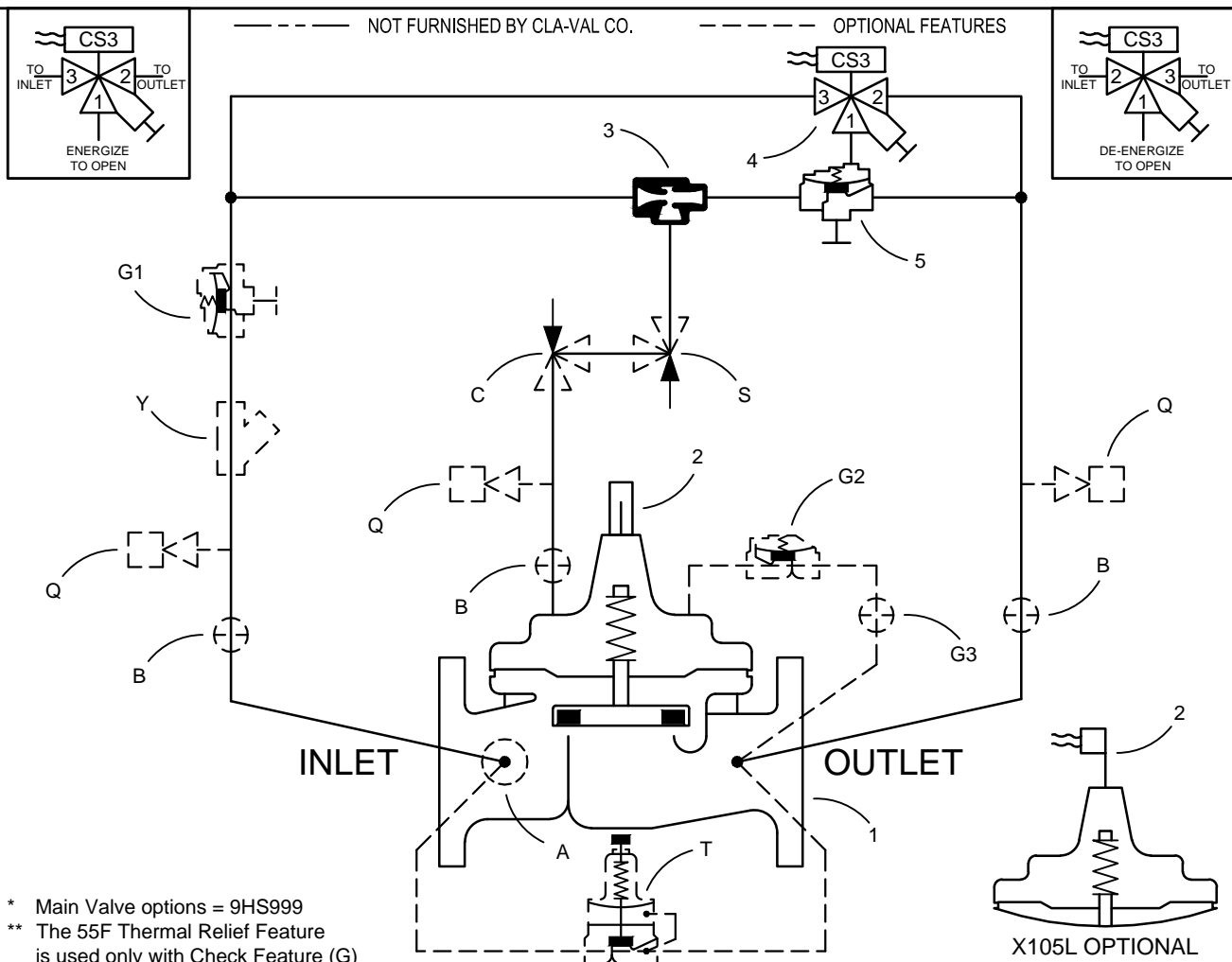




DRAWING NO. 25418 REV C

Model 134-53/634-53

Solenoid Shutoff Valve



\* Main Valve options = 9HS999  
 \*\* The 55F Thermal Relief Feature is used only with Check Feature (G)

NO.	BASIC COMPONENTS	QTY
1	*100-34 HYTROL (134-53) MAIN VALVE (REV. FLOW)/*100-37 HYTROL (634-53) MAIN VALVE (REV. FLOW)	1
2	X101 VALVE POSITION INDICATOR/X105L LIMIT SWITCH ASSEMBLY (OPTIONAL)	1
3	X47A EJECTOR	1
4	CS3XM SOLENOID CONTROL	1
5	100-01 AUXILIARY HYTROL (REV. FLOW)	1

