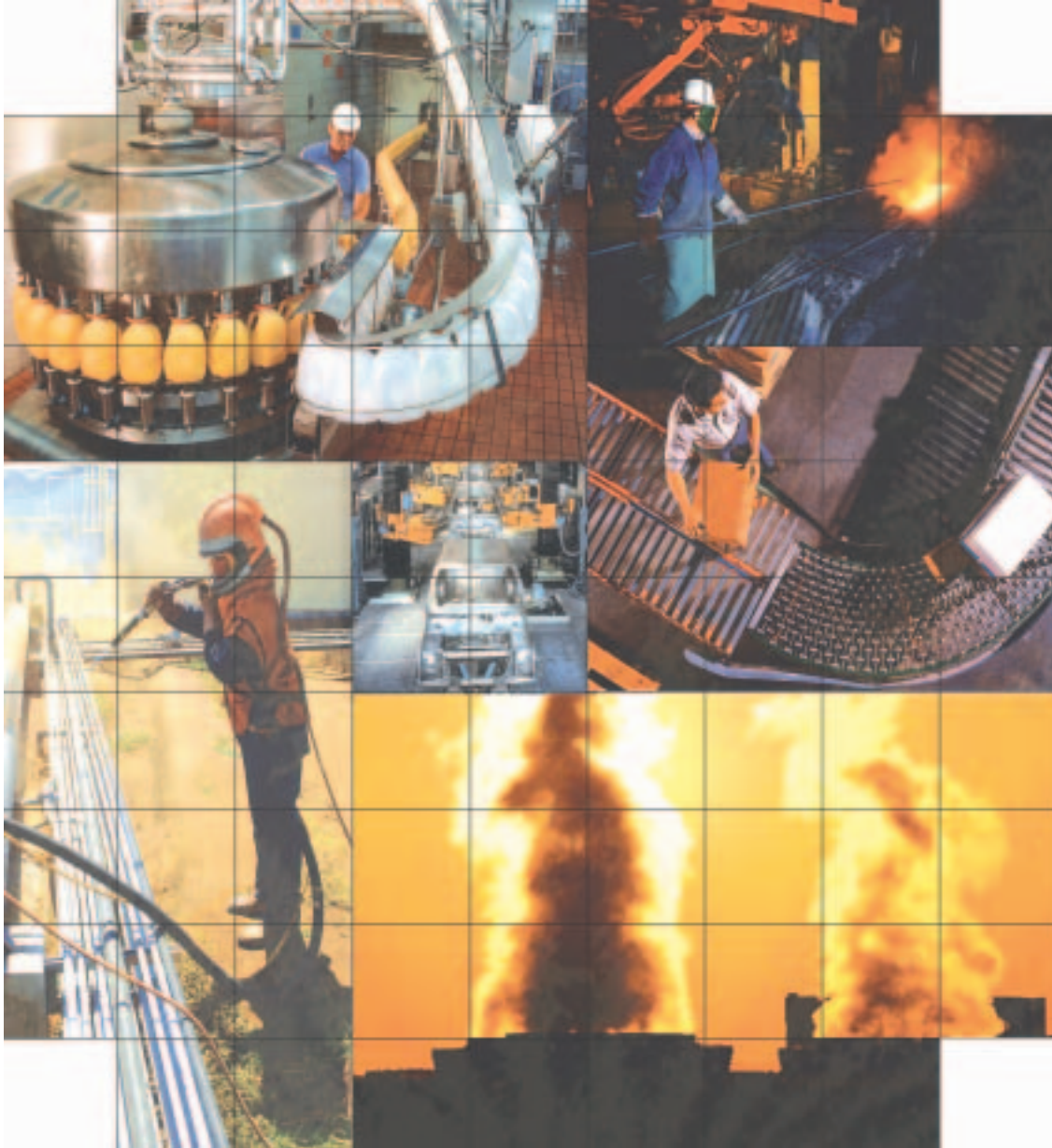


ASCO[®] Valve



Valves for the control of air, water and steam

www.ascovalve.net

SOLENOID VALVES

GENERAL PURPOSE APPLICATIONS

1/8" - 2"

