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™ Solenoid Valve Systems with global approvals.
Direct-acting 2-way basic proportional valve and standard solenoid control valve
NPT 1/8", 0 - 174 PSI
- Good range
- Compact valve design
- Used in closed control loops
- Neutral gases, liquids on request

Direct acting 2-way basic proportional valve and standard solenoid control valve
NPT 1/8", NPT 1/4", 0 - 232 PSI
- Good range
- Compact valve design
- Optional: Explosion-protected coil

Direct-acting 2-way basic proportional valve and standard solenoid control valve
NPT 3/8", NPT 1/2", 0 - 362 PSI
- Compact valve design
- Brass or stainless steel
- Direct-acting normally closed
- Good range
- 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
- Brass or stainless steel
- UR approval optional

2/2-way Servo-Assisted Solenoid Valve with Isolated Pilot
NPT 1/2" - NPT 2", 2.8 - 145 PSI
- Unique isolated technology for slightly contaminated fluids
- Independently adjustable open / close rate
- Easily configurable for normally open
- Service-friendly 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

**Plunger Operated 2/2-way Solenoid Valve**
NPT 1/8" - NPT 1/4", 0 - 362 PSI

- Normally close
- With threaded body in brass or SS
- Slip over coil can be rotated in 4 x 90 degrees
- FKM seal material with high quality standard

**Compact Plunger Operated 3/2-way Valve**
NPT 1/8" & NPT 1/4", 0 - 232 PSI

- Reliable double seated plunger operation
- Threaded or flange version
- High quality FKM seal as standard
- Slip over coil can be rotated in 4 x 90 degrees

**Direct-acting 2/2-way plunger valve**
NPT 1/4", 0 - 435 PSI

- Direct-acting, powerful valve with diameter of up to DN 12
- Vibration-proof, bolted coil system
- Increased leak-tightness with welded plunger guiding tube
- Explosion proof versions

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

- Coupled spring diaphragm system opened
- Waterhammer free and low noise
- Flow-optimized housing and diaphragm geometry for high flow
**2-way Proportional Valve with Control Electronics**
NPT 3/8" - NPT 1", 7.2 - 145 PSI

- Control valve for continuous control of liquids
- Low hysteresis and high repeatability
- Control with PWM signal
- Servo-assisted, tight closing valve
- Push-over coil is easy to replace.

---

**Servo-Assisted Solenoid Valve with Plunger Pilot**
NPT 1/2" - NPT 2", 2.9 - 232 PSI

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

---

**Servo-Assisted 2/2-way Steam Piston Valve**
NPT 1/2" - NPT 1 1/2", 0 - 145 PSI

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

---

**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.
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.

On-Off Pneumatically Operated 2/2-way Angle Valve for Liquids
NPT 1/2" - NPT 2 1/2"

- Waterhammer-free
- High flow rates
- Self adjusting double packing
- Optical position indicator is standard
- Rotating power head to orient air control connections

On-Off Pneumatically Operated 2/2-way Angle Valve for Steam and Gases
NPT 1/2" - NPT 2 1/2"

- Flow direction above seat
- PPS actuator for hot environments
- Self adjusting double packing
- High flow rates
- Rotating power head to orient air control connections

On-Off Pneumatically Operated 2/2-way ELEMENT Angle Valve
1/2" to 2 1/2"

- Compressed air recycling control function with ELEMENT control tops
- Perfect for clean applications
- Wide range of accessories
- With flow direction below or above seat
- High flow rates
- High cycle life

Pneumatically Operated 2/2-way Globe Valves with Flange connection acc. to DIN EN 1092-1
1/2" to 4"

- Flow direction below seat
- Long life
- Flow optimized stainless steel body 316L
- Silencer, Type 2101 included
- Perfect replacement for flanged ball valves
Pneumatically Operated 2/2-way Diaphragm Valve ELEMENT for Decentralized Automation
1/2" to 2"
- Fully drainable, optimized flow and zero deadleg
- Diaphragm design fully isolates the process from the actuator
- Easy integration of ELEMENT automation units
- Forged SS body with clamp or weld ends
- Internationally certified for use in stringent pharmaceutical, aseptic, sterile and sanitary food applications

Pneumatically Operated 2/2-way Diaphragm Valve ELEMENT for Decentralized Automation
1/2" to 2"
- Hydroformed pharmaceutical grade tube valve body
- Easy integration of automation units with ELEMENT
- Reduced mass up to 75% allows for optimized heating and cooling cycles
- Zero dead volume and easy to weld

Pneumatic operated 2-way Globe Control Valve ELEMENT
- Excellent control characteristics
- High cycle life and maintenance-free operation
- Flow optimized body in stainless steel
- Several Kvs value per port size due to removable valve seats
- Control units can be mounted directly without external tubing

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

2/2-way Diaphragm Valve, Manually Operated,
Forged Valve Body
OD Tube Butt Weld and Clamp Port Connections 1/4" - 4"
- Diaphragm design fully isolates the process from the actuator
- Fully drainable, optimized flow and zero deadleg
- PPS handwheel with position indicator
- Internationally certified for use in stringent pharmaceutical, aseptic, sterile and sanitary food applications
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.

