

## Ball Valves in cast 316 SS 3-way, screwed body



- 1/4"-1" 2000 PSI WOG, 1-1/4"-2" 1500 PSI WOG
- Thread ends
- Standard port to Sch 40 pipe
- Compact body size
- PTFE seals, 4 seats design
- Blow-out proof stem with self adjust packing
- ISO 5211 direct actuator mount

Type 2651 can be combined with...



**Type 8792**  
Positioner



**Type 2051**  
Pneumatic rotary actuator



**Type 3003**  
Electric rotary actuator



**Type 3004**  
Electric explosion proof actuator



**Type 3005**  
Electric rotary actuator

This Burkert ball valve design is an industry proven threaded investment cast body with PTFE/FKM sealing. It finds wide use in mixing, blending and diverting applications at reduced torque. The self-adjusting packing gland is a dual sealing type with an alignment collar for superior tightness.

The Type 2651 is automation ready with an ISO 5211 mounting pad for direct coupling of the actuator. A full range of actuators, pilots, digital positioners, feedback switches and bus network options are available for integration into plant control systems.

For maintenance, this design allows removal of all seals through three ports. The screwed body provides for easy re-assembly, and more compact than multi piece bolted designs. The ball is standard port style, presenting a  $C_v$  and pressure drop complimentary to mixing or blending control and diverting process applications.

Technical data	
<b>Valve size</b>	1/4" to 2"
<b>Body materials<sup>1)</sup></b>	CF8M (cast 316 SS)
Ball material	316 SS
Stem material	316 SS
<b>Port diameter class</b>	Standard port to Sch 40 pipe size
<b>Ball seal material</b>	PTFE (others to application)
<b>Media</b>	Compatible with materials of construction and pressure / temperature limits of seals
<b>Viscosity</b>	As torque effect allows
<b>Packing gland</b>	Self-adjusting PTFE and FKM with 304SS guide / follower
<b>Media temperature</b>	-20°F to 375°F (PTFE)
<b>End connections</b>	NPT – National pipe thread tapered
<b>Installation</b>	As required
<b>Flow direction</b>	Seals to rated pressure in all directions
<b>Control option</b>	Size to conditions
<b>Pressure rating</b>	2000 PSI 1/4" - 1", 1500 PSI 1 - 1/4" - 2"
<b>Flow pattern</b>	"L" port L + T port

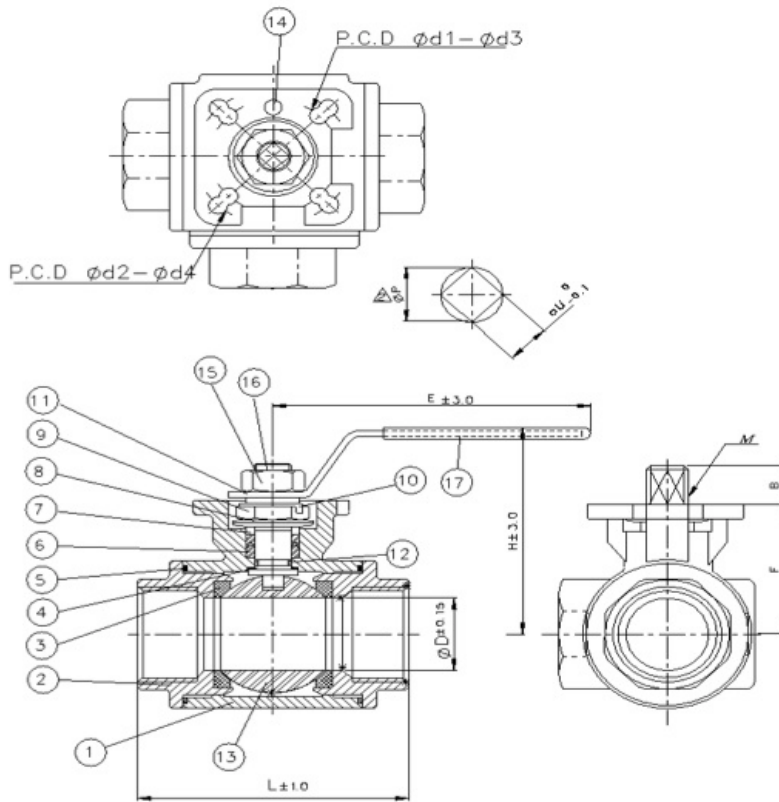
<sup>1)</sup> Other valve body materials available to meet your specifications, contact your local Burkert representative for more information.

