

DESCRIPTION

Solenoid valve 3 way
Direct acting poppet type

CONSTRUCTION

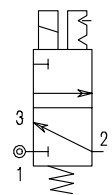
Body Acetal copolymer
Internal parts Acetal copolymer – Stainless steel
Seal material NBR



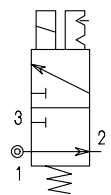
FEATURES

Fixing method : M2.5 screws
Max torque 0.5Nm
Universal mounting position
Fluid temperature : 50°C max
Ambient temperature : -15°C +50°C
Fluid : Air, Neutral gases
Response time : 10-15ms
Manual override : Enclosed bi-stable function

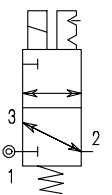
3/2 NC



3/2 NO



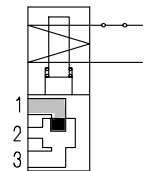
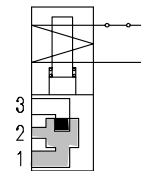
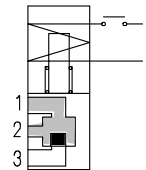
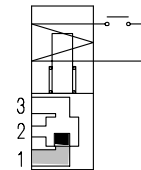
3/2 U



3

ELECTRICAL OPERATING FEATURES

Duty cycle : ED100%
Insulation class : F (155°C)
Voltage tolerance : ±10%
Protection class : Cables IP65
Fast-on IP00
With connector fitted IP65
Electrical connection : Cables (L=300mm)
AMP 2.8x0.5
DIN 43650/C



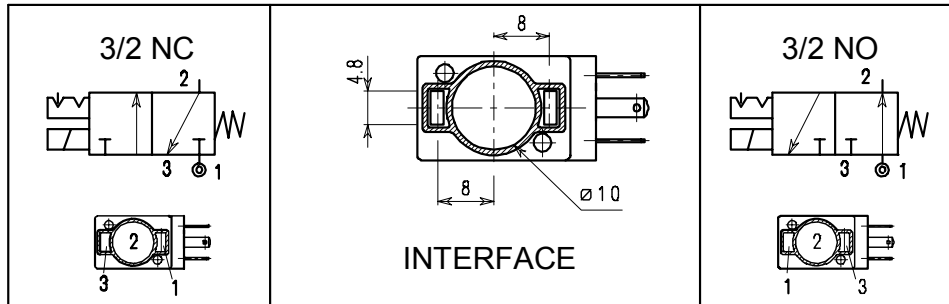
Connection	Orifice mm		Pa=6bar NI/1' Nominal rate +p=1bar	Differential pressure bar		Power consumption at 20°C			CODE	
	1→2	2→3		Min	Max	Alternating current VA		Direct current Watt	Alternating current	Direct current
NC Normally closed										
Flange	0.8	0.9	23	0	10	---	---	1.5	E345XB08	D345XB08
Flange	1.2	1.3	29	0	10	3.6	2.5	2.5	E345XB12	D345XB12
Flange	1.5	1.6	43	0	6	3.6	2.5	2.5	E345XB15	D345XB15
NO Normally open										
Flange	1	1.2	26	0	8	3.6	2.5	2.5	E346XB10	D346XB10
U Universal										
Flange	1.5	1.6	43	0	2.5	3.6	2.5	2.5	E347XB15	D347XB15

COIL CODE

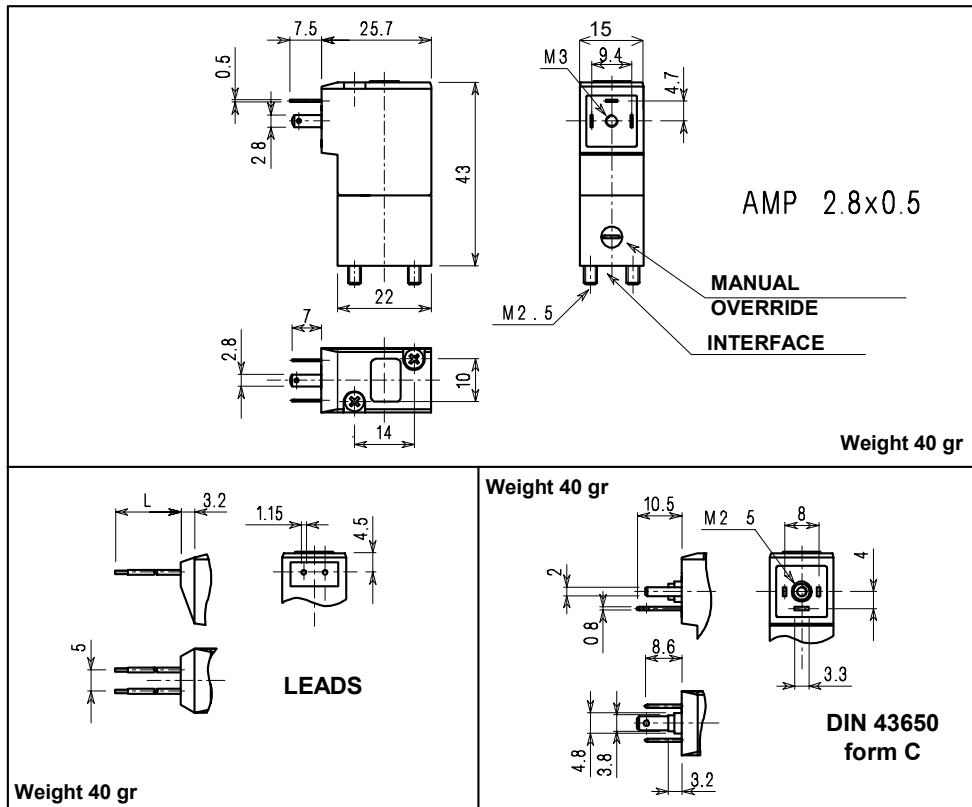
VOLTAGE	AMP 2.8 x 0.5			DIN 43650 C form			CABLE		
	50/60Hz	1.5WDC	2.5WDC	50/60Hz	1.5WDC	2.5WDC	50/60Hz	1.5WDC	2.5WDC
12	---	106970	106950	---	109020	109040	---	107010	106990
24	107030	106980	106960	108990	109030	109050	107040	107020	107000
110	107060	---	---	109000	---	---	---	---	---
220/230	107050	---	---	109010	---	---	---	---	---

P.S. 1,5W power available on Ø0.8 orifice only

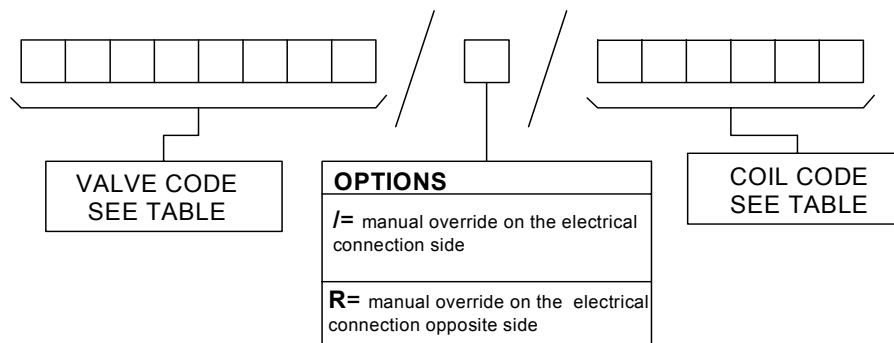
CONNECTION



OVERALL DIMENSIONS



TYPE NUMBER COMPOSITION



Example: D345XB12///10960 3 way NC-24VDC 2,5W. Electrical connection AMP 2.8x0.5 is on the opposite side of the manual override.

DESCRIPTION

Solenoid valve 3 way normally closed
direct acting poppet type for modular construction

CONSTRUCTION

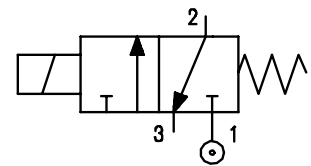
Body	Die-cast aluminium
Armature tube	Brass
Plunger and core	Stainless steel
Springs	Stainless steel
Seal material	NBR FPM EPDM



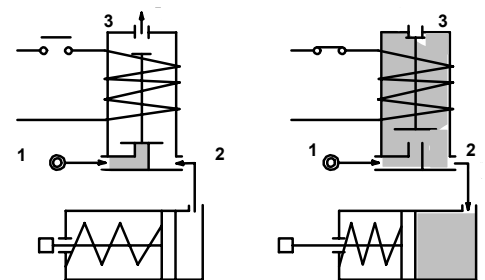
FEATURES

Media : Air, Neutral gases
Ambient temperature : with class F coil -10°C +55°C
with class H coil -10°C +80°C
Universal mounting position

OPTIONS : Manual override
Stainless steel armature tube
Electroless nickel plating
Explosion proof coil according to ATEX - EExmII Series 7
Wet proof coil fixing nut



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NOTE: This valve ISN'T standard. Contact the manufacturer for any question

CODE ① ②	Connection	Orifice mm Inlet Exh.		KV m³/h	Differential pressure bar			Nominal power			Coil		Seal ①	Temp. range °C
					Min	Max		AC Inrush	VA Holding	DC Watt	Series	Width		
						AC	DC							
E350B.....15///.....	G1/4"	1.5	1.5	0.06	0	10	10	12	8	6.5	3	22	NBR=B	-10 +90
E350B.....17///.....	G1/4"	1.7	1.7	0.08	0	8	8	12	8	6.5	3	22		
E350B.....17///.....	G1/4"	1.7	1.7	0.08	0	10	10	15	11	5	4	30	EPDM=E	<+140
E350M.....15///.....	M12x1.5	1.5	1.5	0.06	0	10	10	12	8	6.5	3	22		
E350M.....17///.....	M12x1.5	1.7	1.7	0.08	0	8	8	12	8	6.5	3	22	FPM=V	-10 +130
E350M.....17///.....	M12x1.5	1.7	1.7	0.08	0	10	10	15	11	5	4	30		

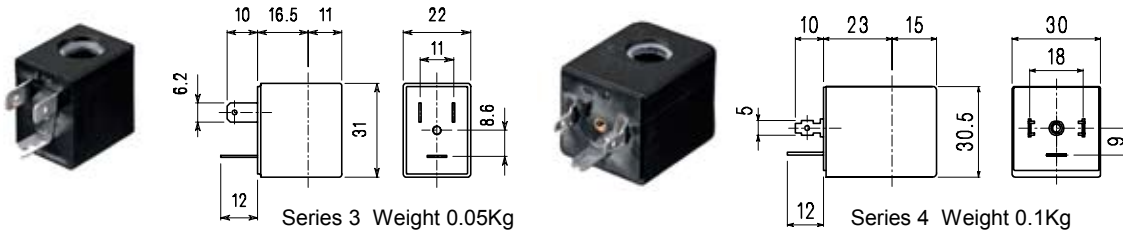
- ① Seal
- ② Coil

Example: E350MV17///30B FPM seal M12x1.5 connection
Coil 24V 50/60Hz

COILS	Alternating Current ~50/60Hz Volt							Direct Current Volt			Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24	48		
Series 3 Width 22 Code ②	30A	30B	30C	30D	30E	30F	30G	300	301	302	DIN 46244	PG9 code 10348000
Series 4 Width 30 Code ②	40A	40B	40C	40D	40E	40F	40G	400	401	402	DIN 43650A	PG9 code 10349000

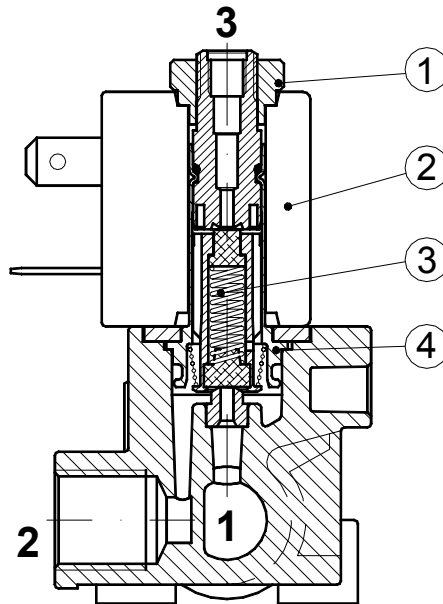
DESCRIPTION
 Class F insulation
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector
 Continuous service ED100%

OPTIONS
 Class H insulation
 Cable attached
 Special coil voltage
 Special coil powers

