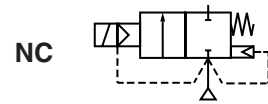




SOLENOID VALVES

pilot operated
for hot water/steam applications
3/8 to 1



2/2
Series
220

FEATURES

- Small compact sized valves particularly designed for hot water and steam, compatible with the seal materials used
- For high temperature applications found in laundries, molding, steam atomization, sterilizers, autoclaves,...
- All products are covered by the Pressure Equipment Directive 2014/64/EU and are suitable for group 1 and 2 fluids
- The solenoid valves satisfy all relevant EU Directives and with the provisions of the Directive RoHS 2

GENERAL

Differential pressure See «SPECIFICATIONS» [1 bar =100 kPa]
Response time 70 - 120 ms

fluids (*)	temperature range (TS)	seal materials (*)
hot water	-20°C to +98°C	PTFE
steam	-20°C to +147°C (class F / class H, DC)	
	-20°C to +173°C (class H, DC)	
	-20°C to +177°C (class H, AC)	



CONSTRUCTION

MATERIALS IN CONTACT WITH FLUID	
(*) Ensure that the compatibility of the fluids in contact with the materials is verified	
Body	Brass
Shading coil	Copper
Core tube	Stainless steel, AISI 305
Core and plugnut	Stainless steel, AISI 430F
Springs	Stainless steel, AISI 302
Diaphragm assembly	PTFE, stainless steel
Seal	PTFE
Disc	PTFE

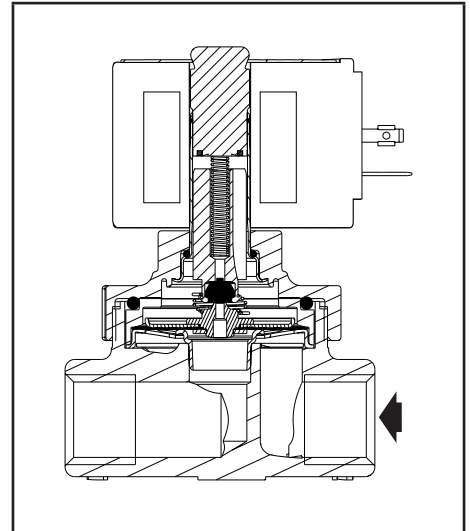
ELECTRICAL CHARACTERISTICS

Coil insulation class	F (AC) or H (AC/ DC)
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 IP65 (EN 60529)
Standard voltages	DC (=) : 24V - 48V
(Other voltages and 60 Hz on request)	AC (~) : 24V - 48V - 115V - 230V/50 Hz

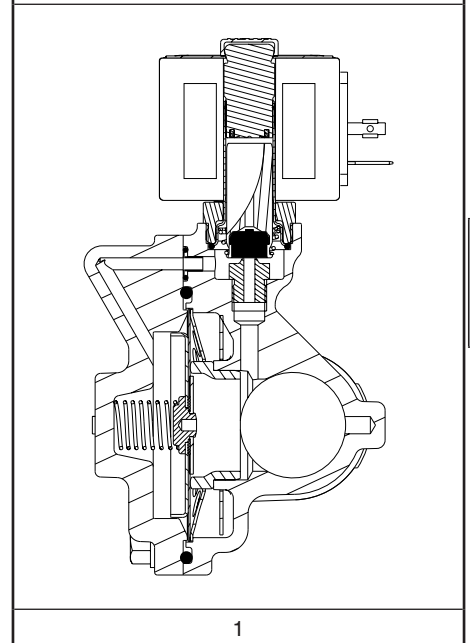
operator ambient temperature range (TS) (°C)	class	power ratings				replacement coil	
		inrush ~ (VA)	holding ~ (W)		hot/cold = (W)	~	=
0 to +52	F	50	25	10,1	-	238613-059	-
	H	-	-	-	15,1/15,6	-	238913-206
0 to +60	H	50	25	10,1	-	238813-059	-

OPTIONS

Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)