## Ordering chart for 3-way manual ball valves with L port

3-way manual ball valves with L port								
NPT port connection	Orifice [mm]	C <sub>v</sub>	Seat	WOG [PSI]	Break-away torque NM (in/lb)	Operating torque NM (in/lb)	ISO 5211	Item no.
1/4"	11.6	7.0	PTFE	2000	6.9 (60.8)	5.5 (48.6)	F03 & F04	98130966
3/8"	12.7	8.0	PTFE	2000	6.9 (60.8)	5.5 (48.6)	F03 & F04	98130967
1/2"	12.0	10.0	PTFE	2000	6.9 (60.8)	5.5 (48.6)	F03 & F04	98130968
3/4"	15.0	15.0	PTFE	2000	7.4 (65.1)	5.9 (52.1)	F04 & F05	98130969
1"	20.0	32.0	PTFE	2000	10.3 (91.1)	8.2 (72.9)	F04 & F05	98130970
1-1/4"	25.0	48.0	PTFE	1500	14.2 (125.9)	11.4 (11.7)	F04 & F05	98130971
1-1/2"	32.0	82.0	PTFE	1500	23.5 (208.3)	18.8 (166.6)	F04 & F05	98130972
2"	40.0	120.0	PTFE	1500	33.3 (295.1)	26.7 (236.1)	F05 & F07	98130973

3-way manual ball valves with T port								
NPT port connection	Orifice [mm]	C <sub>v</sub>	Seat	WOG [PSI]	Break-away torque NM (in/lb)	Operating torque NM (in/lb)	ISO 5211	Item no.
1/4"	11.6	7.0	PTFE	2000	6.9 (60.8)	5.5 (48.6)	F03 & F04	98131011
3/8"	12.7	8.0	PTFE	2000	6.9 (60.8)	5.5 (48.6)	F03 & F04	98131013
1/2"	12.0	10.0	PTFE	2000	6.9 (60.8)	5.5 (48.6)	F03 & F04	98131014
3/4"	15.0	15.0	PTFE	2000	7.4 (65.1)	5.9 (52.1)	F04 & F05	98131015
1"	20.0	32.0	PTFE	2000	10.3 (91.1)	8.2 (72.9)	F04 & F05	98131016
1-1/4"	25.0	48.0	PTFE	1500	14.2 (125.9)	11.4 (11.7)	F04 & F05	98131017
1-1/2"	32.0	82.0	PTFE	1500	23.5 (208.3)	18.8 (166.6)	F04 & F05	98131018
2"	40.0	120.0	PTFE	1500	33.3 (295.1)	26.7 (236.1)	F05 & F07	98131019

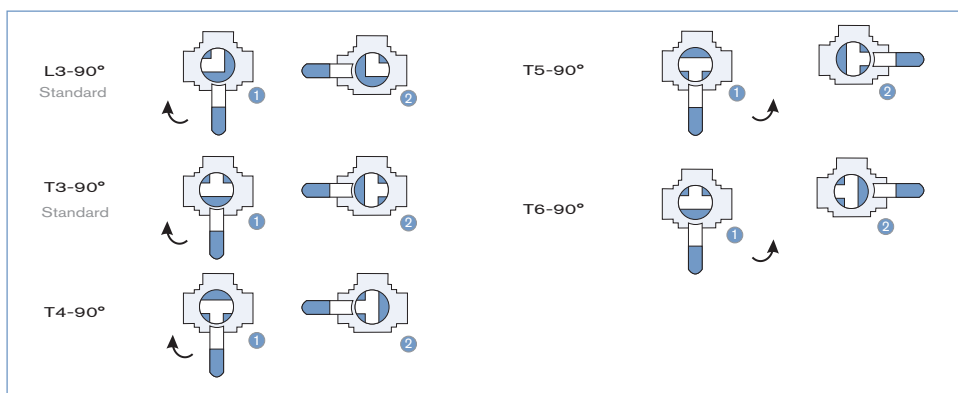
Dimensions [mm]