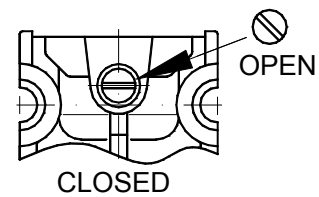


SPARE PARTS LIST

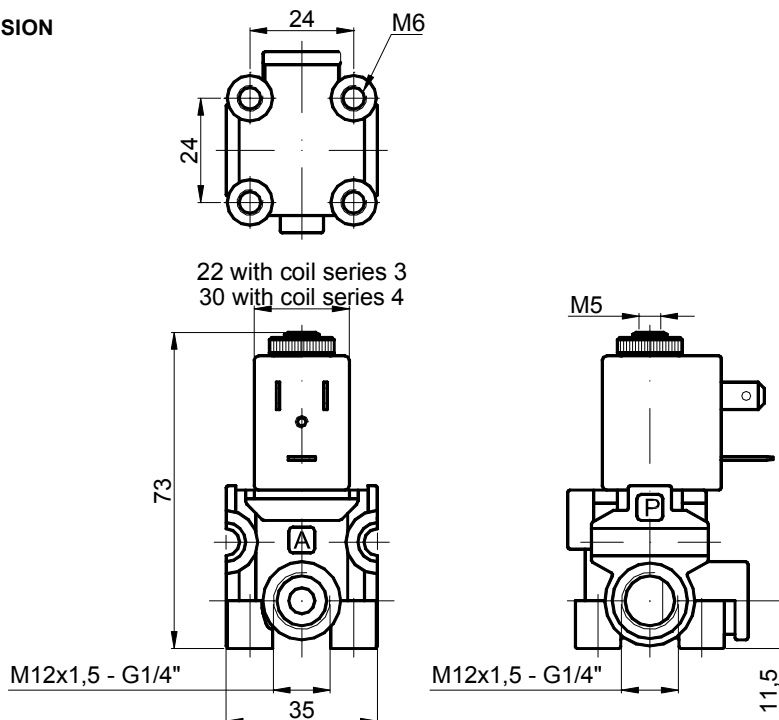
1. Coil fixing nut
2. Coil
3. Plunger
4. Armature tube with core



MANUAL OVERRIDE



OVERALL DIMENSION



Weight with coil series 3 = 0.14 Kg
 Weight with coil series 4 = 0.19 Kg

DESCRIPTION

Solenoid valve 3 way normally open
direct acting poppet type for modular construction

CONSTRUCTION

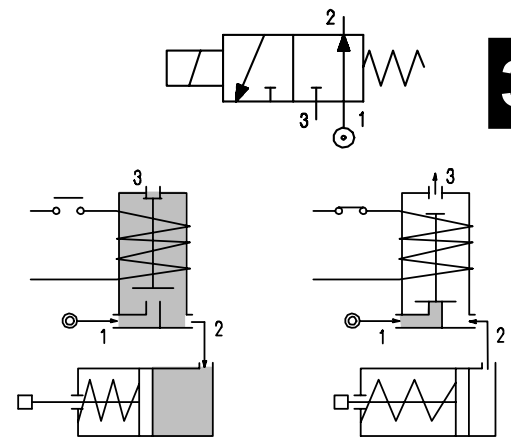
Body	Die-cast aluminium
Armature tube	Brass
Plunger and core	Stainless steel
Springs	Stainless steel
Seal material	NBR
	FPM
	EPDM



FEATURES

Media : Air, Natural gases
Ambient temperature : with class F coil -10°C +55°C
with class H coil -10°C +80°C
Universal mounting position

OPTIONS : Electroless nickel plating
Explosion proof coil according to ATEX - EExmII Series 7
Wet proof coil fixing nut



NOTE: This valve ISN'T standard. Contact the manufacturer for any question

CODE ① ②	Connection	Orifice mm		KV m³/h	Differential pressure bar			Nominal power			Coil		Seal ①	Temp. range °C
		Inlet	Exh.		Min	Max		AC Inrush	VA Holding	DC Watt	Series	Width		
						AC	DC							
E351B.....15///.....	G1/4"	1.5	1.5	0.06	0	10	10	12	8	6.5	3	22	NBR=B	-10 +90
E351B.....17///.....	G1/4"	1.7	1.7	0.08	0	8	8	12	8	6.5	3	22		
E351B.....17///.....	G1/4"	1.7	1.7	0.08	0	10	10	15	11	5	4	30	EPDM=E	<+140
E351M.....15///.....	M12x1.5	1.5	1.5	0.06	0	10	10	12	8	6.5	3	22		
E351M.....17///.....	M12x1.5	1.7	1.7	0.08	0	8	8	12	8	6.5	3	22	FPM=V	-10 +130
E351M.....17///.....	M12x1.5	1.7	1.7	0.08	0	10	10	15	11	5	4	30		

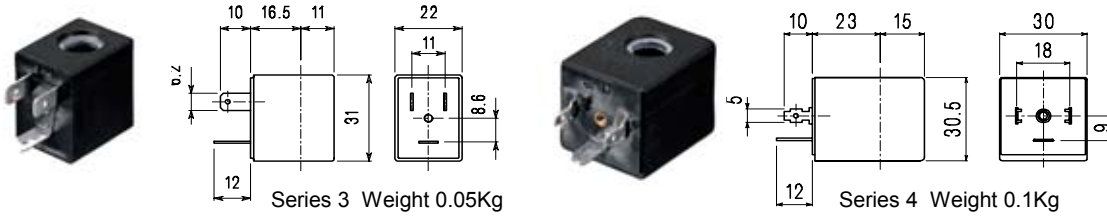
- ① Seal
- ② Coil

Example: E351MV17///301 FPM seal M12x1.5 connection
Coil 24V DC

COIL	Alternating current ~50/60Hz Volt							Direct current Volt			Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24	48		
Series 3 Width 22 Code ②	30A	30B	30C	30D	30E	30F	30G	300	301	302	DIN 46244	PG9 code 10348000
Series 4 Width 30 Code ②	40A	40B	40C	40D	40E	40F	40G	400	401	402	DIN 43650A	PG9 code 10349000

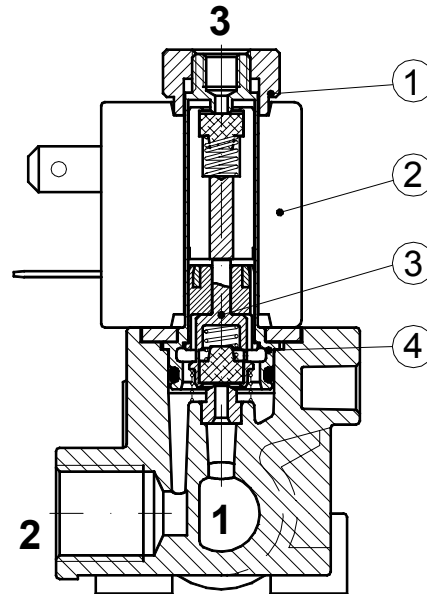
DESCRIPTION
 Class F insulation
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector
 Continuous service ED100%

OPTIONS
 Class H insulation
 Cable attached
 Special coil powers
 Special coil voltages

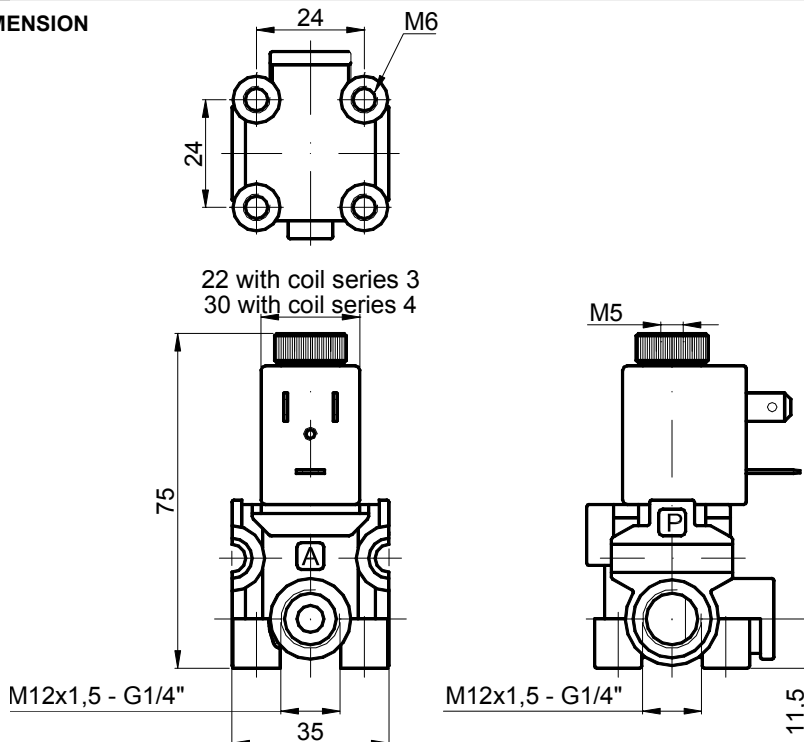


SPARE PARTS LIST

1. Coil fixing nut
2. Coil
3. Seal assembly
4. Armature tube



OVERALL DIMENSION



Weight with coil series 3 = 0.14 Kg
 Weight with coil series 4 = 0.19 Kg

DESCRIPTION

Solenoid valve 2 way normally closed with servo-assisted diaphragm

CONSTRUCTION

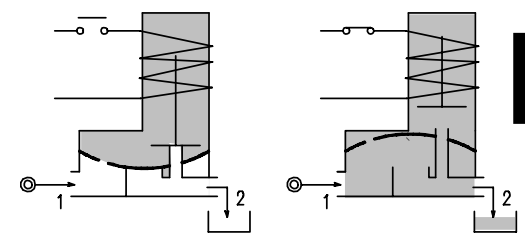
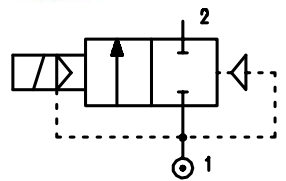
Body and cover	Brass
Armature tube	Stainless steel
Plunger and core	Stainless steel
Springs	Stainless steel
Seal material	NBR FPM EPDM



FEATURES

- Minimum differential pressure 0.15 bar
- Maximum allowable pressure* : 25 bar (up to G1"1/2)
20 bar (over G1"1/2)
- Maximum fluid viscosity 25cSt (mm²/s)
- Ambient temperature : with class F coil -10°C +55°C
with class H coil -10°C +80°C
- Preferred mounting position with vertical coil above

- OPTIONS :**
- Manual override
 - Electroless nickel plating
 - Explosion proof coil according to ATEX - EExmII Series 7 (up to G1"1/4 orifice 30)
 - Version with slow closing diaphragm
 - Version for vacuum applications (air/gas)
 - Version for use with oxygen (up to G1")



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Certified versions: SVGW

CODE ① ②	Connection G ISO 228	Orifice mm	KV m³/h	Differential pressure bar			Nominal power			Coil		Seal ①	Temp. range °C
				Min	Max		AC Inrush	VA Holding	DC Watt	Series	Width		
					AC	DC							
E107B.....10///.....	1/4"	10	1.5	0.15	15	15	12	8	6.5	3	22	NBR=B	-10 +90
E107C.....10///.....	3/8"	10	1.7	0.15	15	15	12	8	6.5	3	22		
E107C.....12///.....	3/8"	12	2.2	0.15	15	15	12	8	6.5	3	22		
E107D.....12///.....	1/2"	12	2.5	0.15	15	15	12	8	6.5	3	22	EPDM=E	<+140
E107E.....18///.....	3/4"	18	5.5	0.15	13	13	12	8	6.5	3	22		
E107F.....25///.....	1"	24	10.2	0.15	10	10	12	8	6.5	3	22	FPM=V	-10 +130
E107G.....30///.....	1"1/4	30	15	0.15	10	10	12	8	6.5	3	22		
E107G.....37///.....	1"1/4	37	18	0.15	10	10	20	15	10	2	30		
E107H.....37///.....	1"1/2	37	21	0.15	10	10	20	15	10	2	30		
E107I.....50///.....	2"	50	36	0.15	10	10	20	15	10	2	30	NBR=B	-10 +90
③E107MB75///.....	2"1/2	75	75	0.3	10	10	20	15	10	2	30		
③E107RB75///.....	3"	75	84	0.3	10	10	20	15	10	2	30		

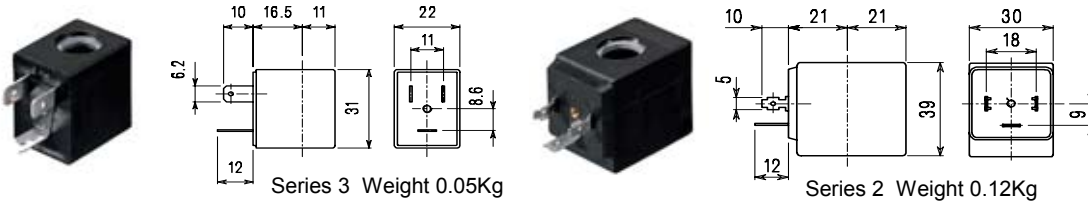
- ① Seal
 - ② Coil
 - ③ NBR seals – Only for neutral liquid fluid
- Example: E107DB12///301 NBR seal
Coil 24V DC

