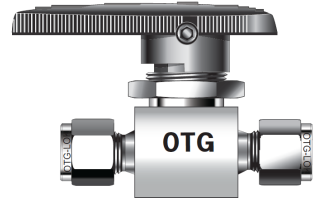


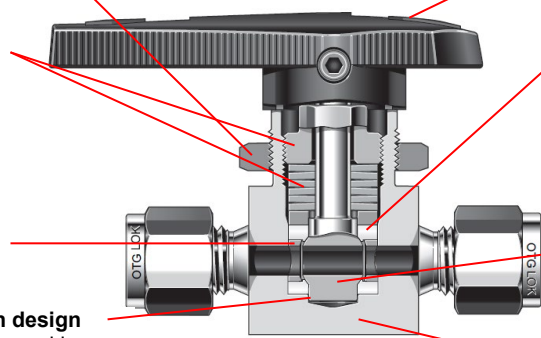
Features

- Working pressure Up to 3000 psig (206 bar)
- Temperatures from -65 to 300°F (-53 to 148°C)
- 1/8 to 1/2 in. (3 to 12 mm OD)
- Stainless Steel, Brass



OBV3G Series

One-Piece Packing for OBV3GA & OBV3GB



Panel mounting nut provides ability to mount valve to control panel or actuator.

Top-loaded, live-loaded disc springs design

- maintain load to packing to seal and reduces need for packing adjustment
- allows adjustment with the valve in-line
- compensates for wear
- improves thermal cycle performance.

Discs and rings prevent the packing from deformation.

Balanced trunnion design

- supports packing, reducing the need for packing adjustment
- reduces packing volume, minimizing thermal effects
- minimizes packing extrusion
- improves thermal cycle performance.

Directional handle with double-flat Arrow indicates flow direction.

Single-piece, encapsulated packing

- fills voids between body and ball allowing no fluid entrapment.
- reduces potential leak points
- does not require system pressure to seal
- allows bidirectional flow
- is easily cleaned and purged.

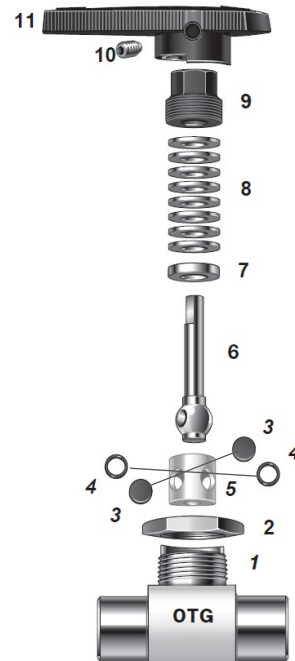
One-piece ball stem prevents backlash during valve actuation and ensures alignment of stem and orifice.

One piece body reduces potential leak path.

Material of Construction

Components	Valve Body Material	
	Stainless Steel	Brass
Material Grade / ASTM Specification		
1. Body	SS316/A276 or A479	Brass C3604/JIS H3250, C36000/B16
2. Panel nut		
3. Side disc (2)	PTFE coated	
4. Side ring (2)	Powered SS 300 Series / B783	
5. One-piece Packing	Modified PTFE/D1710 type 1, Grade 1, Class B or PFA/D3307	
6. Ball Stem	SS316/A276	
7. Gland	S17400/A693,	
8. Disc springs (8), (6)	OBV3GA Series 8 springs; OBV3GB Series 6 springs	
9. Packing bolt	SS316/A276, A479	Brass C3604/JIS H3250, C36000/B16
10. Set screw	SS304/A276	
11. Handle	Nylon with Zinc insert	
Wetted part lubricant	Silicon-based	
Non-wetted part lubricant	Molybdenum disulfide with hydrocarbon binder coating	

■ Wetted p



■ Wetted parts listed in Orange color.