**CENTRAL**
Modular, individual, clear. The classic system combines control and information in one place.
Manually operated 2-way Diaphragm Valve, Tube Valve Body
OD Tube Butt Weld and Clamp Port Connections 1/2”-4”

- Hydroformed pharmaceutical grade tube valve body
- Optimal flow design for hygienic environments
- Reduced mass up to 75% allows for optimized heating and cooling cycles
- Fully drainable, optimized flow and zero deadleg
- Internationally certified for use in stringent pharmaceutical, aseptic, sterile and sanitary food applications

Electromotive 2 way angle seat control valve and globe control valve
1/2” to 2”

- Weather, impact and vibration resistant design
- High positioning speed of 6 mm/s
- Position controller and process controller available
- Precision control without the need for pilot air

Control Head
Universal attachment for hygienic process valves

- 4 precise non-contact switch outputs
- Integral color/pattern alert signal indication
- Manual override without opening of cap
- AS-Interface, DeviceNet, IO-Link or büS (CANopen), 24 VDC or 120 VAC versions available

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)

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
- Communication Protocols: AS-Interface, DeviceNet, IO-Link or büS (CANopen)
Digital electropneumatic Positioner/Controller for the integrated mounting on process control valves
- 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
- 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
2/2-way continuous control, 1/2” to 4”
- Long service life
- Easy integration of automation units with ELEMENT
- Stainless steel housing
- Suitable for 10 bar(g)/145 PSI steam

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
- EPDM, PTFE, Advanced PTFE, Gylon® (bonded PTFE)
- Available in sizes from 8mm (3/8”) to 100mm (4.0”)
- Suitable for CIP (cleaning in place), SIP (sterilization in place) and vacuum applications
- Internationally certified for use in stringent pharmaceutical, aseptic, sterile and sanitary food applications
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

Heavy Duty 3/2-way Pilot Valve Blocks
NPT 1/4", 0-145 PSI
- Extremely rugged
- Slip over coil design
- Manual override

5/2 on 3/2-way Convertible Solenoid Valve for pneumatics, NAMUR version
NPT 1/4", NAMUR
- High flow rate
- Low power consumption
- High switching reliability
- Manual override as standard
- Corrosion-resistant construction

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
AirLINE Modular Process Actuation and Networking System
3/2-way or 5/2-way valves plus analog and digital I/O, bus or conventional communication

- Combines fieldbus, I/O and pneumatic pilots
- Extreme application flexibility

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

- Process reliability with pneumatics functions
- Pressure regulator
- LC-Display - clear text diagnosis
- Optimized for installation at the bottom of the control cabinet

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.

For more info, visit www.burkert-usa.com or scan the QR code
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.

**Flow Transmitter/Pulse Divider**
*Universal attachment for hygienic process valves*
- 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**
*2" plus, 0-145 PSI*
- Up and download of the data through removable display
- Pipe sizes 2 1/2" to 14"
- Preferably, for pipe diameter greater than 2 1/2"

**INLINE Flowmeter for continuous flow measurement**
*For use with fitting S030, 1/2" to 2 1/2"*
- 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
Flowmeter/Threshold detector with paddle wheel
1/4" to 2 1/2"
- Indication, monitoring, transmitting and On/Off control in one device
- Programmable outputs (transistor or relay)
- Automatic calibration using Teach-In
- Flow threshold detector
- For use in clear, neutral or aggressive liquids

In-Line Flow Transmitter for continuous measurement
For use with fitting S030, 1/2" to 2 1/2"
- Up and download of the data through removable display
- Automatic calibration: TEACH-IN
- All output signals without presence of flow

Blind INSERTION Magmeter
For use with fitting 1/2" to 16"
- Solid state technology
- Clean in place (CIP)
- FDA compliant

INSERTION Magmeter with display
For use with fitting 1/2" to 16"
- Simple to read display
- Easy push button menu
- Clean in place (CIP)
- FDA compliant

