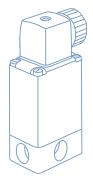


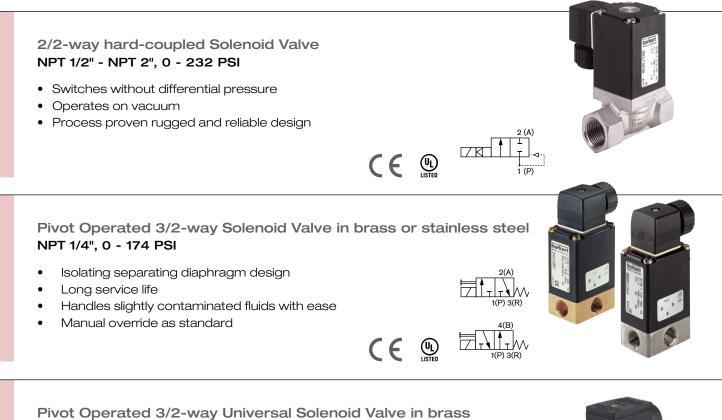
02 SOLENOID VALVES 06 PROCESS VALVES & CONTROL HEADS 11 PNEUMATIC ACTUATION 13 SENSORS, TRANSMITTERS & CONTROLLERS 20 MASS FLOW 22 BALL VALVES

### SOLENOID VALVES



Solenoid Valve Systems from Burkert are suited to operate with neutral, aggressive and contaminated fluids, steam and other high temperature media. For contaminated media Burkert offers solenoid valves with isolating diaphragms.

Burkert's uncompromising quality is evident in our range of solenoid valves. They are available in stainless steel, brass or engineered plastics (PVDF, PVC, PTFE). A wide range of seal materials have been proven for use with acids, lyes, steam, corrosive and toxic fluids. Water valves are developed in a compact and water hammer free design. Burkert has introduced several HazEx<sup>™</sup> Solenoid Valve Systems with global approvals.



0330

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### or stainless steel

#### NPT 1/4", 0-174 PSI max., 0 - 85 PSI

- Universal flow function
- Isolating separating diaphragm design •
- Handles slightly contaminated fluids with ease
- Long lifetime
- HazLoc approvals upon request



- Excellent range
- Neutral gases and liquids
- Compact valve desing
- Orifice sizes 0.05 ... 2.0 mm
- Port connection 1/8" or sub-base



CE



#### 2873 Direct acting 2-way standard solenoid control valve NPT 1/8", NPT 1/4", 0 - 232 PSI Excellent range • Neutral gases and liquids Compact valve design Orifice sizes 0.8 ... 6 mm Optional: Explosion-protected coil Direct-acting 2-way standard solenoid control valve 2875 NPT 3/8", NPT 1/2", 0 - 362 PSI • Excellent range Neutral gases and liquids

- Compact valve design
- Orifice sizes 2 ... 9.5 mm
- Optional: explosion-protected coil

#### 2/2 way Proportional Valve (motor-driven) NPT 1/2" - NPT 1", 0 - 87 PSI

- Actuator isolated from flow path
- Excellent range and fast response times
- Low power consumption
- Orifice sizes 8 to 25 mm
- Versions: Standard, positioner, process controller



- Unique isolated technology for slightly contaminated fluids
- Independently adjustable open / close rate
- Easily configurable for normally open
- Manual override
- HazLoc approvals upon request

#### Plunger Operated 2/2-way Solenoid Valve NPT 1/8" or manifold mounting, 0 - 174 PSI

- Brass or stainless steel
- FKM seal as standard
- Slip over coil can be rotated in 4 x 90 degrees