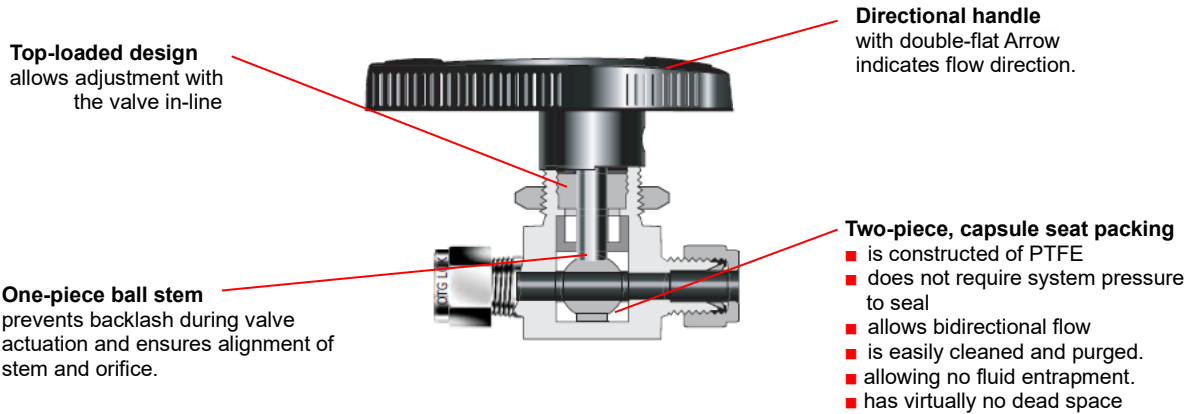
Pressure & Temperature Ratings

Unit: psig (bar)

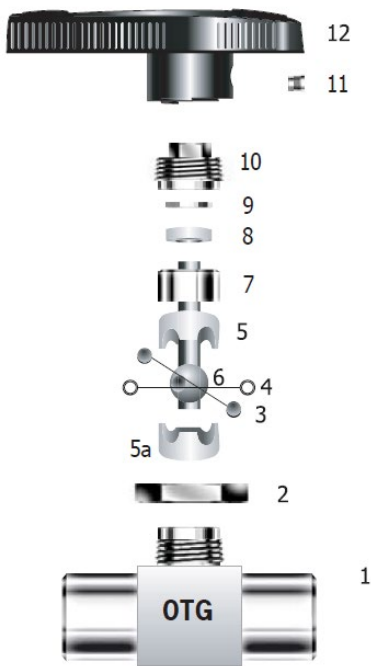
Valve Series/ Size (Configuration)		OBV3GA		OBV3GB	
		Straight, Angle, 3-way		Straight	Angle, 3-way
Temperature		Working Pressure, psig (bar)			
°F	°C				
-65 to 50	-53 to 10	2500 (172)	3000 (206)	2500 (172)	
50 to 150	65		2800 (193)		
200	93		2650 (182)		
250	121		2500 (172)		
300	148				

OBV3 Series

Two-Piece Capsule Packing



Materials of Construction



Components	Valve Body Material	
	Stainless Steel	Brass
	Material Grade / ASTM Specification	
1. Body	SS316/A276 or A479	Brass C3604/JIS H3250, C36000/B16
2. Panel nut	PTFE coated	
3. Side disc (2)	Powered SS 300 Series / B783	
4. Side ring (2)	PTFE/D1710	
5. Upper Packing	PTFE/D1710	
5a. Lower Packing	PTFE/D1710	
6. Ball Stem	SS316/A276	Brass C3604/JIS H3250, C36000/B16
7. Gland	PTFE/D1710	
8. Bushing	PTFE/D1710	
9. Upper gland	SS316/A276	
10. Packing bolt	SS316/A276, A479	Brass C3604/JIS H3250, C36000/B16
11. Set screw	SS304/A276	
12. Handle	Nylon with Zinc insert	
Wetted part lubricant	Silicon-based	
Non-wetted part lubricant	Molybdenum disulfide with hydrocarbon binder coating	

■ Wetted parts listed in Orange color.

Pressure & Temperature Ratings

Unit: psig (bar)

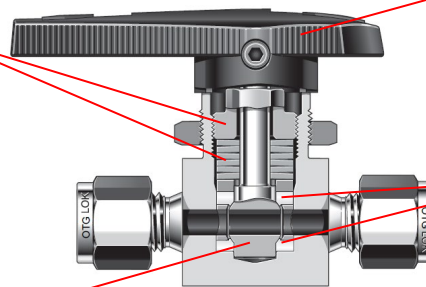
Valve Series/ Size		OBV3A	OBV3B		OBV3C & OBV3D	
Configuration		Straight, Angle, 3-way	Straight	Angle, 3-way	Straight	Angle, 3-way
Temperature		Working Pressure, psig (bar)				
°F	°C					
-65 to 50	-53 to 10	—	—	—	—	—
50 to 150	65	2500 (172)	3000 (206)	2500 (172)	2500 (172)	1500 (103)
200	93	—	—	—	—	—
250	121	—	—	—	—	—
300	148	—	—	—	—	—

OBV3T Series

Two-Piece Capsule Packing

Top-loaded, live-loaded disc springs design

- maintain load to packing to seal and reduces need for packing adjustment
- allows adjustment with the valve in-line
- compensates for wear
- improves thermal cycle performance.



Directional handle
with double-flat Arrow
indicates flow direction.

