

SOLENOID VALVES

Series L/D/S

1. GENERAL PURPOSE VALVES Series L

DIRECT
ACTING

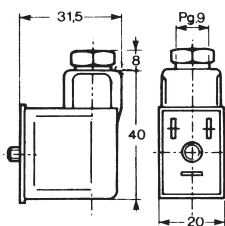


INDIRECT
ACTING

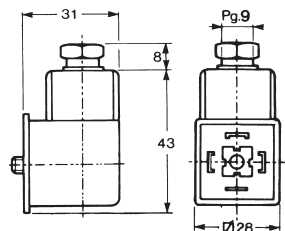
ACCESSORIES



CONNECTORS FOR COILS
(Protection class IP65)
by DIN 43650



MP1



MP2

Coils are always included in the valve,
connectors are to be ordered separately.

ADJUSTABLE TIMER to preset DUTY CYCLE



A "TEST" button is provided
and 2 leds are used to show
the state of the timer.

The load is supplied as soon as the power is switched on. The trimmer "ON" controls the ON-time for valve energizing, while the trimmer "OFF" sets the interval between 2 sequential times. The sequence is repeated as long as the power supply remains connected.

TIME: OFF 0.5-45 min. adjustable
ON 0.5-10 sec. adjustable
VOLTAGES: 24-240 V AC/DC
MAX. CURRENT: 1A
CURRENT CONSUMPTION: 4mA max.
TEMPERATURE: -40° +60° C
PROTECTION CLASS: IP65 when installed
with 3 pole plug connector MP2 (DIN 43650)
WEIGHT: 55 gr.

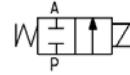
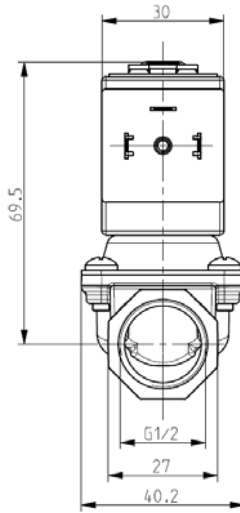
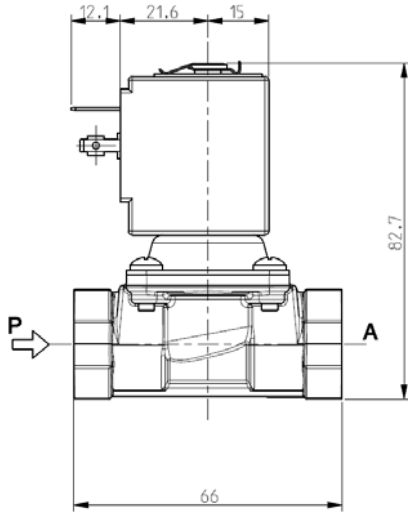
ORDER CODIFICATION :
TEC22



ASCO

SOLENOID VALVE
2/2 - NC (Normally closed)
 Direct acting
G 1/2

L113



► **GENERAL FEATURES**

Direct acting solenoid valve with full orifice, for low pressure.
 Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with materials in contact).

► **TECHNICAL FEATURES**

Maximum allowable pressure (PS) 2 bar
 Opening time ~30ms
 Closing time ~30ms
 Fluid temperature 0°C +130°C
 Max viscosity 5°E (~37 cStokes or mm²/s)

► **MATERIALS IN CONTACT WITH FLUID**

Body Brass
 Sealing FPM
 Internal components Stainless steel and brass
 Seat Brass
 Core tube Stainless steel
 Shading coil Copper

► **COIL**

Continuous duty ED 100%
 Encapsulation material PPS (Polyphenilsulfure) fiberglass reinforced
 Insulation class F (155°C) on request class H (180°C) – UL (vd. ZA34A)
 Ambient temperature -10°C +50°C
 Electric connections DIN 46340 - 3 poles connectors (EN175301-803)
 Protection degree IP 67 (EN 60529) with plug connector
 Voltages DC 12-24V (+10% -5%)
 AC 24V/50Hz - 110V/50Hz (120V/60Hz) - 230V/50Hz (+10% -15%)
 (Other voltages and frequencies on request)

Port size ISO 228	Orifice size (mm)	Differential pressure (bar)				Kv (m ³ /h)	Series and type		Power absorption			Sealings	Function Notes	Weight (kg)	
		Δp min	Δp max				Valve	Coil	AC (VA)		DC (W)				
			Gases		Liquids				Inrush	Holding					
			AC	DC	AC										DC
G 1/2	12	0	0,30	-	0,30	-	L113V22	ZA10A	23	14	-	FPM	1	0,390	
			-	0,20	-	0,20			-	-	9		1 - 2		

► **NOTES**

- Sealings : FPM = Fluoro-carbon elastomer
 1 - IMQ CSV approval, see ZA10 datasheet for further details
 2 - Silent model; only for direct current (DC).

Technical modifications keep in reserve !

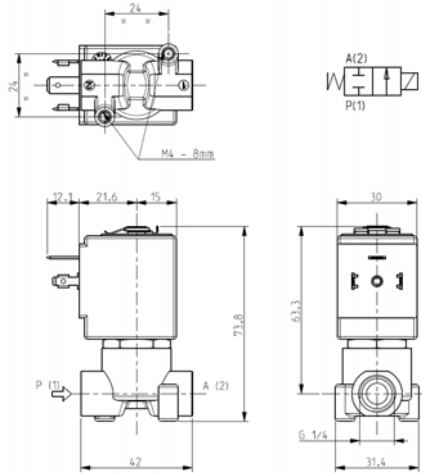
(2021/03)



ASCO

SOLENOID VALVE
2/2 - NC (Normally closed)
Direct acting
G 1/4

L121



► GENERAL FEATURES

Direct acting solenoid valve.
 Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with materials in contact).

