


**1388 A Series**

**1388 D Series**

### Application

- Low and high pressure gas combustion equipment.
- Low and medium pressure air or other neutral gases.
- They comply with the resolutions, regulations and recommendations for the use of natural gas in industrial installations in Argentina.

### Main characteristics

Normally closed.  
Direct acting. No minimum differential pressure to operate.  
Low and high pressure versions.  
Injected or cast aluminium body.  
BSP or NPT threaded connections.  
Buna "N" seats.

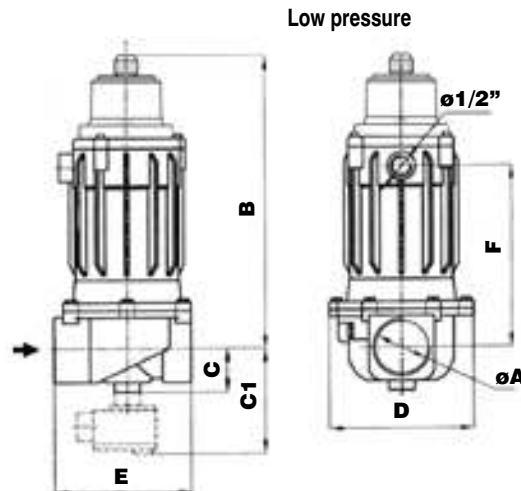
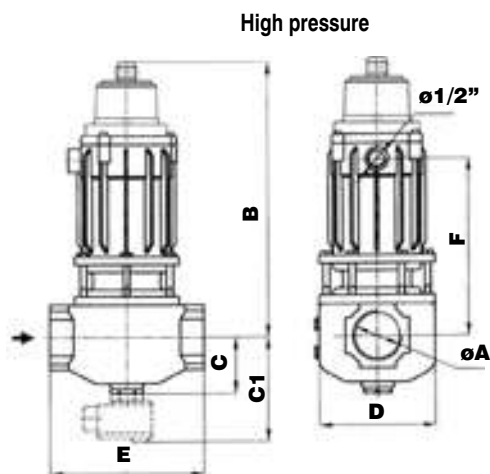
Class **H** coils with internal use housings.  
It includes the terminals for the electrical connection.  
Connection for 1/2" BSP pipeline.  
For 240V and 110V: current rectifier and transient reactive overvoltage supressor.  
Quick or two-stage opening.  
Both are adjustable.  
**1º stage:** Quick opening from 0 to 80% of the total adjustable stroke.  
**2º stage:** Adjustable slow opening up to 20 seconds, from the end of stage 1, up to full stroke.  
Shutoff in less than one second.

**Optional:** microcontact for closed valve verification.

### Technical specifications

Ø Pipe ins.	Ø Orifice		Flow factor		Δp Maximum		Weight		Maximum Temp.		Catalog N°.	
	mm	ins.	Kv	Cv	Bar	Psi	Kg	Lb	°C	°F	Slow opening	Quick opening
Low pressure												
2 1/2"	76	3	65	76	0.1	1.5	13.8	30.5	80	176	1388LA20D	1388LA20DS
3"			80	94			13.5	29.8			1388LA24D	1388LA24DS
High pressure												
3/4"	24	0.95	6	7	5	75	4.5	9.9	80	176	1388LA06A	1388LA06AR
1"	24	0.95	12	14			4.2	9.3			1388LA08A	1388LA08AR
1 1/2"	51	2.00	36	42			12.7	28			1388LA12A	1388LA12AR
2"	51	2.00	49	57			12.3	27			1388LA16A	1388LA16AR
2 1/2"	76	3.00	65	76			16.1	36			1388LA20A	1388LA20AR
3"	76	3.00	80	94			15.8	35			1388LA24A	1388LA24AR

## General dimensions 1388



High pressure						
øA	B	C	C <sub>1</sub>	D	E	F
3/4"	228	44	92	88	117	111
1"						
1.1/2"	323	72	121	147	192	221
2"						
2.1/2"	350	82	129	129	220	248
3"						