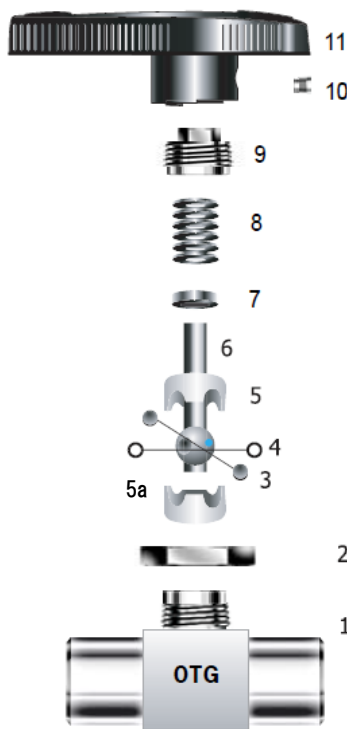
Two-piece, capsule seat packing

- is constructed of PTFE
- does not require system pressure to seal
- allows bidirectional flow
- is easily cleaned and purged.
- allowing no fluid entrapment.
- has virtually no dead space

One-piece ball stem

prevents backlash during valve actuation and ensures alignment of stem and orifice.

Materials of Construction



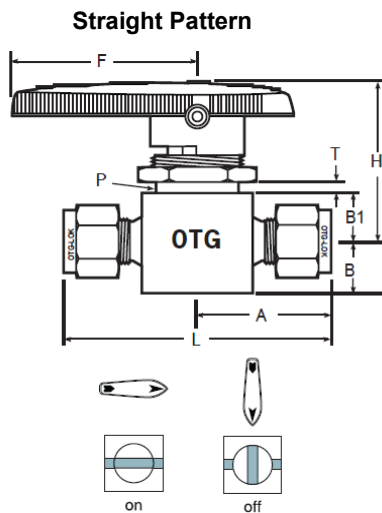
Components	Valve Body Material	
	Stainless Steel	Brass
	Material Grade / ASTM Specification	
1. Body	SS316/A276 or A479	Brass C3604/JIS H3250, C36000/B16
2. Panel nut		
3. Side disc (2)	PTFE coated	
4. Side ring (2)	Powered SS 300 Series / B783	
5. Upper Packing	Modified PTFE/D1710, PFA	
5a. Lower Packing		
6. Ball Stem	SS316/A276	Brass C3604/JIS H3250, C36000/B16
7. Gland		
8. Disc springs (8), (6), (4)	Molybdenum disulfide coated S17400/A693, OBV3TA Series 8 springs; OBV3TB Series 6 springs OBV3TC & OBV3TD Series 4 springs	
9. Packing bolt	SS316/A276, A479	Brass C3604/JIS H3250, C36000/B16
10. Set screw	SS304/A276	
11. Handle	Nylon with Zinc insert	
Wetted part lubricant	Silicon-based	
Non-wetted part lubricant	Molybdenum disulfide with hydrocarbon binder coating	

■ Wetted parts listed in Orange color.

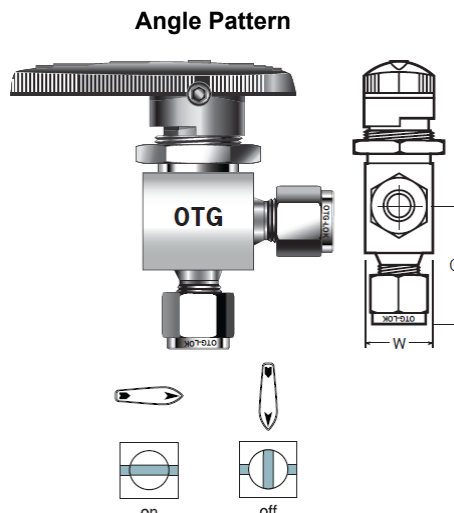
Pressure-Temperature Rating

Unit: psig (bar)

Valve Series/ Size	OBV3TA	OBV3TB		OBV3TC & OBV3TD		
Configuration	Straight, Angle, 3-way	Straight	Angle, 3-way	Straight	Angle, 3-way	
Temperature	Working Pressure, psig (bar)					
°F	°C					
-65 to 50	-53 to 10	2500 (172)	3000 (206)	2500 (172)	2500 (172)	1500 (103)
50 to 150	65	2500 (172)	3000 (206)	2500 (172)	2500 (172)	1500 (103)
200	93	—	—	—	—	—
250	121	—	—	—	—	—
300	148	—	—	—	—	—

OBV3 Series 2-Way On-off Ball Valves
 90° Actuation Valves


Handle indicates flow direction



Handle indicates flow direction

P panel hole

Valve Series	Unit: mm (in.)
OBV3A	15.1 (19/32)
OBV3B	19.8 (25/32)
OBV3C	28.6 (1 1/8)
OBV3D	38.1 (1 1/2)

T Max panel thickness

Valve Series	Unit: mm (in.)	
	max.	min
OBV3A	6.4 (1/4)	3.2 (1/8)
OBV3B	4.8 (3/16)	3.2 (1/8)
OBV3C	9.5 (3/8)	3.2 (1/8)
OBV3D	9.5 (3/8)	3.2 (1/8)

To order an angle-pattern valve, add -
A to Basic ordering number of a valve
 with the dimension listed.

