



HYDROFIRE ΕΠΕ

Buildings - Industry - Marine – Waterworks
 END OF AG. PANTELEIMONOS Str. (ELEONAS)
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CLA-VAL 134-05

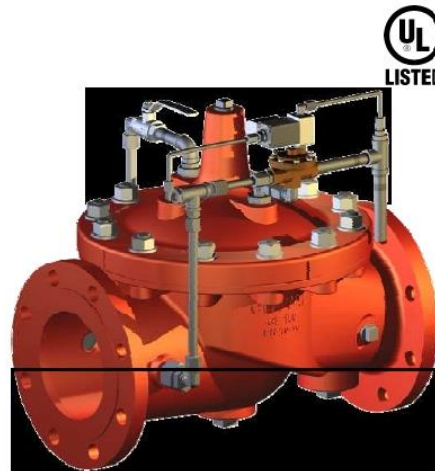
Solenoid Control Valve
 3" - 10"

► Simple, Reliable and Accurate

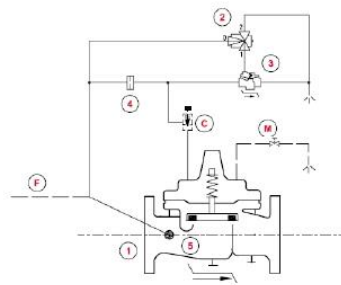
- U.L. Listed / U.L.C. Listed
- Fast Acting Solenoid Control
- Reliable Drip Tight Shut-off
- Simple Design, Proven Reliable
- Easy Installation & Maintenance

The CLA-VAL Model 134-05 Solenoid Control Valve is an on-off control valve which either opens or closes upon receiving an electrical signal to the solenoid pilot control. This valve consists of a 100G/2100G U.L. listed HYTROL main valve, a three-way solenoid valve and an auxiliary pilot valve. This pilot control system alternately applies pressure to/or relieves pressure from the diaphragm chamber of the main valve. It is furnished either normally open (de-energize solenoid to open) or normally closed (energize solenoid to open).

Note: For seawater applications use 100GS/2100GS main valve.



► Function



ITEM	DESCRIPTION
1	Model HYTROL 100G/2100G UL listed
2	3-Way Solenoid valve
3	Auxiliary valve HYTROL
4	X58C Restriction assembly
5	X46A Flow Clean Strainer

► Materials

Main valve body & cover:

- Ductile iron - ASTM A536*
- Cast steel ASTM A216-WCB*
- Naval bronze ASTM B61
- Nickel aluminium bronze ASTM B148
- Super Duplex stainless steel
- Stainless steel ASTM A743-CF-8M

Main Valve Internal Trim :

- Bronze / Stainless steel

Pilot Control System:

- Cast bronze ASTM B61. UL listed 3" - 10"

* Optional material available for Seawater Service

► Specifications

Size: Globe or Angle: 3" - 10" flanged

End Details:

Flanged: Ductile iron 150 ANSI B16.42 / B16.5

Flanged: Cast steel 150 ANSI B16.5

Pressure Ratings:

150 class, 250 psi maximum (Ductile Iron)

150 class, 285 psi maximum (Cast Steel)

300 class, 400 psi maximum

Temperature Range: Water max. 180°F / 82°C

Cover capacity

Valve size	Displacement
3"	0.080 gal
4"	0.169 gal
6"	0.531 gal
8"	1.26 gal
10"	2.51 gal

Functional data

Valve size	Inches	3	4	6	8	10	
	mm	80	100	150	200	250	
Cv factor	Globe pattern	gpm	115	200	440	770	1245
		l/s	27.6	48	105.6	184.8	299
Cv factor	Angle pattern	gpm	139	240	541	990	1575
		l/s	33.4	58	130	238	378