High pressure						
øA	B	C	C <sub>1</sub>	D	E	F
3/4"	8.97	1.73	3.62	3.46	4.60	4.37
1"						
1.1/2"	12.71	2.83	4.76	5.78	7.55	8.70
2"						
2.1/2"	13.78	3.22	5.10	6.77	8.66	9.76
3"						

Low pressure						
øA	B	C	C <sub>1</sub>	D	E	F
2.1/2"	302	82	129	172	220	200
3"						

Low pressure						
øA	B	C	C <sub>1</sub>	D	E	F
2.1/2"	11.89	3.22	5.10	6.77	8.66	7.87
3"						

Measurements: mm

Measurements: ins.

## Coil Characteristics for 3/4 and 1".

Electric Power Supply	Coil Type	Power W	VA (volt-amp)		Maximum Temperature		Available Tensions
			Inrush	Holding	°C	°F	
AC 50 Hz	S60HR	60	60	60	180	356	1
AC 60 Hz	S60HR						1
D/C	S60H						2

1-(110,120,220 y 240)V 2-(24,110,120,220)V

## Coil Characteristics for 1.1/2" to 3".

Electric Power Supply	Coil Type	Power W	VA (volt-amp)		Maximum Temperature		Available Tensions
			Inrush	Holding	°C	°F	
AC 50 Hz	113HR	113	113	113	180	356	1
AC 60 Hz	113HR						1
D/C	113H						2

1-(110,120,220 y 240)V 2-(24,110,120,220)V

Options	Prefix	Suffix	Examples
Weather proof housing	Y		Y1388LA8A
Explosion and weather proof housing.	Z		Z1388LA8A
Microcontact for closed valve verification (position indicator)		-I2	1388LA8A-I2
Microcontact for closed valve verification (position indicator)*		-I4	1388LA8A-I4
NPT connections		T	1388LA8AT
Energized coil indicator light	See coils.		

\* With Led - Voltage 5-240 V. - Minimum current 5 mA  
Maximum power 50 W. - Voltage drop 3V.

## Recommendations for installation

See next page.

## General instructions for installation and maintenance.

### Technical characteristics

The instructions shown on the valve nameplate must be followed.  
They indicate:

Working pressure differential and range.  
Maximum working pressure.  
Valve identification.

Pipe size.  
Power consumption in W.  
Voltage and current type.

### Electrical installation.

All valves are provided for different tensions and current types as follows. When the valve has a different coil voltage from the one required, a new coil with the right voltage can be placed without replacing the valve.

1388 valves are supplied with the following coils:

#### Size 3/4" to 1.1/4"

24V D.C.	60W.	Part N° S76HZ93
110V 50/60 Hz or D.C.	60W.	Part N° S35H195
220V 50/60 Hz or D.C.	60W.	Part N° S25H800

#### Size 1.1/2" to 3"

24V D.C.	113W.	Part N° BB3HZ56
110V 50/60 Hz or D.C.	113W.	Part N° B55H098
220V 50/60 Hz or D.C.	113W.	Part N° B40H385

The use of the voltage and current type specified on the nameplate is compulsory. Permitted tolerance: -15% or +10% of the nominal value.

All the coils, except for some special cases, are for continuous use or high operation frequency. When the coil is on for a long time, the housing heats up to the point that contact with hands will only be possible for a short time. Nonetheless, this temperature is normal and safe.

### Starting up

2088 slow opening and quick shutoff solenoid valves comprise two regulation elements: quick stroke regulator and opening time regulator.