► TECHNICAL FEATURES

Maximum allowable pressure (PS) 40 bar
 Opening time ~20ms
 Closing time ~20ms
 Fluid temperature
 -10°C +90°C (NBR)
 0°C +130°C (FPM)
 -10°C +140°C (EPDM)
 Max viscosity 5°E (~37 cStokes or mm²/s)

► APPROVALS

UL (Class F) approval – for UL cl.H: ZA34
 IMQ CSV approval, see ZA10 data sheet for further details
 Compliant with MD 174/2004 and Reg. CE 1935/2004

► MATERIALS IN CONTACT WITH FLUID

Body Brass
 Sealing NBR or FPM or EPDM
 Internal components Stainless steel
 Seat Brass
 Core tube Stainless steel
 Shading coil Copper

► COIL

Continuous duty ED 100%
 Encapsulation material PPS (Polyphenylsulfure) fiberglass reinforced
 Insulation class F (155°C) on request class H (180°C)
 Ambient temperature -10°C +50°C
 Electric connections DIN 46340 - 3 poles connectors (EN175301-803)
 Protection degree IP 67 (EN 60529) with plug connector
 Voltages DC 12-24V (+10% -5%)
 AC **ZA10A:** 24V/50Hz - 110V/50Hz (120V/60Hz) - 230V/50Hz (+10% -15%)
 (Other voltages and frequencies on request).



Port size ISO 228	Orifice size (mm)	Differential pressure (bar)				Kv (m ³ /h)	Series and type		Power absorption			Sealings	Notes	Weight (kg)													
		Δp min	Δp max				Valve	Coil	AC (VA)		DC (W)																
			AC	DC	AC				DC	Inrush					Holding												
G 1/4	1,6	0	30	30	30	30	0,09	L121V02	ZA10A	23	14	9	FPM	1	0,290												
								L121B02					NBR	1 - 2													
	L121V02		1	-	-	12		-					-	12		FPM											
	L121D02															EPDM											
	L121B02															NBR											
	L121V02															FPM											
	2,3	0	20	16	20	16	0,15	L121B02	ZA10G	-	-	12	NBR	-													
								L121V02					FPM														
	3,2		12	4	12	4		0,30					L121B02			ZA10A	23	14	9	NBR	-						
													L121V02							FPM							
	4,5		6	2	6	2							0,40							L121B02		ZA10G	-	-	12	NBR	2
																				L121V02						FPM	
-	-	3	-	3	0,40	L121B02	ZA10G		-	-	12	NBR		2													
						L121V02						FPM															
-	-	-	-	-		0,40		L121D02				-			-	-	-	NBR	-								
								L121V02										FPM									
-	-	-	-	-				0,40					L121B02					-		-	-	-	NBR	-			
													L121V02										FPM				
-	-	-	-	-	0,40		L121D02		-	-	-		-	NBR									-				
							L121V02							FPM													
-	-	-	-	-		0,40	L121D02					-		-	-	-	NBR		-								
							L121V02										FPM										

► NOTES

- Sealings : NBR = Nitrile-butylene elastomer FPM = Fluoro-carbon elastomer EPDM = Ethylene-propylene elastomer
- IMQ CSV approval, see ZA10 datasheet for further details
- UL approved coil (E153691)
- 1 - On request special coil ZA10X, class "F", with UL approved windings - see overleaf.
- 2 - Model available on request only: ask for minimum quantity.

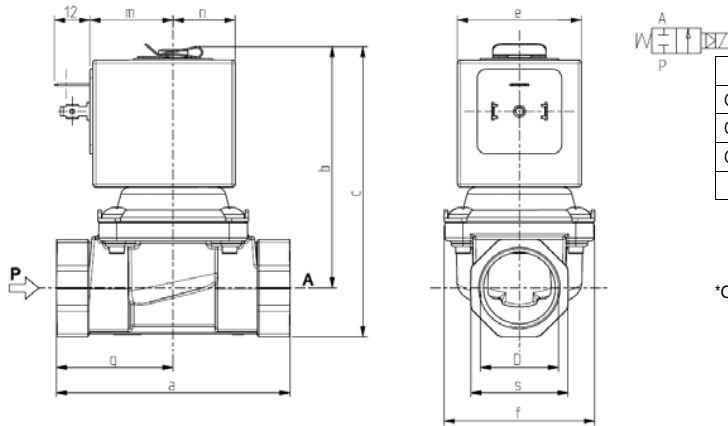
Technical modifications keep in reserve !

(2021/03)



SOLENOID VALVE
2/2 - NC (Normally closed)
Pilot operated hung diaphragm
G3/8 ÷ 1

L133



D	a	b	c	e	f	m	n	s	g
G 3/8	60	67,5	78,7	30	40,2	21,6	15*	22	25,5
G 1/2	66	67,5	78,7	30	40,2	21,6	15*	27	-
G 3/4	79	81	98	42	51	28	21	33	-
G 1	105	100	121	48,6	71	35	24,3	42	46

*Only for ZA10B n=19,9

► GENERAL FEATURES

Pilot operated hung diaphragm valve with full orifice.
 Designed for closed circuit hydraulic systems and for vessels draining.
 Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with materials in contact).

