

WGI 301 series ball valves combine quality performance at an affordable price. Each valve carries approvals that will cover most Valve applications. These valves are used in many different industries for a variety of applications.

Features

Full port

W.P. : 1/4"~1" - 2000 WOG(PN150)
1-1/4"~2" - 1500 WOG(PN100)
2-1/2"~4" - 1000 WOG(PN63)

W.T. :

-40°C~200°C (-40°F~392°F)

Investment casting

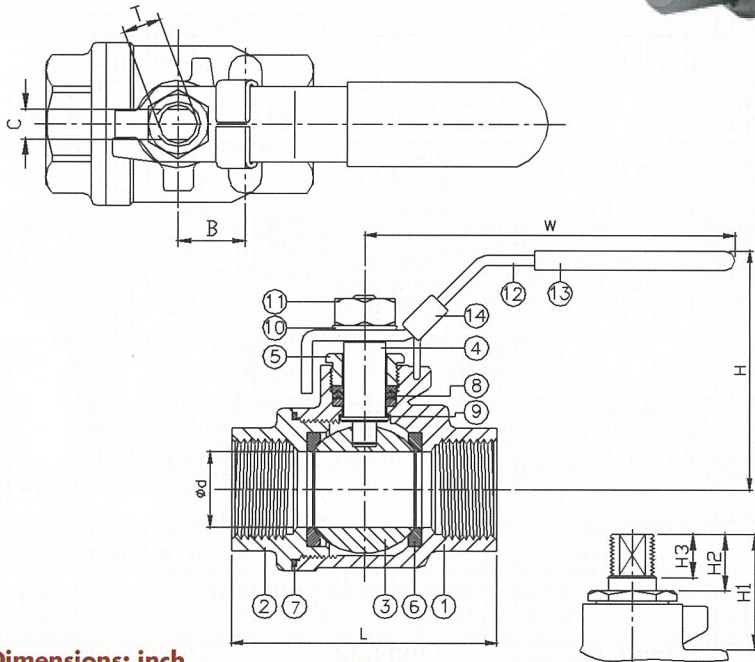
Blow-out proof stem

Locking device

Tapped & drilled mounting pad



Nace MR - 0175
- CRN Approved
- CSA / CGA 3.16 B16.33



ITEM	PARTS	MATERIAL	
1	Body	ASTM A351-CF8M	ASTM A216-WCB
2	Cap		
3	Ball	ASTM A351-CF8M	
4	Stem	ASTM A276-316	
5	Gland Nut	AISI 304	
6	Seat	PTFE / RTFE	
7	Seal	PTFE	
8	Packing	PTFE / RTFE	
9	Thrust Washer	PTFE	
10	Spring Washer		
11	Nut	AISI 304	
12	Handle		
13	Handle Sleeve	PVC	
14	Locking Device	AISI 304	