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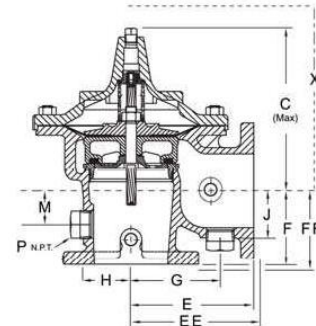
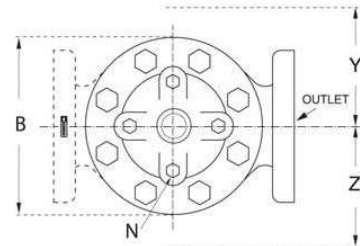
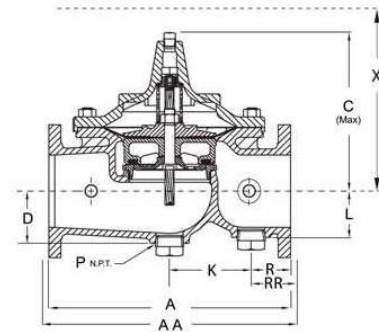


CLA-VAL 134-05

Solenoid Control Valve
 3" - 10"

► Dimensions

	Valve size (mm)				
	80	100	150	200	250
A 150 ANSI	305	381	508	645	756
AA 300 ANSI	337	397	533	670	791
B Dia.	232	292	400	508	600
C (max.)	208	270	340	406	435
D	65	81	110	131	216
E 150 ANSI	178	216	254	322	378
EE 300 ANSI	-	224	267	350	-
F 150 ANSI	102	126	152	203	219
FF 300 ANSI	-	134	165	216	-
G	121	151	184	216	267
H	68	71	99	135	167
J	65	71	97	122	148
K	178	102	171	432	394
L	65	71	97	122	216
M	45	61	70	102	108
N NPT	1/2"-14	3/4"-14	3/4"-14	1"-11 1/2	1"-11 1/2
P NPT	1/4"-11 1/2 2"-11 1/2				
R 150 ANSI	64	88	83	106	181
RR 300 ANSI	79	96	95	119	198
X Pilot System	381	432	737	787	838
Y Pilot System	279	305	508	559	610
Z Pilot System	279	305	508	559	610



► When Ordering, Please Specify

1. Catalog Number 134-05
2. Valve size
3. Globe or Angle pattern
4. Pressure Class
5. Threaded, Flanged or Grooved
6. Material Desired
7. Energized or De-energized to open main valve
8. Solenoid Enclosure, Voltage & Hertz
9. When vertically installed

► Pilot System Specifications

Temperature Range:

Water max. 180°F / 82°C

Fluids:

Air, water, light oils

Rubber Parts:

Buna-N® synthetic rubber

Solenoid Control*:

Standard safe zone execution

Explosion proof ATEX or NEMA available

Voltages:

110, 220 -50Hz AC

24, 120, 240, 480 - 60Hz AC

6, 12, 24, 120, 240 - DC

Others available at extra cost

Max. differential operating pressure: 200 psi

Manual operator available at extra cost.

UL Listed: 3" - 10"

*Optional material available for Seawater Service



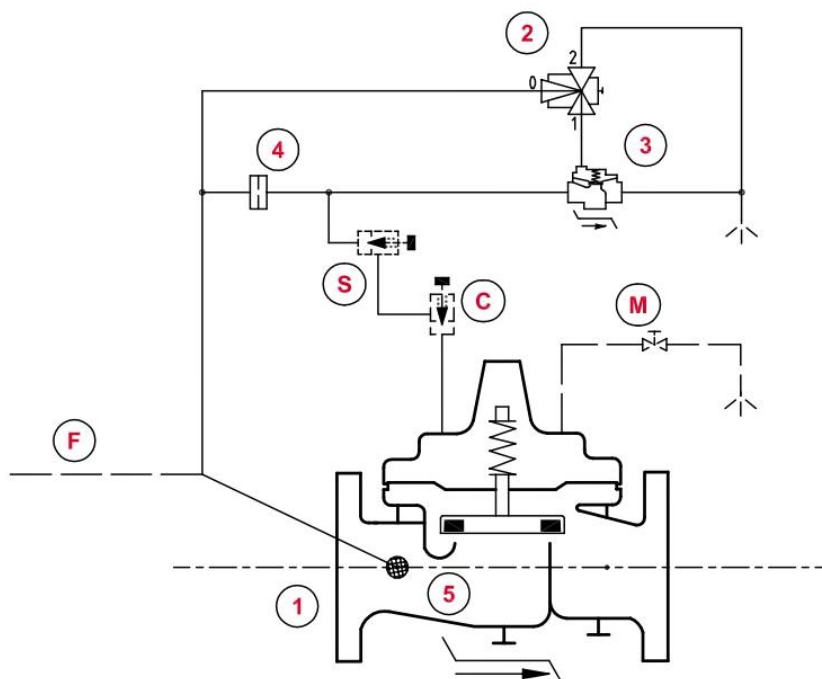
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CLA-VAL 134-05