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6011

3285

7011	<ul> <li>Direct-acting 2/2-way plunger valve</li> <li>NPT 1/8" or manifold mounting</li> <li>Brass or stainless steel</li> <li>FKM seal as standard</li> <li>Slipped over coil system</li> <li>Simple and fast flange or manifold mounting</li> </ul>
7012	<section-header><ul> <li>Direct-acting 3/2-way plunger valve</li> <li>MPT 1/8" or manifold mounting</li> <li>Brass or stainless steel</li> <li>FKM seals as standard</li> <li>Slipped over coil system</li> <li>Simple and fast push-in, flange or manifold mounting</li> </ul></section-header>
6013	<ul> <li>Plunger Operated 2/2-way Solenoid Valve NPT 1/8" - NPT 1/4", 0 - 362 PSI</li> <li>Normally close</li> <li>With threaded body in brass or SS</li> <li>Slip over coil can be rotated in 4 x 90 degrees</li> <li>FKM seal material with high quality standard</li> </ul>
6014	<ul> <li>Compact Plunger Operated 3/2-way Valve NPT 1/8" &amp; NPT 1/4", 0 - 232 PSI</li> <li>Reliable double seated plunger operation</li> <li>Threaded or flange version</li> <li>High quality FKM seal as standard</li> <li>Slip over coil can be rotated in 4 x 90 degrees</li> <li> Image: Compact Plunger Operated 3/2-way Valve Network (P) are the provided of the pro</li></ul>
6027	<ul> <li>Direct-acting 2/2-way plunger valve NPT 1/4", 0 - 435 PSI</li> <li>Direct-acting, powerful valve with diameter of up to DN 12</li> <li>Vibration-proof, bolted coil system</li> <li>Increased leak-tightness with welded plunger guiding tube</li> <li>Explosion proof versions</li> <li>CE INIX INIX</li> </ul>

#### 2/2-way Solenoid Valve for liquids and gases NPT 1/4" - NPT 1", 1.5 - 145 PSI

- Coupled spring diaphragm system opened
- Waterhammer free and low noise
- Flow-optimized housing and diaphragm geometry for high flow



#### NPT 1/2" - NPT 2", 2.9 - 232 PSI

- Waterhammer-free
- Rugged molded diaphragm
- Compact design with high flow rates



- Up to diameter DN50
- Vibration-resistant, push-over coil
- Energy-saving double coil technology with Kick and Drop electronics



- Programmable digital electronics
- Converts an analogue input signal into a PWM output signal
- Adjustable PWM frequency
- Digital communication possible (büS)
- Optional integrated time control and digital/analogue input signals

**Digital Timer** 

- Digital version with bright LED display
- Analogue version with LED illumination to indicate switching status
- Connection according to DIN EN 175301-803 (form A)
- Protection class IP65 (NEMA 4)







8605

6281 EV

6213 EV



### PROCESS VALVES & CONTROL HEADS

Making your life simpler, our ground-breaking innovation has created a remarkable range of attractive and hardworking valve elements which can be combined to give the user the best possible fit for purpose. With unlimited modularity, Bürkert saves you time by offering valves for media from slurries to steam and from de-ionized water to hydrochloric acid to offer peace of mind with the sure knowledge you have chosen experience and quality.

2000	<ul> <li>On-Off Pneumatically Operated 2/2-way Angle Valve for Liquids NPT 1/2" - NPT 2 1/2"</li> <li>Waterhammer-free</li> <li>High flow rates</li> <li>Self adjusting double packing</li> <li>Optical position indicator is standard</li> <li>Rotating power head to orient air control connections</li> </ul>
2000	<ul> <li>On-Off Pneumatically Operated 2/2-way Angle Valve for Steam and Gases</li> <li>NPT 1/2" - NPT 2 1/2"</li> <li>Flow direction above seat</li> <li>PPS actuator for hot environments</li> <li>Self adjusting double packing</li> <li>High flow rates</li> <li>Rotating power head to orient air control connections</li> </ul>
2100	<ul> <li>On-Off Pneumatically Operated 2/2-way ELEMENT Angle Valve NPT 1/2" - NPT 2 1/2"</li> <li>Compressed air recycling control function with ELEMENT control tops</li> <li>Perfect for clean applications</li> <li>Wide range of accessories</li> <li>With flow direction below or above seat</li> <li>High flow rates</li> <li>High cycle life</li> </ul>
2101 / 2012	Pneumatically Operated 2/2-way Globe Valves         1/2" to 4"         • Flow direction below seat         • Long life         • Flow optimized stainless steel body 316L         • Perfect replacement for flanged ball valves