► TECHNICAL FEATURES

Maximum allowable pressure (PS) 16 bar
Opening time from ~100ms to ~150ms
Closing time from ~100ms to ~400ms
Fluid temperature -10°C +90°C (NBR)
 0°C +130°C (FPM)
 -10°C +140°C (EPDM)
Max viscosity 5°E (~37 cStokes or mm²/s)

► MATERIALS IN CONTACT WITH FLUID

Body Brass
Sealing NBR or FPM or EPDM
Internal components Stainless steel and PPS (G3/8 – G1/2)
 Stainless steel and brass (G3/4 – G1)
Seat Brass
Core tube Stainless steel
Shading coil Copper (except L133(*)17)

► COIL

Approval
Continuous duty
Encapsulation material
Insulation class
Ambient temperature
Electric connections
Protection degree
Voltages DC
 AC

ZA10A	ZA10B	Z130A	Z923A/E
UL (class F) – for UL cl.H: ZA34*			-
ED 100%			
PPS (Polyphenilsulfure) fiberglass reinforced	PET (polyethylene terephthalate) fiberglass reinforced	PPS (Polyphenilsulfure) fiberglass reinforced	
F (155°C) on request class H (180°C)		F (140°C) on request class H (165°C)	H (165°C)
-10°C +50°C		-10°C +60°C	-10°C +80°C
DIN 46340 - 3 poles connectors (EN175301-803)			
IP 67 (EN 60529) with plug connector		IP 65 (EN 60529) with plug connector	
12-24V (+10% -5%)			
24V/50Hz-110V/50Hz(120V/60Hz) - 230V/50Hz (+10% -15%) (Other voltages and frequencies on request)			

* only for ZA10A

Port size ISO 228	Orifice size (mm)	Differential pressure (bar)				Kv (m ³ /h)	Series and type		Power absorption			Sealings	Notes	Weight (kg)	
		Δp min	Δp max				Valve	Coil	AC (VA)		DC				
			Gas		Liquids				Inrush	Holding					
			AC	DC	AC										DC
G3/8	12.5	0	10	3	10	3	L133(*)16	ZA10A	23	14	9	(*) = B (NBR)	1	0.340	
			-	8	-	8			-	-	10	-	0.350		
G1/2	17		10	3	10	3	L133(*)16	ZA10A	23	14	9	(*) = V (FPM)	1	0.410	
			-	8	-	8			-	-	10	-	0.420		
G3/4	24		10	3	10	3	L133(●)07	Z130A	44	24	13	(●) = B (NBR)	-	0.790	
			10	-	10	-			L133(●)06	Z923E	65	33	-	(●) = V (FPM)	-
G1		-	3	-	3		Z923A	-		-	17				

► NOTES

- Sealings : NBR = Nitrile-butylene elastomer FPM = Fluoro-carbon elastomer EPDM = Ethylene-propylene elastomer
 - The nominal flow is guaranteed with Δp min ≥ 0,3 bar. Contact us in case of lower Δp min values.
 - UL approved coil (E153691)
 1 - IMQ CSV approval, see ZA10 datasheet for further details

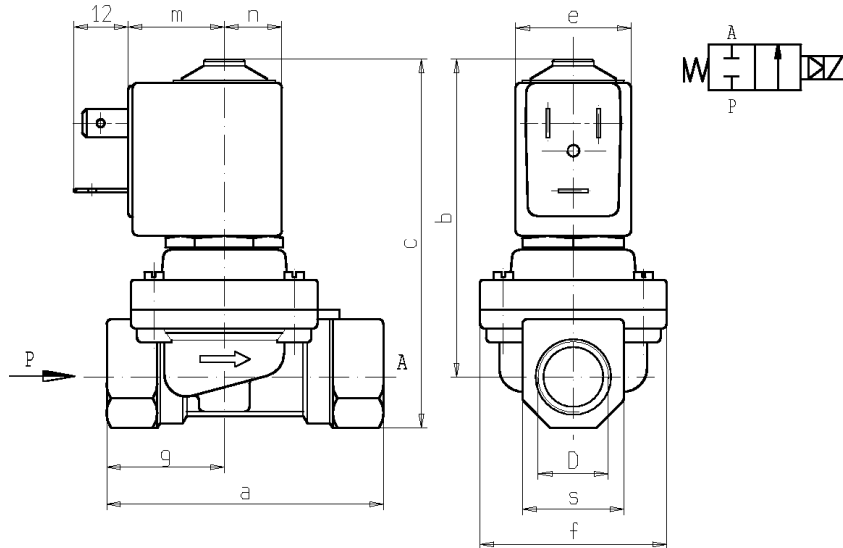
Technical modifications keep in reserve !

(2021/03)



SOLENOID VALVE
2/2 - NC (Normally closed)
 Pilot operated
G3/8 ÷ 1

L145



D	a	b	c	e	f	m	n	s	g
G 3/8	60	69	80	25	40	21	12,5	22	25,5
G 1/2	66	72	85	25	40	21	12,5	27	33
G 3/4	79	78	94,5	32	50	27	16	33	39,5
G 1	105	102	123	32	71	27	16	42	46

► **GENERAL FEATURES**

Diaphragm valve, pilot operated, having full orifice.
 Suitable to shut off liquid and gaseous fluids; particularly suitable to shut off overheated water and steam (verify the compatibility of fluid with materials in contact).
 Not suitable for use with dangerous fluids listed in Group 1, therefore they are free from CE marking in conformity with article 3 § 3 of the European Directive 97/23/EC (Pressure Equipment Directive).

► **TECHNICAL FEATURES**

Maximum allowable pressure (PS) G3/8 and G1/2: 16 bar
 G3/4 and G1: 9 bar
Opening time ~100ms
Closing time from ~500ms to ~1500ms
Fluid temperature +60°C +170°C
Max viscosity 5°E (~37 cStokes or mm²/s)

► **MATERIALS IN CONTACT WITH FLUID**

Body Brass
Sealing Reinforced PTFE (Polytetrafluorethylene)
Internal components Brass and stainless steel
Seat Stainless steel
Guide assembly Stainless steel
Shading ring Copper

► **COIL**

Continuous duty ED 100%
Coil impregnation Polyester resin
Encapsulation material PPS (polyphenilsulfure) glass fibre reinforced
Insulation class H (180°C) - UL
Ambient temperature -10 C° +80 °C
Electric connenctions Z5: DIN 46340 – 3 poles connector (DIN 43650)
 Z6: DIN 46340 – 3 poles connector
Protection degree IP 65 (EN 60529) with plug connector
Voltages AC 24V/50Hz - 110V/50Hz (120V/60Hz)
 230V/50Hz (+10% -15%)
 (Other voltages and frequencies on request).