3/8 to 3/4



1

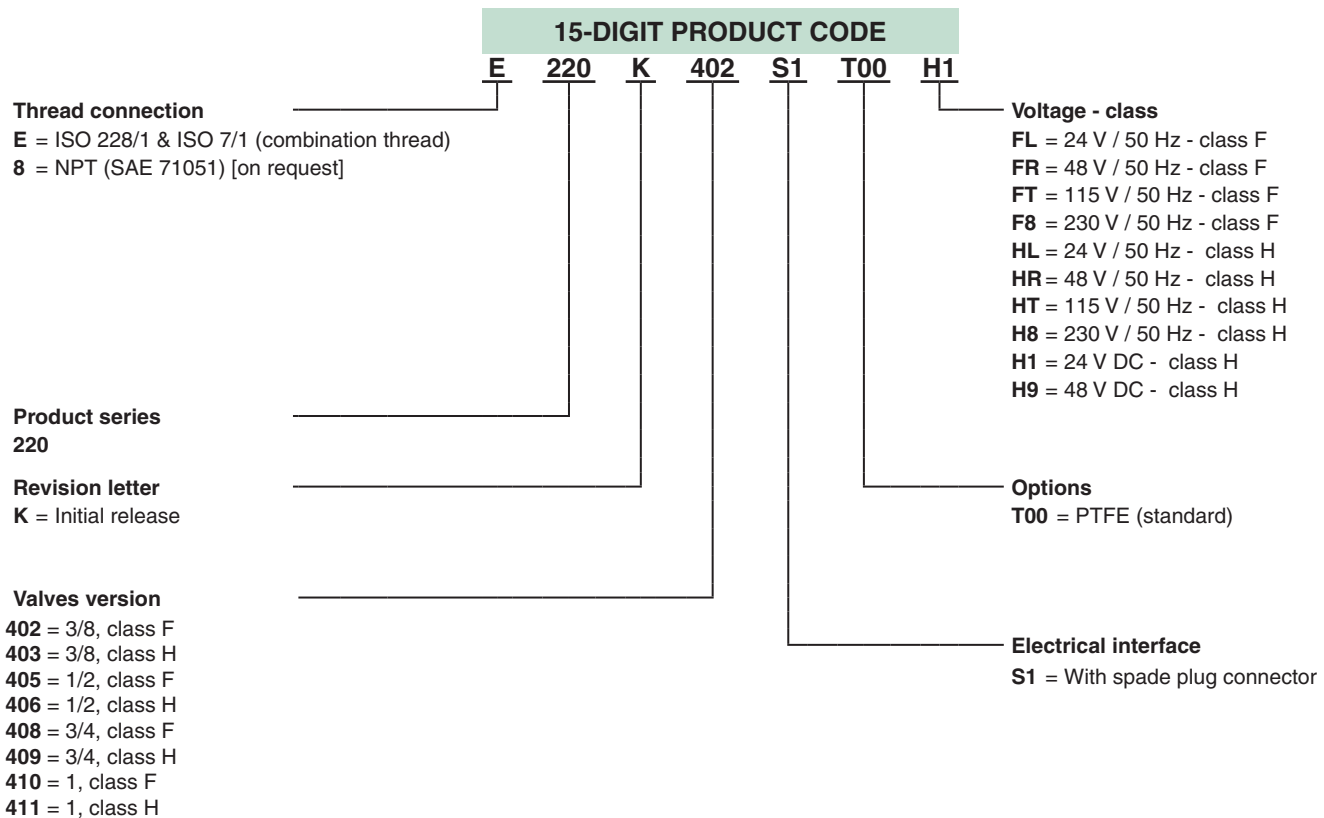
01043GB-2016/R01 Availability, design and specifications are subject to change without notice. All rights reserved.