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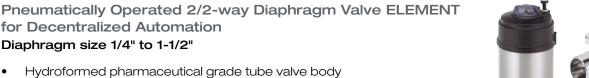
#### Pneumatically Operated 2/2-way Diaphragm Valve ELEMENT for Decentralized Automation Diaphragm size 1/2" to 2"

- Optimized flow and zero deadleg
- Diaphragm hermetically separates the fluids from the operating mechanism
- Easy integration of ELEMENT automation units
- SS body with clamp or weld ends

Diaphragm size 1/4" to 1-1/2"

Certified for pharmaceutical, aseptic, sterile and sanitary food applications

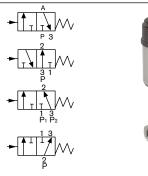
2103 TVB



- Easy integration of automation units with ELEMENT
- Reduced mass up to 75% allows for optimized heating and cooling cycles
- Optimal design for hygienic environments

3/2-way Globe Valve, pneumatically operated NPT 1/2" - NPT 1 1/2"

- Different flow circuit functions and control functions
- Long life actuator
- Optical display as standard in series
- Rotary actuator aligns the pilot air ports



2106

3233

2/2-way Diaphragm Valve, Manually Operated, Forged Valve Body

OD Tube Butt Weld and Clamp Port Connections 1/4" - 2"

- Hermetical separation of fluid from operating mechanism by diaphragm
- Zero dead volume
- Various surface finishes
- Quality certifications FDA

#### Manually operated 2-way Diaphragm Valve, Tube Valve Body OD Tube Butt Weld and Clamp Port Connections 1/2"-2"

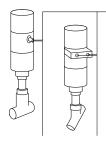
- Light tube valve body
- Flow optimized body in stainless steel
- Zero dead volume
- Easy to weld



# Process automation for craft brewing

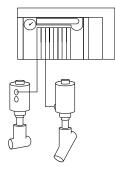


**DECENTRAL, DISTRIBUTED, CENTRAL:** Three smart concepts which almost automatically lead towards the single aim of smooth-running processes. Based on your specific requirements, we establish which of these concepts is the right one for you. Complex automation demands creative, tailor-made solutions. With the right approach, smart networking can become the intelligent hub of any production.



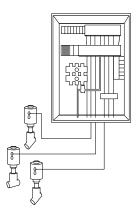
#### DECENTRAL

Clear, flexible, safe. Reduced energy costs and maximum cleanability make this concept stand out.



#### DISTRIBUTED

Compact, robust, extendable. Process-oriented control, quickly and easily configurable.



FLUID CONTROL SYSTEMS

**CENTRAL** Modular, individual, clear. The classic system combines control and information in one place.

#### Control Head Universal attachment for hygienic process valves

- 3 switching points
- Color status display
- Manual override to be used with closed housing
- Communication interface AS-Interface (option)

Control Head for decentralized automation of ELEMENT process valves

- Contact-free inductive valve position registration (teach function)
- Colored illuminated status display
- Integrated control air routing
- Fieldbus AS-Interface, IO-Link or büS (CANopen)
- Digital electropneumatic Positioner/Controller for the integrated mounting on process control valves
- Integrated PID Control (8693)
- Compact, robust stainless steel design
- Easy start-up by automatic X-Tune function
- Contact-free position sensor
- Integrated control air routing with spring chamber aeration

Digital Electropneumatic Positioner SideControl and Digital Electropneumatic Process Controller SideControl