Port size ISO 228	Ø Int. (mm)	Differential pressure (bar)				Kv (m ³ /h)	Series and type		Power absorption			Sealings	Notes	Weight (kg)
		Δp max					Valve	Coil	AC (VA)		c.c. (W)			
		Gas		Liquids					Inrush	Holding				
		c.a.	c.c.	c.a.	c.c.									
G 3/8	10	0,4	8	-	8	-	2	L145R2	Z614A	16	10	reinforced PTFE	1	0,360
2,5														
							4,5	L145R4	Z534A	23	14			
8,5														

► **NOTES**

- Sealings : PTFE = Polytetrafluorethylene (reinforced)
 1 - On request Z610A or Z530A coil, encapsulated in PBT (Polybutylene-terephthalate) class "F" (+155°C): maximum fluid temperature +100°C, maximum ambient temperature +60°C.

Technical modifications keep in reserve !

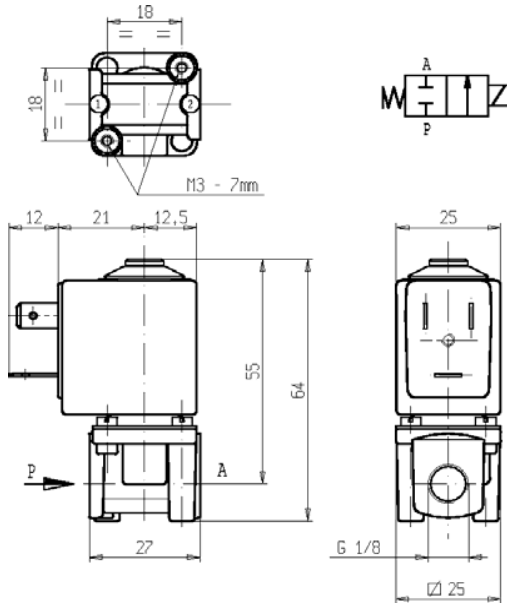
(2021/03)



ASCO

SOLENOID VALVE
2/2- NC (Normally closed)
Direct acting
G 1/8

L177



► GENERAL FEATURES

Direct acting solenoid valve.
 Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with material in contact)

► TECHNICAL FEATURES

Maximum allowable pressure (PS) 30bar
 Opening time from ~10ms to ~20ms.
 Closing time from ~10ms to ~20ms.
 Fluid temperature -10°C +90°C (NBR)
 0°C +130°C (FPM)
 -10°C +140°C (EPDM)
 Max viscosity 5°E (~37 cStokes or mm²/s)

► MATERIALS IN CONTACT WITH FLUID

Body Brass
 Sealing NBR or FPM or EPDM
 Internal components Stainless steel
 Seat Brass
 Core tube Stainless steel
 Shading coil Copper

► COIL

Continuous duty ED 100%
 Encapsulation material PET (polyethylene terephthalate) fiberglass reinforced
 Insulation class F (155°C) – on request class H (180 °C) - UL
 Ambient temperature -10 C° +60 °C
 Electric connection DIN 46340- 3 poles plug connectors
 Protection degree IP 65 (EN 60529) with plug connectors
 Voltages DC 12-24V (+10% -5%)
 AC 24V/50-60Hz - 110V/50-60Hz (120V/60Hz)
 230V/50-60Hz (+10% -15%)
 (Other voltages and frequencies on request).

Port size ISO-228	Orifice size (mm)	Differential pressure (bar)				Kv (m ³ /h)	Series and type		Power absorption			Sealings	Notes	Weight (kg)		
		Δp min	Δp max				Valve	Coil	AC (VA)		DC (W)					
			Gases		Liquids				Inrush	Holding						
			AC	DC	AC										DC	
G 1/8	1,6	0	30	20	30	20	0,09	L177B04	Z610A	16	10	6	NBR	-	0,170	
			L177V04	FPM	-											
	2,3		13	6	12	5		0,14					L177B04	NBR		-
			L177D04	EPDM	1											
			L177V04	FPM	-											
			L177B04	NBR	-											
3,2	7	1,4	6	1,2	0,25	L177V04	FPM	1								

► NOTES

- Sealings: NBR = Nitrile-butylene elastomer FPM = Fluoro-carbon elastomer EPDM = Ethylene-propylene elastomer
 1 - Model available on request only: ask for minimum quantity.

Technical modifications keep in reserve !