Examples: **OBV3A-O-4T-A-SS**
OBV3GB-O-4T-A-SS

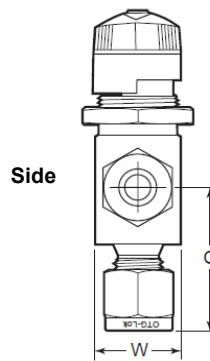
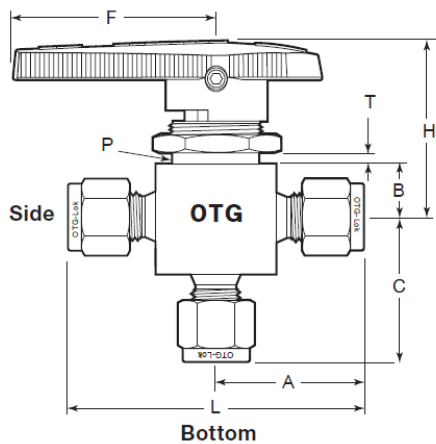
Ordering Information and Dimensions

Basic Ordering Number	End Connections		Orifice mm (in.)	Cv		Dimensions mm (in.)									
	Inlet	Outlet		Straight	Angle	L	A	B	B1	C	F	H	W		
OBV3A- OBV3GA- OBV3TA-	O-2T-	1/8 in. OD OTG-Lok	2.36 (0.93)	0.2	0.15	51.1 (2.01)	25.6 (1.01)	7.1 (0.28)	8.6 (0.34)	24.6 (0.97)	28.4 (1.12)	34.5 (1.36)	14.7 (0.58)		
	O-4T-	1/4 in OD OTG-Lok	3.18 (0.125)	0.6	0.35	56.1 (2.21)	28.1 (1.10)			27.2 (1.07)					
	O-3M-	3mm OD OTG-Lok	2.36 (0.093)	0.2	0.15	51.1 (2.01)	25.7 (1.01)			24.6 (0.97)					
	O-6M-	6mm OD OTG-Lok	3.18 (0.125)	0.6	0.35	56.1 (2.21)	28.1 (1.10)			27.2 (1.07)					
	F-2N-	1/8 in Female NPT		0.5	0.3	41.4 (1.63)	20.6 (0.81)			20.6 (0.81)					
OBV3B- OBV3GB- OBV3TB-	O-4T-	1/4 in OD OTG-Lok	4.75 (0.187)	1.4	0.9	60.7 (2.39)	30.4(1.20)	9.7 (0.38)	11.2 (0.44)	29.7 (1.17)	38.9 (1.53)	37.3 (1.47)	19.8 (0.78)		
	O-6T-	3/8 in OD OTG-Lok		1.5	0.9	65.5 (2.58)	32.8 (1.29)			32.8 (1.29)					
	O-6M-	6mm OD OTG-Lok		1.4	0.9	60.7 (2.39)	30.5 (1.20)			29.7 (1.17)					
	O-8M-	8mm OD OTG-Lok		1.5	0.9	62.5 (2.46)	31.2 (1.23)			30.5 (1.2)					
	F-2N-	1/8 in Female NPT		1.2	0.7	50.8 (2.0)	25.4 (1.0)			25.4 (1.0)					
	F-4N-	1/4 in Female NPT		0.9	0.75	52.3 (2.06)	26.2 (1.03)			26.2 (1.03)					
	F-4R-	1/4 in ISO Female tapered		1.2	0.75	50.8 (2.0)	25.4 (1.0)								
	M-4N-	1/4 in Male NPT													
MO-4N4T-	1/4 in Male NPT to 1/4 in. OD OTG-Lok	1.6	0.75	55.9 (2.2)	30.5 (1.20)										
OBV3C- OBV3TC-	O-6T-	3/8 in OD OTG-Lok	7.14 (0.281)	6.0	2.0	77.5 (3.05)	38.6 (1.52)	14.2 (0.56)	14.2 (0.56)	36.3 (1.43)	50.8 (2.0)	52.6 (2.07)	28.4 (1.12)		
	O-10M	10mm OD OTG-Lok				78.0 (3.07)	38.9 (1.53)			36.3 (1.43)					
	F-4N-	1/4 in Female NPT		3.0	1.7	63.5 (2.5)	31.8 (1.25)			31.8 (1.25)					
	F-6N-	3/8 in Female NPT		2.6	1.5										
	F-6R-	3/8 in ISO Female tapered													
OBV3D- OBV3TD-	O-8T-	1/2 in OD OTG-Lok	10.3 (0.406)	12.0	4.6	99.6 (3.92)	49.8 (1.96)	17.5 (0.69)	17.5 (0.69)	44.2 (1.74)	76.2 (3.0)	61.7 (2.43)	38.1 (1.5)		
	O-12T-	3/4 in OD OTG-Lok		6.4	3.8										
	O-12M-	12mm OD OTG-Lok		12.0	4.6										
	F-8N-	1/2 in Female NPT		6.3	3.5					79.2 (3.12)				39.6 (1.56)	39.6 (1.56)
	F-8R-	1/2 in ISO Female tapered													

