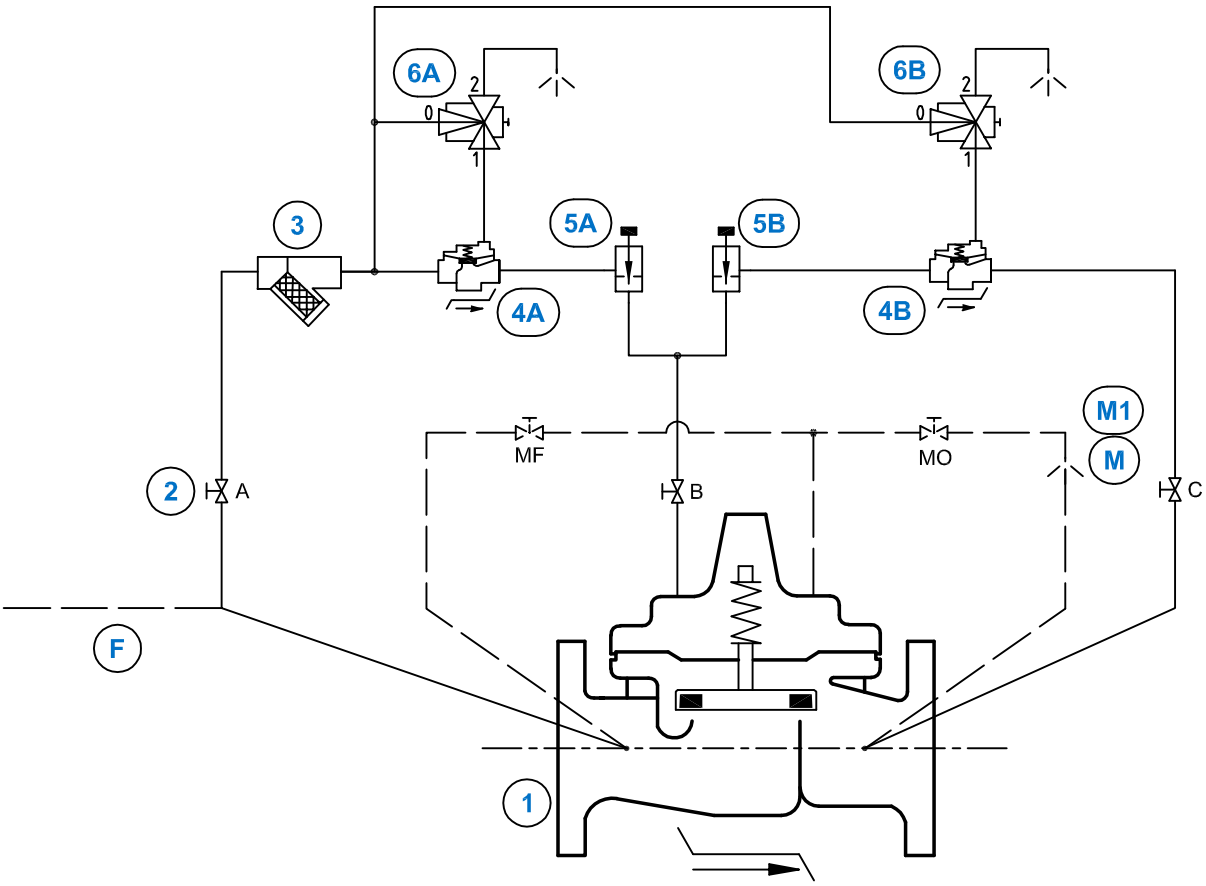
CLA-VAL 136-38

Dual Solenoid Control Valve



STANDARD EQUIPMENT			
No	**Description**	**Qty**	**Type**
1	MAIN VALVE HYTROL AE/GE/NGE	1	100-01
2	ISOLATION BALL VALVE	3	RB-117
3	STRAINER	1	X43
4	AUXILIARY VALVE HYTROL	2	100-KHR
5	NEEDLE VALVE	2	6120
6	3-WAY SOLENOID VALVE (NO)	2	311-D