* REMARK: The maximum allowable pressure PS for steam is 2,5bar (gauge pressure)

COILS	Alternating Current ~50/60Hz Volt							Direct Current Volt			Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24	48		
Series 3 Width 22 Code ②	30A	30B	30C	30D	30E	30F	30G	300	301	302	DIN 46244	PG9 code 10348000
Series 2 Width 30 Code ②	20A	20B	20C	20D	20E	20F	20G	200	201	202	DIN 43650A	PG9 code 10349000

DESCRIPTION
 Class F insulation
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector
 Continuous service ED100%

OPTIONS
 Class H insulation
 Cable attached
 Special coil powers
 Special coil voltages

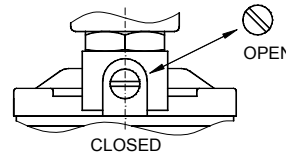
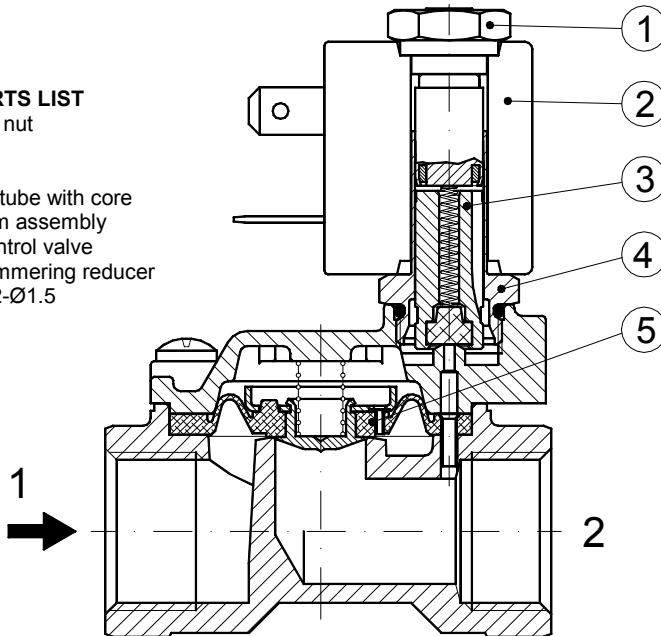


Series 3 Weight 0.05Kg

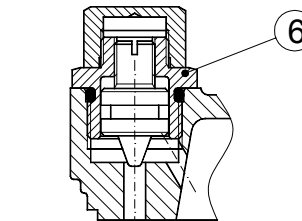
Series 2 Weight 0.12Kg

SPARE PARTS LIST

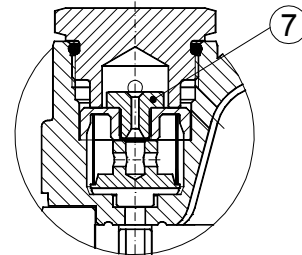
1. Coil fixing nut
2. Coil
3. Plunger
4. Armature tube with core
5. Diaphragm assembly
6. Speed control valve
7. Water hammering reducer
Ø0.8-Ø1.2-Ø1.5



MANUAL OVERRIDE

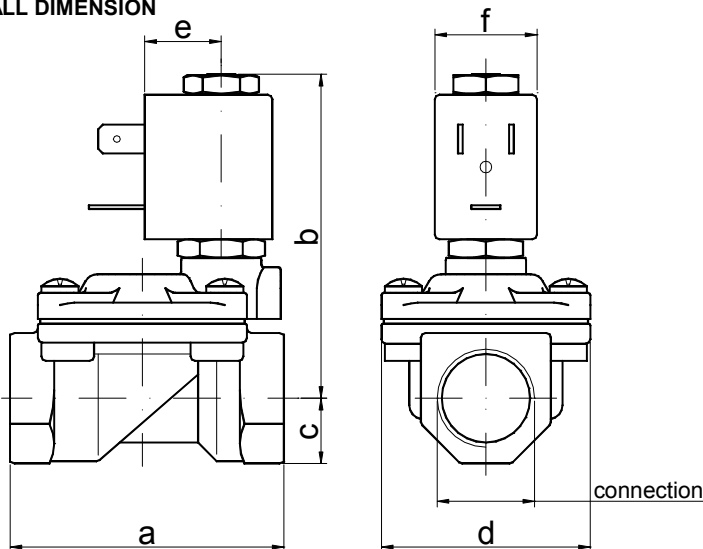


FOR G1"1/4-1"1/2-2"
Speed control valve



FOR G2"1/2-3"
Water hammering
reducer Ø0.8-Ø1.2-Ø1.5

OVERALL DIMENSION



CONNECTION	a	b	c	d	e	f	Weight Kg
G1/4" Ø10	49	65	11	32	16	22	0.25
G3/8" Ø10	49	65	11	32	16	22	0.25
G3/8" Ø12	59	70	14	45	16	22	0.45
G1/2"	59	70	14	45	16	22	0.45
G3/4"	79	74	18	55	16	22	0.66
G1"	96	85	20	72	16	22	1.05
G1"1/4 Ø30	119	92	25	85	16	22	1.80
G1"1/4	142	107	28	102	21	30	2.95
G1"1/2	142	107	28	102	21	30	2.74
G2"	158	117	35	119	21	30	4.32
G2"1/2	226	134	51	169	21	30	10
G3"	226	134	51	169	21	30	9.65

DESCRIPTION

Solenoid valve 2 way normally closed with servo-assisted diaphragm and explosion proof coil certified:
CESI 03 ATEX 344 ExII2G/D EEx “d” IIC T6

VALVE CONSTRUCTION

Body and cover	Brass
Seal material	FPM
	NBR

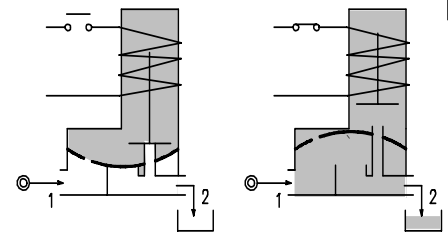
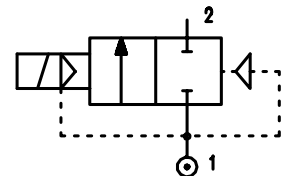
EXPLOSION PROOF CONSTRUCTION

Housing	Red colour alloy
Electrical connection	1/2" NPT

FEATURES

Minimum differential pressure 0.15 bar
Maximum allowable pressure 25 bar
Maximum fluid viscosity 25cSt (mm²/s)
Ambient temperature : -10°C +40°C
Preferred mounting position with vertical coil above

OPTIONS : Electroless nickel plating
Version with slow closing diaphragm



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NOTE: The solenoid valve is suitable for contact with **NOT** potential explosive medias only

CODE ①	Connection G ISO 228	Orifice mm	KV m ³ /h	Differential pressure bar			Nominal power		Coil ① Series	Seal	Temp. range °C	
				Min	Max		AC Holding	DC				
					AC	DC						
A107BV10/1/.....	1/4"	10	1.5	0.15	15	15	12VA	8W	A6	FPM=V	-10 +130	
A107CV10/1/.....	3/8"	10	1.7	0.15	15	15						
A107CV12/1/.....	3/8"	12	2.2	0.15	15	15						
A107DV12/1/.....	1/2"	12	2.5	0.15	15	15						
A107EV18/1/.....	3/4"	18	5.5	0.15	13	13						
A107FV25/1/.....	1"	24	10.2	0.15	10	10						
A107GV30/1/.....	1 1/4"	30	15	0.15	10	10						
A107GV37/1/.....	1 1/4"	37	18	0.15	10	10						
A107HV37/1/.....	1 1/2"	37	21	0.15	10	10						
A107IV50/1/.....	2"	50	36	0.15	10	10						
A107MB75/1/.....	2 1/2"	75	75	0.3	10	10						
A107RB75/1/.....	3"	75	84	0.3	10	10				NBR=B		-10 +90

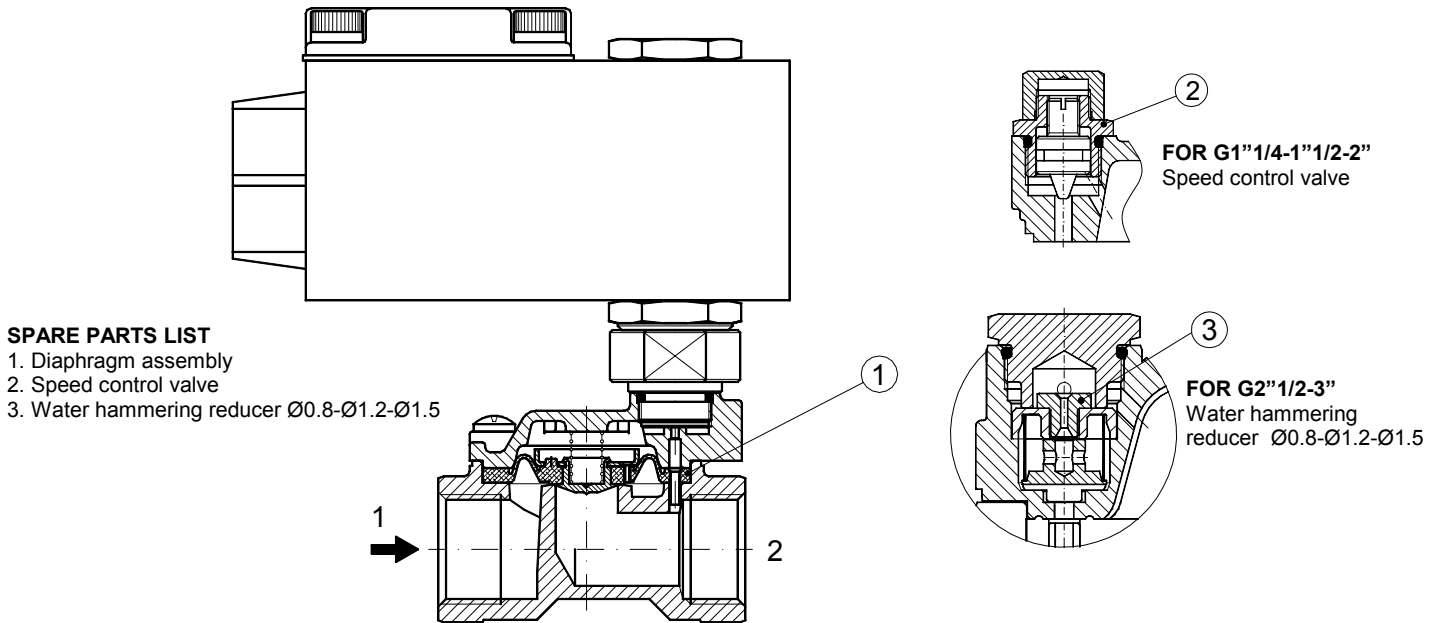
① Coil

Example: A107DV12/1/A6E FPM seal
Coil 230V 50-60Hz

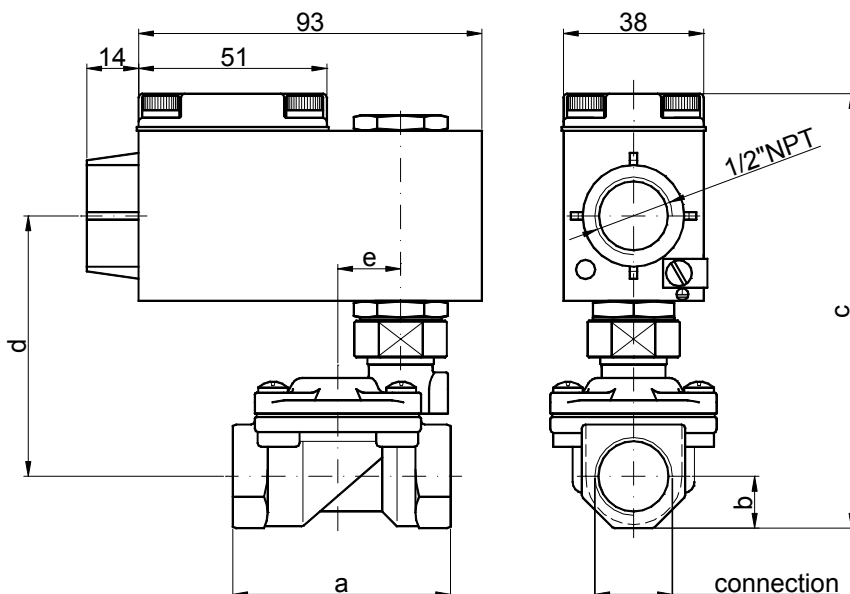
Note: For G2 1/2 e G3 NBR seal only

COILS	Alternating Current ~50/60Hz Volt				Direct current Volt			Electrical connection
	24	48	110	220 230	12	24	48	
Series A6 Code ①	A6B	A6C	A6D	A6E	A60	A61	A62	1/2" NPT