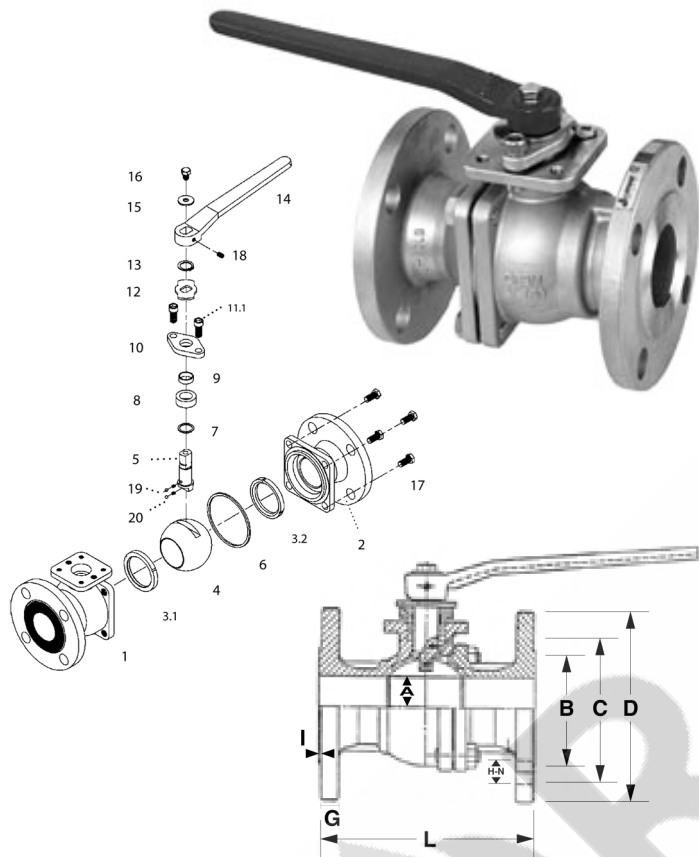
Dimensions: inch

NPS	D	L	H	W	B	C	H1	H2	H3	T	Weight (lb)
1/4"	0.46	2.38	1.97	4.02	0.55	0.2	1.28	0.49	0.41	5/16"W	0.6
3/8"	0.51	2.38	1.97	4.02	0.55	0.2	1.28	0.49	0.41	5/16"W	0.6
1/2"	0.59	2.52	1.97	4.02	0.55	0.2	1.28	0.49	0.41	5/16"W	0.7
3/4"	0.79	3.03	2.44	4.72	0.87	0.26	1.59	0.63	0.53	3/8"W	1.2
1"	0.98	3.54	2.97	6.26	0.87	0.31	1.97	0.71	0.61	7/16"W	1.9
1-1/4"	1.26	3.94	3.19	6.26	0.94	0.31	1.93	0.67	0.61	7/16"W	2.8
1-1/2"	1.5	4.65	3.86	7.4	0.94	0.35	2.36	0.75	0.69	1/2"W	4.4
2"	1.97	5.43	4.25	7.4	0.94	0.35	2.44	0.79	0.69	1/2"W	6.9
2-1/2"	2.56	6.56	5.35	9.65	1.38	0.47	3.11	1.22	1.2	3/4"W	13.2
3"	3.15	7.6	5.79	9.65	1.38	0.47	3.09	1.22	1.2	3/4"W	22.3
4"	3.94	10.24	7.2	12.6	1.97	0.63	3.9	2.09	1.65	1"W	-

Thread type :
ASME B1.20.1 (NPT)

Flanged Ball Valve

FL CS-100-150



Approvals

- Flange: ANSI B16 •
- Face to Face: ANSI B16.10 •
- API 607 (fire tite) •
- NACE 01-75 •
- CSA Certified 125 PSIG on all sizes •
- UL Listed 285 PSIG on all sizes •

Dimensions in Inches

Carbon Steel Flanged Ball Valve 150 lbs.

Valve Size	A	B	C	D	G	I	L	H	Bolts
2"	1.97	3.62	4.74	5.98	.63	.06	7.01	.75	4
3"	3.15	5.00	6.00	7.48	.75	.06	8.00	.75	4
4"	3.94	6.18	7.50	9.02	.94	.06	9.02	.75	8
6"	5.99	7.32	9.52	10.99	1.00	.06	15.52	.88	8
8"	7.99	10.64	11.76	13.51	1.12	.06	18.00	.88	8

APPROVED SHUT-OFF VALVES FOR ALL TYPES OF GASES & FLAMMABLE LIQUIDS

Description

1/4 turn, WCB Carbon steel body, 316 Stainless steel ball and stem, 100% full port, blowout proof stem, 2-piece body design.

Features

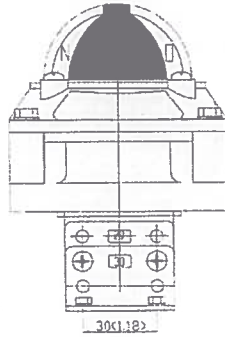
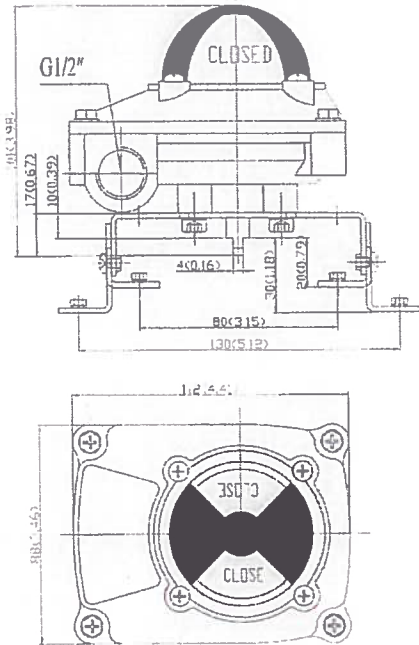
- Full Port
- PTFE seats
- Wrench Operator
- Locking device
- Actuator mounting pad
- Available Carbon Steel 300 lbs.
- Available Stainless Steel 150 and 300 lbs.

