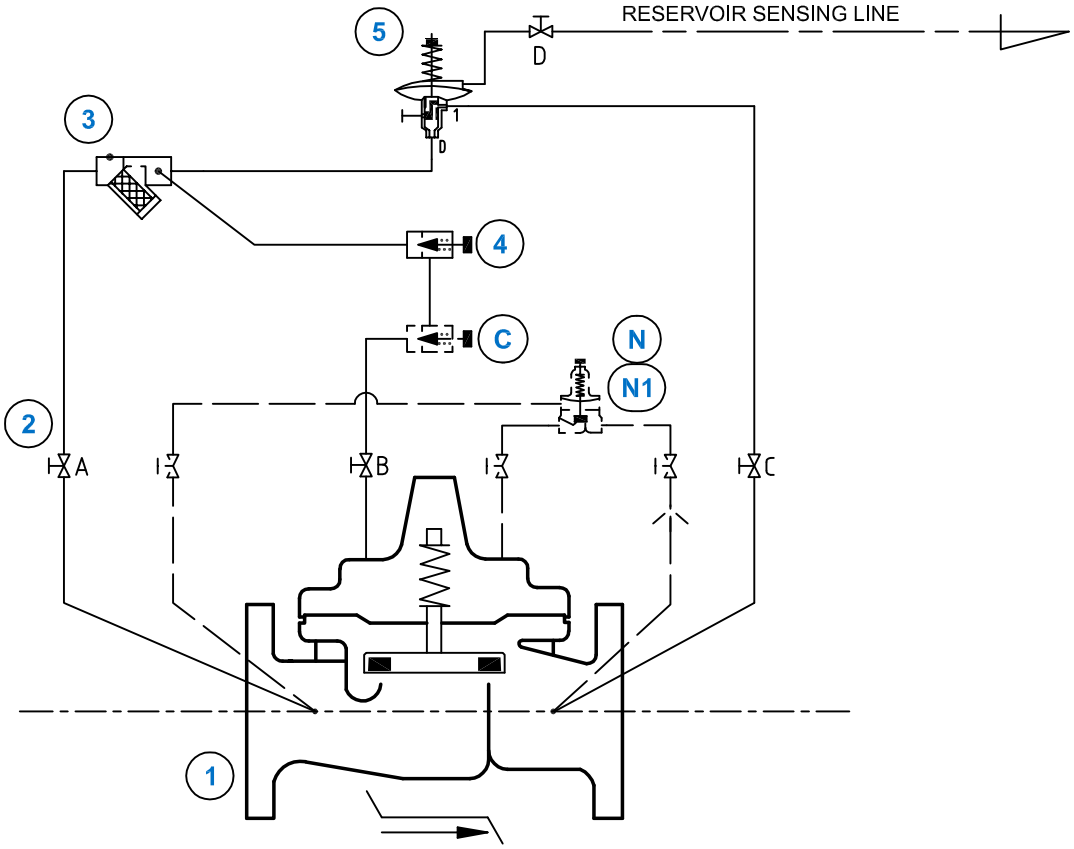
CLA-VAL 208-01

Modulating Altitude Level Control Valve



STANDARD EQUIPMENT			
No	**Description**	**Qty**	**Type**
1	MAIN VALVE HYTROL AE/GE/NGE	1	100-01
2	ISOLATION BALL VALVE	4	RB-117
3	STRAINER WITH INCORPORATED ORIFICE	1	X44-A
4	ONE-WAY FLOW CONTROL	1	CV
5	HIGH SENSITIVE PRESSURE REDUCING CONTROL	1	CRD-HS

OPTIONAL FEATURES			
No	**Description**	**Qty**	**Type**
C	ONE-WAY FLOW CONTROL (CLOSING SPEED)	1	CV
N	UPSTREAM SURGE CONTROL (DRAIN TO ATMOSPHERE)	1	CRL
N1	UPSTREAM SURGE CONTROL	1	CRL

NOTES

AE/GE : DN 32 - DN 400 / NGE : DN 50 - DN 600

OPTIONAL FEATURES : —— —— —— ——

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

Operating data

1.1 MODULATING ALTITUDE VALVE FEATURE

High sensitive pressure reducing control CRD-HS (**5**) is a "normally open" control that responds to pressure changes in the reservoir sensing line:

- Pressure in the reservoir sensing line increases as the reservoir liquid level rises, tending to close control (**5**).
- Pressure in the reservoir sensing line decreases as the reservoir liquid level lowers, tending to open control (**5**).

This causes main valve cover pressure to vary and the main valve modulates (opens and closes) maintaining the desired liquid level in the reservoir. When the liquid level in the reservoir rises to the set point of control (**5**), this one closes. This pressurizes the main valve cover and the main valve closes.

Pressure reducing control (5) adjustment: Turn the adjusting nut clockwise to raise the reservoir liquid level, counter-clockwise to lower the liquid level.

1.2 OPENING SPEED CONTROL

Flow control CV (**4**) regulates the opening speed of main valve (**1**).

Flow control (4) adjustment: Turn the adjusting screw clockwise to make the main valve open more slowly.

1.3 (E*) EUROPEAN STANDARDS

ITEM (**2**) - Isolation ball valve:

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

ITEM (**3**) - Y-Strainer with incorporated orifice:

The strainer X44-A (**3**) is installed in the pilot supply line to protect the pilot system from foreign particles. The strainer screen must be cleaned periodically.

1.4 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 (**N**) / (**N1**) - Upstream surge control:

Pressure relief control CRL (**N**) / (**N1**) is a "normally closed" control that senses main valve inlet pressure changes. An increase in inlet pressure above the set point tends to open control (**N**) / (**N1**) and a decrease in inlet pressure below the set point tends to close control (**N**) / (**N1**). Therefore any pressure surge in the upstream side of the main valve (**1**) above the set point will cause main valve cover pressure to be discharged from the cover control chamber and therefore the opening of the main valve (**1**), permitting then to discharge the surge at the downstream side of the main valve (**1**).

Pressure relief control (N) / (N1) adjustment: Turn the adjusting screw clockwise to increase the setting or counter clockwise to decrease it.

(**N**) => Outlet of pilot (**N**) connected to the atmosphere.

(**N1**) => Outlet of pilot (**N1**) connected to downstream side of main valve (**1**).

1.5 ▸ CHECK LIST FOR PROPER OPERATION

- ☐ System valves open upstream and downstream.
- ☐ Air removed from the main valve cover, from the pressure measuring chamber of pilot (**5**) and from pilot system at all high points.
- ☐ Reservoir sensing line between the reservoir and pilot (**5**) measuring chamber to be vented thoroughly and should not present any high point. If such one cannot be avoided, it must be equipped with a venting cock (manual or automatic).
- ☐ Isolation ball valves (**2**) open.
- ☐ Periodic cleaning of strainer (**3**) is recommended.
- ☐ Flow control (**4**) and [optional features (**C**)] open at least of 1 turn.