

97190

3-Way Safety Selector Valve (Redundant Relief Isolation Valve)

The Shand & Jurs Biogas® Model 97190 allows servicing of pressure and vacuum vents and flame arresters without depressurizing the protected system. Installed between the vessel nozzle and redundant relief vents and flame arresters, the selector directs full relieving flow to the active device while providing positive shutoff to the isolated branch.

Protected tanks and gas systems normally require venting, flaring, or shutdown to remove or perform maintenance on relief vents and flame arresters. The internal three-way rotor maintains relieving capacity during changeover while mechanically sealing the inactive path, permitting safe removal of equipment under live system pressure. Position indication and dual lock capability prevent misalignment during operation or maintenance.

Rated to 25 PSIG at 100°F (400°F max) and available in 2"–12" sizes, the Model 97190 enables continuous protection and operation during maintenance rather than scheduled outages.



Key Features

Internal three-way diverter rotor

Directs full flow to one relief device while isolating the other.

Note: Both sides cannot be closed at the same time.

Positive shutoff inactive branch

Allows removal of a relief valve without depressurizing the vessel.

Full-capacity flow passage

Maintains relieving capability during switchover.

Dual pad lockable operator

Prevents unintended changeover during operation.

Visual position indicator

Confirms active protection path at a glance.

Integral bleed connections

Safely vents trapped gas before maintenance removal.



Benefits



NO DEPRESSURIZATION CYCLE

Avoids downtime and operational disruption



LIVE RELIEF ISOLATION

Maintenance completed while the tank remains in operation.



MEASURE PRESSURE

Pressure Indicators can be provided on bleed off valves to measure pressure.



ANTI-DUAL-BLOCK DESIGN

Prevents temporary unprotected operating states



INSULATION JACKET

Reduces the risk of freezing and maintains drainage reliability in cold climates. Note: Heat source shall be maintained under jacket.



LOCKABLE POSITION INDICATION

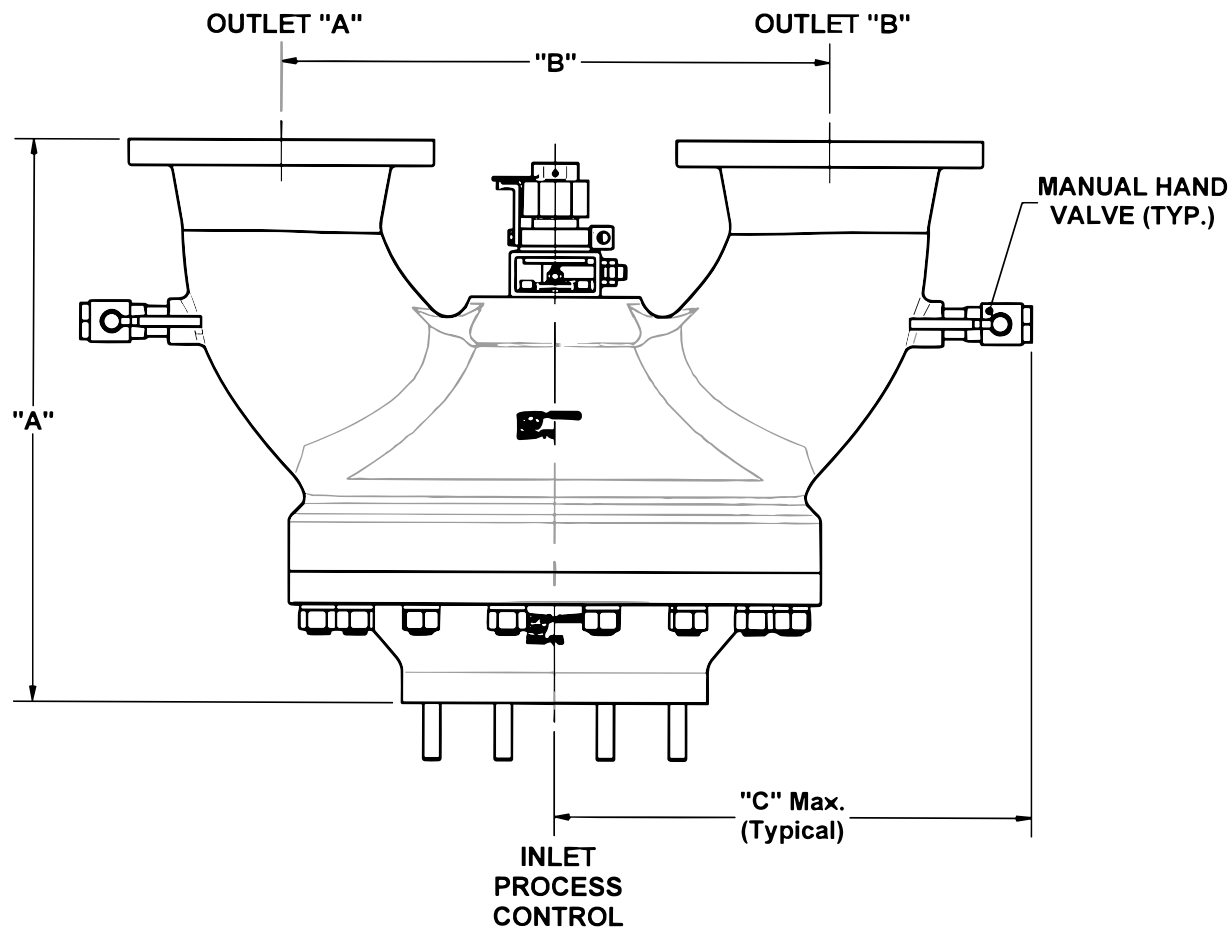
Verifiable procedure and reduced operator exposure