Item	Part Name	Materials
1	Body	CF8M
2	End cap	CF8M
3	Seats	PTFE
4	Thrust washer	PTFE
5	Body gasket	PTFE
6	Stem packing	PTFE
7	Gland	SS 304
8	Disc spring	SS 301
9	Gland nut	SS 304
10	Tab washer	SS 304
11	Handle	SS 304
12	O-ring	Viton
13	Ball	SS 316
14	Stopper	SS 304
15	Handle nut	SS 304
16	Stem	SS 316
17	Cover	Plastic

Size	$\phi D$	L		$\phi d1$	$\phi d3$	$\phi d2$	$\phi d4$	E	H	M	F	B
1/4"	11.6	80	9	36	5.5	42	5.5	114	73	7/16 UNF	35.9	7.4
3/8"	12.7	80	9	36	5.5	42	5.5	114	73	7/16 UNF	35.9	7.4
1/2"	12.0	80	9	36	5.5	42	5.5	114	73	7/16 UNF	35.9	7.4
3/4"	15.0	87.5	11	42	5.5	50	6.5	133	78	9/16 UNF	40.9	12.8
1"	20.0	100	11	42	5.5	50	6.5	133	83	9/16 UNF	45.2	11.4
1 1/4"	25.0	123	11	42	5.5	50	6.5	187	92	9/16 UNF	51	12.6
1 1/2"	32.0	142.2	11	42	5.5	50	6.5	187	98	9/16 UNF	55.5	12.6
2"	40.0	170.6	14	50	6.5	70	8.5	187	124	3/4 UNF	66	14.3

Flow pattern



**Note**  
You can fill out the fields directly in the PDF file before printing out the form.

**Request for quotation**

▶ Please fill out and send to your nearest Burkert facility\* with your inquiry or order

Company	Contact person
Customer no.	Department
Address	Tel./Fax
ZIP code	E-Mail

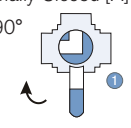
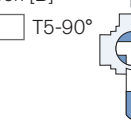
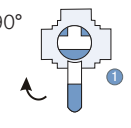
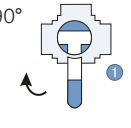
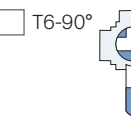
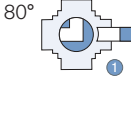
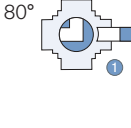
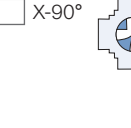
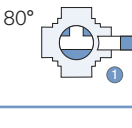
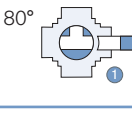
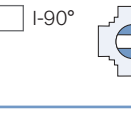
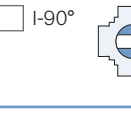
= mandatory fields to fill out       Quantity       Required delivery date

**Operating data**

<input checked="" type="checkbox"/> Process medium	<input type="text"/>		
<input checked="" type="checkbox"/> Type of medium	<input type="checkbox"/> Liquid	<input type="checkbox"/> Steam	<input type="checkbox"/> Gas
	Min	Standard	Max
<input checked="" type="checkbox"/> Flow rate	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/> Temperature	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/> Pressure	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Valve features**

<b>Body type</b>	<input type="checkbox"/> 2pc [2]	<input type="checkbox"/> 3pc [3]	<input type="checkbox"/> Top Entry [T]	<input type="checkbox"/> Multi-Port [M]
<b>Ports</b>	<input type="checkbox"/> 2 Way [2]	<input type="checkbox"/> 3 Way [3]	<input type="checkbox"/> 4 Way [4]	
<b>Connection</b>	<input type="checkbox"/> ANSI 150lb Flange [FA]	<input type="checkbox"/> NPT [NM]	<input type="checkbox"/> OD Tube Butt Weld [SA]	
	<input type="checkbox"/> Sch 40 Butt Weld [SC]	<input type="checkbox"/> Sch 40 Socket Weld [SM]	<input type="checkbox"/> ASME BPE Clamp [TG]	
<b>Size</b>	<input type="checkbox"/> 1/4" <input type="checkbox"/> 3/8" <input type="checkbox"/> 1/2" <input type="checkbox"/> 3/4" <input type="checkbox"/> 1" <input type="checkbox"/> 1 1/4" <input type="checkbox"/> 1 1/2" <input type="checkbox"/> 2" <input type="checkbox"/> 2 1/2"			
	<input type="checkbox"/> 3" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> 8"			
<b>Seals</b>	<input type="checkbox"/> PTFE	<input type="checkbox"/> TFM		
<b>Actuation</b>	<input type="checkbox"/> Pneumatic [P]	<input type="checkbox"/> Electric [E]		
<b>Pneumatic</b>				
<b>Size</b>	<input type="checkbox"/> 125	<input type="checkbox"/> 250	<input type="checkbox"/> 450	<input type="checkbox"/> 1000
	<input type="checkbox"/> 5000	<input type="checkbox"/> 11000		
<b>Spring set</b>	<input type="checkbox"/> R3	<input type="checkbox"/> R4		
<b>Electric</b>				
<b>Type</b>	<input type="checkbox"/> 3003	<input type="checkbox"/> 3004	<input type="checkbox"/> 3005	
<b>Voltage</b>	<input type="checkbox"/> 15-30 AC	<input type="checkbox"/> 12-24 DC	<input type="checkbox"/> 100-240 AC	<input type="checkbox"/> 100-350 DC

