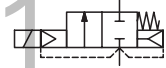




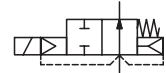
# SOLENOID VALVES

pilot operated  
built-in pilot, floating diaphragm  
3/8 to 2

NC



NO



2/2  
Series  
238

## FEATURES

- Minimum operating pressure differential  $\Delta P$  0,3/0,5 bar
- Two way valves for automatic control of water, air and inert gas and other gases/liquids compatible with the sealing materials used
- Interchangeability of magnetic heads, AC and DC
- The solenoid valves satisfy all relevant EU Directives

## GENERAL

Differential pressure	See «SPECIFICATIONS» [1 bar = 100 kPa]						
Ambient temperature range	-10°C to +60°C						
Maximum viscosity	40 cSt (mm <sup>2</sup> /s)						
Response time	3/8	1/2	3/4	1	1 1/4	1 1/2	2
opening time (ms)	25	30	55	70	300	300	1500
closing time (ms)	40	90	110	200	1000	1000	2000

fluids (*)	temperature range (TS)	seal materials (*)
DN ≤ 25: air, inert gas and water	0°C to +85°C	NBR (nitrile)
DN > 25: air and water		FPM (fluoroelastomer)

## MATERIALS IN CONTACT WITH FLUID

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

Body	Brass
Internal parts	Stainless steel and brass
Springs	Stainless steel
Diaphragm & valve disc	NBR
Seals and pilot disc	FPM
Shading coil	Copper

## ELECTRICAL CHARACTERISTICS

Coil insulation class	F
Connector	Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)
Connector specification	DIN 43650, 11 mm, industry standard B
for power coil: 4 W/6,9 W	ISO 4400 / EN 175301-803, form A
for power coil: 5/6,9W-8/9W-12,5/9W	IEC 335
Electrical safety	Moulded IP65 (EN 60529)
Electrical enclosure protection	DC (=) : 24V - 48V
Standard voltages	AC (~) : 24V - 48V - 115V - 230V / 50 Hz
(Other voltages and 60 Hz on request)	

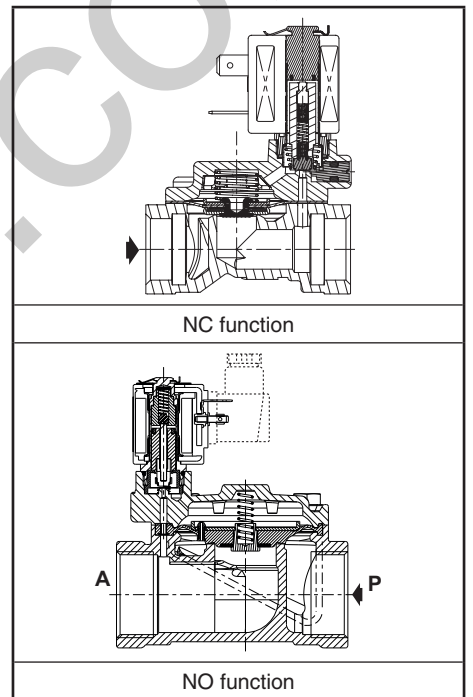
prefix option	power ratings				operator ambient temperature range (TS) (C°)	replacement coil		type <sup>(1)</sup>
	inrush ~	holding ~	hot/cold =			~	=	
	(VA)	(VA)	(W)	(W)		230 V/50 Hz	24 V DC	
SC	12	6	4	5/6,9	-10 to +60	400127-197	400127-142	01 <sup>(2)</sup>
	10,4	6	5	5/6,9	-10 to +60	400727-117	400727-185	02
	23	14	8	7,5/9	-10 to +50	511239-009	511239-002	03
	28	20	12,5	7,5/9	-10 to +50	511239-014	511239-002	03

<sup>(1)</sup> Refer to the dimensional drawings on the following page.

<sup>(2)</sup> UL/CSA certified.

## SPECIFICATIONS

pipe size	orifice size (mm)	flow coefficient Kv		operating pressure differential (bar)				power coil (W)		catalogue number	options		
		(m <sup>3</sup> /h)	(l/min)	min.	max. (PS)		~	=	~/=		maintained man. operator	FPM	EPDM
		air / water (*)	~		=								
<b>NC - Normally closed</b>													
G* 3/8	12	2,4	40	0,3	10	10	4	6,9	SCE238D001	MO	V	E	
					16	16	5	6,9					SCE238D006
G* 1/2	12	2,4	40	0,3	10	10	4	6,9	SCE238D002	MO	V	E	
					16	16	5	6,9					SCE238D007
G* 1/2	15	4,2	70	0,3	10	10	4	6,9	SCE238D003	MO	V	E	
					16	16	5	6,9					SCE238D008
G* 3/4	20	6,6	110	0,3	10	10	4	6,9	SCE238D004	MO	V	E	
					16	16	5	6,9					SCE238D009
G* 1	25	9,9	165	0,3	10	10	4	6,9	SCE238D005	MO	V	E	
					16	16	5	6,9					SCE238D010
G 1 1/4	30	15	250	0,5	10	10	8	9	SCG238E016	MO	V	-	
G 1 1/2	45	27	450	0,5	10	10	8	9	SCG238E017	MO	V	-	
G 2	45	34	566	0,5	10	10	8	9	SCG238E018	MO	V	-	
<b>NO - Normally open</b>													
G 1 1/4	30	15	250	0,5	10	10	12,5	9	SCG238E019	-	V	-	
G 1 1/2	45	27	450	0,5	9	9	12,5	9	SCG238E020	-	V	-	
G 2	45	34	566	0,5	9	9	12,5	9	SCG238E021	-	V	-	