TECHNICAL DATA

- **Fluids** : water, air & neutral gas; light oil < 40 cSt
- **Body** : Brass
- **Sealing** : NBR (steam: PTFE)
- **Maximum temperature**
 - Ambient** : +60 °C
 - Fluid** : +85 °C (106 Series : +80 °C)
- **Protection** : IP65
- **Standard voltage DC (=)** : 24V
- **Standard voltage AC (-)** : 110V / 50-60 Hz
220V / 50-60 Hz
230V / 50 Hz
Other voltages available upon request
- **Steam**
 - + 80 °C
 - + 170 °C



SPECIFICATIONS

pipe size G	orifice size (mm)	flow coef Kv (l/min)	operating pressure differential (bar)			power rating		catalog number
			min	maximum		AC (W)	DC (W)	
				air / gas / water / light oil	AC			
2 WAY NORMALLY CLOSED								
1/8"	1.5	1	0	20	12	4	6.9	10600058
1/8"	2.5	1.7	0	10	4	4	6.9	10600003
1/4"	1.5	1.1	0	20	12	4	6.9	10600187
1/4"	2.5	2.9	0	10	4	4	6.9	10600189
3/8"	12	40	0.3	10	10	4	6.9	SCE238A001
3/8"	12	40	0.3	16	16	5	6.9	SCE238A006
1/2"	12	40	0.3	10	10	4	6.9	SCE238A002
1/2"	12	40	0.3	16	16	5	6.9	SCE238A007
1/2"	15	70	0.3	10	10	4	6.9	SCE238B003
1/2"	15	70	0.3	16	16	5	6.9	SCE238B008
3/4"	20	110	0.3	10	10	4	6.9	SCE238A004
3/4"	20	110	0.3	16	16	5	6.9	SCE238A009
1"	25	165	0.3	10	10	4	6.9	SCE238A005
1"	25	165	0.3	16	16	5	6.9	SCE238A010
1 1/4"	30	250	0.5	10	10	6	9.5	SCG238A016
1 1/2"	45	450	0.5	10	10	6	9.5	SCG238A017
2"	45	566	0.5	10	10	6	9.5	SCG238A018

2 WAY NORMALLY CLOSED - STEAM / SUPERHEATED WATER

3/8"	10	33	0.4	8	-	6	-	SCG240A100
1/2"	10	42	0.4	8	-	6	-	SCG240A101
3/4"	16	75	0.4	6	-	9	-	SCG240A102
1"	18.5	142	0.4	6	-	9	-	SCG240A103

Note: Manual Operator, Viton and EPDM can be supplied

Conversion: Cv = 0.069kv (l/min)

bar = 100kpa = 14.5psi

°F = 9/5 °C + 32

Viscosity: 40cSt = 186SSU

FEATURES

- Solenoid valves satisfy all relevant EC directives
- Minimum operating pressure differential 0.3 / 0.5 bar
- Interchangeability of magnetic heads, AC and DC

GENERAL

Differential pressure	See "SPECIFICATIONS" (1 bar = 100 kPa)						
Ambient temperature range	-10°C to +60°C						
Maximum viscosity	40 cSt (mm ² /s)						
Response time (Air operation, ΔP = 6 bar)	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)	sealings (*)
DN ≤ 25: air, inert gas and water DN > 25: air and water	-10 to +85°C	NBR (nitrile / buna-n)

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
Seals, diaphragm and disc	NBR
Shading coil	Copper

ELECTRICAL CHARACTERISTICS

Coil isolation class	F
Connector	Spade plug
Connector specification	
for CM22-4W	3 x DIN 46244 (Pg 9P)
for CM25-5W / AMX	ISO 4400 (Pg 11P)
Electrical safety	VDE 0580
Standard voltages	DC (=): 24V
(Other voltages and 60 Hz on request)	AC (~): 24V - 115V - 230V / 50 Hz

coil type	nominal power ratings				ambient temperature range (TS) (°C)	protection
	inrush		holding			
	~ (VA)	~ (VA)	~ (W)	= (W)		
CM22-4W	12	6	4	5 / 6,9	-10 to +60	moulded IP65
CM25-5W	15	7	5	5 / 6,9		
AMX	20	10	6	7,5 / 9,5		