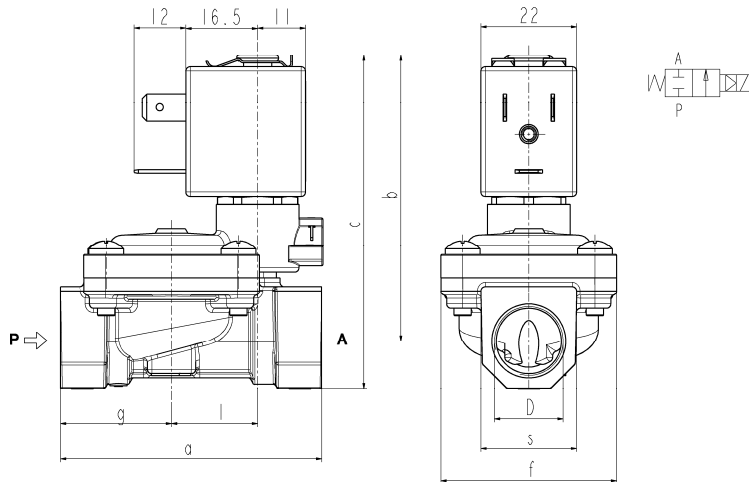
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ASCO

SOLENOID VALVE
2/2- NC (Normally closed)
 Pilot operated
G 3/8 ÷ G 1

L182



D	a	b	c	f	g	l	s
G 3/8	60	66	77	40	25,5	20	22
G 1/2	66	68	82	40	29	20	27
G 3/4	79	72,5	89	50	35,5	24,5	33
G 1	105	85	106	71	46	28	42

► GENERAL FEATURES

Diaphragm valve, pilot operated, having full orifice.
 Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with material in contact).

► TECHNICAL FEATURES

Maximum allowable pressure (PS)	20bar			
Response times	3/8	1/2	3/4	1
Opening time (ms)	70	70	70	90
Closing time (ms)	670	600	500	420
Fluid temperature	-10°C +90°C (NBR) 0°C +130°C (FPM) -10°C +140°C (EPDM)			
Max viscosity	5°E (~37 cStokes or mm ² /s)			

► COIL

Approval
 Encapsulation material
 Insulation class
 Ambient temperature
 Continuous duty
 Electric connection
 Protection degree
 Voltages DC
 AC

ZB10A	ZB12A *	ZB14A *
/	UL and CSA	UL and CSA
PA fiberglass reinforced	PET fiberglass reinforced	PET fiberglass reinforced
F (155°C) -10°C +60°C	F (155°C) -10°C +60°C	H (180°C) -10°C +75°C
ED 100%		
DIN 46340 - 3 poles plug connector		
IP 65 (EN 60529) with plug connector	IP 67 (EN 60529) with plug connector	IP 67 (EN 60529) with plug connector
12-24V (+10% -5%)		
24V/50-60Hz - 115V/50Hz - 230V/50-60Hz (+10% -15%)		
(Other voltages and frequencies on request).		
/	ZB12Y	ZB14Y
/	UL	UL
/	220-230V/50Hz 208-240V/60Hz (+10% -15%)	

► MATERIALS IN CONTACT WITH FLUID

Body	Brass
Sealing	NBR or FPM or EPDM
Internal components	Brass and stainless steel
Seat	Brass
Core tube	Stainless steel
Shading coil	Copper

*** On request**

Approval
 Voltages AC

Port size ISO 228	Orifice size (mm)	Differential pressure (bar)				Kv (m ³ /h)	Series and type			Power absorption				Sealings	Notes	Weight (kg)		
		Δp min	Δp max				Valve	Valve with manual override	Coil	AC (VA)			DC					
			Gases		Liquids					Inrush	Holding	W					W	
			AC	DC	AC													DC
3/8	13,5	0,35	16	16	16	16	L182(*)01	L182(*)02	ZB10A ZB12A	12	6	4	5,5	(*) = B (NBR)	1-3	0,32		
1/2			(12)	(12)	(12)	(12)										0,38		
3/4	18		12	12	12	12										(*) = V (FPM)	2-3	0,52
1	24		(10)	(10)	(10)	(10)												(*) = D (EPDM)

► NOTES

- Sealings: B(NBR)=Nitrile-butylene elastomer V(FPM)=Fluoro-carbon elastomer D(EPDM)=Ethylene-propylene elastomer (WRAS/KTW certified compound)
- Operation with gaseous media, at high pressure without any outlet restriction, can reduce the diaphragm life.
- On request coil in class H (ZB14A – see § "COIL")
- The bracketed values of Δp max are related to valves with V(FPM) seals.
- 1 - Low power consumption coil on request (3,5 VA in AC – 3W in DC): Δp max = 12 bar
- 2 - Low power consumption coil on request (3,5 VA in AC – 3W in DC): Δp max = 8 bar
- 3 - L182D01 – L182D02: certified solenoid valves (certificate n. 1411048).

Technical modifications keep in reserve !

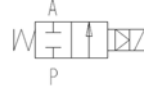
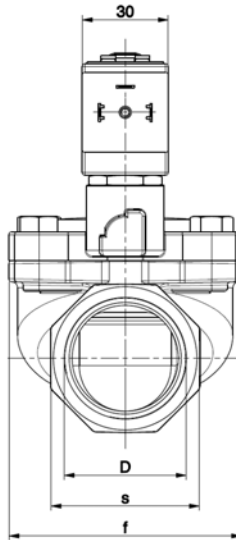
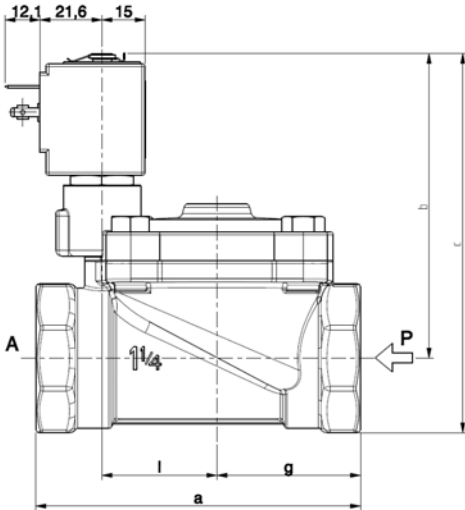
(2021/03)



ASCO

SOLENOID VALVE
2/2 - NC (Normally closed)
 Pilot operated
G1 ¼ ÷ 2

L182-BIG
 G 1" ¼ ÷ 2"



D	a	b	c	f	g	l	s
G 1 ¼	113	106	132	81	50	40	52
G 1 ½	140	110	140	110	64	53	60
G 2	157	114	150	110	72	53	72

► GENERAL FEATURES

Diaphragm valve, pilot operated, having full orifice.
 Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with materials in contact).
 Not suitable for use with dangerous fluids listed in Group 1, therefore they are free from CE marking in conformity with article 3 § 3 of the European Directive 97/23/EC (Pressure Equipment Directive).