All dimensions shown are for reference only and are subject to change.
 Dimensions with OTG-Lok Fitting nuts are in finger-tight position.

OBV33 Series 3-Way Switching Valves

180° Actuation Valves


P panel hole

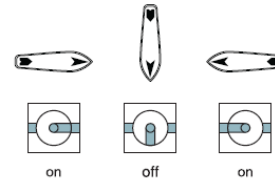
Valve Series Unit: mm (in.)

OBV33A	15.1 (19/32)
OBV33B	19.8 (25/32)
OBV33C	28.6 (1 1/8)
OBV33D	38.1 (1 1/2)

T Max panel thickness

Valve Series Unit: mm (in.)

Valve Series	Unit: mm (in.)	
	max.	min
OBV33A	6.4 (1/4)	3.2 (1/8)
OBV33B	4.8 (3/16)	3.2 (1/8)
OBV33C	9.5 (3/8)	3.2 (1/8)
OBV33D	9.5 (3/8)	3.2 (1/8)



Handle indicates flow direction

Ordering Information and Dimensions

Basic Ordering Number	End connections	Orifice mm (in.)	Cv	00Dimensions mm (in.)											
				L	A	B	C	F	H	W					
OBV33A-- OBV33GA- OBV33TA-	O-2T-	1/8 in OD OTG-Lok	2.4 (0.093)	0.15	51.1(2.01)	25.6(1.01)	8.6 (0.34)	24.6 (0.97)	28.7 (1.13)	34.5 (1.36)	14.7 (0.58)				
	O-4T-	1/4 in OD OTG-Lok	3.10 (0.125)	0.35	56.1(2.21)	27.9(1.10)		27.2 (1.07)							
	O-3M-	3mm OD OTG-Lok	2.36 (0.093)	0.15	51.1(2.01)	25.6(1.01)		24.6 (0.97)							
	O-6M-	6mm OD OTG-Lok	3.10 (0.125)	0.35	56.1(2.21)	27.9(1.10)		27.2 (1.07)							
	F-2N-	1/8 in Female NPT		0.3	41.4(1.63)	20.6(0.81)		20.6 (0.81)							
OBV33B- OBV33GB- OBV33TB-	O-4T-	1/4 in OD OTG-Lok	4.75 (0.187)	0.9	60.7(2.39)	30.5(1.20)	11.2 (0.44)	29.7 (1.17)	38.9 (1.53)	37.3 (1.47)	19.8 (0.78)				
	O-6M-	6mm OD OTG-Lok						30.5 (1.20)							
	O-8M-	8mm OD OTG-Lok						0.8				62.5(2.46)	31.2(1.23)	26.2 (1.03)	
	F-4N-	1/4 in Female NPT						0.75				52.3(2.06)	26.2 (1.03)	26.2 (1.03)	
	MO-4N4T-	1/4 in Male NPT to 1/4 in. OD OTG-Lok						0.8				60.7 (2.39)	30.5 (1,20)	26.2 (1.03)	
	F-4R-	1/4 in ISO Female Tapered						0.75				52.3(2.06)	26.2 (1.03)	26.2 (1.03)	
OBV33C- OBV33TC-	O-6T-	3/8 in OD OTG-Lok	7.10 (0.281)	2.0	73.4(2.89)	36.8(1.45)	14.2 (0.56)	36.3 (1.43)	50.8 (2.00)	52.6 (2.07)	28.4 (1.12)				
	O-10M-	10mm OD OTG-Lok						36.3 (1.43)							
	F-4N-	1/4 OD OTG-Lok						1.7				63.5(2.50)	31.8(1.25)	31.8 (1.25)	
	F-6N-	3/8 in Female NPT						1.5							
	F-6R-	3/8 in ISO Female Tapered													
OBV33D- OBV33TD-	O-8T-	1/2 in OD OTG-Lok	10.3 (0.406)	4.6	88.4(3.48)	44.2(1.74)	17.5 (0.69)	44.2 (1.74)	76.2 (3.00)	61.7 (2.43)	38.1 (1.50)				
	O-12T-	3/4 in OD OTG-Lok										3.8			
	O-12M-	12mm OD OTG-Lok										4.6			
	F-8N-	1/2 in Female NPT										3.5	79.5(3.13)	39.6(1.56)	39.6 (1.56)
	F-8R-	1/2 in ISO Female Tapered													

All dimensions shown are for reference only and are subject to change.
Dimensions with OTG-Lok Fitting nuts are in finger-tight position.