DESCRIPTION
Voltage tolerance
AC +15% -10%
DC ± 10%
Protection class IP66



OVERALL DIMENSION



CONNECTION	a	b	c	d	e	Weight Kg
G1/4" $\varnothing 10$	49	11	110	66	16	0.72
G3/8" $\varnothing 10$	49	11	110	66	16	0.72
G3/8" $\varnothing 12$	59	14	118	70	17	0.92
G1/2"	59	14	118	70	17	0.92
G3/4"	79	18	127	75.5	22.2	1.12
G1"	96	20	141	88	30.2	1.50
G1"1/4 $\varnothing 30$	119	25	150	91	36	2.27
G1"1/4	142	28	147	86	43	3.33
G1"1/2	142	28	147	86	43	3.12
G2"	158	35	168	95	48	4.72
G2"1/2	226	51	197	112	69.2	10.40
G3"	226	51	197	112	69.2	10

DESCRIPTION

Solenoid valve 2 way normally closed with assisted lift diaphragm

CONSTRUCTION

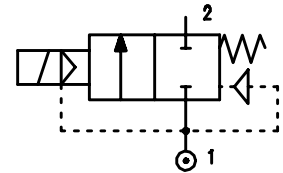
Body and cover	Brass
Armature tube	Stainless steel
Plunger and core	Stainless steel
Springs	Stainless steel
Seal material	FPM



FEATURES

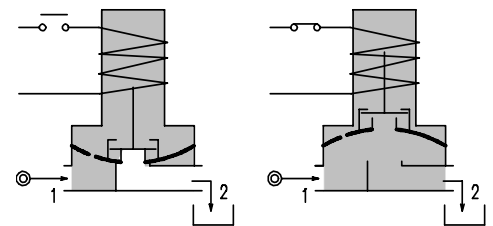
Maximum allowable pressure 25 bar
 Maximum fluid viscosity 25cSt (mm²/s)
 Ambient temperature : with class F coil -10°C +55°C
 with class H coil -10°C +80°C

Preferred mounting position with vertical coil above
 For complete diaphragm opening, a differential pressure of at least 0,15 bar is necessary



4

OPTIONS : Electroless nickel plating



CODE ① ②	Connection G ISO 228	Orifice mm	KV m ³ /h	Differential pressure bar			Nominal power			Coil		Seal ①	Temp. range °C
				Min	Max		AC Inrush	VA Holding	DC Watt	Series	Width		
					AC	DC							
E108C.....12///.....	3/8"	12	2	0	10	-	20	15	-	2	30	FPM=V	-10 +130
E108D.....12///.....	1/2"	12	2.2	0	10	-	20	15	-	2	30		
E108C.....12///.....	3/8"	12	2	0	12	10	40	30	27	5	36		
E108D.....12///.....	1/2"	12	2.2	0	12	10	40	30	27	5	36		
E108E.....18///.....	3/4"	18	4.5	0	9	-	40	30	-	5	36		
E108F.....25///.....	1"	24	8.5	0	7	-	40	30	-	5	36		
D108E.....18///.....	3/4"	18	4.5	0	-	9	-	-	27	5	36		
D108F.....25///.....	1"	24	8.5	0	-	8	-	-	27	5	36		

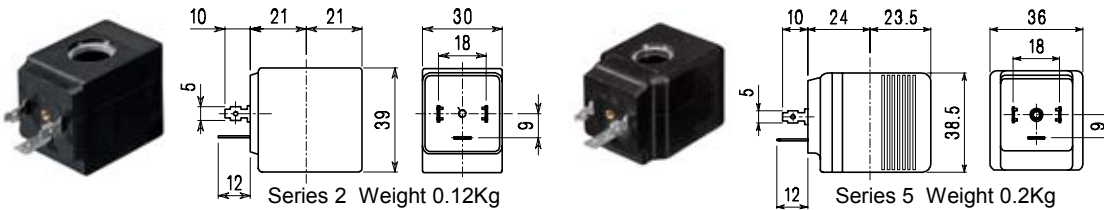
- ① Seal
- ② Coil

Example: E108FV25///52E FPM seal
 Coil 230V 50-60Hz

COILS	Alternating Current ~50/60Hz Volt							Direct Current Volt			Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24	48		
Series 2 Width 30 Code ②	20A	20B	20C	20D	20E	20F	20G	200	201	202	DIN 43650A	PG9 code 10349000
Series 5 Width 36 Code ②	52A	52B	52C	52D	52E	52F	52G	520	521	522	DIN 43650A	PG11 code 10349001

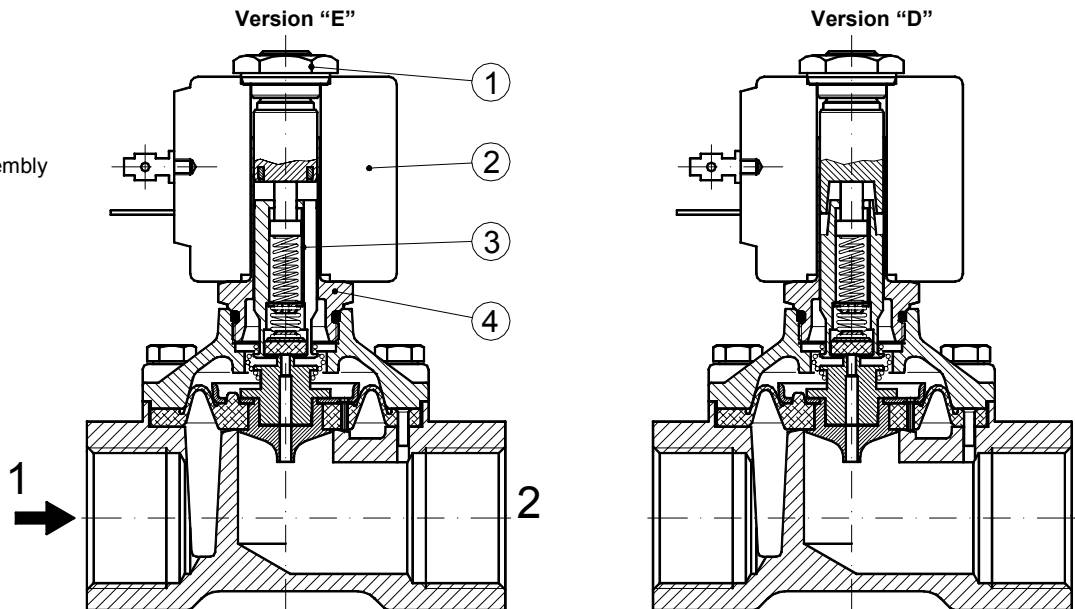
DESCRIPTION
 Insulation class
 Series 2=F Series 5=H
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector
 Continuous service ED100%

OPTIONS
 Insulation class H (series 2)
 Cable attached
 Special coil voltages
 Special coil powers

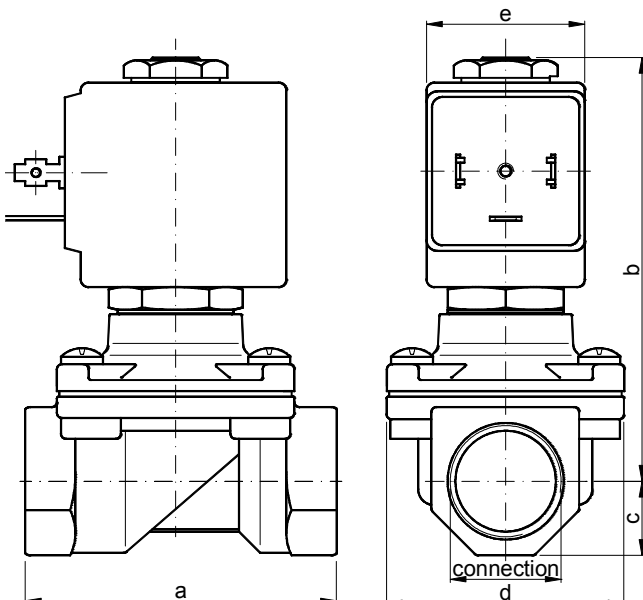


SPARE PARTS LIST

1. Coil fixing nut
2. Coil
3. Plunger and diaphragm assembly
4. Armature tube with core



OVERALL DIMENSION



CONNECTION	a	b	c	d	f with		Weight Kg	
					series 2	series 5	series 2	series 5
G3/8" Ø12	59	83	14	45	30	36	0.50	0.58
G1/2"	59	83	14	45	30	36	0.45	0.53
G3/4"	79	90	18	55	-	36	-	0.75
G1"	96	101	20	72	-	36	-	1.10

DESCRIPTION

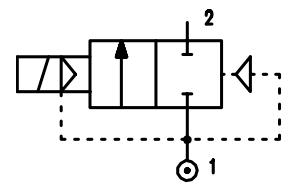
Solenoid valve 2 way with servo-assisted diaphragm bi-stable.

The bi-stable function is achieved by the use of a polarised permanent magnet energising the coil with a DC current for at least 15ms in the reverse direction of the preceding impulse.



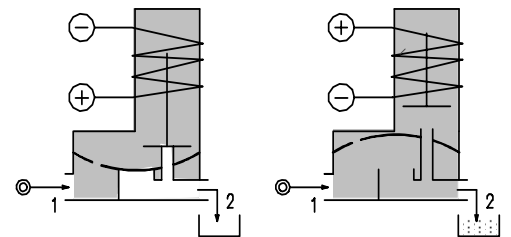
CONSTRUCTION

Body and cover	Brass
Armature tube	Stainless steel
Plunger and core	Stainless steel
Magnet	NeFeB
Springs	Stainless steel
Seal material	NBR
	FPM
	EPDM



FEATURES

- Minimum differential pressure 0.15 bar
- Maximum allowable pressure 25 bar
- Maximum fluid viscosity 25cSt (mm²/s)
- Ambient temperature : with class F coil -10°C +55°C
with class H coil -10°C +80°C
- Preferred mounting position with vertical coil above



4

OPTIONS : Special coil powers
Certified versions:

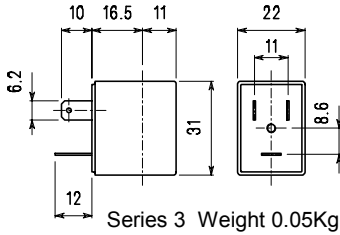


CODE ① ②	Connection G ISO 228	Orifice mm	KV m ³ /h	Differential pressure bar			Nominal power			Coil		Seal ①	Temp. range °C
				Min	Max		AC Inrush	VA Holding	DC Watt	Series	Width		
					AC	DC							
D117B.....10///.....	1/4"	10	1.5	0.15	-	8	-	-	2	3	22	NBR=B EPDM=E FPM=V	-10 +90 -<+140 -10 +130
	1/4"	10	1.5	0.15	-	15	-	-	5	3	22		
D117C.....10///.....	3/8"	10	1.7	0.15	-	8	-	-	2	3	22		
	3/8"	10	1.7	0.15	-	15	-	-	5	3	22		
D117C.....12///.....	3/8"	12	2.2	0.15	-	8	-	-	2	3	22		
	3/8"	12	2.2	0.15	-	15	-	-	5	3	22		
D117D.....12///.....	1/2"	12	2.5	0.15	-	8	-	-	2	3	22		
	1/2"	12	2.5	0.15	-	15	-	-	5	3	22		
D117E.....18///.....	3/4"	18	5.5	0.15	-	8	-	-	2	3	22		
	3/4"	18	5.5	0.15	-	13	-	-	5	3	22		
D117F.....25///.....	1"	25	10.2	0.15	-	8	-	-	2	3	22		
	1"	25	10.2	0.15	-	10	-	-	5	3	22		
D117G.....30///.....	1" 1/4	30	15	0.15	-	8	-	-	2	3	22		
	1" 1/4	30	15	0.15	-	10	-	-	5	3	22		

- ① Seal
- ② Coil

Example: D117DB12///301120 NBR seal
Coil 24V DC 2W

COIL	DIRECT CURRENT															Electrical connection	Connectors
	3V			6V			9V			12V			24V				
	2W	5W	6.5W	2W	5W	6.5W	2W	5W	6.5W	2W	5W	6.5W	2W	5W	6.5W		
Series 3 Width 22 Code ②	308120			305120	305150		307120	307150		300120	300150	300	301120	301150	301	DIN 46244	PG9 code 10348000