► TECHNICAL FEATURES

Maximum allowable pressure (PS)	15 bar		
Response times	1 1/4	1 1/2	2
Opening time (ms)	100	360	360
Closing time (ms)	650	650	650
Fluid temperature	-10°C +90°C (NBR) 0°C +130°C (FPM)		
Max viscosity	5°E (~37 cStokes or mm²/s)		

► MATERIALS IN CONTACT WITH FLUID

Body	Brass
Sealing	Diaphragm: NBR or FPM / Actuator: FPM
Internal components	Brass and stainless steel
Seat	Brass
Guide assembly	Stainless steel
Shading ring	Copper

► COIL

Approval	UL (class F) – for UL cl.H: ZA34
Continuous duty	ED 100%
Encapsulation material	PPS (Polyphenylsulfure) fiberglass reinforced
Coil insulation class	F (155°C) on request class H (180°C)
Ambient temperature	-10°C +50°C
Electric connections	DIN 46340 - 3 poles connectors (EN175301-803)
Protection degree	IP 67 (EN 60529) with plug connector
Voltages DC	12-24V (+10% -5%)
AC	24V/50Hz - 110V/50Hz (120V/60Hz) - 230V/50Hz (+10% -15%)
	(Other voltages and frequencies on request)

Port size ISO 228	Orifice size (mm)	Differential pressure (bar)				Kv (m³/h)	Series and type			Power absorption			Sealings	Notes	Weight (kg)						
		Δp max					Valve	Valve with manual override	Coil	AC (VA)		DC (W)									
		Gases		Liquids						Inrush	Holding										
G 1 ¼	30	0.50	10	10	10	15	L182B48	L182B49	ZA10A	23	14	9	NBR (diaphragm) FPM (actuator)	-	1,590						
G 1 ½	45														2,510						
G 2	45														2,990						
G 1 ¼	30						15	L182V48							L182V49	23	14	9	FPM	-	1,590
G 1 ½	45																				2,510
G 2	45																				2,990

► NOTES

- Sealings : NBR = Nitrile-butylene elastomer FPM = Fluoro-carbon elastomer
- Operation with gaseous fluids at high pressure without any outlet restriction can reduce the diaphragm life.
- IMQ CSV approval, see ZA10 datasheet for further details
- UL approved coil (E153691)

Technical modifications keep in reserve !

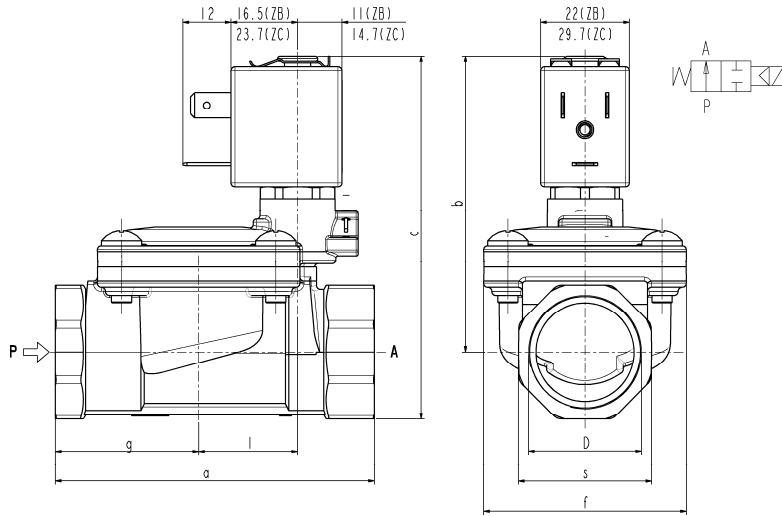
(2021/03)



ASCO

SOLENOID VALVE
2/2- NO (Normally open)
 Pilot operated
G 3/8 ÷ G 1

L282



D	a	b	c	f	g	l	s
G 3/8	60	67	78	40	25,5	20	22
G 1/2	66	69	83	40	29	20	27
G 3/4	79	73,5	90	50	35,5	24,5	33
G 1	105	86	107	71	46	28	42

► **GENERAL FEATURES**

Diaphragm valve, pilot operated, having full orifice.
 Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with material in contact).

► **TECHNICAL FEATURES**

Maximum allowable pressure (PS) 20bar
 Opening time from ~300ms to ~1500ms
 Closing time from ~1000ms to ~2000ms
 Fluid temperature -10°C +90°C (NBR)
 0°C +130°C (FPM)
 Max viscosity 5°E (~37 cStokes or mm²/s)

► **MATERIALS IN CONTACT WITH FLUID**

Body Brass
 Sealing NBR or FPM
 Internal components Brass and stainless steel
 Seat Brass
 Core tube Stainless steel
 Shading coil Copper

► **COIL**

Approval
 Encapsulation material
 Insulation class
 Ambient temperature
 Continuous duty
 Electric connection
 Protection degree
 Voltages DC
 AC