SPECIFICATIONS

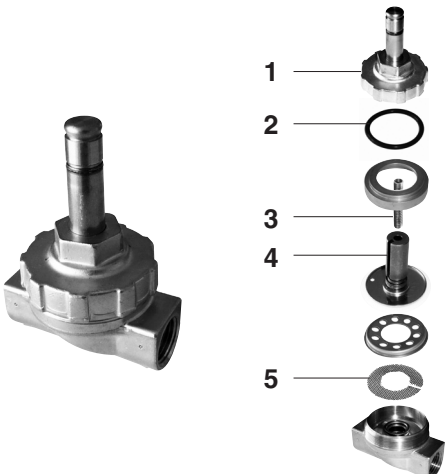
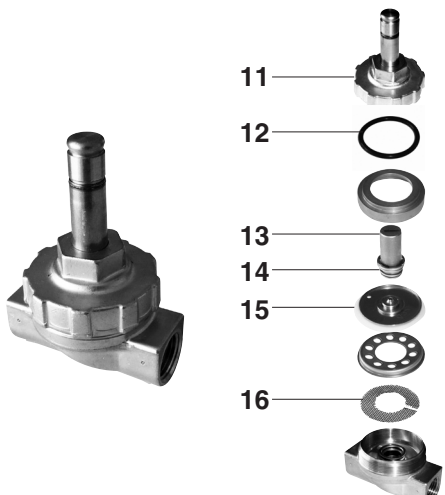
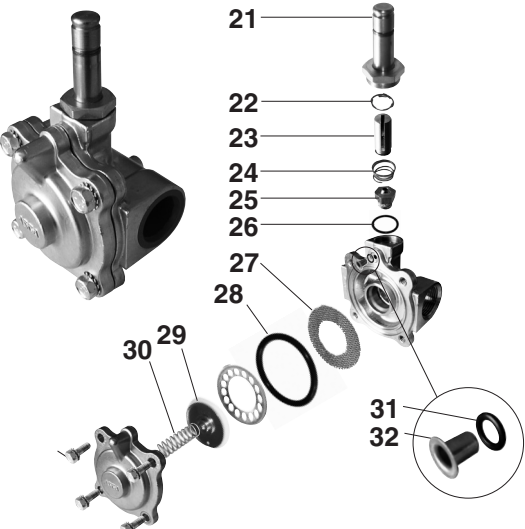
SPECIFICATIONS														15-DIGIT PRODUCT CODE										
pipe size	orifice size (mm)	flow coefficient Kv (m³/h) (l/min)		operating pressure differential (bar)				max. fluid temp. (°)	class	power coil (W)		thread type	dimensions / type (1)	brass	voltage code									
				max. (PS)						max. (PS)	class				power coil (W)	thread type	dimensions / type (1)	brass	24 V/50 Hz	48 V/50 Hz	115 V/50 Hz	230 V/50 Hz	24 V/DC	48 V/DC
				min.	steam (*)	water (*)																		
WITHOUT MANUAL OPERATOR																								
NC - Normally closed																								
3/8	12,7	3,8	63,3	0	3	3,4	10	6,9	147	F	10,1	-	G*	01	E220K402S1T00	FL	FR	FT	F8	-	-			
				H	-	15,6	-	-	H1	H9														
3/8	12,7	3,8	63,3	0,3	9	-	10	-	177	H	10,1	-	G*	01	E220K403S1T00	HL	HR	HT	H8	-	-			
				-	7,5	-	10	173	H	-	15,6	-				-	H1	H9						
1/2	12,7	4	66,6	0	3	3,4	10	6,9	147	F	10,1	-	G*	01	E220K405S1T00	FL	FR	FT	F8	-	-			
				H	-	15,6	-	-	H1	H9														
1/2	12,7	4	66,6	0,3	9	-	10	-	177	H	10,1	-	G*	01	E220K406S1T00	HL	HR	HT	H8	-	-			
				-	7,5	-	10	173	H	-	15,6	-				-	H1	H9						
3/4	19	7,5	125	0	3	3,4	10	6,9	147	F	10,1	-	G*	01	E220K408S1T00	FL	FR	FT	F8	-	-			
				H	-	15,6	-	-	H1	H9														
3/4	19	7,5	125	0,3	9	-	10	-	177	H	10,1	-	G*	01	E220K409S1T00	HL	HR	HT	H8	-	-			
				-	7,5	-	10	173	H	-	15,6	-				-	H1	H9						
1	25	10	166,6	0,3	3	-	10	-	147	F	10,1	-	G*	02	E220K410S1T00	FL	FR	FT	F8	-	-			
				9	-	10	-	177	H	10,1	-	-				-	H1	H9						

(1) For dimensions, see drawing(s) for each construction type on the following page(s).

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



1..5 / 11..16 / 21..32 = Supplied in spare part kit.

