

Ruelco



FV-1

**Hydraulic Control Line
Fire Safety Valve & B.O.P.**

Model 2V02

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Hydraulic Control Line

Fire Safety Valve & B.O.P. Model 2V02

FEATURES

- Rugged and compact design.
- Stainless steel construction.
- B.O.P. function prevents hazards due to SCSSV packing leaks under normal and fire operating conditions.
- Block and bleed operation closes SCSSV automatically under fire conditions.
- Metal to metal valve seats.
- B.O.P. function independent of fire activated operation.
- Field repairable.

OPTIONS

- Fusible lock open device for B.O.P. function.
- 168, 210 & 283° F (76, 99, 139° C) eutectics for fire activation.

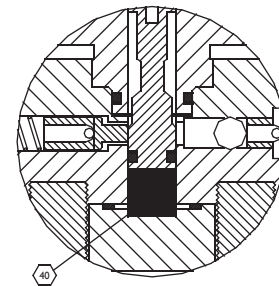
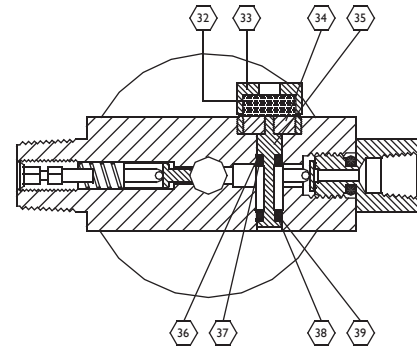
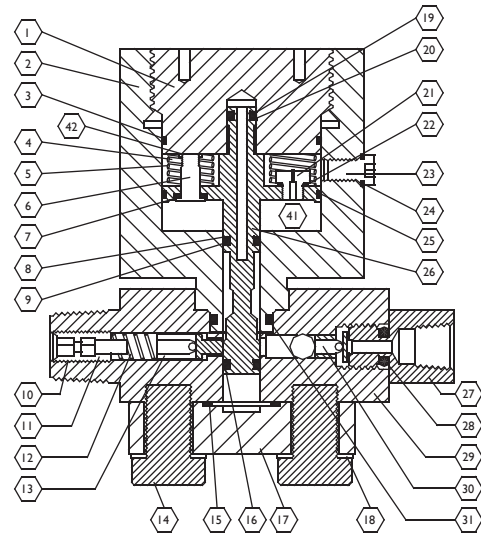
GENERAL DESCRIPTION:

The Ruelco FV-1 is a multi-function control valve. It is designed to remove the hydraulic signal to a surface controlled subsurface safety valve in the event of a fire and stop any well fluid returns due to packing leaks in the SCSSV. The FV-1 also acts as B.O.P. and provides protection from well fluid returns thru the control line during normal operating conditions.

The FV-1 operation as a fire safety and its operation as B.O.P. are completely independent of each other. When a fire activates the FV-1, it blocks and bleeds the hydraulic pressure going to SCSSV allowing it to close. After a fixed elapsed time the FV-1 will close off any further returns from the SCSSV. When operating as B.O.P. the FV-1 will allow returns from the hydraulic control line for the same elapsed time as if exposed to a fire and then it will block any further flow from the SCSSV, thus minimizing any well fluids from flowing back to the hydraulic control system.

Parts List For FV-1

ITEM	Qty.	DESCRIPTION	MATERIAL	PART NO.
1	1	Timer Body Cap	316 St. Stl.	2V-001-000
2	1	Timer Body	17-4 PH St. Stl.	2V-002-000
3*	1	Timer Body Cap Seal	Viton	V0-032-90H
4	2	Timer Spring	Inconel X-750	2V-021-000
5	1	Flow Control Spring	Inconel X-750	10-004-000
6	1	Flow Control Stem	316 St. Stl.	2V-003-000
7*	1	Flow Control Seal	Viton	V0-008-75H
8*	1	Timer Spool Middle B/U	Teflon	TB-009-00C
9*	1	Timer Spool Middle Seal	Viton	V0-009-75H
10	1	Spring Guide Lock Screw	316 St. Stl.	2V-020-000
11	1	Shut-Off Valve Spring Guide	Inconel X-750	30-004-000
12	1	Shut-Off Valve Spring	316 St. Stl.	10-004-000
13	1	Shut-Off Valve Poppet	316 St. Stl.	2V-005-000
14	2	Crossover Plate Bolt	316 St. Stl.	T7-0GD-103
15*	1	Crossover Plate Seal	Viton	V0-016-90H
16*	1	Timer Spool Lower Seal	Viton	V0-009-75H
17	1	Crossover Plate	316 St. Stl.	2V-006-000
18	2	Crossover Plate Washer	316 St. Stl.	WA-14A-163
19*	1	Timer Spool Upper Seal	Viton	V0-006-75H
20*	1	Timer Spool Upper B/U	Teflon	TB-006-00C
21	1	Timer Orifice	Brass	2V-007-000
22*	1	Timer Orifice Seal	Viton	V0-008-75H
23	1	Oil Fill Port Screw	316 St. Stl.	TA-08K-0G3
24*	1	Oil Fill Port Screw Seal	Viton	V0-008-75H
25*	1	Timer Spool Oil Seal	Teflon	2V-017-000
26	1	Timer Spool	316 St. Stl.	2V-008-000
27	1	Inlet Fitting	17-4 PH St. Stl.	2V-009-000
28*	1	Inlet Fitting Seal	Viton	V0-012-90H
29	1	Body	316 St. Stl.	2V-010-000
30	1	Block & Bleed Valve Poppet	316 St. Stl.	2V-011-000
31*	1	Timer Body Seal	Viton	V0-013-90H
32	1	B & B Eutectic Plug	Eutectic	2V-012-000
33	1	Block & Bleed Cap	316 St. Stl.	2V-013-000
34	1	Block & Bleed Piston	316 St. Stl.	2V-014-000
35	1	Block & Bleed Stem	17-4 PH St. Stl.	2V-015-000
36*	1	B & B Stem Upper B/U	Teflon	TB-007-00C
37*	1	B & B Stem Upper Seal	Viton	V0-007-75H
38*	1	B & B Stem Lower B/U	Teflon	TB-006-00C
39*	1	B & B Stem Lower Seal	Viton	V0-006-75H
40	1	Lock Open Eutectic	Eutectic	2V-016-000
41*	4 oz.	Timer Oil	Petroleum Base	2V-019-000
42	1	Adjustment Nut	316 St. Stl.	T6-632-033
43	-	Repair Kit	* Items	2V-018-000

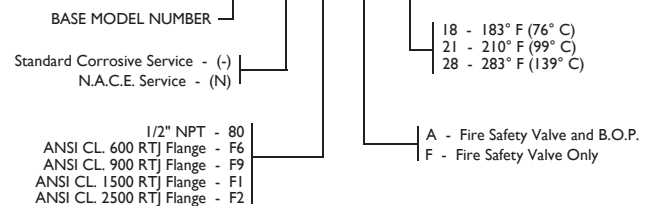


Partial View Showing
Timer Lock Open Eutectic Installed

Specifications

Max. Working Pressure	10,000 PSI. (690 BAR)
Min. Working Pressure	1,000 PSI. (69 BAR)
B.O.P. Response Time	6 Min @ 72° F (22° C) 1 Min @ 300° F (149° C)
Ambient Operating Temperature Range	-20° to 250° F -29° to 121° C
Cv Normal Operation	.063
Cv Fire Activated	.097

Ordering Code: 2V02 - 80 A 18



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