SPECIFICATIONS

pipe size	orifice size (mm)	flow coefficient Kv (m ³ /h) (l/min)		operating pressure differential (bar)				coil type	catalogue number	OPTIONAL			
				maximum (PS)						NBR sealings	FPM	EPDM	
				min.	air (*)		water (*)						
					~	=	~						=
G* 3/8	12	2,4	40	0,3	10	10	10	10	CM22-4W	SC E238A001	V	E	
G* 3/8	12	2,4	40	0,3	16	16	16	16	CM25-5W	SC E238A006	V	E	
G* 1/2	12	2,4	40	0,3	10	10	10	10	CM22-4W	SC E238A002	V	E	
G* 1/2	12	2,4	40	0,3	16	16	16	16	CM25-5W	SC E238A007	V	E	
G* 1/2	15	4,2	70	0,3	10	10	10	10	CM22-4W	SC E238B003	V	E	
G* 1/2	15	4,2	70	0,3	16	16	16	16	CM25-5W	SC E238B008	V	E	
G* 3/4	20	6,6	110	0,3	10	10	10	10	CM22-4W	SC E238A004	V	E	
G* 3/4	20	6,6	110	0,3	16	16	16	16	CM25-5W	SC E238A009	V	E	
G* 1	25	9,9	165	0,3	10	10	10	10	CM22-4W	SC E238A005	V	E	
G* 1	25	9,9	165	0,3	16	16	16	16	CM25-5W	SC E238A010	V	E	
G 1 1/4	30	15	250	0,5	10	10	10	10	AMX	SC G238A016	V	-	
G 1 1/2	45	27	450	0,5	10	10	10	10	AMX	SC G238A017	V	-	
G 2	45	34	566	0,5	10	10	10	10	AMX	SC G238B018	V	-	

The codes in the grey shaded areas correspond to commonly used products which can be supplied rapidly

OPTIONS

- Valves can also be supplied with FPM (fluorelastomer / viton), EPDM (ethylene-propylene) sealings, diaphragm and disc. Use the appropriate optional suffix letter for identification
- Manual operator, suffix **MO**
Versions 3/8 to 1:
- Explosionproof EEx **m** coil for hazardous areas (only for versions with coil CM22-4W); see V1037 (section 10)
- Compliance with "**UL**" and "**CSA**" standards (catalogue numbers A001/A002/B003/A004/A005 only, optional)
- Magnetic latch execution for CM22 coil type only; see V910-10 (Section 9/10)
- All versions:**
- Connectors with built-in indicator and electrical protection or prewired with cable length 2 m (see section 11)

INSTALLATION

- 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
- The third digit in the catalogue number indicates the standard pipe connection: E= ISO 228/1 and ISO 7/1
- Other pipe connections are available on request
- Installation/maintenance instructions are included with each valve
- Spare parts kits and replacement coils are available (see section 11)

DIMENSIONS (mm), WEIGHT (kg)