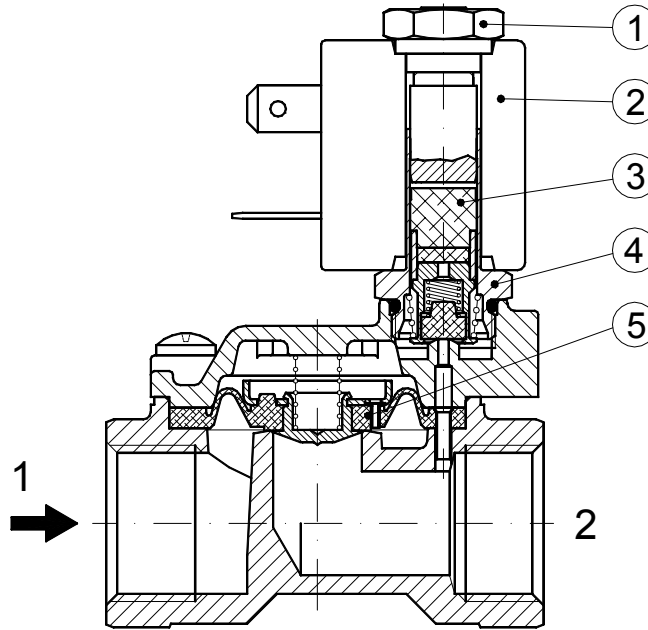


DESCRIPTION
 Class F insulation
 Voltage tolerance $\pm 10\%$
 Protection class
 IP65 with connector fitted
 IP00 without connector

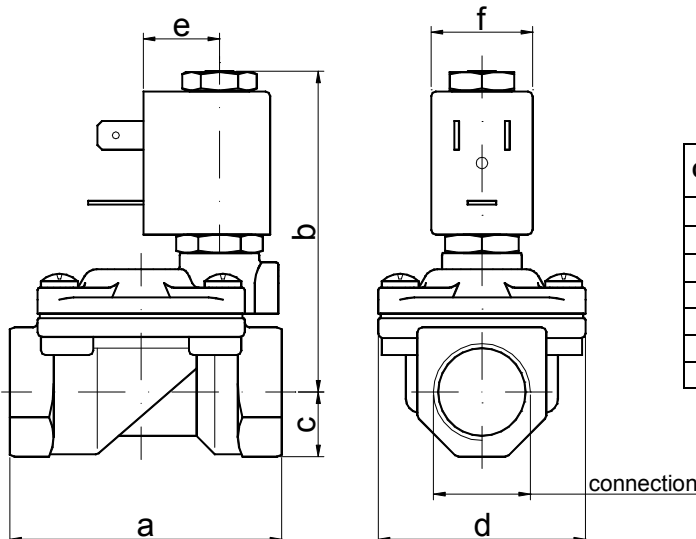
OPTIONS
 Class H insulation
 Cable attached
 Special coil voltages
 Special coil powers

SPARE PARTS LIST

1. Coil fixing nut
2. Coil
3. Plunger
4. Armature with core
5. Diaphragm assembly



OVERALL DIMENSION



CONNECTION	a	b	c	d	e	f	Weight Kg
G1/4" Ø10	49	65	11	32	16	22	0.25
G3/8" Ø10	49	65	11	32	16	22	0.25
G3/8" Ø12	59	70	14	45	16	22	0.45
G1/2"	59	70	14	45	16	22	0.40
G3/4"	79	74	18	55	16	22	0.66
G1"	96	85	20	72	16	22	1.05
G1"1/4 Ø30	119	92	25	85	16	22	1.80

DESCRIPTION

Solenoid valve 2 way normally closed with servo-assisted piston

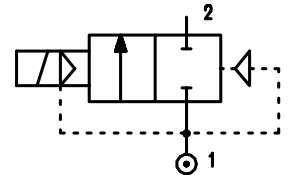
CONSTRUCTION

Body and cover	Brass
Armature tube	Stainless steel
Plunger and core	Stainless steel
Springs	Stainless steel
Piston	Brass
Piston ring	PTFE reinforced
Seal material	Main seal PTFE other FPM



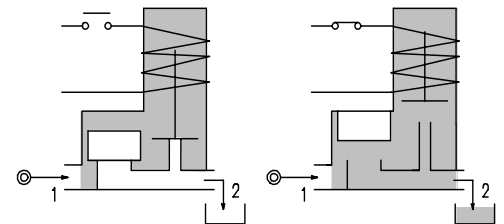
FEATURES

- Minimum differential pressure 1 bar
- Maximum allowable pressure 40 bar (60 bar version /1)
- Maximum fluid viscosity 25cSt (mm²/s)
- Ambient temperature : with class F coil -10°C +55°C
with class H coil -10°C +80°C
- Preferred mounting position with vertical coil above



4

OPTIONS : Electroless nickel plating



CODE ①	Connection G ISO 228	Orifice mm	KV m ³ /h	Differential pressure bar			Nominal power			Coil		Seal	Temp. range °C
				Min	Max		AC Inrush	VA Holding	DC Watt	Series	Width		
					AC	DC							
E119BV52///.....	1/4"	5.2	0.47	1.5	50	50	20	15	10	2	30	PTFE/FPM	-10 +130
E119CV12///.....	3/8"	12	2	1	30	30	20	15	10	2	30		
E119DV12///.....	1/2"	12	2.2	1	30	30	20	15	10	2	30		
②E119CV12/1/.....	3/8"	12	2	1	50	50	40	30	27	5	36		
②E119DV12/1/.....	1/2"	12	2.2	1	50	50	40	30	27	5	36		

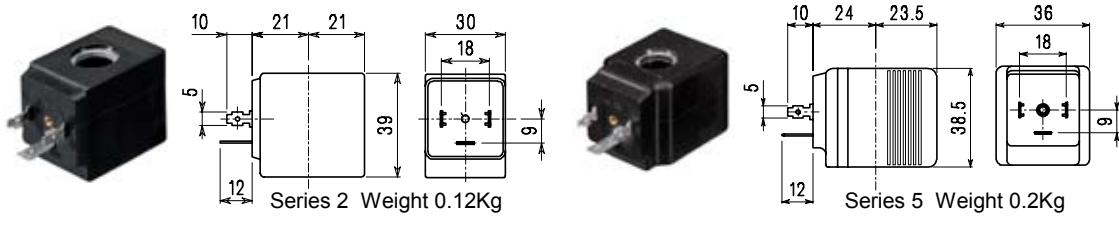
- ① Coil
- ② Maximum allowable pressure 60 bar
Maximum allowable leakage < 0.2 nL/h

Example: E119DV12/1/521 FPM seal
Coil 24V DC
Maximum differential pressure 50 bar

COILS	Alternating Current ~50/60Hz Volt							Direct current Volt			Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24	48		
Series 2 Width 30 Code ①	20A	20B	20C	20D	20E	20F	20G	200	201	202	DIN 43650A	PG9 code 10349000
Series 5 Width 36 Code ①	52A	52B	52C	52D	52E	52F	52G	520	521	522	DIN 43650A	PG11 code 10349001

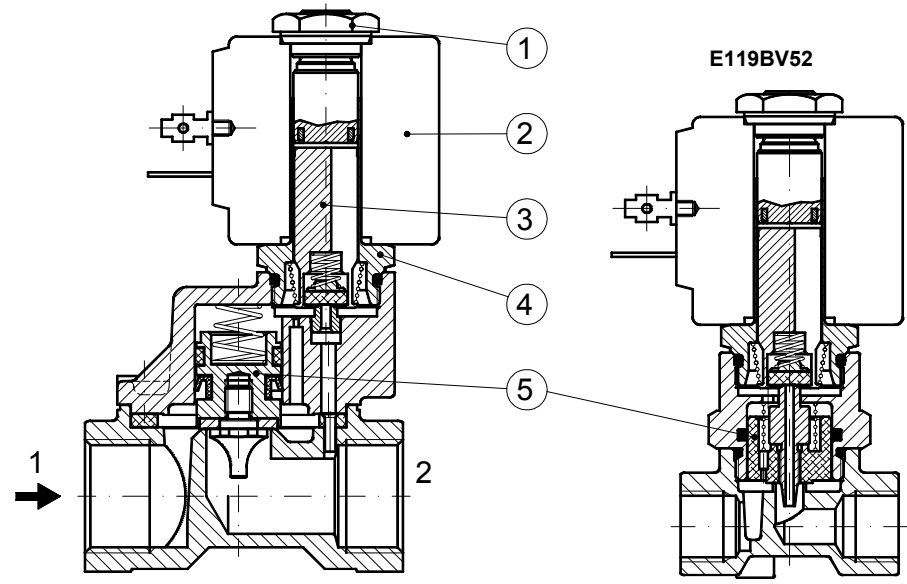
DESCRIPTION
 Insulation class
 Series 2=F Series 5=H
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector
 Continuous service ED100%

OPTIONS
 Class H insulation (series 2)
 Cable attached
 Special coil voltages
 Special coil powers

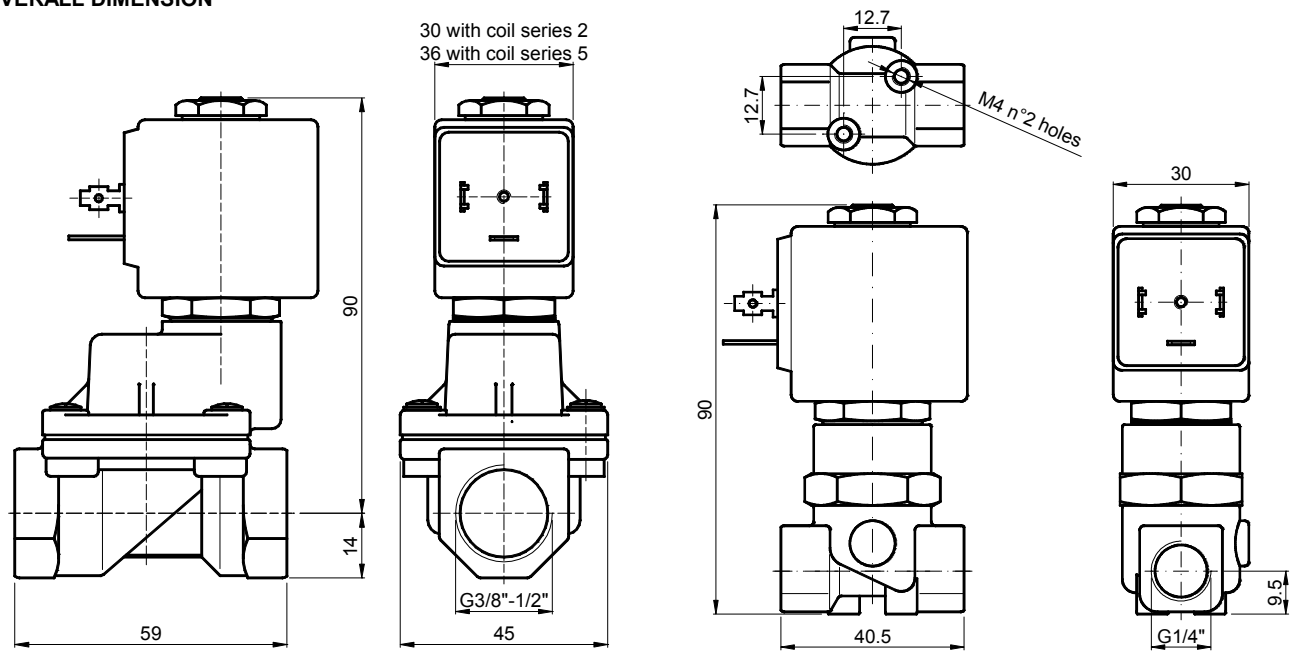


SPARE PARTS LIST

1. Coil fixing nut
2. Coil
3. Plunger
4. Armature tube with core
5. Piston assembly



OVERALL DIMENSION



Weight with coil series 2 = 0.63 Kg
 Weight with coil series 5 = 0.71 Kg

DESCRIPTION

Solenoid valve 2 way normally closed with servoassisted piston for use with steam

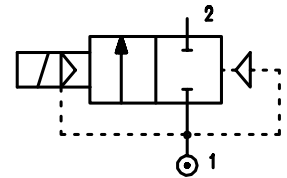
CONSTRUCTION

Body and cover	Brass
Armature tube	Stainless steel
Plunger and core	Stainless steel
Springs	Stainless steel
Piston	Stainless steel
Piston ring	PTFE reinforced
Seal material	Main seal PTFE others FPM

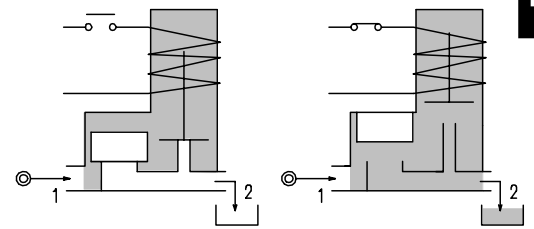


FEATURES

Minimum differential pressure 2.5 bar
 Ambient temperature with class H coil only : -10°C +80°C
 Preferred mounting position with vertical coil above



