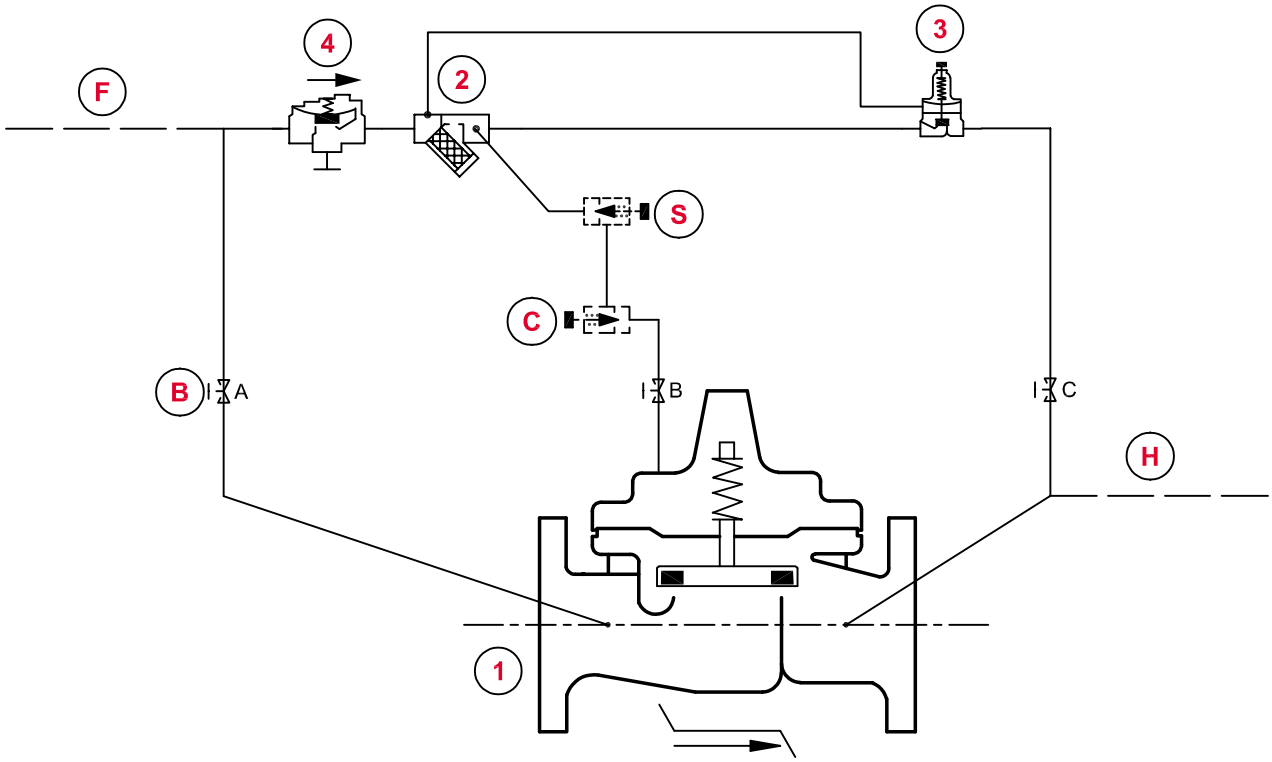
CLA-VAL 50-20

Pressure Relief Valve



STANDARD EQUIPMENT			
No	**Description**	**Qty**	**Type**
1	MAIN VALVE HYTROL AE/GE	1	100-06S
2	STRAINER WITH INCORPORATED ORIFICE	1	X44-A
3	PRESSURE RELIEF CONTROL	1	CRL / CRL-60
4	CHECK VALVE	1	81-01

OPTIONAL FEATURES			
No	**Description**	**Qty**	**Type**
B	ISOLATION BALL VALVE	3	RB-117
C	ONE-WAY FLOW CONTROL (CLOSING SPEED)	1	CV
F	REMOTE SENSING	1	-
H	DRAIN TO ATMOSPHERE	1	-
S	ONE-WAY FLOW CONTROL (OPENING SPEED)	1	CV

NOTES

AE/GE : DN 32 - DN 400

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

OPTIONAL FEATURES : —— —— —— ——

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

Operating data

1.1 PRESSURE RELIEF FEATURE

Pressure relief control CRL/CRL-60 (**3**) is a "normally closed" control that responds to main valve (**1**) inlet pressure changes. An increase in inlet pressure tends to open pressure relief control (**3**) and a decrease in inlet pressure tends to close pressure relief control (**3**). This causes main valve cover pressure to vary and the main valve (**1**) to modulate (open and close) maintaining a relatively constant pressure at the main valve inlet. When the main valve (**1**) inlet pressure is lower than the set pressure of control (**3**), the main valve closes.

Pressure relief control (3) adjustment: Turn the adjusting screw clockwise to increase the setting.

1.2 CHECK VALVE FEATURE

When cover pressure is higher than inlet pressure, check valve 81-01 (**4**) closes. This maintains the higher pressure in the main valve cover chamber keeping the main valve (**1**) closed.

1.3 STANDARD EQUIPMENT

No (**2**) - Y-strainer with incorporated orifice:

The strainer X44-A (**2**) 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

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

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

No (**C**) - Closing speed:

Flow control (**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.

No (**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.

No (**H**) - Drain to atmosphere:

The outlet of pilot (**3**) or the outlet of isolation ball valve [option (**BC**) if installed] is not connected to outlet of main valve (**1**), but directly to atmosphere.

No (**S**) - Opening speed:

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

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

1.5 ▸ CHECK LIST FOR PROPER OPERATION

- ☐ System valves open upstream and downstream.
- ☐ Air removed from the main valve cover and pilot system at all high points.
- ☐ Periodic cleaning of strainer (**2**) is recommended.
- ☐ Isolation ball valves [optional feature (**B**)] open.
- ☐ Remote control line properly connected [optional feature (**F**)].
- ☐ Atmospheric drain line properly connected [optional feature (**H**)].
- ☐ Flow control(s) [optional feature (**C**) or/and (**S**)] open at least 1 turn.