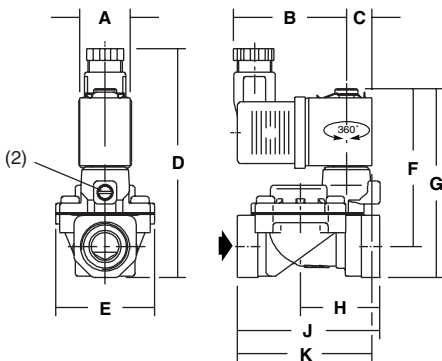


Fig. 1

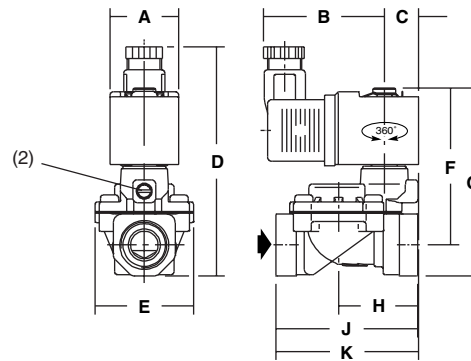


Fig. 2

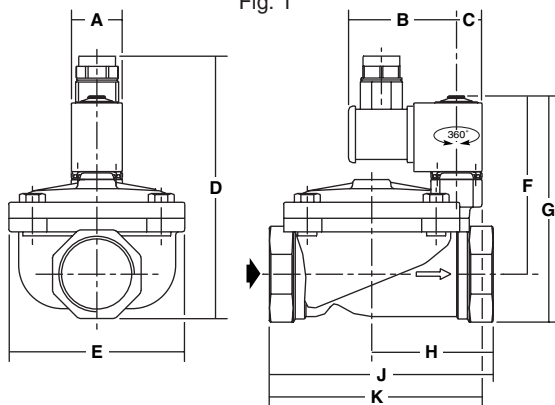


Fig. 3

catalogue number	Ø	A	B	C	D	E	F	G	H	J	K	weight (1)	(C)
SC E238A001	3/8	22	49	11	95	43	68,5	82	34,5	62	58,5	0,4	fig. 1
SC E238A002	1/2	22	49	11	95	43	68,5	82	34,5	62	58,5	0,4	
SC E238B003	1/2	22	49	11	97	57	71	84,5	45,5	81,5	74,5	0,5	
SC E238A004	3/4	22	49	11	108	68	79,5	95,5	53	95	86,5	0,8	
SC E238A005	1	22	49	11	118	87	84,5	105	58	105,5	94	1,0	
SC E238A006	3/8	30	57	15	96,5	43	68,5	82	34,5	62	62,5	0,5	fig. 2
SC E238A007	1/2	30	57	15	96,5	43	68,5	82	34,5	62	62,5	0,5	
SC E238B008	1/2	30	57	15	99	57	71	84,5	45,5	81,5	78,5	0,6	
SC E238A009	3/4	30	57	15	110	68	79,5	95,5	53	95	90,5	0,9	
SC E238A010	1	30	57	15	119,5	87	84,5	105	58	105,5	98	1,1	
SC G238A016	1 1/4	32	57	16	150	81	109 (3)	135 (3)	63	113	106	1,7	fig. 3
SC G238A017	1 1/2	32	57	16	157	110	112 (3)	142 (3)	80	140	129	2,6	
SC G238B018	2	32	57	16	168	110	117 (3)	153 (3)	85	157	129	2,9	

(1) Incl. coil and connector (2) Manual operated (option) (3) Manual operated, added +23 mm (C) Construction type

All leaflets are available on: www.ascojoucomatic.com

FEATURES

- Solenoid valves satisfy all relevant EC directives
- Two way normally open valves for automatic control of water, air and inert gas and other gases/liquids compatible with the sealing materials used
- Minimum operating pressure differential 0.3 bar
- Interchangeability of magnetic heads, AC and DC

GENERAL

Differential pressure	0,5 to 10 bar (1 bar = 100 kPa)		
Ambient temperature range	-10°C to +60°C		
Maximum viscosity	40 cSt (mm ² /s)		
Response time (Air operation, ΔP = 6 bar)	1 1/4	1 1/2	2
opening time (ms)	300	300	1500
closing (ms)	1000	1000	2000

fluids (*)	temperature range (TS)	sealings (*)
air and water	-10°C to +85°C	NBR (nitrile / buna-n)

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
Seals, diaphragm and disc	NBR
Shading coil	Copper

ELECTRICAL CHARACTERISTICS

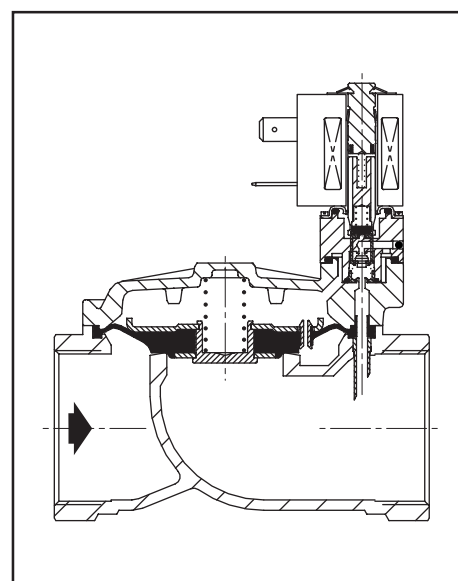
Coil isolation class	F
Connector	Spade plug
Connector specification	ISO 4400
Electrical safety	VDE 0580
Standard voltages	DC (=) : 24V
(Other voltages and 60 Hz on request)	AC (~) : 24V - 115V - 230V / 50 Hz

coil type	nominal power ratings			ambient temperature range (TS) (°C)	protection	
	inrush ~ (VA)	holding ~ (VA)	hot/cold = (W)			
	AMX	20	10			6