Solenoid Control Valve 3" - 10"
 (for Fire Deluge Service)



UL Listed : DN 80 (3") - DN 250 (10")

STANDARD EQUIPMENT			
No	Description	Qty	Type
1	MAIN VALVE HYTROL-DELUGE AE/GE/NGE	1	100-01G
2	3-WAY SOLENOID VALVE (NO)	1	311-D
3	AUXILIARY VALVE HYTROL	1	100-01
4	RESTRICTION ASSEMBLY	1	X58C-CSA
5	FLOW CLEAN STRAINER	1	X46A

OPTIONAL FEATURES			
No	Description	Qty	Type
C	ONE-WAY FLOW CONTROL (CLOSING SPEED)	1	CV
F	REMOTE SENSING	1	-
M	MANUAL OPERATOR	1	RB-117
S	ONE-WAY FLOW CONTROL (OPENING SPEED)	1	CV

NOTES	
AE/GE : DN 50 - DN 250 (#) = According to valve size this feature type could change	OPTIONAL FEATURES : _____ NOT FURNISHED BY CLA-VAL : _____



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Solenoid Control Valve 3" - 10"
(for Fire Deluge Service)

▶ Operating data

1.1 ▶ SOLENOID CONTROL FEATURE

Opening cycle:

When solenoid valve 311-D (2) is energized, it relieves pressure from the cover chamber of auxiliary valve 100-01 (3), and therefore main valve (1) opens.

Closing cycle:

When solenoid valve (2) is de-energized, it permits the flow of control pressure into the cover chamber of auxiliary valve (3). This applies pressure to the cover chamber of auxiliary valve (3) which closes, producing the closure of main valve (1), the closing speed of main valve (1) is determined by the calibrated orifice (4).

1.2 ▶ SELF-CLEANING STRAINER

The self-cleaning strainer CLA-VAL, type X46A (5) is at the inlet of the main valve (1) screwed. The assembly of the self-cleaning strainer (5) removes the assembly of an external filter.

The check of the self-cleaning strainer (5) is requesting its removal from the main valve body (1).

1.3 ▶ OPTIONAL FEATURES

Suffix (C) - Closing speed:

Flow control CV (C) regulates the closing speed of main valve (1).

Flow control (C) adjustment: Turn the adjusting screw clockwise to make the valve close more slowly.

Suffix (F) - Remote sensing:

Remote sensing is obtained from a point upstream of the main valve (1) inlet, by a pipe size Ø 12 mm (not furnished by CLA-VAL Europe), which must not have any high points and so formation of air pockets and avoid any pulsation of control.

Note: Independent operating pressure must be equal to or greater than pressure at the main valve inlet at all times.

Suffix (M) - Remote hydraulic control / emergency opening on site:

Open manual valve RB-117 (M) to by-pass the action of the solenoid valve (2). The main valve (1) opens fully.

Note: By-pass manual control valve (M) must be closed during normal operation.

1.4 ▶ CHECK LIST FOR PROPER OPERATION

- System valves open upstream and downstream.
- Periodical checking of the self-cleaning strainer (5).
- Solenoid valve (2) connected as requested with correct voltage.
- Flow control [optional feature (C)] open at least 1 turn.
- Manual control valve [optional features (M)] closed.
- Remote control line properly connected [optional features (F)].