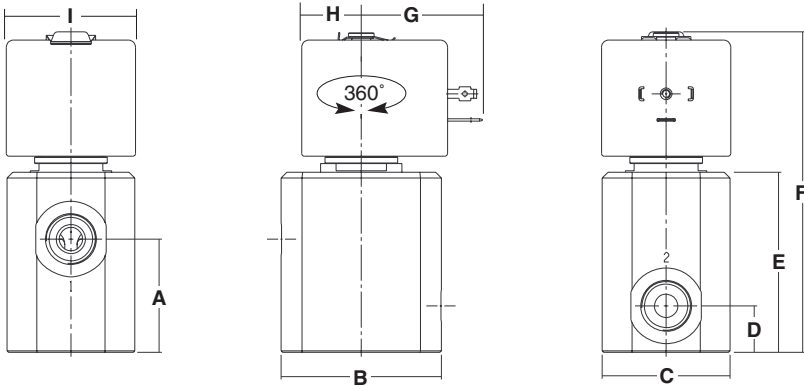
G291A410 / A420, C291A410 / A420



TYPE 02

Prefix "PV" Solenoid
Epoxy encapsulated
EN 50028 / EN 50281-1-1
IP65

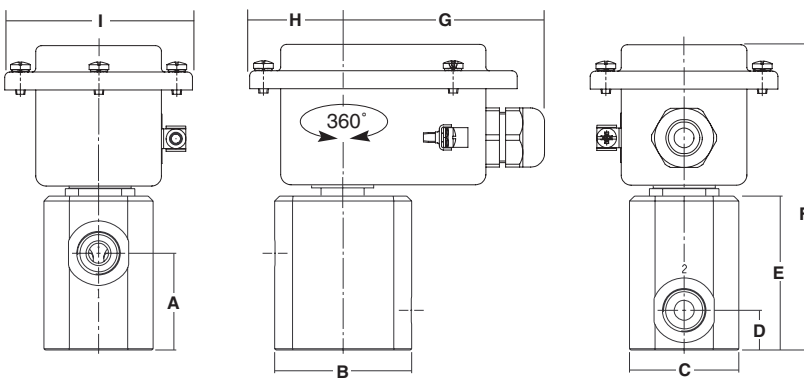
G291A410 / A420, C291A410 / A420



TYPE 03

Prefix "EM" and "WSEM" Solenoid
Zinc plated steel, epoxy moulded (EM)
Stainless steel, AISI 316 (WSEM)
IEC 335 / EN 50019 / EN 500028 / EN 50281-1-1 / IP65

G291A410 / A420, C291A410 / A420



type	prefix option	catalogue number	A	B	C	D	E	F	G	H	I	weight
01	SC	❖291A410	39	55	44	16	62	110	65	20	45	1,25
		❖291A420	36	62	50	22	68	116	65	20	45	1,65
02	PV	❖291A410	39	55	44	16	62	110	55	22	45	1,30
		❖291A420	36	62	50	22	68	116	55	22	45	1,70
03	(WS)EM	❖291A410	39	55	44	16	62	120	80	38	75	1,50
		❖291A420	36	62	50	22	68	126	80	38	75	1,90

❖: Select 'G' for ISO 228/1 or 'C' for SAE