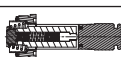
## OPTIONS

- Valves can also be supplied with FPM (fluorelastomer), EPDM (ethylene-propylene) seals, diaphragm and disc. Use the appropriate optional suffix letter for identification
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (see "Explosionproof solenoids" section)
- Oxygen service, suffix NV, example: SCE238D002NVMO (Except pipe size G 1 1/4, G 1 1/2 and G 2)
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

## INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Pipe connections (G\*) have standard combination thread according to ISO 228/1 and ISO 7/1. Pipe connections (G) have standard combination thread according to ISO 228/1
- Installation/maintenance instructions are included with each valve

## SPARE PARTS KIT

catalogue number	spare parts kit no. <sup>(1)</sup>	
		
	~/=	~/=
SCE238D001/002/006/007	<b>C131600</b>	<b>C140262V</b>
SCE238D003/D008	<b>C131618</b>	<b>C140262V</b>
SCE238D004/D009	<b>C131606</b>	<b>C140262V</b>
SCE238D005/D010	<b>C131609</b>	<b>C140262V</b>

<sup>(1)</sup> Standard suffixes are also applicable to kits.

## ORDERING EXAMPLES:

SC	E	238	D	001	230V / 50 Hz
SC	E	238	D	008	V 115V / 50 Hz
SC	E	238	D	004	E 24V / DC
SC	G	238	E	016	230V / 50 Hz

prefix      pipe thread      basic number      voltage      suffix

## ORDERING EXAMPLES KITS:

C131600 <sup>(1)</sup>	
C131618	V
C140262	E

basic number      suffix

## DIMENSIONS (mm), WEIGHT (kg)



**TYPE 01**  
Prefix "SC" Solenoid  
Epoxy moulded  
IEC 335 / DIN 43650  
IP65

SCE238D001/002/004/005  
SCE238D003



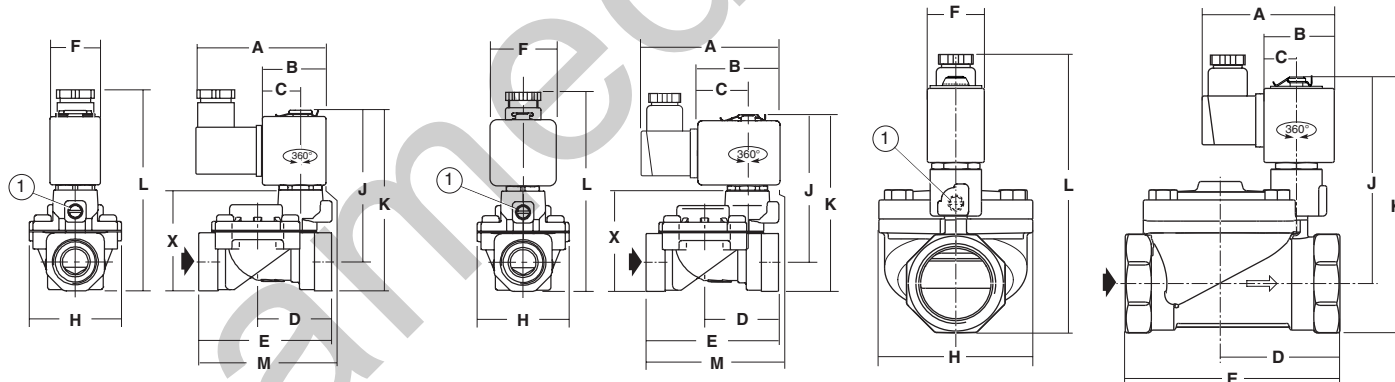
**TYPE 02**  
Prefix "SC" Solenoid  
Epoxy moulded  
IEC 335 / ISO 4400  
IP65

SCE238D006/007/009/010  
SCE238D008



**TYPE 03**  
Prefix "SC" Solenoid  
Black PPS moulded  
IEC 335 / ISO 4400  
IP65

SCG238E016/017/018  
SCG238E019/020/021



type	prefix option	catalogue number	A	B	C	D	E	F	H	J	K	L	M	X	weight <sup>(2)</sup>
01	SC	SCE238D001/002	60,5	27,5	17	34,5	62	22	43	68,5	81	98	57,5	47	0,4
		SCE238D003	60,5	27,5	17	45,5	81,5	22	57	71	83,5	100	73,5	49,5	0,5
		SCE238D004	60,5	27,5	17	53	95	22	68	79,5	94,5	111	85,5	60,5	0,8
		SCE238D005	60,5	27,5	17	58	105,5	22	87	84,5	104	121	93	70	1,0
02	SC	SCE238D006/007	76	38	23	34,5	62	30	43	69,5	83	100,5	61,5	47	0,5
		SCE238D008	76	38	23	45,5	81,5	30	57	72	85,5	103	77,5	49,5	0,6
		SCE238D009	76	38	23	53	95	30	68	80,5	96,5	114	89,5	60,5	0,9
		SCE238D010	76	38	23	58	105,5	30	87	85,5	106	123,5	97	70	1,1
03	SC	SCG238E016/019	76	36,6	21,6	63	113	30	81	108	134	150	-	-	1,7
		SCG238E017/020	76	36,6	21,6	76	140	30	110	112	142	157	-	-	2,6
		SCG238E018/021	76	36,6	21,6	85	157	30	110	116	152	168	-	-	2,9

<sup>(1)</sup> Manual operator location

<sup>(2)</sup> Incl. coil(s) and connector(s).