		SPARE PARTS KITS CODE (*)			
		AC (-)		DC (=)	
			PTFE		PTFE
	E220K402S1T00FL/FR/FT/F8	M200307	T00	-	-
	E220K402S1T00H1/H9	-	-	M200308	T00
	E220K405S1T00FL/FR/FT/F8	M200307	T00	-	-
	E220K405S1T00H1/H9	-	-	M200308	T00
	E220K408S1T00FL/FR/FT/F8	M200310	T00	-	-
	E220K408S1T00H1/H9	-	-	M200311	T00
	E220K403S1T00FL/FR/FT/F8	M200309	T00	-	-
	E220K406S1T00FL/FR/FT/F8	M200309	T00	-	-
	E220K409S1T00FL/FR/FT/F8	M200312	T00	-	-
	E220K410S1T00FL/FR/FT/F8	M200313	T00	-	-
	E220K411S1T00FL/FR/FT/F8	M200314	T00	-	-

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

INSTALLATION

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



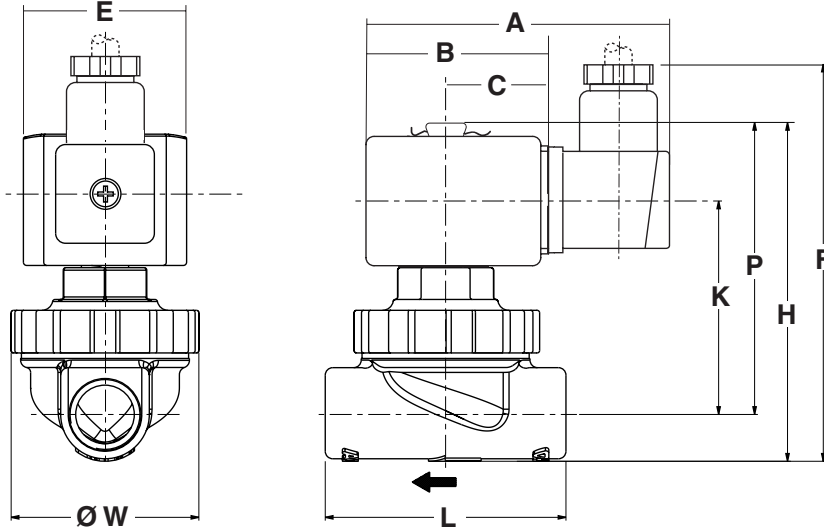
DIMENSIONS (mm), WEIGHT (kg)



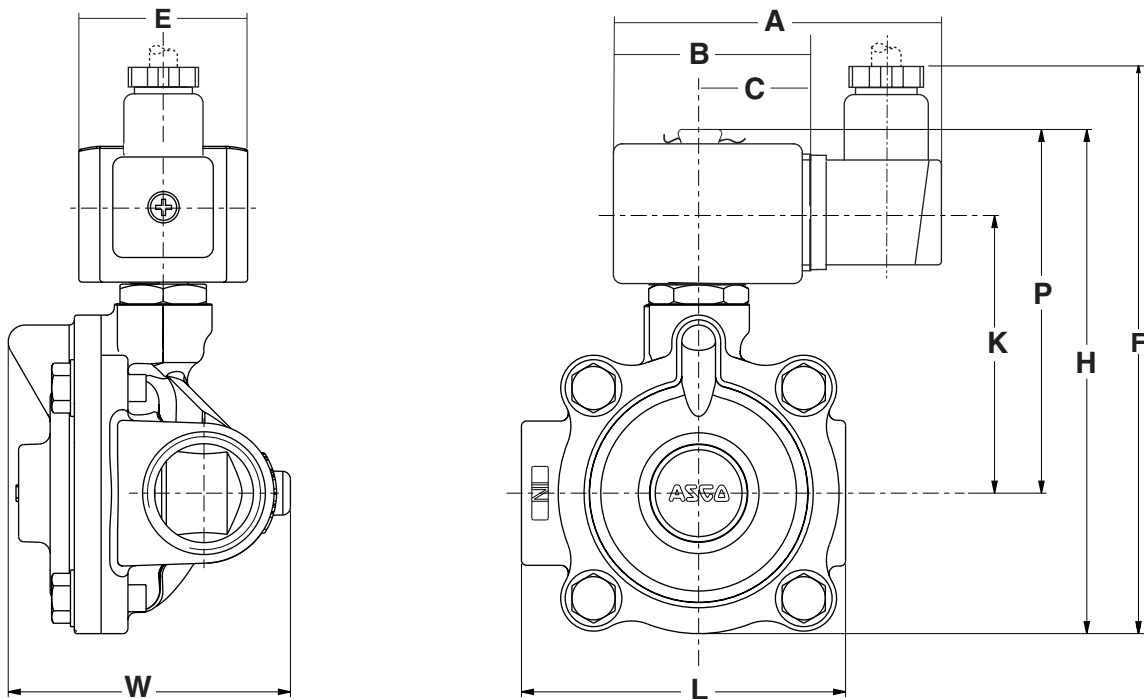
TYPE 01

Electrical interface "S1"
Epoxy moulded
IEC 335 / ISO 4400
IP65

E220K402/403/405/406/408/409.....