Key Performance Data

Parameter	Value
Operating Function	Redundant Relief Selector Valve
Pressure Rating	25 PSIG @ 100°F
Sizes	2" – 12"
Flow Path	Inlet to Outlet A or B/INLET to OUTLET (A/B) or (A&B)
Connections	ANSI 150 RF, 150 FF Note: RF flange not available for aluminum body.
Operator	Nut Drive
Rotor	Aluminum or 316 Stainless Steel
Hardware	Stainless Steel
Cv Range	2" 260 3" 620 4" 1070 6" 2720 8" 4520 10" 6935 12" 9947



Dimensions



Flange Connection	Dimension	97190						
		2"	3"	4"	6"	8"	10"	12"
ANSI B16.5 (150 lb. RF)	"A"	11.75" (298 mm)	13.26" (337 mm)	16.13" (410 mm)	20.17" (512 mm)	24.69" (627 mm)	30.25" (768 mm)	36.00" (914 mm)
	"B"	12.13" (308 mm)	14.00" (356 mm)	16.50" (419 mm)	20.75" (527 mm)	24.25" (616 mm)	28.00" (711 mm)	33.00" (838 mm)
	"C" (Max.)	11.00" (279 mm)	13.00" (330 mm)	15.00" (381 mm)	19.00" (483 mm)	22.00" (559 mm)	26.00" (660 mm)	30.00" (762 mm)
ANSI B16.5 (300 lb. RF)	"A"	11.95" (304 mm)	13.70" (348 mm)	16.63" (422 mm)	21.17" (538 mm)	25.69" (653 mm)	31.25" (794 mm)	37.00" (940 mm)
	"B"	12.13" (308 mm)	14.00" (356 mm)	16.50" (419 mm)	20.75" (527 mm)	24.25" (616 mm)	28.00" (711 mm)	33.00" (838 mm)
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Model Number Selection

The model number will have a base number 97190 followed by 8 digit numbers. These digits will represent 8 sets of option tables.

97190 - AB - CD - EF - GH

Table A - Size

Option A	Description
2	2"
3	3"
4	4"
6	6"
8	8"
9	10"
0	12"

Table B - Body Material

Option B	Body Material
3	316 Stainless Steel
4	Aluminum

Table C - Rotor Material

Option C	Rotor Material
3	316 Stainless Steel
4	Aluminum

Table D - Flange Connection

Option D	Inlet	Outlet
1	ANSI 150 lb. RF**	ANSI 150 lb. RF**
2	ANSI 300 lb. RF**	ANSI 300 lb. RF**
3	ANSI 150 lb. FF	ANSI 150 lb. FF

**Raised face flange not available for Aluminum Bodies.

Note: Flange connection matches ANSI 150# or 300# Dimensions.

Table E - Flow Arrangement

Option E	Description
1	Inlet to Outlet A/B
2	Inlet to Outlet A/B or A&B

Table F - Seat Seal Material

Option F	Description
1	Teflon
2	Buna

Table G - Trim Material

Option G	Description
1	316 Stainless Steel
2	316 Stainless Steel / 17-4 Stainless Steel***

*** Isolation disk, shaft, retraction bushing

Table H - Operator

Option H	Description
1	Nut Drive

Summary

Pressure relief devices require periodic service, but protected systems cannot operate without them. The Model 97190 allows isolation and removal of a relief valve while maintaining continuous overpressure protection. By eliminating depressurization and shutdown maintenance events, it preserves system operation and avoids unnecessary vapor loss during routine service.

info@cognesense.com
Tel: (708) 236-6000
5911 Butterfield Road Hillside, Illinois 60162 USA

This document is for information purposes only. All designs subject to change. Certified dimensions, specifications, and performance data available upon request