<b>2-way</b>	<input type="checkbox"/> Normally Closed [A]	<input type="checkbox"/> Normally Open [B]	<input type="checkbox"/> Double acting [I]
<b>3-way</b>	<input type="checkbox"/> L3-90° 	<input type="checkbox"/> T5-90° 	<input type="checkbox"/> T3-90° 
	<input type="checkbox"/> T4-90° 	<input type="checkbox"/> T6-90° 	<input type="checkbox"/> T4-90° 
<b>4-way</b>	<input type="checkbox"/> L5-180° 	<input type="checkbox"/> X-90° 	<input type="checkbox"/> T5-180° 
	<input type="checkbox"/> T5-180° 	<input type="checkbox"/> I-90° 	<input type="checkbox"/> I-90° 

**Reset form**

continued on next page →

Accessories	
	<input type="checkbox"/> Pilot Valve [PV] <input type="checkbox"/> Limit Switch [LS] <input type="checkbox"/> Control Top [CT]
<b>Pilot valve voltage</b>	<input type="checkbox"/> 24 DC <input type="checkbox"/> 24 AC <input type="checkbox"/> 120 AC <input type="checkbox"/> 240 AC
<b>Limit switch type</b>	<input type="checkbox"/> APL-210 <input type="checkbox"/> E-07 <input type="checkbox"/> APL-510N
<b>Control top type</b>	<input type="checkbox"/> 8791 <input type="checkbox"/> 8792 <input type="checkbox"/> 8793

Control unit features		
Click on the orange box "More info." below... you will come to our website for the resp. product where you can download the datasheet.		
Basic positioner	Positioner	Process controller
<input type="checkbox"/> Type 8791 <span style="background-color: #f4a460; padding: 2px;">More info.</span>	<input type="checkbox"/> Type 8792 <span style="background-color: #f4a460; padding: 2px;">More info.</span>	<input type="checkbox"/> Type 8793 <span style="background-color: #f4a460; padding: 2px;">More info.</span>
<b>Power supply 24VDC</b> <b>Feedback</b> <input type="checkbox"/> Without <input type="checkbox"/> Analog feedback <b>Electrical connection</b> <input type="checkbox"/> Cable gland <input type="checkbox"/> Multi-pole  Please specify item no. if known: <input type="text"/>	<b>Power supply 24VDC</b> <b>Communication</b> <input type="checkbox"/> Without <input type="checkbox"/> Profibus DPV 1 <b>Feedback</b> <input type="checkbox"/> Without <input type="checkbox"/> 2 binary outputs <input type="checkbox"/> Analog feedback + 2 binary outputs <b>Electrical connection</b> <input type="checkbox"/> Cable gland <input type="checkbox"/> Multi-pole  Please specify item no. if known: <input type="text"/>	<b>Power supply 24VDC</b> <b>Communication</b> <input type="checkbox"/> Without <input type="checkbox"/> Profibus DPV 1 <b>Feedback</b> <input type="checkbox"/> Without <input type="checkbox"/> 2 binary outputs <input type="checkbox"/> Analog feedback + 2 binary outputs <b>Electrical connection</b> <input type="checkbox"/> Cable gland <input type="checkbox"/> Multi-pole  Please specify item no. if known: <input type="text"/>

Comment / sketch

Reset form

DTS 1000152214 EN Version: B Status: RL (released | freigegeben | validé) printed: 22.09.2017

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