Material Specification

No.	Part Name	Materials
1	Body	WCB Carbon Steel
2	End Adapter	WCB Carbon Steel
3	Seat (2)	PTFE + 15% G.F.
4	Ball	CF8M Stainless Steel
5	Stem	316 Stainless Steel
6	Joint Seal	PTFE/Graphite
7	Gasket	PTFE
8	Seal	PTFE/Graphite
9	Gland Bushing	PTFE
10	Gland Flange	Stainless Steel
11	Gland Bolts	304 Stainless Steel
12	Stopper	304 Stainless Steel
13	Snap Ring	Steel
14	Handle	Ductile Iron
15	Flat Washer	Steel
16	Handle Bolt	304 Stainless Steel
17	Body Bolt (4)	ASTM A193 B8
18	Handle Set Screw	Steel
19	Static Device	304 Stainless Steel
20	Spring	304 Stainless Steel



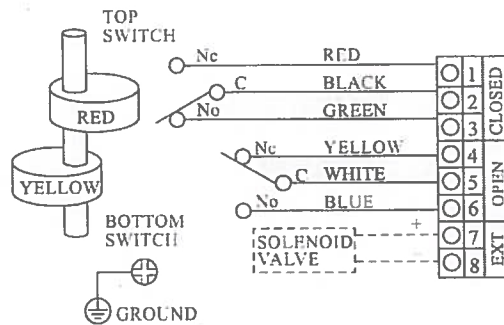
LF-SERIES LIMIT SWITCH BOX WIRING DIAGRAMS



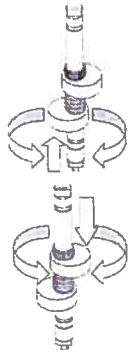
Specifications

Enclosure	Die-cast aluminum, Nickel infused or epoxy powder coating
Weatherproof	IP67, Type 4, 4x
Area Classification	N/A
Scaled	Buna-N O-Ring
Sensor(M2)	(2) SPDT Honeywell Mechanical Switches 5A125-250VAC
Visual Display	90° Yellow (open) Red (closed) indicator
Shaft	304 Stainless Steel Namur Shaft
Conduit Entries	(2) 1/2" NPT conduit entries (Optional, 1/2" BSPP, M20-1.5)
Mounting Bracket	MB-1.0: 30 x 80 H:20, (Stainless Steel) 30 x 80 H:30, (CS plated)
Temperature Rating	-68°F-185°F

Wiring Diagram



Limit Switch Adjustment



1. Loosen limit switch box cover screws and remove cover.
2. Rotate actuator to full counterclockwise position. Valve is in fully open or closed position.
3. Lift up bottom cam and turn until switch is activated and then release. Engage cam back onto the splined retainer. Spring will maintain cam engagement.
4. Rotate actuator to full clockwise position. Valve is in fully closed or open position.
5. Push down top cam and turn until switch is activated and then release. Engage cam back onto the splined retainer. Spring will maintain cam engagement.
6. Place cover on limit switch box and tighten. Take care to ensure that housing O-ring is properly located in seal groove.

CVS

Controls Ltd.

Instruction Manual

CVS 870 Limit Switch

Introduction

The CVS 870 Limit Switch is designed for valves and actuators in hazardous locations. The limit switch is CSA approved and is rated EX db IICT6/EX tb IIIC T85°C explosion proof, class 1, zone 1. It also carries ATEX certification, and has an IP67 enclosure rating.

Equipped with standard NAMUR shaft and Stainless Steel bracket, for easy mounting to all NAMUR mount actuators.

Secure water resistant case with multi angle top and side visual indicator.