Flow Data @ 20°C (70°F)

(Cv)	Water Flow U.S.gal/min. (std L/min.)			Air Flow std ft ³ /min (std L/min.)			(Cv)	Water Flow U.S.gal/min. (std L/min.)			Air Flow std ft ³ /min (std L/min.)		
	Pressure Drop to Atmosphere (Δp), psi (bar)							Pressure Drop to Atmosphere (Δp), psi (bar)					
	10 (0.69)	50 (3.45)	100 (6.9)	10 (0.69)	50 (3.45)	100 (6.9)		10 (0.69)	50 (3.45)	100 (6.9)	10 (0.69)	50 (3.45)	100 (6.9)
0.07	0.2 (0.7)	0.5 (1.8)	0.7 (2.6)	0.8 (22)	2.1 (59)	3.7 (100)	1.5	4.7 (17)	11 (41)	15 (56)	17 (480)	45 (1200)	80 (2200)
0.08	0.3 (1.1)	0.6 (2.2)	0.8 (3.0)	0.9 (25)	2.4 (67)	4.3 (120)	1.6	5.0 (18)	11 (41)	16 (60)	18 (500)	48 (1300)	85 (2400)
0.10	0.3 (1.1)	0.7 (2.6)	1.0 (3.7)	1.1 (31)	3.0 (84)	5.3 (150)	1.7	5.3 (20)	12 (45)	17 (64)	19 (530)	51 (1400)	90 (2500)
0.15	0.4 (1.5)	1.0 (3.7)	1.5 (5.6)	1.7 (48)	4.5 (120)	8.0 (220)	2.0	6.3 (23)	14 (52)	20 (75)	22 (620)	60 (1600)	100 (2800)
0.20	0.6 (2.2)	1.4 (5.2)	2.0 (7.5)	2.3 (65)	6.0 (160)	11 (310)	2.4	7.6 (28)	17 (64)	24 (90)	27 (760)	72 (2000)	120 (3300)
0.30	0.9 (3.4)	2.1 (7.9)	3.0 (11)	3.4 (96)	9.0 (250)	16 (450)	2.6	8.2 (31)	18 (68)	26 (98)	29 (820)	78 (2200)	140 (3900)
0.35	1.1 (4.1)	2.4 (9.0)	3.5 (13)	4.0 (110)	10 (280)	19 (530)	3	9.5 (35)	21 (79)	30 (110)	34 (960)	90 (2500)	160 (4500)
0.50	1.6 (6.0)	3.5 (13)	5.0 (18)	5.6 (150)	15 (420)	27 (760)	3.5	11 (41)	25 (94)	35 (130)	39 (1100)	100 (2800)	180 (5000)
0.60	1.9 (7.1)	4.2 (15)	6.0 (22)	6.8 (190)	18 (500)	32 (900)	3.8	12 (45)	27 (100)	38 (140)	43 (1200)	110 (3100)	200 (5600)
0.70	2.2 (8.3)	4.9 (18)	7.0 (26)	7.9 (220)	21 (590)	37 (1000)	4.6	15 (56)	33 (120)	46 (170)	52 (1400)	140 (3900)	240 (6700)
0.80	2.5(9.4)	5.6(21)	8.0(30)	9.0(250)	24(670)	42(1100)	6.0	19 (71)	42 (150)	60 (220)	68 (1900)	180 (5000)	320 (9000)
0.90	2.8 (10)	6.4 (24)	9 (34)	10 (280)	27 (760)	48 (1300)	6.3	20 (75)	45 (170)	63 (230)	71 (2000)	190 (5300)	330 (9300)
1.2	3.8 (14)	8.5 (32)	12 (45)	14 (390)	36 (1000)	64 (1800)	12	38(140)	85(320)	120(450)	130(3600)	360(10 000)	640(18 000)