ZB10K ZC10A	ZB12K ZC12A	ZB14K ZC14A
/	▲ UL and CSA	▲ UL and CSA
PA fiberglass reinforced F (155°C)	PET fiberglass reinforced F (155°C)	PET fiberglass reinforced H (180°C)
-10°C +60°C	-10°C +60°C	-10°C +75°C
ED 100%		
DIN 46340-3 poles plug connector (EN 175301-803 for ZC)		
IP 65 (EN 60529) with plug connector	IP 67 (EN 60529) with plug connector	IP 67 (EN 60529) with plug connector
ZC: 12-24V (+10% -5%)		
ZB: 24V/50-60Hz - 120V/60Hz - 230V/50-60Hz - 220-230/50Hz 208-240/60Hz (on request) - (+10% -15%)		
(Other voltages and frequencies on request)		

▲ : approval valid for ZB12K – ZB14K only

Port size ISO 228	Orifice size (mm)	Δp min	Differential pressure (bar)				Kv (m ³ /h)	Series and type		Power absorption				Sealings	Notes	Weight (kg)						
			Δp max					Valve	Coil	AC (VA)			DC									
			Gas		Liquids					Inrush	Holding	DC										
3/8	13,5	0,35	12	12	12	12	2,5	ZB10K ZB12K	11,7	10	7,6	-	NBR FPM	-	0,32							
1/2																10	10	5	3,8	L282B01 L282V01	5,5	NBR FPM
3/4	10		10	5	L282B01 L282V01	5,5	NBR FPM															
1																12	12	12	L282B01 L282V01	5,5	NBR FPM	1,08
3/8	13,5		12	12	12	2,5	ZC10A ZC12A															
1/2																10	10	5	3,8	L282B01 L282V01	5,5	NBR FPM
3/4	10		10	5	L282B01 L282V01	5,5		NBR FPM	0,52													
1										12	12	12	L282B01 L282V01	5,5	NBR FPM	1,08						
	10		10	12	L282B01 L282V01	5,5		NBR FPM														

► **NOTES**

- Sealings: NBR=Nitrile-butylene elastomer FPM=Fluoro-carbon elastomer
- Operation with gaseous media, at high pressure without any outlet restriction, can reduce the diaphragm life.
- On request coil in class H (ZB14K – ZC14A - see § "COIL")
- On request **WRAS** certified solenoid valve with EPDM sealing (certificate n° 1411048).

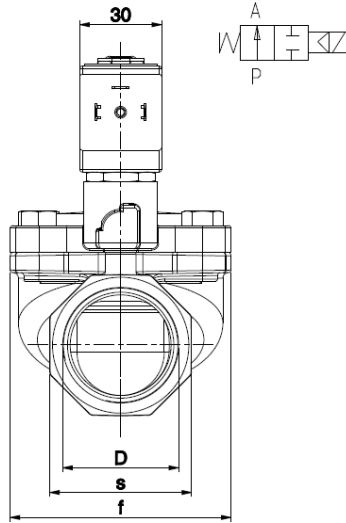
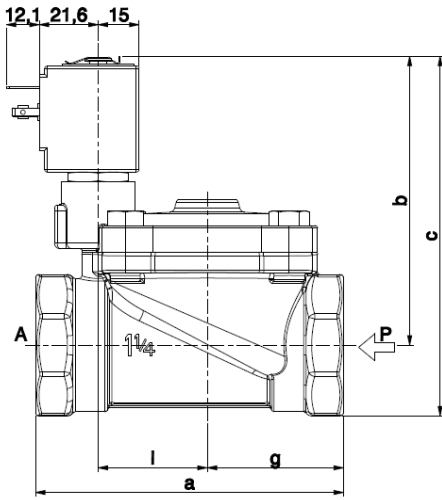
Technical modifications keep in reserve !

(2021/03)



SOLENOID VALVE
2/2 - NO (Normally open)
 Pilot operated
G1 ¼ ÷ 2

L282-BIG
 G 1" ¼ ÷ 2"



	D	a	b	c	f	g	l	s
G 1 ¼	113	106	132	81	50	40	52	
G 1 ½	140	110	140	110	64	53	60	
G 2	157	114	150	110	72	53	72	

► **GENERAL FEATURES**

Diaphragm valve, pilot operated, having full orifice.
 Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with materials in contact).
 Not suitable for use with dangerous fluids listed in Group 1, therefore they are free from CE marking in conformity with article 3 § 3 of the European Directive 97/23/EC (Pressure Equipment Directive).

► **TECHNICAL FEATURES**

Maximum allowable pressure (PS) 15 bar
 Opening time from ~300ms to ~1500ms
 Closing time from ~1000ms to ~2000ms
 Fluid temperature -10°C +90°C (NBR)
 0°C +130°C (FPM)
 Max viscosity 5°E (~37 cStokes or mm²/s)

► **MATERIALS IN CONTACT WITH FLUID**

Body Brass
 Sealing NBR or FPM
 Internal components Brass and stainless steel
 Seat Brass
 Guide assembly Stainless steel
 Shading ring Copper

► **COIL**

Approval UL (class F) – for UL cl.H: ZA34
 ED 100%
 Encapsulation material PPS (Polyphenilsulfure) fiberglass reinforced
 Coil insulation class F (155°C) on request class H (180°C)
 Ambient temperature -10°C +50°C
 Electric connection DIN 46340 - 3 poles connector (EN175301-803)
 Protection degree IP 67 (EN 60529) with plug connector
 Voltages DC **ZA10A: 12-24V (+10% -5%)**
 AC **ZA10YE: 24V/50Hz - 110V/50Hz (120V/60Hz) - 230V/50Hz (+10% -15%)**
 (Other voltages and frequencies on request)