- Compact and robust design
- Easy start-up by automatic X-Tune function
- Integrated diagnostic functions for valve monitoring
- Dynamic positioning system with no air consumption in controlled state
- Communications Protocols: EtherNet/IP, DeviceNet, Modbus TCP, PROFINET, PROFIBUS DP-V1 or büS (Bürkert System Bus)

Angle Seat Valve System for on/off Control and Globe Valve System for on/off Control

- Long service life
- Easy integration of automation units with ELEMENT
- Stainless steel housing
- Suitable for 10 bar(g)/145 PSI steam



burke







8691

8692 / 8693

8791 / 8792 / 8793

8801 / 2100 / 2101

**OEM Replacement** 

Diaphragms

### Angle Control Valve and Globe Control Valve 2/2-way continuous control, 1/2" to 4"

- High cycle life and maintenance-free operation
- Stainless IP65 and 67, NEMA4 protection
- Excellent control characteristics and impact resistance
- Simple to install and commission



#### **OEM Replacement Diaphragms**

- Suitable for CIP (cleaning in place), SIP (sterilization in place) and vacuum applications
- Independently tested by BioProcess Institute to comply with ASME BPE Standard requirements for Standard Process Test Conditions (SPTC)
- Internationally certified for use in stringent pharmaceutical, aseptic, sterile and sanitary food applications





### A Cleaner, Smaller Cabinet! More Flexibility with AirLINE Quick

Pneumatic control cabinets can be real mess. Even worse punching in holes for pneumatic hoses can turn a slick stainless steel cabinet into Swiss cheese. Pairing Burkert's industry leading pneumatic valve islands with Allen-Bradley I/O, and an AirLINE Quick adapter plate tidies up what could otherwise be a rat's nest of tubing. Adding AirLINE Quick, available in stainless steel for hygienic applications or as a general purpose anodized aluminum version, to the already seamless integration of Rockwell Automation PLC and Burkert's Type 8644 valve islands, can also reduce the cabinet size needed as the connector plate can be mounted directly to the wall or floor of the cabinet – less tubing, fewer holes, smaller cabinet.



-or more info, visit www.burkert-usa.com

### PNEUMATIC ACTUATION

Pneumatic technology is known for high reliability, high force and torque generation and cleanliness. This makes it indispensable for efficient solutions for drives and actuators for control and regulation.

Bürkert has tamed the power of pneumatics and brings it to you in its most efficient form resulting in new standards in factory automation and process control.

#### Direct mounting pilot valve for pneumatic actuators NPT 1/8" or NPT 1/4"

- Simple to connect to valve and air supply
- Low power
- Tough and reliable
- Manual override as standard



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Heavy Duty 3/2-way Pilot Valve Blocks NPT 1/4", 0-145 PSI

- Extremely rugged
- Slip over coil design
- Manual override





#### NAMUR version NPT 1/4", NAMUR

- High flow rate
- Low power consumption
- High switching reliability
- Manual override as standard •
- Corrosion-resistant construction









8640

**5519 NAMUR** 

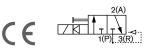
6014 Manifold

#### Modular pneumatic valve unit AirLINE and AirLINE Quick

- Compact design
- Modular configuration
- Cost savings in the control cabinet with AirLINE Quick
- Simple exchange of valves

Type 8640 with AirLINE Quick







#### AirLINE - the valve island optimized for process automation

- Compact design
- Easy diagnostics by LC display
- Process reliability through pneumatic functions
- Optimized for installation at the bottom of the control cabinet





8615

8652

#### AirLINE Field - the valve island

- Compact field-mount design
- Easy to read LCD display
- LED Status indication
- Supports IO-Link (AOI), CANopen or buS
- IP 65/67 wash-down rated
- Configurable with COMMUNICATOR software

#### Standard Panel

#### 16, 24 and 48 station manifolds double 3/2-way NC

- Reduced space requirement in the control cabinet
- Makes it possible to use more compact control cabinets
- Hose connections directly at the bottom of the switch cabinet





### All inclusive!

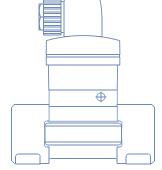
What you see here is the essence of universality. Perfect for whenever you require a direct-acting 2/2-way solenoid valve. It's the one valve you can use for each and every occasion. Built for both neutral and slightly aggressive media – powerful enough to work with dry gases or steam. Three design elements ensure you get maximum performance: its highest flow rates, its long service life and its top reliability. All of which come standard. And it's no problem at all if your processing environment demands additional features – from more pressure and a different supply voltage, to an Ex version. Simply universal: our solenoid valve 6027.