Red to indicate fully closed position, and yellow to indicate fully open position.

Standard switch configurations are 2 single pole double throw mechanical switches. Optional 2 double pole double throw switches or proximity sensors are available. Also available in Stainless Steel, model number CVS 875.

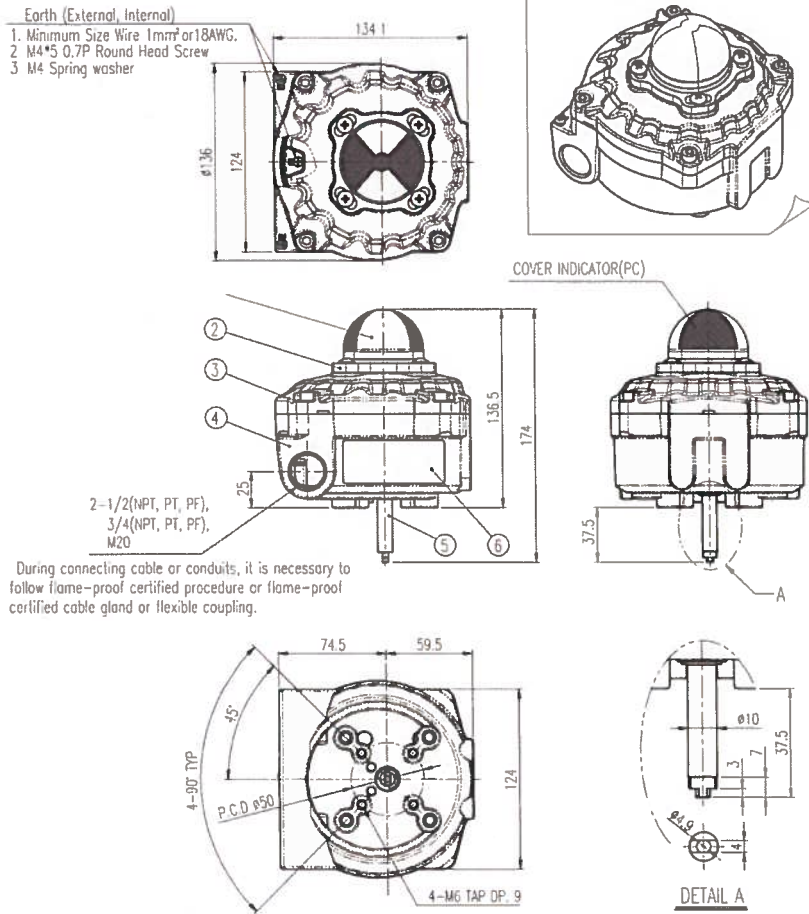


Features

- Die cast, powder coated aluminum housings
- Multi angle visual valve position from both sides and top view
- Spring loaded splined "Quick Set" cam. Eliminates the need to re-adjust after initial setting.
- Dual cable entries: 2x3/4 NPT
- NAMUR Standard shaft and bracket
- Explosion proof, ExdbIICT6, weather proof.
- Multi point terminal strip
- Ambient Temperature rating, -20°C to 60°C
*(Tested to -50°C)

SPECIFICATIONS

Dimensions-(mm)



During connecting cable or conduits, it is necessary to follow flame-proof certified procedure or flame-proof certified cable gland or flexible coupling.

Installation

The CVS Limit Switch uses NAMUR standard shaft and mounting bracket. Suitable for various applications, without the need for further modification.

Ensure all supply pressure to the valve, actuator, and other related devices is off prior to installation.

Install NAMUR mounting bracket using supplied fasteners. Determine correct application height and install side mounting brackets accordingly.