OPTIONS : Electroless nickel plating



CODE ①	Connection G ISO 228	Orifice mm	KV m³/h	Differential pressure bar			Nominal power			Coil		Seal	Temp. range °C
				Min	Max		AC Inrush	VA Holding	DC Watt	Series	Width		
					AC	DC							
E119CW12/1/.....	3/8"	12	2	2.5	9	9	20	15	10	2	30	PTFE	-10 +180
E119DW12/1/.....	1/2"	12	2.2	2.5	9	9	20	15	10	2	30		

① Coil

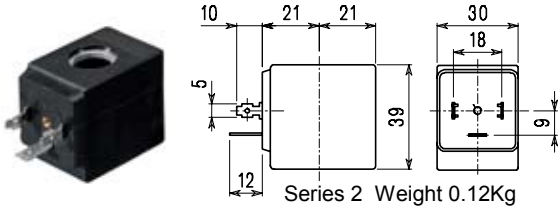
Example: E119DW12/1/221 PTFE seal
 Coil 24V DC

Maximum allowable leakage < 0.2 nL/h

COIL	Alternating Current ~50/60Hz Volt							Direct Current Volt			Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24	48		
Series 2 Width 30 Code ①	22A	22B	22C	22D	22E	22F	22G	220	221	222	DIN 43650A	PG9 code 10349000

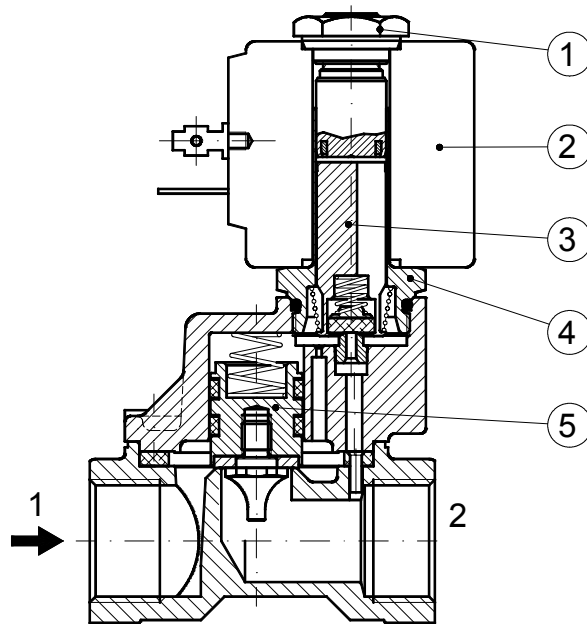
DESCRIPTION
 Class H insulation
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector
 Continuous service ED100%

OPTIONS
 Cable attached
 Special coil powers
 Special coil voltages

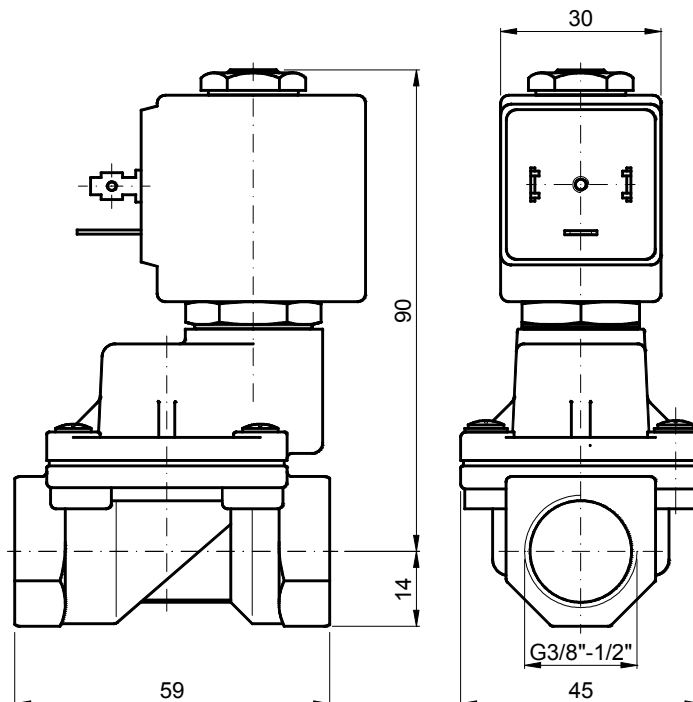


SPARE PARTS LIST

1. Coil fixing nut
2. Coil
3. Plunger
4. Armature tube with core
5. Piston assembly



OVERALL DIMENSION



Weight = 0.63 Kg

DESCRIPTION

Solenoid valve 2 way normally closed in stainless steel AISI 316 with servoassisted diaphragm

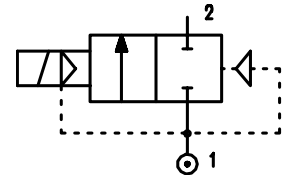
CONSTRUCTION

Body and cover	Stainless steel
Armature tube	Stainless steel
Plunger and core	Stainless steel
Springs	Stainless steel
Seal material	NBR
	FPM
	EPDM



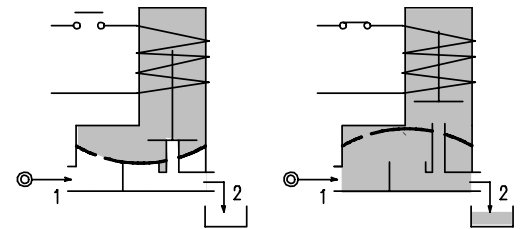
FEATURES

- Minimum differential pressure 0.15 bar
- Maximum allowable pressure 25 bar *
- Maximum fluid viscosity 25cSt (mm²/s)
- Ambient temperature : with class F coil -10°C +55°C
with class H coil -10°C +80°C
- Preferred mounting position with vertical coil above



4

- OPTIONS :**
- Manual override
 - Explosion proof coil according to ATEX - EExmII Series 7
 - Food approval seal material
 - Version with slow closing diaphragm
 - Version for use with oxygen
 - Silver shading ring



CODE ① ②	Connection G ISO 228	Orifice mm	KV m ³ /h	Differential pressure bar			Nominal power			Coil		Seal ①	Temp. range °C
				Min	Max		AC Inrush	VA Holding	DC Watt	Series	Width		
					AC	DC							
E177C.....12///.....	3/8"	12	2.2	0.15	15	15	12	8	6.5	3	22	NBR=B EPDM=E FPM=V	-10 +90
E177D.....12///.....	1/2"	12	2.5	0.15	15	15	12	8	6.5	3	22		<+140
E177E.....18///.....	3/4"	18	5.5	0.15	13	13	12	8	6.5	3	22	FPM=V	-10 +130
E177F.....25///.....	1"	24	10.2	0.15	10	10	12	8	6.5	3	22		

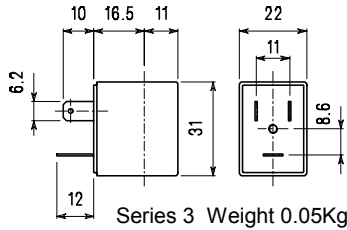
① Seal Example: E177DV12///301 FPM seal
② Coil Coil 24V DC

* REMARK: The maximum allowable pressure PS for steam is 2,5bar (gauge pressure)

COIL	Alternating Current ~50/60Hz Volt							Direct Current Volt			Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24	48		
Series 3 Width 22 Code ②	30A	30B	30C	30D	30E	30F	30G	300	301	302	DIN 46244	PG9 code 10348000

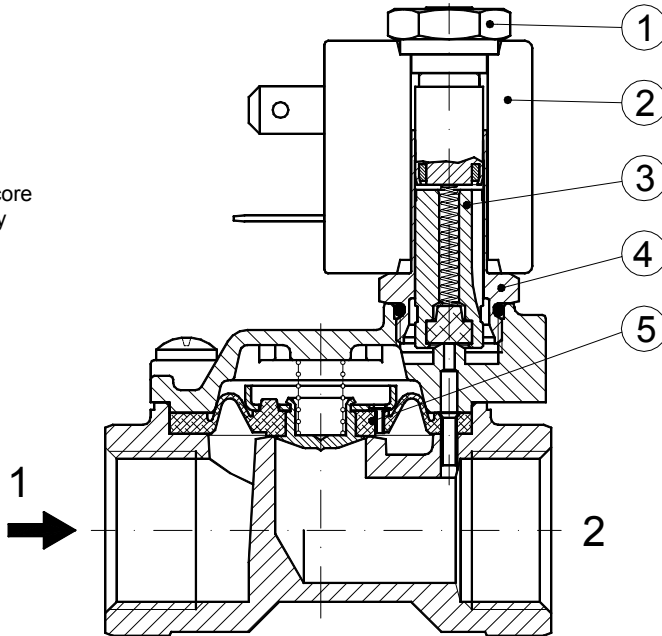
DESCRIPTION
 Class F insulation
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector
 Continuous service ED100%

OPTIONS
 Class H insulation
 Cable attached
 Special coil powers
 Special coil voltages

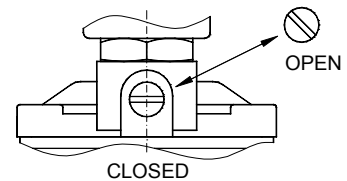


SPARE PARTS LIST

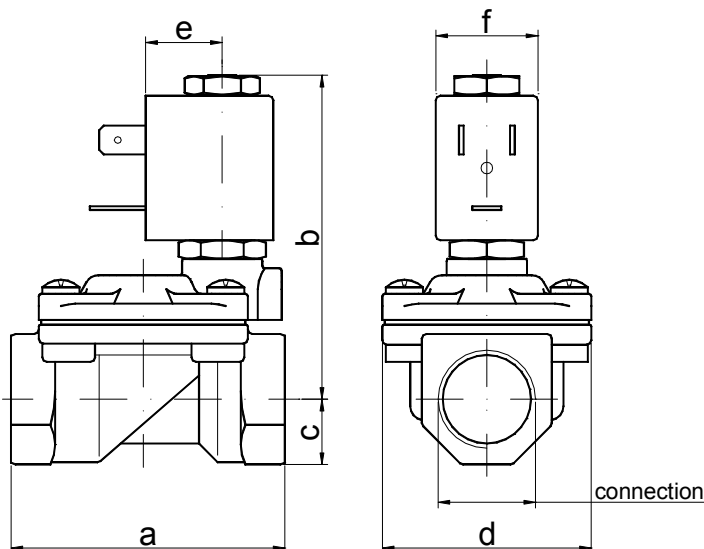
1. Coil fixing nut
2. Coil
3. Plunger
4. Armature tube with core
5. Diaphragm assembly



MANUAL OVERRIDE



OVERALL DIMENSION



CONNECTION	a	b	c	d	Weight Kg
G3/8" Ø12	59	70	11	45	0.31
G1/2"	59	70	13	45	0.32
G3/4"	79	74	18	54	0.75
G1"	96	85	20	72	1.35

DESCRIPTION

Solenoid valve 2 way normally closed in stainless steel AISI 316 with servo-assisted diaphragm and explosion proof coil certified: CESI 03 ATEX 344 ExII2G/D EEx “d” IIC T6



VALVE CONSTRUCTION

Body and cover Stainless steel
 Seal material FPM

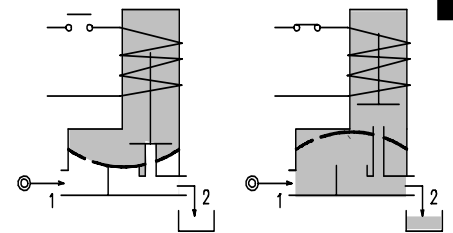
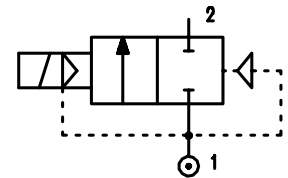
EXPLOSION PROOF CONSTRUCTION

Housing Red colour alloy
 Electrical connection ½” NPT

FEATURES

Minimum differential pressure 0.15 bar
 Maximum allowable pressure 25 bar
 Maximum fluid viscosity 25cSt (mm²/s)
 Ambient temperature : -10°C +40°C
 Preferred mounting position with vertical coil above

OPTIONS : Version with slow closing diaphragm



NOTE: The solenoid valve is suitable for contact with **NOT** potential explosive medias only