SPECIFICATIONS

pipe size (G)	orifice size (mm)	flow coefficient Kv (m ³ /h) (l/min)		operating pressure differential (bar)				coil type ~/=	catalogue number	OPTIONAL				
				maximum (PS)						NBR sealings	FPM			
				min.	air (*)		water (*)							
1 1/4	30	15	250	0,5	10	10	10	10	AMX	SC G238A019	V			
1 1/2	45	27	450	0,5	10	10	10	10	AMX	SC G238A020	V			
2	45	34	566	0,5	10	10	10	10	AMX	SC G238B021	V			

 The codes in the grey shaded areas correspond to commonly used products which can be supplied rapidly



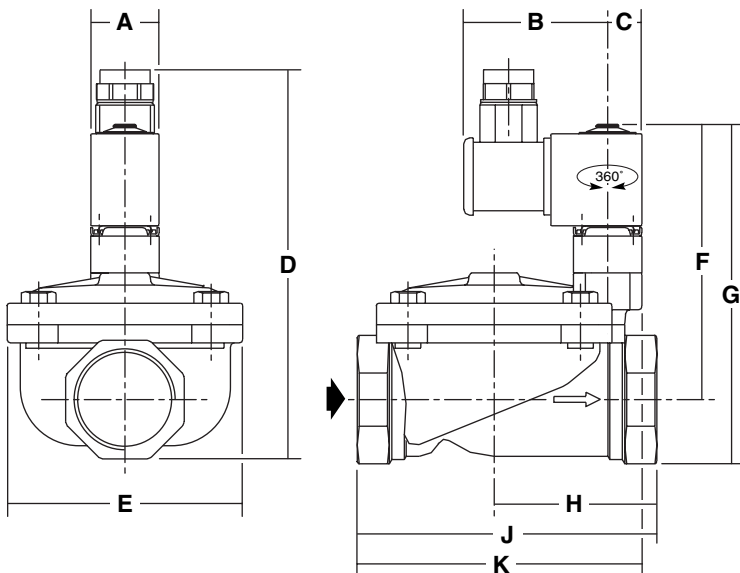
OPTIONS

- Valves can also be supplied with FPM (fluorelastomer / viton) sealings, diaphragm and disc.
Use the appropriate optional suffix letter for identification
- Connectors with built-in indicator and electrical protection or prewired with cable length 2 m (see section 11)

INSTALLATION

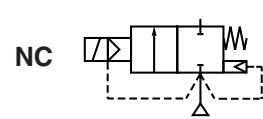
- Solenoid valves can be mounted in any position without affecting operation
- Pipe connections (G) have standard combination thread according to ISO 228/1
- The third digit in the catalogue number indicates the standard pipe connection
- Other pipe connections are available on request
- Installation/maintenance instructions are included with each valve
- Spare parts kits and replacement coils are available (see section 11)

DIMENSIONS (mm), WEIGHT (kg)



catalogue number	(G)	A	B	C	D	E	F	G	H	J	K	weight (1)
SC G238A019	1 1/4	32	57	16	168	81	127	153	63	113	106	1,9
SC G238A020	1 1/2	32	57	16	175	110	130	160	80	140	129	3,0
SC G238B021	2	32	57	16	186	110	135	171	85	157	129	3,4

(1) Incl. coil and connector



FEATURES

- Solenoid valves satisfy all relevant EC directives
- Two-way normally closed valves for automatic control of superheated water / steam, air and inert gas and other gases/liquids compatible with the sealing materials used
- Minimum operating differential pressure 0.4 bar

GENERAL

Differential pressure 0,4 to 8 bar (1 bar = 100 kPa)
Maximum viscosity 37 cSt (mm²/s)
Response time 100 to 1500 ms

fluids (*)	temperature range (TS)	sealings (*)
superheated water - steam	+60°C to +170°C	reinforced PTFE (rulon)



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
Seals, diaphragm PTFE
Disc Reinforced PTFE
Seating Stainless steel
Shading coil Copper