NO.	OPTIONAL FEATURES	QTY
A	X46A FLOW CLEAN STRAINER	1
B	CK2 COCK (ISOLATION VALVE)	3
C	CV FLOW CONTROL (CLOSING)	1
G	81-01 CHECK VALVES WITH COCK	1
Q	QUICK CONNECT ASSEMBLY	3
S	CV FLOW CONTROL (OPENING)	1
T	**55F THERMAL RELIEF CONTROL	1
Y	X43 "Y" STRAINER	1

DESIGN	10-26-12	PC	ADDED CATALOG 634-53 & 100-37 TO ITEM 1 (NED 77824)	B	DATE	9-19-94	BY	TLC	AK	3-9-11	RELEASED FOR PRODUCTION (NED 39568)	REVISION RECORD	9-19-94	9-20-94	9-21-94
DRAWN	7-16-19	AV	RELOCATED (G1) OPTIONAL FEATURE (ECO 27325)	C	DATE	9-19-94	BY	TLC	AK	3-9-11	RELEASED FOR PRODUCTION (NED 39568)	REVISION RECORD	9-19-94	9-20-94	9-21-94
CHK'D															
APVD															



# Model 134-53/634-53

## Solenoid Shutoff Valve

### ► OPERATING DATA

#### Solenoid Control Feature

Solenoid Control **(4)** is a direct-acting, 3-way solenoid control that changes position when the coil is de-energized or energized. This applies or relieves pressure in the cover chamber of auxiliary hytrol **(5)**, providing the operation shown in the following table:

Solenoid Control <b>(4)</b>		134-53E/634-53E Series		134-53D/634-53D Series	
Position	Ports Connected	Auxiliary Hytrol <b>(5)</b> Position	Main Valve <b>(1)</b> Position	Auxiliary Hytrol <b>(5)</b> Position	Main Valve <b>(1)</b> Position
Energized	1 & 2	Open	Open	Closed	Closed
De-energized	1 & 3	Closed	Closed	Open	Open

Note: Solenoid control **(4)** is equipped with a manual actuator which can be used to operate the solenoid without electrical power. After manual actuation, always return the actuator to its original position or the solenoid will not return to the de-energized position.

#### Basic Components Optional Feature Operating Data:

##### Switch Assembly Feature:

Switch assembly **(2)** is actuated by a stem extension attached to the main valve stem. The switch assembly is factory adjusted to actuate a single-pole double-throw switch when the main valve is almost open/closed. When the main valve starts to close/open, the spring loaded switch actuating lever is released and returns the switch to its normal position.

#### Optional Features

##### (A) - Flow Clean Strainer:

A self-cleaning strainer **(A)** is installed in the main valve inlet body boss which protects the pilot system from foreign particles.

##### (B) - Isolation Valves:

Isolation Valves **(B)** and **(G3)** are used to isolate the pilot system from main line pressure. These valves must be open during normal operation.

##### (C) - Closing Speed Control:

Flow control **(C)** controls the closing speed of the main valve. Turn the adjusting stem clockwise to make the main valve close slower.

##### (G) - Check Feature:

When outlet pressure is higher than inlet pressure, check valve **(G2)** opens, permitting the higher outlet pressure to close the main valve and check valve **(G1)** closes, preventing flow out of the main valve cover to the inlet.

##### (Q) - Quick Connect Assembly:

Quick Connect Assemblies **(Q)** let pressure gauges be easily connected or disconnected to the valve pilot system.

##### (S) - Opening Speed Control:

Flow control **(S)** controls the opening speed of the main valve. Turn the adjusting stem clockwise to make the main valve open slower.



Model **134-53/634-53**

Solenoid Shutoff Valve

---

► **OPERATING DATA - CONTINUED**

**(T) - Thermal Relief Control:**

Thermal Relief feature is used only with check feature (suffix G). When main valve outlet pressure is higher than main valve inlet pressure and outlet pressure reaches the set point of control **(T)**, control **(T)** opens. This relieves the higher main valve outlet pressure to the main valve inlet.

**(Y) - Y-Strainer:**

A Y-Pattern strainer is installed in the pilot supply line to protect the pilot system from foreign particles. The strainer screen must be cleaned periodically.

► **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.
- ☐ Periodical cleaning of strainer **(Y)** is recommended (optional feature).
- ☐ Flow control **(C)** and **(S)** open at least 4 turns (optional feature).
- ☐ Correct voltage to solenoid control **(4)**.
- ☐ Manual operator of solenoid control **(4)** disengaged.
- ☐ Isolation valves **(B)** and **(G3)** open (optional feature).