Flow Paths Options
2-Way Straight Pattern

Standard Straight porting	Optional L Flow porting	Optional T porting																																		
<p>90° Actuation</p> <p>on off</p>	<p>Turn 90°</p> <p>Off-trap sample from port 1 Switch-transfer sample to port 2</p> <table border="1"> <thead> <tr> <th>Applicable Valve Series</th> <th>L porting Designator</th> <th>Orifice mm (in.)</th> <th>Pressure Ratings, psig (bar)</th> </tr> </thead> <tbody> <tr><td>OBV3A</td><td rowspan="4">L</td><td>1.2 (0.047)</td><td>2500</td></tr> <tr><td>OBV3B</td><td>1.6 (0.062)</td><td>(172)</td></tr> <tr><td>OBV3C</td><td>3.2 (0.125)</td><td>1500</td></tr> <tr><td>OBV3D</td><td>7.1 (0.281)</td><td>(103)</td></tr> </tbody> </table>	Applicable Valve Series	L porting Designator	Orifice mm (in.)	Pressure Ratings, psig (bar)	OBV3A	L	1.2 (0.047)	2500	OBV3B	1.6 (0.062)	(172)	OBV3C	3.2 (0.125)	1500	OBV3D	7.1 (0.281)	(103)	<p>Turn 90°</p> <p>On Off</p> <p>T porting is used when fluid must not be trapped in the valve path.</p> <table border="1"> <thead> <tr> <th>Applicable Valve Series</th> <th>T porting Designator</th> <th>Orifice in. (mm)</th> <th>Pressure Ratings psig (bar)</th> </tr> </thead> <tbody> <tr><td>OBV3A</td><td rowspan="4">T</td><td>3.2 (0.125)</td><td>2500</td></tr> <tr><td>OBV3B</td><td>4.75 (0.187)</td><td>(172)</td></tr> <tr><td>OBV3C</td><td>7.1 (0.281)</td><td>1500</td></tr> <tr><td>OBV3D</td><td>10.3 (0.406)</td><td>(103)</td></tr> </tbody> </table>	Applicable Valve Series	T porting Designator	Orifice in. (mm)	Pressure Ratings psig (bar)	OBV3A	T	3.2 (0.125)	2500	OBV3B	4.75 (0.187)	(172)	OBV3C	7.1 (0.281)	1500	OBV3D	10.3 (0.406)	(103)
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3-Way Valves

Standard porting	Optional L porting	Optional H porting																																		
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Special Flow Path Ordering Information

To order, suffix the applicable designator of special flow path to the valve ordering number. Example: OBV33A-A4T-L-SS

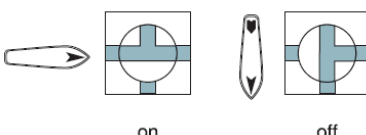
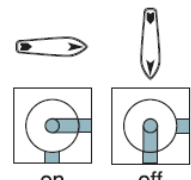
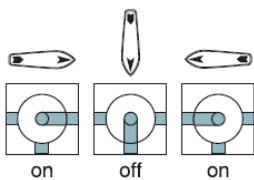
Vented Valves

Vented Valve Series			Body Vent Hole Size, mm (in.)
2-way pattern		3-way	
Straight	Angle		
OBV3A		OBV33A	1.02 (0.040)
OBV3B		OBV33B	
OBV3C		OBV33C	1.24 (0.049)
OBV3D		OBV33D	2.36 (0.093)

Vented valves are supplied with a small hole drilled in the side of valve body. To order, insert **VT** into the valve Series number. Example: OBV3B-O-4T-VT-SS

Pressure Rating for vented valve is 500 psig (34.4 bar).

Warning: Cross-vent flow may occur in vented valves.

Function of Vented Valves	
<p>2-Way Straight Valves</p> <p>The valve in off position, the downstream port vents to atmosphere through the vent hole drilled in the side of the valve body.</p> 	<p>2-Way and 3-Way Angle-Pattern Valves</p> <p>The valve in off position, the bottom port vents to atmosphere through the vent hole drilled in the side of the valve body.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>2-Way</p>  </div> <div style="text-align: center;"> <p>3-Way Angle-Pattern</p>  </div> </div>

Handle Options



Metal Handle

2-Way Straight, Angle Pattern, and 3-Way

Metal handle is useful for actuating valve in an elevated temperature. Stainless steel or Aluminum materials are available.

To order factory-assembled metal handle on the valve, add **-BH** or **-AH** to the valve Basic ordering number. **Example:** OBV3B-O-4T-BH-SS

Aluminum handle is supplied with Black anodized.



Metal Handle Designator

Handle Material	Designator
Stainless Steel	-BH
Aluminum	-AH

Packing Adjustment Procedure

- Packing adjustment may be periodically required to prevent leakage and to increase service life.
- Live loaded packing **disc** springs allow the packing adjustment with the valve in-line.

1. Depressurize the system.
2. Cycle and purge the valve.
3. Using the Allen Hex Key corresponding to the size of Set Screw Hollow Hex as indicated in the table below, turn the set screw on the handle counter-clockwise and remove the handle from the valve.