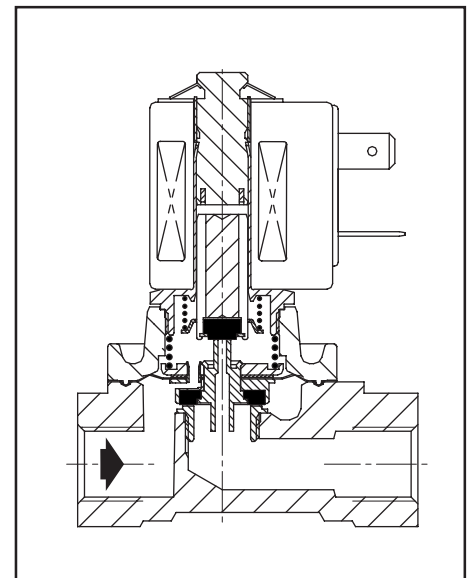
ELECTRICAL CHARACTERISTICS

Coil isolation class H
Connector Spade plug
Connector specification
for BMX 3 x DIN 46244 (Pg 9P)
for AMX ISO 4400 (Pg 11P)
Electrical safety VDE 0580

Standard voltages

(Other voltages and 60 Hz on request) AC (~) : 24V - 115V - 230V / 50 Hz

coil type	nominal power ratings			ambient temperature range (TS) (°C)	protection
	inrush ~	holding ~	hot/cold =		
	(VA)	(VA) (W)	(W)		
BMX	16	10	6	-	moulded IP65
AMX	23	14	6	-	



SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)			max. fluid temp. (1) (°C)	coil type	catalogue number
				min.	maximum (PS)				
(G)	(mm)	(m ³ /h)	(l/min)		steam (*)	water (*)			
3/8	10	2	33,3	0,4	8	8	170	BMX	SC G240A100
1/2	10	2,5	41,6	0,4	8	8	170	BMX	SC G240A101
3/4	16	4,5	75,0	0,4	6	6	170	AMX	SC G240A102
1	18,5	8,5	141,6	0,4	6	6	170	AMX	SC G240A103

(1) Min. fluid temperature: + 60°C.

The codes in the grey shaded areas correspond to commonly used products which can be supplied rapidly

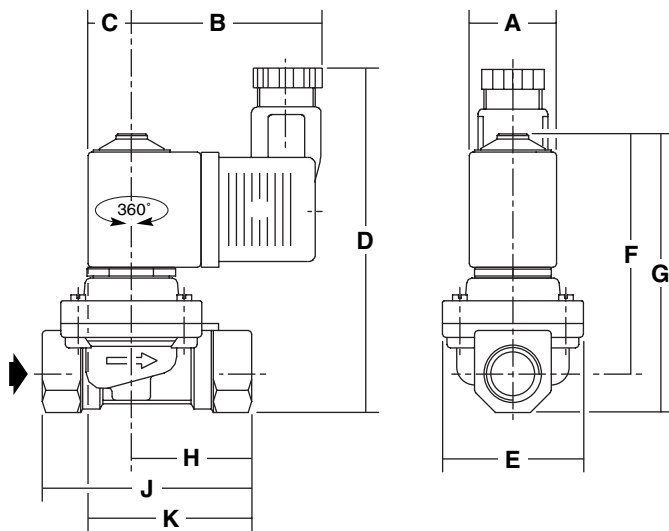
OPTIONS

- Connectors with built-in indicator and electrical protection or prewired with cable length 2 m (see section 11)

INSTALLATION

- Solenoid valves can be mounted in any position without affecting operation
- Pipe connections (G) have standard combination thread according to ISO 228/1
- The third digit in the catalog number indicates the standard pipe connection
- Other pipe connections are available on request
- Installation/maintenance instructions are included with each valve
- Spare parts kits and replacement coils are available (see section 11)

DIMENSIONS (mm), WEIGHT (kg)



catalogue number	(G)	A	B	C	D	E	F	G	H	J	K	weight (1)
SC G240A100	3/8	25	49	12,5	95	40	69	80	34,5	60	47	0,38
SC G240A101	1/2	25	49	12,5	100	40	72	85	33	66	45,5	0,41
SC G240A102	3/4	32	57	16	109,5	50	78	94,5	39,5	79	55,5	0,61
SC G240A103	1	32	57	16	138	71	102	123	59	105	75	1,34

(1) Incl. coil and connector