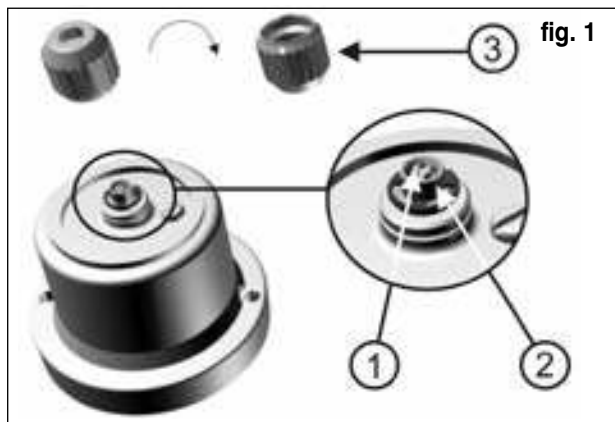
#### Quick stroke regulator adjustment (2 and 3, figure 1)

It must be adjusted from 0 to 80% of the total stroke.

Remove the cap from the valve (3) turn it as shown to adjust it to the knodo. Percentage decreases when turning the knob clockwise and increases when turning it counterclockwise.

#### Slow opening time regulator adjustment (1, figure 1)

It must be adjusted from 0 to 25 seconds. Time increases when turning the knob clockwise (1) and decreases when turning it counterclockwise.



### Mechanical installation.

Check that the service conditions are within the range of differential pressure and temperature indicated on the nameplate.

Place a strainer upstream from the valve with an adequate capacity and porosity below 50 microns.

The mounting position is only over horizontal pipeline with the coil upright.

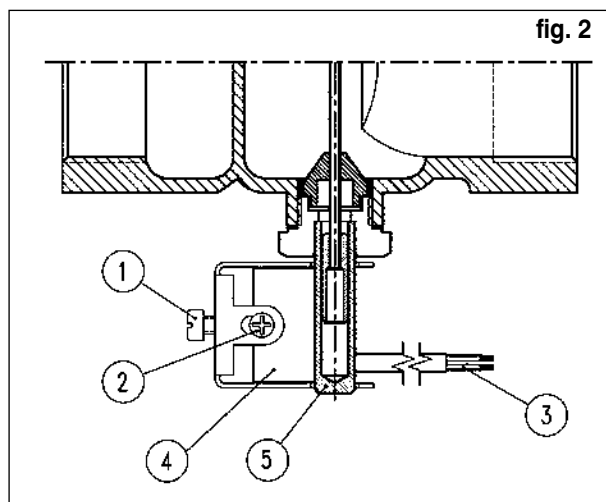
The pipe must be carefully and exhaustively cleaned upstream from the valve and before the strainer by means of compressed air purges or any other system that guarantees the disposal of solid elements such as welding or packaging remains, mud, etc.; this must be done especially in new pipelines.

The flow direction indicated with an arrow on the valve body must be observed. So, the input pressure must always be equal or greater than the output pressure.

### Calibration of the position indicator

When present in the valve, the position indicator is already calibrated. If it is to be installed or recalibrated, proceed as follows (see fig. 2)

- Connect a tester between cables (3) and check for continuity.
- Insert indicator (3) and slide it along column (4) until the tester shows continuity.
- Tighten screw (1) and then screw (2) until assembly is secure.
- Energize the valve and check that continuity is interrupted.
- De-energize the coil and check if continuity resumes.
- Otherwise, unscrew (1) and (2) and re-calibrate.



### Sequence for 1388 series coil replacement

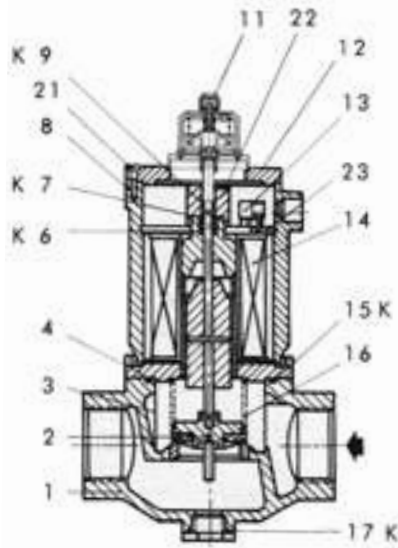
1388LA12-24 (1 1/2" to 3") See figure 1.