Valve Series			Set Screw Hollow Hex, in.
2-way pattern		3-way	
Straight	Angle		
OBV3A		OBV33A	5/64
OBV3B		OBV33B	3/32
OBV3C		OBV33C	9/64
OBV3D		OBV33D	5/32

4. To adjust the packing, turn the packing bolt clockwise in 1/16 turn increment until the valve achieves the leak-tight performance.

Valve Series			Set Screw Hollow Hex, in.
2-way pattern		3-way	
Straight	Angle		
OBV3A		OBV33A	5/16
OBV3B		OBV33B	3/8
OBV3C		OBV33C	1/2
OBV3D		OBV33D	5/8

5. Re-assemble the handle back in the valve.

Factory Test and Cleaning

- Every valve is factory tested with nitrogen @t 1000 psig (69 bar) for leakage at packing to a maximum allowable leak rate of 0.1 std cm³/min.
- Every valve is cleaned and packaged in accordance with OTG cleaning standard of CS-01. Special cleaning standard of CS-11 in compliance with ASTM G93 Level C is optional.

Application

- Analytical industry requires a valve with the lowest dead volume to prevent fluid entrapment minimizing contamination.
- Control sampling system and process instrumentation require a valve with compact size, high flow capacity and directional indication of flow.

Operation

- OBV3 series valves are designed to control fluid in full open and full close position; using the valves to throttle the flow may reduce the valve service life.
- Valves that have not been actuated for a period of time may have a higher initial actuation torque.
- The working pressure of every valve is adjusted for factory test at 1000 psig (69 bar) @ 21°C (70°F). For use in higher pressure, the valve packing may be required for re-adjustment.

How to Order

Select applicable valve pattern, options and body material from the designators listed below.

OBV3A-O-4T	A	L	NL	SC	BH	SG	SS
Valve Series Basic ordering number	Flow Pattern ▪ Nil: 2-Way Straight ▪ A: Angle Pattern	Special Ball Porting ▪ Nil: Standard 2-Way valve ▪ L- ▪ T- 3-Way valve ▪ L- ▪ H- ▪ T-	No Lubrication ▪ Nil: Standard ▪ NL: No Lubrication	Special Cleaning ▪ Nil: Standard ▪ SC: Oxygen Cleaning	Bar Handle ▪ Nil: Standard ▪ BH: Stainless S316 ▪ AH: Aluminum Handle	Sour Gas Service ▪ Nil: Standard ▪ SG: Sour Gas Service	Body Material ▪ SS: SS316 ▪ BS: Brass
OBV3 Series OBV3A OBV33A OBV3B OBV33B OBV3C OBV33C OBV3D OBV33D OBV3G Series OBV3GA OBV33GA OBV3GB OBV33GB OBV3T Series OBV3TA OBV33TA OBV3TB OBV33TB OBV3TC OBV33TC OBV3TD OBV33TD							

Special Cleaning

Valves are cleaned, packed, and labeled in accordance with the requirements of ASTM G93 Level C. OTG Oxygen cleaning standard of OCS-005 is established to meet the requirements. The wetted parts of the valves are lubricated with non-hydrocarbon lubricant. To order, add **SC** to the valve ordering number. Specially cleaned 2-Way and 3-Way valves change the low temperature rating.

Applicable Valve Series			Change of Low Temperature Ratings	
2-Way pattern		3-Way	From	To
Straight	Angle			
OBV3A		OBV33A	-65°F (-53°C)	-30°F (-34°C)
OBV3B		OBV33B		
OBV3C		OBV33C	No Change	
OBV3D		OBV33D		

Valve with no lubrication

Valves assembled with no lubrication are cleaned and packed in accordance with OTG Oxygen cleaning standard of OCS-05 in compliance with ASTM G93 Level C. To order, add **NL** to the valve ordering number. Valves assembled with no lubrication changes the pressure rating

Applicable Valve Series			Pressure Ratings, psi (bar)
2-way pattern		3-way	
Straight	Angle		
OBV3A		OBV33A	500 (34.3)
OBV3B		OBV33B	
OBV3C		OBV33C	200 (13.7)
OBV3D		OBV33D	

Note: Valves assembled with no lubrication have a significantly higher actuation torque than valves with lubricant.

Sour Gas Service

Stainless Steel OBV3 Series ball valves for service in sour gas application are available. Valve's wetted parts are selected to the requirements Of NACE MR0175/ISO 15156 for sulfide stress cracking resistant materials. To order, add **SG** to the valve ordering number.

Safe Valve Selection

The selection of a valve for any application or system must be considered to ensure safe performance. Valve rating, valve function, material compatibility, proper installation, operation, and maintenance remain the sole responsibility of the system designer and the user. OTG Corporation accepts no liability for any improper selection, compatibility, installation, operation, or maintenance.