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
Positive Displacement Sensor Fitting for continuous flow measurement
1/2" to 4"
- INLINE Quarter-Turn technology
- Electronics available for indication, monitoring, transmitting, On/Off control and batch control

FLOWave SAW Flowmeter
3/4", 3/8", 1/2", 1", 1 1/2", 2", 3" clamp and pipe size
- 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
- Communications Protocols: EtherNet/IP or büS (Bürkert System Bus)

Tuning-Fork Level Switch
1/2", 3/4" or 1" NPT and clamp 2"
- For universal use as overfill or dry run protection system
- Hygienic surface finish
- Extension tubes available

Radar Level Transmitter for Liquids
NPT thread or flange connection
- For filling level measurement up to 33 ft.
- High pressure version
- Two-wire version
- Adjustable via display and buttons as well as PC-Tool with DTM
- Non-contact radar level measuring devices for continuous level measurement

Ultrasonic Level Transmitter for General Application
NPT and G thread process connection
- Two-wire version
- Reliable non-contact measurement
- HART communication
Microwave Level Transmitter for General Application
3/4" to 1 1/2" clamp
- Universal level measurement device for fluids
- Liquid interface measurement
- Insensitive to dust and steam
- 4-20 mA/HART - 2 wires, ATEX/IECEx approvals Ex

pH Transmitter
1" to 4" pipe diameter > 1" with reduction
- Accepts all standard pH probes
- Removable programming puck
- Data upload/download via puck
- With temperature compensation
- Diagnostic function

pH Probes
For use with 8202 pH transmitter
- For many different types of installations and applications

Conductivity transmitter with removable operating unit
1" to 4" pipe diameter > 1" with reduction
- Intuitive menu structure
- Removable programming puck
- Data upload / download via puck
- Diagnostic function

Inductive conductivity meter
1" to 4" pipe diameter > 1" with reduction
- Configurable outputs: up to 2 transistor and up to 2 analogue 4-20 mA outputs
- Removable backlighted display
- Simulation of process values and diagnostic functions
- Sensor-versions available with PEEK, PVDF or PP
Chlorine sensor

- Four variants are available: 1) Free chlorine sensor "Trace" (zero chlorine) 2) Free chlorine sensor with 3 electrodes 3) Free chlorine sensor with 2 electrodes 4) Total chlorine sensor with 3 electrodes
- Electrochemical sensor designed for the measurement of the free and total chlorine concentration generated from inorganic sources

Intelligent Sensor/Switch/Display

- Accurate, reliable pressure switching
- Switch for alarm or event logging
- Bar graph display for local monitoring

Pressure Measuring Device

- Ceramic/thick film measurement cell
- 2-wire version for 4-20 mA output
- 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

eCONTROL - Universal controller

- Designed for compact control system applications
- Continuous, 2-point, 3-point and On/Off control
- Ratio control function
- Control of proportional, process and motor valves
- Proportional valves and flow meters are memorized
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

Insertion fitting for flow or analytical measurement
1/2" to 16"

- Straight thru tube assures maximum accuracy
- Wide range of materials and connections
- Universal fitting for Insertion measuring device in pure, aggressive or contaminated liquids

Insertion adaptor/fitting for ELEMENT analytical measurement devices

- Fittings for 8202 and 8222 pH, ORP and conductivity sensors
- Simple installation guaranteed
- Range of chemically compatible materials
- Modular concept for pH, ORP and conductivity
EDIP
Efficient Device Integration Platform

AUTOMATION A LA CARTE
A direct feed to the processor gives you access to all the data
- choose what you want to know

Communication – büS
The proprietary büS (Bürkert system bus) is a standardized digital interface of Bürkert devices. It mainly complies with CANopen, and is always downward compatible to it. The following key characteristics:

- Büerkert’s CANopen-based system bus
- Büerkert field devices
- Digital interface to industrial communication standards (PROFINET, PROFIBUS, EtherNet/IP, Modbus/TCP)

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.
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 for Gases (MFC)**
Nominal flow ranges from 20 IN/min to 2500 IN/min
- High accuracy
- Fast settling times
- Fieldbus option
- Special version for ammonia gas
- Protection class IP65

**Mass Flow Controller for Gases (MFC)**
Nominal flow ranges from 0.010 IN/min to 80 IN/min
- High accuracy and repeatability
- Fast settling time
- Fieldbus option

**Mass Flow Controller for Gases (MFC)**
Direct flow measurement by MEMS - technology for nominal flow rates from 10 mIN/min to 80 IN/min (N2)
- High accuracy
- Short settling time
- Compact design
- Digital communication via RS485

**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

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 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

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.
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.

**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
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.