We make ideas flow.

### SENSORS, TRANSMITTERS & CONTROLLERS

For more than twenty years we have been providing our customers with sensors, transmitters and controllers where fit-for-purpose is optimized. From the outset our clients, large and small, have appreciated the practical orientation, man-machine interface and architecture of the sensor range characterized by extremely simple installation, commissioning, calibration and teach functionality. Standardized layout, electrical interfaces, process connections. and, above all, intuitive menus, make the whole range simple to work with.



8022

8025 / SE35 Batch controller

8026

#### Flow Transmitter/Pulse Divider

- Microprocessor-controlled electronics
- 2-wire (4-20 mA) / 3-wire (NPN/PNP) operation
- Removable display unit
- Pluggable to flow sensor 8020 and 8030



### Batch Controller for panel or wall mounting 7 batch sizes, 2 relay outputs

- Controls 7 batches automatically
- Fast fill and fine control for accuracy
- Shows both flow rate and volume



Insertion Flow Transmitter for continuous measurement For pipe > 2", 0-145 PSI

- Up and download of the data through removable display
- Pipe sizes 1/2" to 16"
- Preferably, for pipe diameter greater than 2"



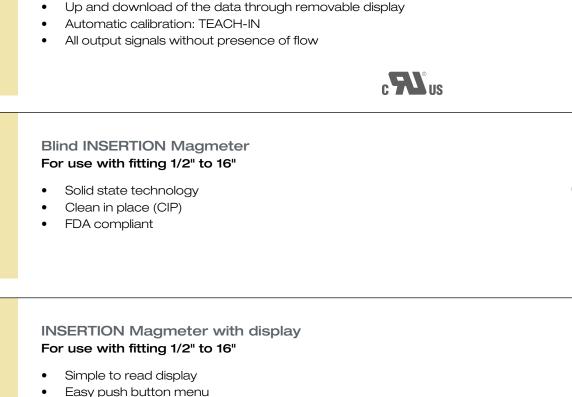
(Panel version)

#### INLINE Flowmeter for continuous flow measurement For use with fitting S030, 1/2" to 2"

- Turn and lock bayonet fitting isolates sensor from media
- Economic integration in pipe systems
- 3-wire frequency version for direct connection to PLC (PNP and NPN)
- Connection to Burkert remote electronics



8030 / SE30



In-Line Flow Transmitter for continuous measurement

For use with fitting S030, 1/2" to 2"

- Easy push button ment
   Clean in place (CIP)
- FDA approved

#### Full bore INLINE Magmeter 1/2" to 6", Up to 232 PSI

- Full bore section
- High frequency sampling
- Continuous measurement or batch control

Shown is the remote flanged sensor and the hygienic clamp compact version

#### FLOWave SAW Flowmeter

- Without any parts in the measuring tube
- Conforms to hygienic requirements CIP/SIP capable
- Ideal for liquids with low or no conductivity
- Compact, lightweight and low energy consumption
- Digital communication, parameter setting via communicator, display and Wi-Fi