CODE ①	Connection G ISO 228	Orifice mm	KV m ³ /h	Differential pressure bar			Nominal power		Coil ①	Seal	Temp. range °C
				Min	Max		AC Holding	DC	Series		
					AC	DC					
A177CV12/1/.....	3/8"	12	2.2	0.15	15	15	12VA	8W	A6	FPM=V	-10 +130
A177DV12/1/.....	1/2"	12	2.5	0.15	15	15					
A177EV18/1/.....	3/4"	18	5.5	0.15	13	13					
A177FV25/1/.....	1"	24	10.2	0.15	10	10					

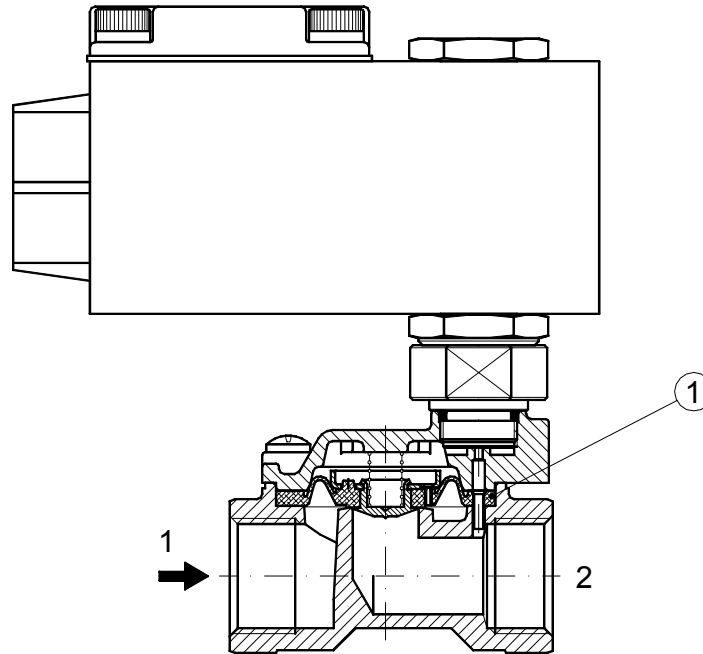
① Coil

Example: A177DV12/1/A6E FPM seal
 Coil 230V 50-60Hz

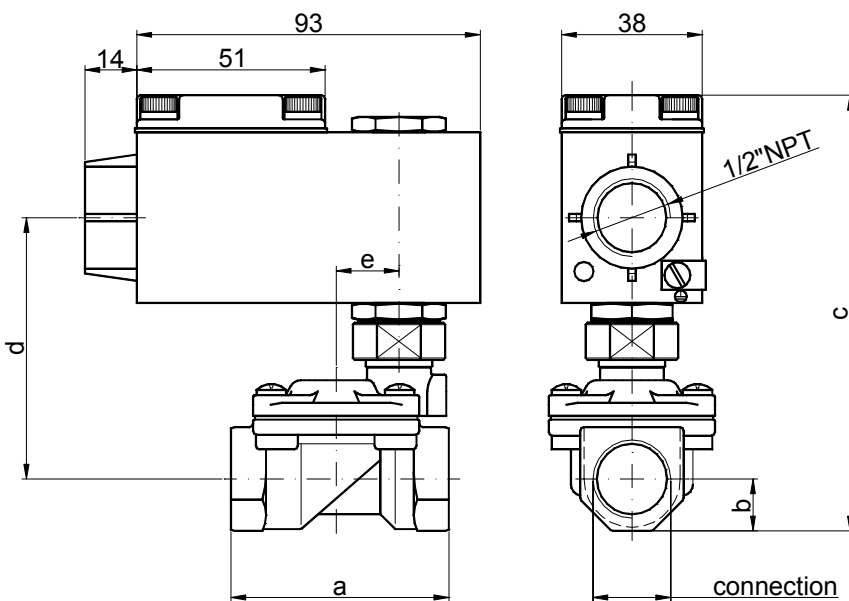
COILS	Alternating Current ~50/60Hz Volt				Direct Current Volt			Electrical connection
	24	48	110	220 230	12	24	48	
Series A6 Code ①	A6B	A6C	A6D	A6E	A60	A61	A62	1/2" NPT

DESCRIPTION
Voltage tolerance
AC +15% -10%
DC ± 10%
Protection class IP66

SPARE PARTS LIST
1. Diaphragm assembly



OVERALL DIMENSION



CONNECTION	a	b	c	d	e	Weight Kg
G3/8" Ø12	59	11	118	70	17	1.11
G1/2"	59	13	118	70	17	1.12
G3/4"	79	18	127	75.5	22.2	1.55
G1"	96	20	141	88	30.2	2.15

DESCRIPTION

Solenoid valve 2 way normally open with servo-assisted diaphragm

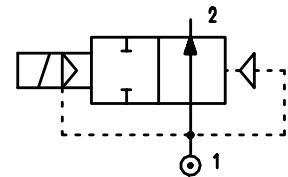
CONSTRUCTION

Body and cover	Brass
Armature tube	up to G1" Stainless steel over G1" Brass
Plunger and core	Stainless steel
Springs	Stainless steel
Seal material	NBR FPM EPDM



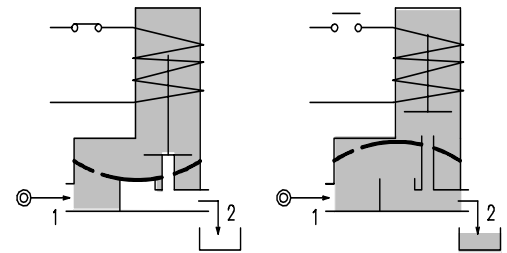
FEATURES

- Minimum differential pressure 0.15 bar
- Maximum allowable pressure* : 25 bar (up to G1"1/2)
20 bar (over G"1/2)
- Maximum fluid viscosity 25cSt (mm²/s)
- Ambient temperature: with class F coil -10°C +55°C
with class H coil -10°C +80°C
- Preferred mounting position with vertical coil above



4

- OPTIONS :** Electroless nickel-plating
Explosion proof coil according to ATEX - EExmII Series 7 (up to G1")



CODE ① ②	Connection G ISO 228	Orifice mm	KV m ³ /h	Differential pressure bar			Nominal power			Coil		Seal ①	Temp. range °C
				Min	Max		AC Inrush	VA Holding	DC Watt	Series	Width		
					AC	DC							
E207B.....10///.....	1/4"	10	1.5	0.15	15	15	12	8	6.5	3	22	NBR=B	-10 +90
E207C.....10///.....	3/8"	10	1.7	0.15	15	15	12	8	6.5	3	22		
E207C.....12///.....	3/8"	12	2.2	0.15	15	15	12	8	6.5	3	22		
E207D.....12///.....	1/2"	12	2.5	0.15	15	15	12	8	6.5	3	22	EPDM=E	<+140
E207E.....18///.....	3/4"	18	5.5	0.15	13	13	12	8	6.5	3	22		
E207F.....25///.....	1"	24	10.2	0.15	10	10	12	8	6.5	3	22		
E207G.....30///.....	1"1/4	30	15	0.15	10	10	12	8	6.5	3	22	FPM=V	-10 +130
E207G.....37///.....	1"1/4	37	18	0.15	10	10	20	15	10	2	30		
E207H.....37///.....	1"1/2	37	21	0.15	10	10	20	15	10	2	30		
E207I.....50///.....	2"	50	36	0.15	10	10	20	15	10	2	30	NBR=B	-10 +90
③E207MB75///.....	2"1/2	75	75	0.3	10	10	20	15	10	2	30		
③E207RB75///.....	3"	75	84	0.3	10	10	20	15	10	2	30		

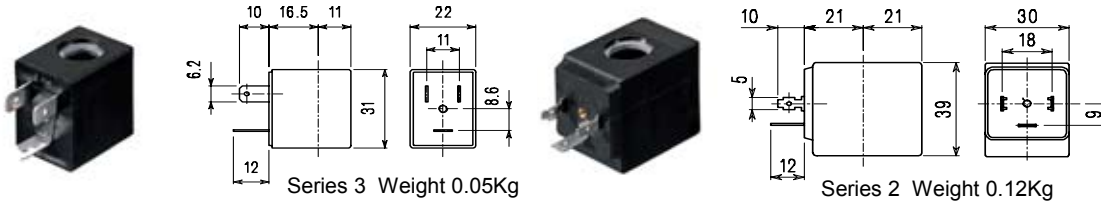
- ① Seal Example: E207DB12///301 NBR seal
- ② Coil Coil 24V DC
- ③ NBR seals – Only for neutral liquid fluid

* REMARK: The maximum allowable pressure PS for steam is 2,5bar (gauge pressure)

COIL	Alternating Current ~50/60Hz Volt							Direct Current Volt			Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24	48		
Series 3 Width 22 Code ②	30A	30B	30C	30D	30E	30F	30G	300	301	302	DIN 46244	PG9 code 10348000
Series 2 Width 30 Code ②	20A	20B	20C	20D	20E	20F	20G	200	201	202	DIN 43650A	PG9 code 10349000

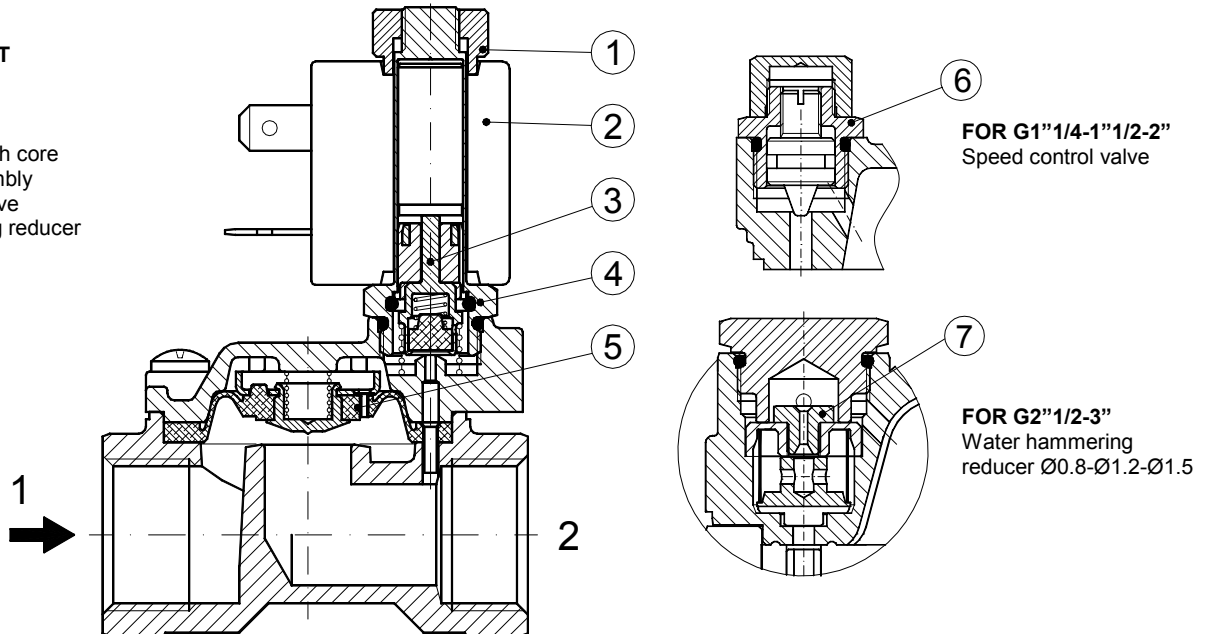
DESCRIPTION
 Class F insulation
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector
 Continuous service ED100%

OPTIONS
 Class H insulation
 Cable attached
 Special coil powers
 Special coil voltages

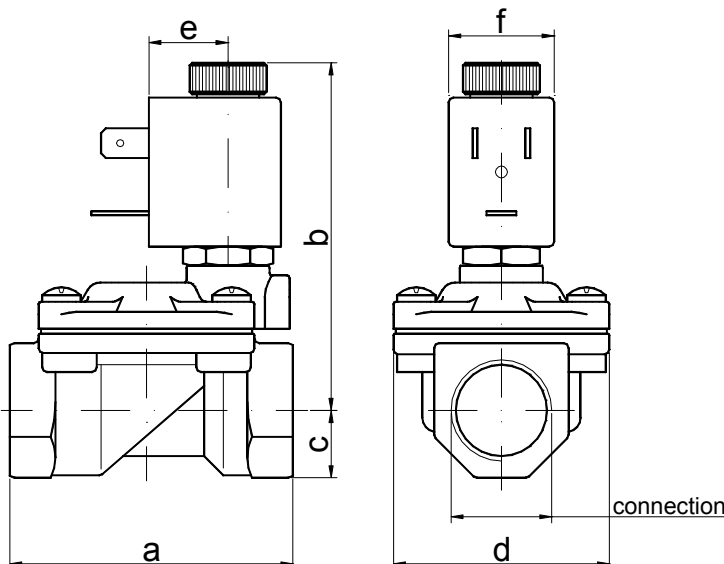


SPARE PARTS LIST

1. Coil fixing nut
2. Coil
3. Seal assembly
4. Armature tube with core
5. Diaphragm assembly
6. Speed control valve
7. Water hammering reducer
Ø0.8-Ø1.2-Ø1.5