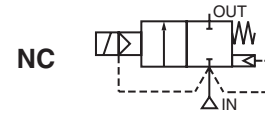


E220K410/411.....



pipe size	A	B	C	E	F	H	K	L	P	W	weight ⁽¹⁾
3/8 - 1/2	91	51	30	50	132	104	65	73	90	57	0,875
3/4	95	57	33	50	134	106	64	73	89	72	0,875
1	96	59	34	50	180	148	82	95	106	83	2,013

⁽¹⁾ Incl. coil(s) and connector(s).



FEATURES

- Small compact sized valves particularly designed for hot water and steam, compatible with the seal materials used
- Lightweight stamped steel pistons giving all-round support to resilient, tight seal discs
- Valves require a minimum operating pressure of 0,35 bar
- All products are covered by the Pressure Equipment Directive 2014/64/EU and are suitable for group 1 and 2 fluids
- The solenoid valves satisfy all relevant EU Directives

GENERAL

Differential pressure See «SPECIFICATIONS» [1 bar = 100 kPa]
Response time 40 - 120 ms

fluids (*)	temperature range (TS)	seal materials (*)
hot water, steam	- 20°C to + 150°C	EPDM (ethylene-propylene)
steam	- 20°C to + 184°C	PTFE

MATERIALS IN CONTACT WITH FLUID

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

Body	Brass
Core tube	Stainless steel
Core and plugnut	Stainless steel
Springs	Stainless steel
Seat	Brass
Seals	EPDM
Discs	EPDM or PTFE
Shading coil	Copper

ELECTRICAL CHARACTERISTICS

Coil insulation class	F (EPDM disc) or H (PTFE disc)
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 IP65 (EN 60529)
Standard voltages	DC (=) : 24V - 48V AC (~) : 24V - 48V - 115V - 230V / 50 Hz

(Other voltages and 60 Hz on request)

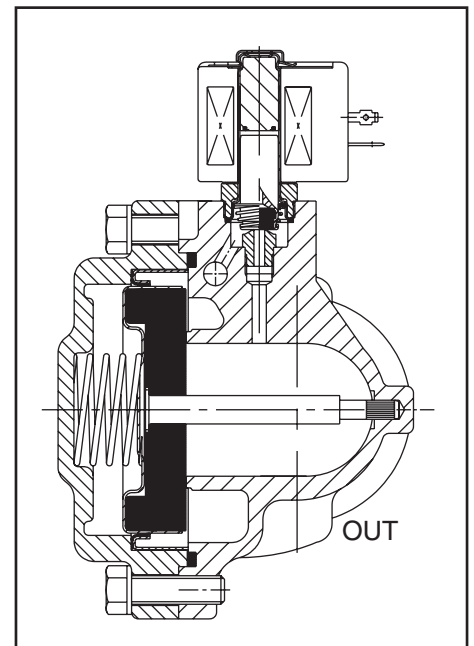
prefix option	power ratings				operator ambient temperature range (TS) (C°)	replacement coil		type ⁽¹⁾
	inrush ~	holding ~		hot/cold =		~	=	
	(VA)	(VA)	(W)	(W)		230 V/50 Hz	24 V DC	
SC	55	23	10,5	-	-20 to + 40	400425-117	-	01 (class F)
	44	20	10,5	-	-20 to + 40	400426-117	-	01 (class H)
	-	-	-	12/16,8	-20 to + 40	-	400625-142	02

⁽¹⁾ Refer to the dimensional drawings on the following page.