8098

8036 / SE36

8041

8045

8051 / 8055 / 8056



8110 / 8111	<ul> <li>Tuning-Fork Level Switch</li> <li>1/2", 3/4" or 1" NPT and clamp 2"</li> <li>For universal use as overfill or dry run protection system</li> <li>Hygienic surface finish</li> <li>Extension tubes available</li> </ul>	Type 8111
8177	<ul> <li>Ultrasonic Level Transmitter for General Application NPT and G thread process connection</li> <li>Two-wire version</li> <li>Reliable non-contact measurement</li> <li>HART communication</li> </ul>	
8188 / 8189	<ul> <li>Microwave Level Transmitter for General Application</li> <li>Universal level measurement device for fluids</li> <li>Liquid interface measurement</li> <li>Insensitive to dust and steam</li> <li>4-20 mA/HART - 2 wires, ATEX/IECEx approvals Ex</li> </ul>	Type 8189           Type 8189           Type 8188
8202 Element	<ul> <li>pH Transmitter</li> <li>Accepts all standard pH probes</li> <li>Removable programming puck</li> <li>Data upload/download via puck</li> <li>With temperature compensation</li> </ul>	

c **SU**us

- Removable programming puck
- Data upload/download via puck
- With temperature compensation
- Diagnostic function •



- For many different types of installations and applications •
- Modular device designed for the measurement of: the pH in • clean liquids or liquids containing solids, sulfides or proteins











Compact, stable construction for the highest operational reliability



Temperature Transmitter/Switch with display

- Menu-guided configuration
- Wide choice of connections and outputs
- Large digital display
- Bar graph display for local monitoring
- Continuous On/Off control
- 2-wire transmitter



S077

S030 / S020

8619

#### Multi-channel, multi-functional transmitter/controller 1/4" DIN Panel Mount

- Flexible analytical and flow transmitter
- Compatible with most flow , pH/ORP, chlorine and conductivity sensors
- Intuitive programming
- SD card for data logging and upload/download





#### Fittings for 8202 & 8222 pH and Conductivity Sensors Tee Fittings and Adaptors

- Simple installation guaranteed
- Range of chemically compatible materials
- Modular concept for pH, ORP and conductivity

Positive Displacement Sensor Fitting for continuous flow measurement

#### DN15 - DN100

- INLINE Quarter-Turn technology
- Electronics available for indication, monitoring, transmitting, On/Off control and batch control



- Straight thru tube assures maximum accuracy
- Wide range of materials and connections
- Unique INLINE version isolates medium from measuring device







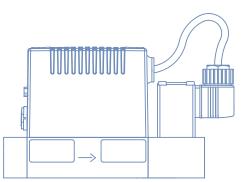


### PVD made simple.

Life is complicated enough. So make it simpler — with the new solutions for surface coating from Bürkert — designed specially for the needs of the PVD industry in mind, featuring precise repeatability and multiple opportunities for field-bus connection. Perfect for optimal process yields, high quality and your peace of mind.

A star in our system: **The MFC 8742.** Quick to respond like no other.

### MASS FLOW



Bürkert's Mass Flow Meters (MFM) and Mass Flow Controllers (MFC) rank among the most sought after components in the business. With a well established position in various processes all over the world, they set the standard in the measurement and control of mass flow rates.

Reproducible accuracy and precision, with a coherent price-performance ratio – these are the exceptional characteristics of Bürkert's thermal MFMs/ MFCs. Our mechatronic devices unite the functionality of several components at once, in an efficient compact structure with no moving components in the gas flow. Compactness and device intelligence make gas handling so much easier.

#### Mass Flow Controller (MFC)/Mass Flow Meter (MFM) for Gases Nominal flow ranges from 0.010 IN/min to 160 IN/min

- High accuracy and repeatability
- Very fast response times
- Easy device exchange through configuration memory
- Available in 2 versions: 8741 Standard and 8741 büS/CANopen

#### Mass Flow Controller (MFC)/Mass Flow Meter (MFM) for Gases Nominal flow ranges from 0.010 IN/min to 160 IN/min

- High accuracy and repeatability
- Protection class IP65 and IP67
- Optional: ATEX II Kat. 3G/D
- Communication via fieldbus based on CANopen



- High accuracy and repeatability
- Communication via standard signals or Industrial Ethernet
- Easy device exchange through configuration memory