OVERALL DIMENSION



CONNECTION	a	b	c	d	e	f	Weight Kg
G1/4" Ø10	49	64	11	32	16	22	0.25
G3/8" Ø10	49	64	11	32	16	22	0.25
G3/8" Ø12	59	73	14	45	16	22	0.45
G1/2"	59	73	14	45	16	22	0.45
G3/4"	79	75	18	55	16	22	0.66
G1"	96	85	20	72	16	22	1.05
G1 1/4" Ø30	119	96	25	85	16	22	1.80
G1 1/4"	142	105	28	102	21	30	2.95
G1 1/2"	142	105	28	102	21	30	2.74
G2"	158	119	35	119	21	30	4.32
G2 1/2"	226	135	51	169	21	30	10
G3"	226	135	51	169	21	30	9.65

DESCRIPTION

Solenoid valve 2 way normally open with servo-assisted piston

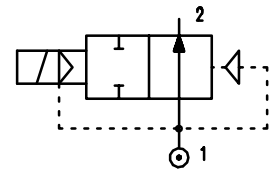
CONSTRUCTION

Body and cover	Brass
Armature tube	Brass
Plunger and core	Stainless steel
Springs	Stainless steel
Piston	Brass
Piston ring	PTFE reinforced
Seal material	Main seal PTFE others FPM

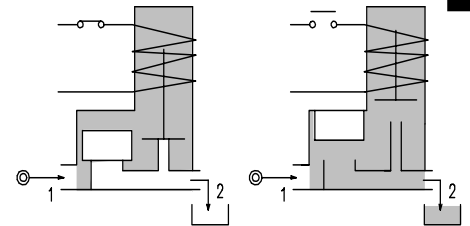


FEATURES

- Minimum differential pressure 1 bar
- Maximum allowable pressure 40 bar
- Maximum fluid viscosity 25cSt (mm²/s)
- Ambient temperature : with class F coil -10°C +55°C
with class H coil -10°C +80°C
- Preferred mounting position with vertical coil above



- OPTIONS :** Electroless nickel-plating
Stainless steel armature tube



4

CODE ①	Connection G ISO 228	Orifice mm	KV m ³ /h	Differential pressure bar			Nominal power			Coil		Seal	Temp. range °C
				Min	Max		AC Inrush	VA Holding	DC Watt	Series	Width		
					AC	DC							
E219CV12///.....	3/8"	12	2	1	25	25	20	15	10	2	30	PTFE/FPM	-10 +130
E219DV12///.....	1/2"	12	2.2	1	25	25	20	15	10	2	30		

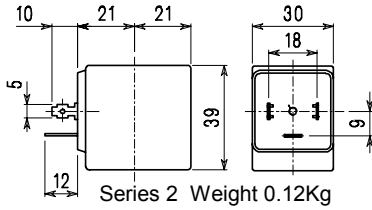
① Coil Example: E219DV12///20B FPM seal
Coil 24V 50/60Hz

Maximum allowable leakage < 0.2 nL/h

COILS	Alternating Current ~50/60Hz Volt							Direct Current Volt			Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24	48		
Series 2 Width 30 Code ①	20A	20B	20C	20D	20E	20F	20G	200	201	202	DIN 43650A	PG9 code 10349000

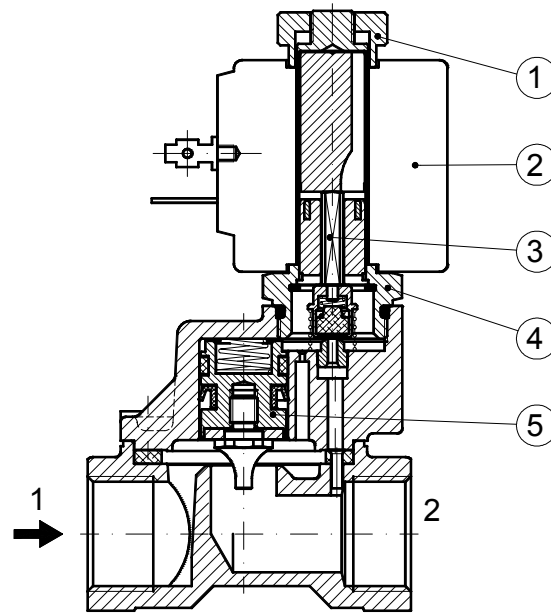
DESCRIPTION
 Class F insulation
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector
 Continuous service ED100%

OPTIONS
 Class H insulation
 Cable attached
 Special coil powers
 Special coil voltages

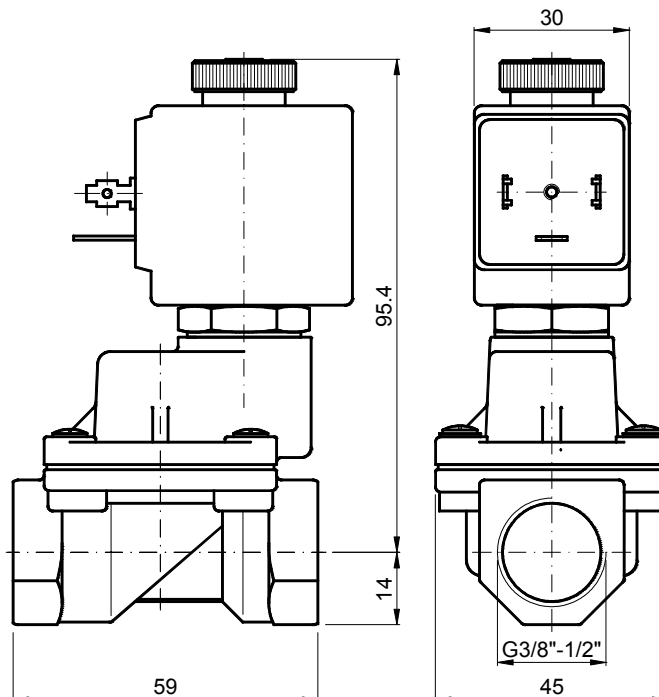


SPARE PARTS LIST

1. Coil fixing nut
2. Coil
3. Seal assembly
4. Armature tube with core
5. Piston assembly



OVERALL DIMENSION



Weight 0.63 Kg

DESCRIPTION

Solenoid valve 2 way normally open in stainless steel AISI 316 with servoassisted diaphragm

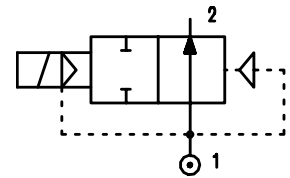
CONSTRUCTION

Body and cover	Stainless steel
Armature tube	Stainless steel
Plunger and core	Stainless steel
Springs	Stainless steel
Seal material	NBR
	FPM
	EPDM

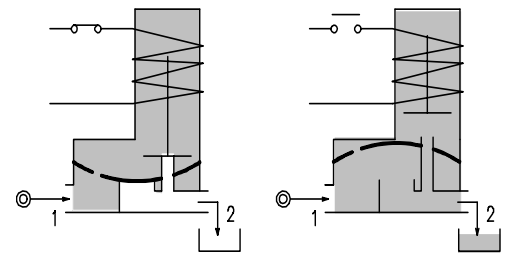


FEATURES

- Minimum differential pressure 0.15 bar
- Maximum allowable pressure 25 bar *
- Maximum fluid viscosity 25cSt (mm²/s)
- Ambient temperature : with class F coil -10°C +55°C
with class H coil -10°C +80°C
- Preferred mounting position with vertical coil above



- OPTIONS :** Explosion proof coil according to ATEX - EExmII Series 7
Food approval seal material
Silver shading ring



4

CODE ① ②	Connection G ISO 228	Orifice mm	KV m ³ /h	Differential pressure bar		Nominal power			Coil		Seal ①	Temp. range °C	
				Min	Max		AC Inrush	VA Holding	DC Watt	Series			Width
					AC	DC							
E277C.....12///.....	3/8"	12	2.2	0.15	15	15	12	8	6.5	3	22	NBR=B EPDM=E FPM=V	-10 +90 <+140 -10 +130
E277D.....12///.....	1/2"	12	2.5	0.15	15	15	12	8	6.5	3	22		
E277E.....18///.....	3/4"	18	5.5	0.15	13	13	12	8	6.5	3	22		
E277F.....25///.....	1"	24	10.2	0.15	10	10	12	8	6.5	3	22		

- ① Seal
- ② Coil

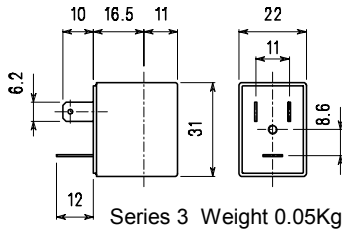
Example: E277DB12///301 NBR seal
Coil 24V DC

* REMARK: The maximum allowable pressure PS for steam is 2,5bar (gauge pressure)

COIL	Alternating Current ~50/60Hz Volt							Direct Current Volt			Electrical connection	Connectors
	12	24	48	110	220 230	240	380	12	24	48		
Series 3 Width 22 Code ②	30A	30B	30C	30D	30E	30F	30G	300	301	302	DIN 46244	PG9 code 10348000

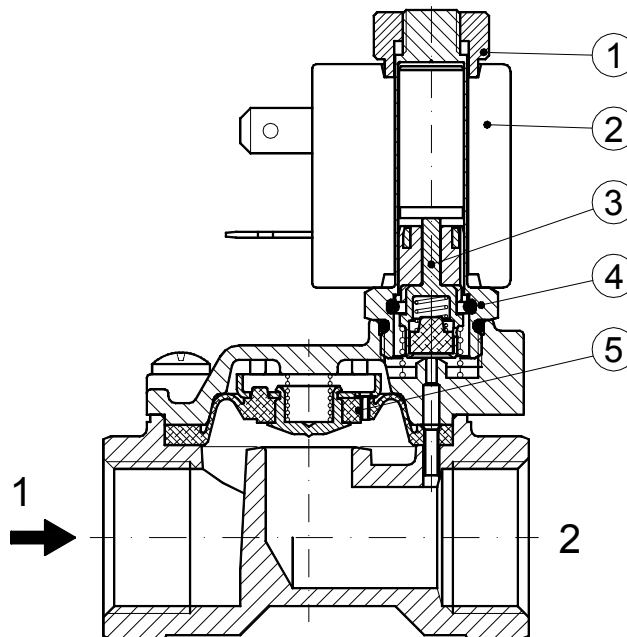
DESCRIPTION
 Class F insulation
 Voltage tolerance
 AC +15% -10%
 DC ± 10%
 Protection class
 IP65 with connector fitted
 IP00 without connector
 Continuous service ED100%

OPTIONS
 Class H insulation
 Cable attached
 Special coil powers
 Special coil voltages

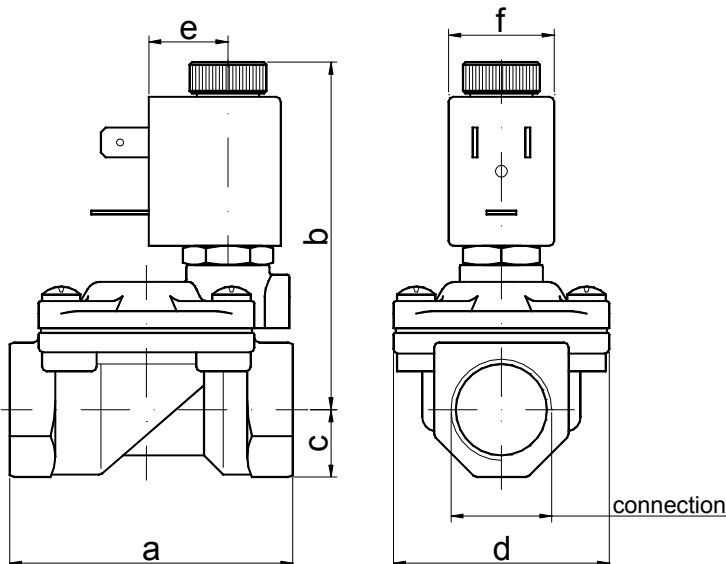


SPARE PARTS LIST

1. Coil fixing nut
2. Coil
3. Seal assembly
4. Armature tube with core
5. Diaphragm assembly



OVERALL DIMENSION



CONNECTION	a	b	c	d	Weight Kg
G3/8" Ø12	59	73	11	45	0.31
G1/2"	59	73	13	45	0.32
G3/4"	79	75	18	55	0.75
G1"	96	85	20	72	1.35