Port size ISO 228	Orifice size (mm)	Differential pressure (bar)				K _v (m³/h)	Series and type		Power absorption			Sealings	Notes	Weight (kg)
		Δp max					Valve	Coil	AC (VA)		DC (W)			
		Gases		Liquids					Inrush	Holding				
G 1 ¼	30	10	-	10	-	15	L282B48	ZA10Y	28	20	-	NBR (diaphragm) FPM (actuator)	-	1,590
G 1 ½	45	9	-	9	-	27								2,510
G 2	45	9	-	9	-	34								2,990
G 1 ¼	30	10	-	10	-	15	L282V48	ZA10Y	28	20	-	FPM	-	1,590
G 1 ½	45	9	-	9	-	27								2,510
G 2	45	9	-	9	-	34								2,990
G 1 ¼	30	-	10	-	10	15	L282B48	ZA10A	-	-	9	NBR (diaphragm) FPM (actuator)	-	1,590
G 1 ½	45	-	9	-	9	27								2,510
G 2	45	-	9	-	9	34								2,990
G 1 ¼	30	-	10	-	10	15	L282V48	ZA10A	-	-	9	FPM	-	1,590
G 1 ½	45	-	9	-	9	27								2,510
G 2	45	-	9	-	9	34								2,990

► **NOTE**

- Sealings : NBR = Nitrile-butylene elastomer FPM = Fluoro-carbon elastomer
- Operation with gaseous fluids at high pressure without any outlet restriction can reduce the diaphragm life.
- IMQ CSV approval, see ZA10 datasheet for further details
- UL approved coil (E153691)

Technical modifications keep in reserve !

(2021/03)

2. DRY VALVES (Total Separation) Series D

Description:

Dry valves are needed in applications where it must be avoided that the controlled liquid or gaseous medium gets in touch with certain internal parts of the valve.

The solenoid controls the opening & closing movement by means of a lever or a diaphragm.

In the first case the lever penetrates the valve through an elastic protective sheath.

In the second case, the diaphragm is inside the valve body.

Advantages:

- Total separation between medium & solenoid
- Direct acting
- Available in Stainless steel (AISI 316)

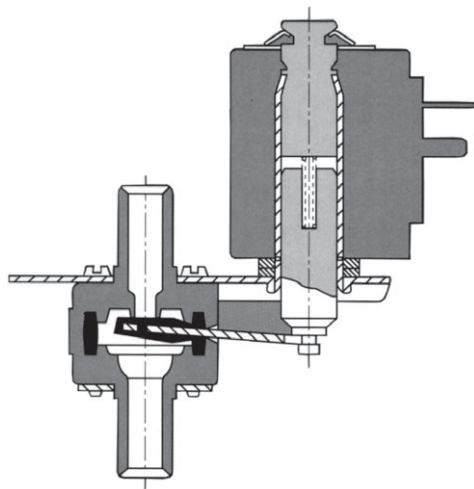
Versions:

- Two or three way, normally closed or open
- Female or male threaded ports or hose connections
- Internal orifices \varnothing 1.2 to 10 mm

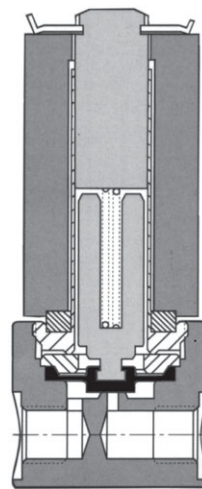
Applications:

- Food
- Agriculture & horticulture
- Laboratory
- Paramedical installations

SEPARATION LEVER



SEPARATION DIAPHRAGM



MORE DETAILS & OTHER TYPES AVAILABLE ON REQUEST

3. PINCH VALVES Series S



Description:

This pinch valve controls the distribution of a fluid by pinching or loosening the tube into which the fluid is flowing and NOT the fluid himself.

Advantages:

- No contact of the fluid with metallic components
- Free total & bidirectional flow
- Quick mounting & replacement of tubing
- Absence of dead spaces (e.g. bacteria)
- Direct acting

Attention:

The valves are suitable for soft silicon tubings or others, similar per elasticity & hardness, 55 Shore A. The tubings are not included in our supply.

Versions:

- Two or three way, normally closed or open
- Tubing with internal orifices \varnothing 0.8 to 6.4 mm and external orifices 1.7 to 9.5 mm

Applications:

- Paramedical sector
- Laboratory (e.g. blood-test & sampling)



2-way NC



DEENERGIZED COIL

ENERGIZED COIL

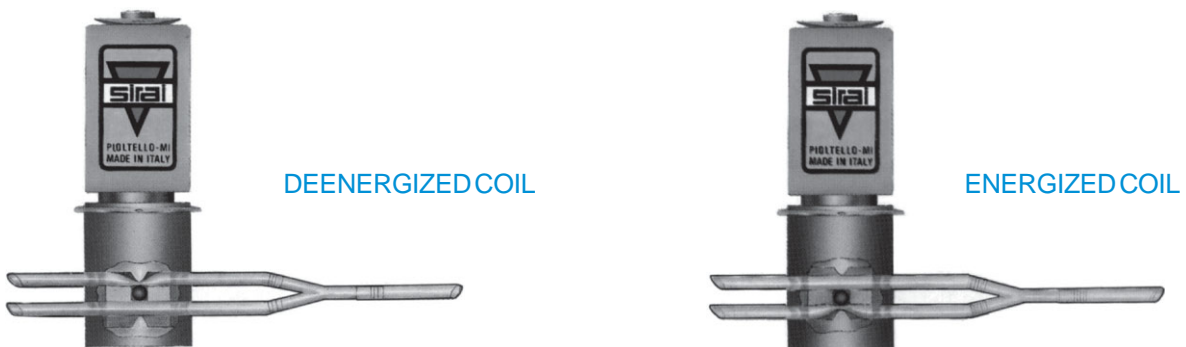
2-way NO



DEENERGIZED COIL

ENERGIZED COIL

3-way



DEENERGIZED COIL

ENERGIZED COIL

MORE DETAILS & OTHER TYPES AVAILABLE ON REQUEST