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)				max. fluid temp. (°C)		power coil (W)		catalogue number	
				min.	max. (PS)								
					steam (*)	water (*) ⁽²⁾							
Rp	(mm)	(m³/h)	(l/min)		~	=	~	=	~	=			
NC - Normally closed, EPDM disc													
1 1/4	28	12,8	213	0,35	3,5	3,5	10	10	150	150	10,5	16,8	SCE220-009
1 1/2	32	19,5	325	0,35	3,5	3,5	10	10	150	150	10,5	16,8	SCE220-011
2	44	37	617	0,35	3,5	3,5	10	10	150	150	10,5	16,8	SCE220-013
NC - Normally closed, PTFE disc													
1 1/4	28	12,8	213	0,35	10	-	10	-	184	-	10,5	-	SCE220-027
1 1/2	32	19,5	325	0,35	10	-	10	-	184	-	10,5	-	SCE220-029
2	44	37	617	0,35	10	-	10	-	184	-	10,5	-	SCE220-031

⁽²⁾ Water temperature should not exceed 100°C.



OPTIONS

- Waterproof enclosure with embedded screw terminal coil according to protection class IP67, CEE-10
- Compliance with “UL”, “CSA” and other local approvals available on request
- Coils according to “CSA/SA” standards
- Other pipe connections are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

INSTALLATION

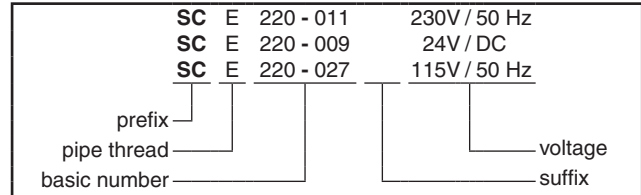
- The solenoid valves can be mounted in any position without affecting operation
- Pipe connection identifier is E = Rp (ISO 7/1)
- Installation/maintenance instructions are included with each valve

SPARE PARTS KIT & ACCESSORIES

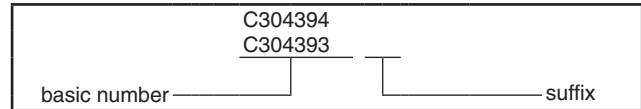
catalogue number	spare parts kit no.	
	~	=
SCE220-009	C304394	C132651
SCE220-011	C304395	C132652
SCE220-013	C304943	C132653
SCE220-027	C304392	-
SCE220-029	C304393	-
SCE220-031	C306807	-

- Not available.

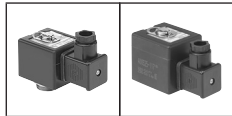
ORDERING EXAMPLES:



ORDERING EXAMPLES KITS:



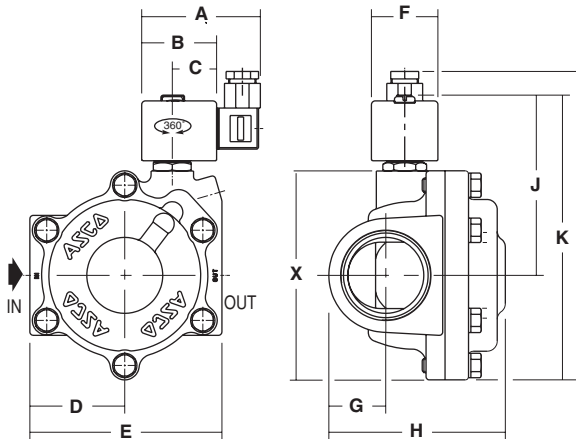
DIMENSIONS (mm), WEIGHT



TYPE 01-02
Prefix “SC” Solenoid
Epoxy moulded
IEC 335 / ISO 4400
IP65

Type 01 (AC) : SCE220-009/011/013/027/029/031

Type 02 (DC) : SCE220-009/011/013



type	prefix option	catalogue number	A	B	C	D	E	F	G	H	J	K	L	X	weight ⁽¹⁾
01	SC	SCE220-009/027	80	50	30	46	93	45	29	89	106	147	162	98	2,1
		SCE220-011/029	80	50	30	55	111	45	33	104	110	160	175	111	2,8
		SCE220-013/031	80	50	30	64	129	45	38	119	120	190	205	141	4,6
02	SC	SCE220-009	86	56	33	46	93	50	29	89	96	137	152	80	2,2
		SCE220-011	86	56	33	55	111	50	33	104	100	150	165	93	2,9
		SCE220-013	86	56	33	64	129	50	38	119	110	180	195	123	4,7

⁽¹⁾ including coil and connector.