OPTIONAL FEATURES			
No	**Description**	**Qty**	**Type**
M	MANUAL OPERATOR	1	RB-117
M1	MANUAL OPERATOR (DRAIN TO ATMOSPHERE)	1	RB-117
F	REMOTE SENSING	1	-

NOTES

AE/GE : DN 150 - DN 400 / NGE : DN 200 - DN 600

(#) = According to valve size this feature type could change

OPTIONAL FEATURES : —— —— —— ——

NOT FURNISHED BY CLA-VAL : —— – —— – ——

Operating data

1.1 SOLENOID CONTROL FEATURE

Controlled closing position (letter A):

Auxiliary valve 100-KHR (**4B**) closed.

Solenoid valve 311-D (**6A**) is a direct-acting, 3-way solenoid control that changes position when its coil is energized or de-energized. This applies pressure in the upper chamber of auxiliary valve (**4A**) which is switching into a closing position.

When auxiliary valve (**4A**) is open water flows into the main valve cover chamber until auxiliary valve (**4A**) is closed. Consequently main valve remains in a controlled closing position.

Controlled opening position (letter B):

Auxiliary valve 100-KHR (**4A**) closed.

Solenoid valve 311-D (**6B**) is a direct-acting, 3-way solenoid control that changes position when its coil is energized or de-energized. This relieves pressure in the upper chamber of auxiliary valve (**4B**) which is switching into an opening position.

When auxiliary valve (**4B**) is open, water flows out from the main valve cover chamber until auxiliary valve (**4B**) is closed. Consequently main valve remains in a controlled opening position.

1.2 STANDARD EQUIPMENT

No (**2**) - Isolation ball valve:

The isolation ball valves RB-117 (**2**) are used to isolate the pilot system from main line pressure. These isolation ball valves must be open during normal operation.

No (**3**) - Strainer:

A strainer X43 (**3**) is installed in the pilot supply line to protect the pilot system from foreign particles. The strainer screen must be cleaned periodically.

No (**5**) - Flow control valve:

Flow controls 6120 (**5A**) and (**5B**) regulate the closing, respectively the opening speed of the main valve (**1**).

Flow control (5A) adjustment: Turn the adjusting screw clockwise to make the main valve (**1**) close more slowly or counter clockwise to close faster.

Flow control (5B) adjustment: Turn the adjusting screw clockwise to make the main valve (**1**) open more slowly or counter clockwise to open faster.

Note: Do not close completely flow control (**5A**) or (**5B**), otherwise the main valve (**1**) will not close or open anymore. Recommended opening degree = 1 turn open.

1.3 OPTIONAL FEATURES

No (**F**) - Independent operating pressure:

The control pressure for the pilot system is taken from an independent source; in any application, the independent pressure must be equal or higher than the existing inlet main valve (**1**) pressure.

No (**M**) - Manual operator or (**M1**) Manual operator (discharge to atmosphere):

Isolation ball valve (**2B**) closed.

The opening of cock (**MF**) produces the closing of main valve (**1**); the opening of cock (**MO**) produces a partial [**M**] opening (depending of the rate of flow through the main valve) or a complete [**M1**] opening (regardless the rate of flow through the main valve). The closing of both cocks (**MF**) and (**MO**) permits to maintain the main valve (**1**) in any partial lift.

In normal service, the cock (**2B**) must be open and the two cocks (**MF**) and (**MO**) must be closed.

1.4 ▸ CHECK LIST FOR PROPER OPERATION

- ☐ System valve(s) open upstream and eventually downstream.
- ☐ Air removed from the main valve cover and pilot system at all high points.
- ☐ Isolation ball valves (**2**) open.
- ☐ Periodic cleaning of strainer screen (**3**).
- ☐ Flow control valves (**5A**) and (**5B**) open at least 1 turn.
- ☐ Correct voltage to solenoid control (**6**).
- ☐ Manual solenoid valve (**6**) override disengaged.
- ☐ Cocks (**MF**) and (**MO**) closed (if provided).
- ☐ Remote control line properly connected [optional feature (**F**)].