Mass Flow Controller (MFC)/Mass Flow Meter (MFM) for Gases Nominal flow ranges from 20 IN/min to 2500 IN/min

- High accuracy and repeatability
- Communication via fieldbus based on CANopen
- Optional: ATEX II Cat. 3G/D
- Electromagnetic and motor-driven valve actuation available









8746

8741

8742

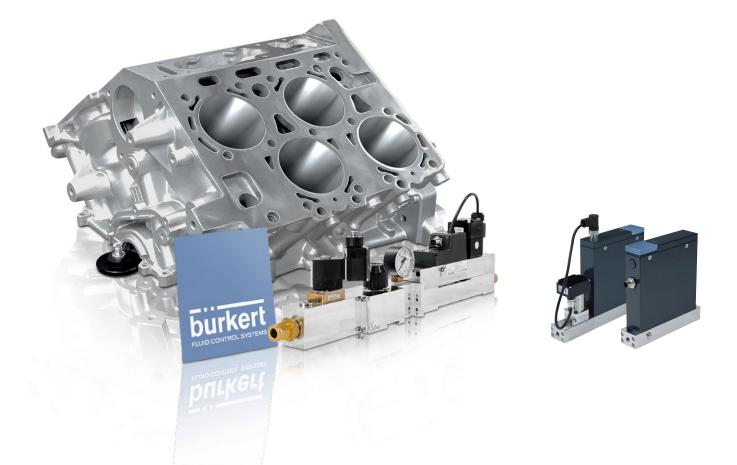


## Surface treatment made simple.

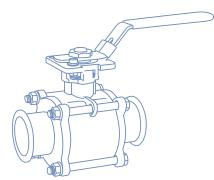
Here to spray - with innovative ideas: When it comes to efficient surface treatment, thermal spraying is one of the most flexible options. However, parameters such as gas dosing for the powder delivery as well as the set melting temperature of the coating material must be precisely controlled. This is where our mass flow controllers come in to spray. We'll design a solution for your spraying technology that is tailored to your needs. Our modular principle, compatible with Industry 4.0, incorporates plug-and-play solutions that comply with all requirements and guarantee optimum process reliability.

#### Spraying technology solutions by Bürkert:

system-based mass flow controllers.



### BALL VALVES



Bürkert has packaged Quarter Turn valves and technologies for modular simplicity. First dividing quarter turn into three basic components; the valve, an actuator and top works – Bürkert builds a complete solution. Automation-

ready valves, with high quality actuators and unbeatable top works solutions. A modular, functional high quality quarter turn package. Configure your perfect package using our online configurator tool.

butt weld

Ball Valve Configurator

Ball	Valves	in	cast	316	SS	2-way			
Split body construction									

- 275 PSI WOG
- 150lb RF ANSI flange
- Full port to Sch 40 pipe
- Bolted split body
- Range of seal options
- Blow-out proof stem with self adjust packing
- ISO 5211 direct actuator mount (6"+ indirect)

#### Ball Valves in cast 316 SS 2-way 3-piece construction

- 1000/800 PSI WOG
- Thread, socket and butt weld ends
- Full port to Sch 40 pipe
- Semi lugged body
- Range of seal options
- Blow-out proof stem with self adjust packing
- ISO 5211 direct actuator mount

Ball Valves in cast 316 SS 2-way 3-piece construction

- 1000/800/600 PSI WOG
- US Clamp and US Tube Weld End
- Full port to US OD Tube
- Semi lugged body
- Blow-out proof stem with self adjust packing
- ISO 5211 direct actuator mount



NPT

socket weld



Clamp and tube

end ball valves





### Looking to configure your perfect Quarter Turn Package?

Use the simple Ball Valve Configurator to select item number with the right parameters and call-in your order for Quick Delivery Options - even faster than the delivery times offered online.



#### Burkert Fluid Control Systems

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sales.us@burkert.com www.burkert-usa.com

O Burkert USA Co

01 / 2022

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