- 1 - Cut off electric supply.
- 2 - Remove the 3 screws which fasten the bonnet cover (Pos.21).  
Remove the bonnet cover.
- 3 - Disconnect the coil terminal cables.
- 4 - Unscrew the fixing nut (Pos.22) and remove it together with the bumper (Pos. 9).
- 5 - Remove the washer (Pos.23).
- 6 - Remove the coil (Pos. 14).
- 7 - Place the new coil and assemble the device following the instructions in the opposite direction.

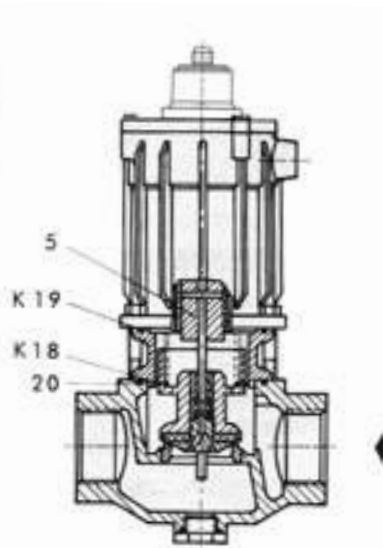
1388LA06-10 (3/4" to 1 1/4") See figure 2.

- 1 - Cut off electric supply.
- 2 - Remove both screws (Pos.20) and the connection box cover (Pos.21) and disconnect both coil cable ends from the terminal.
- 3 - Remove both screws (Pos. 22) from the cap end, which is taken out together with the restraint.
- 4 - Remove seeger ring (Pos. 23).
- 5 - Remove retention washer (Pos. 24), then the cap washer (Pos. 25) and finally the coil (Pos. 6).
- 6 - Place the new coil and assemble the device following the instructions in the opposite direction.

Figure 1.



LOW PRESSURE 1388LA12-24D



HIGH PRESSURE 1388LA12-24A

POS	DESCRIPTION	NUMBER	KIT
1	BODY	1	
2	SEAT ASSEMBLY - PLUNGER	1	
3	STRAINER	1	
4	BONNET ASSEMBLY	1	
5	PISTON ASSEMBLY - PLUNGER	1	
6	RETAINER	2	K
7	SEEGER RING D.17 DIN 472	1	K
8	HOUSING COVER	1	
9	BUMPER	1	K
10	O-RING	1	K
11	BRAKE ASSEMBLY	2	
12	BONNET COVER	1	
13	RECTIFYING CIRCUIT	1	
14	COIL	1	
15	O-RING	1	K
16	SPRING	1	
17	O-RING	1	K
18	O-RING	1	K
19	O-RING	1	K
20	SPRING	1	
21	CYLINDER C. SCREW W. 3/16"X 5/8"	2	
22	FLIXING NUT	1	
23	IRON WASHER	1	

POS	DESCRIPTION	NUMBER	KIT
1	O-RING	1	K
2	BODY	1	
3	SEAT ASSEMBLY - PLUNGER	1	
4	O-RING	1	K
5	BONNET ASSEMBLY	1	
6	COIL	1	
7	HOUSING ASSEMBLY	1	
8	HOUSING BONNET	1	
9	SEEGER RING D.17 DIN 472	1	K
10	O-RING	1	K
11	BRAKE ASSEMBLY	1	
12	BUMPER	1	K
13	RECTIFYING CIRCUIT	1	
14	RETAINER	2	K
15	PLUG SPRING	1	
16	STRAINER	1	
17	O-RING	1	K
18	O-RING	1	K
19	PISTON ASSEMBLY - PLUNGER	1	
20	ROUND HEAD SCREW W 1/8" x 3/8"	2	
21	CONNECTION BOX BONNET	1	
22	CYL. HEAD SCREW W 5/32" x 3/8"	2	