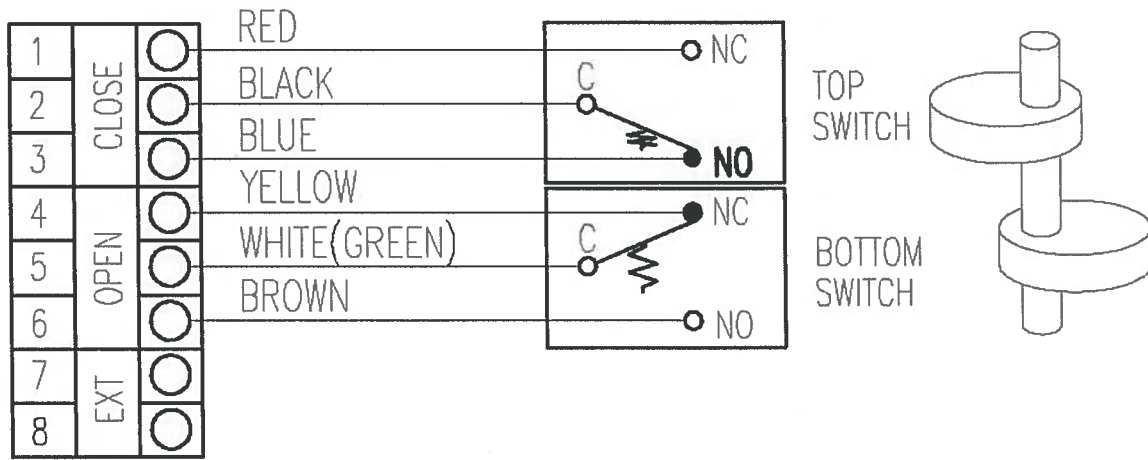
Install assembled CVS 870 Limit Switch and Bracket to valve or actuator accordingly.



CVS 870 Limit Switch with CVS350SR Rack and Pinion actuator, and CVS 6700 Series Trunnion Ball Valve

Installation

CVS 870M1, 2 SPDT Wiring:



*EXT may be used for optional solenoid valve.

The CVS 870 Limit Switch accurately monitors and transmits the valve position at the user specified open/close set points.

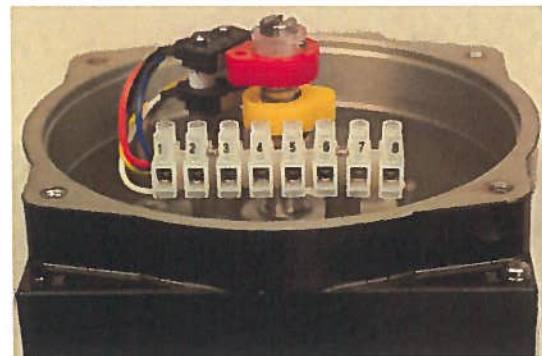
Standard CVS 870 Limit Switch is 2 Single Pole Double Throw(14VDC 5A, 30VDC 4A, 125VDC 0.4A, 250VDC 0.2A, 125VAC 5A, 250VAC 3A)

Additional configurations through to 2 Double Pole Double Throw available. Contact a CVS controls representative for more information.

Prior to wiring the CVS 870 Limit Switch, ensure no explosive gas or material is present.

Ensure all power has been turned off.

For power connections that are unused, use blind plugs which are explosion proof certified.

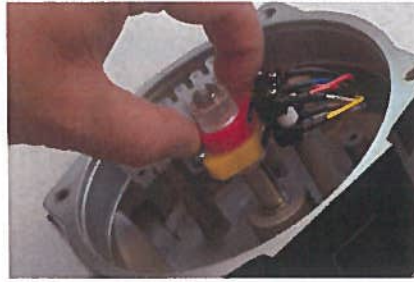


“Quick Set” Cam Adjustment – Open/Closed

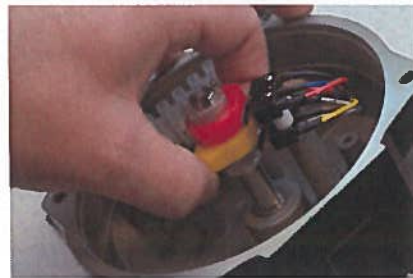
Additional adjustments should not be required after initial setting. However, should there be a need to make further adjustments to the CVS 870 Limit Switch, this is easily done at the field level with only a 5mm hex key to remove the cover.

Once open, adjustment to fully closed (red cam) may be made by depressing the cam and turning in either direction to obtain necessary adjustment.

The same may also be done for fully open (yellow cam) by lifting the cam and rotating. Cams are on a spring loaded splined shaft and will re seat when let go.



Red Cam Adjustment – Fully Closed



Yellow Cam Adjustment – Fully Open

NOTES:

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