

Bürkert: ELEMENT Process Valves



bürkert
FLUID CONTROL SYSTEMS

Better Process Control with New ELEMENT
Process Valve Technology

ELEMENT Process Valves

Bürkert's ELEMENT is a back-to-the-drawing-board reimagination of how process control equipment can best serve in modern process environments.

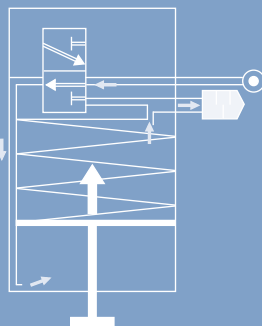
Linking valves, instrumentation and automation, ELEMENT is a seamless package built for challenging outdoor, washdown or dirty conditions. ELEMENT Process Valves fuse the features of our proven 2000 Series with integrated pilot valve and position feedbacks, along with other smart features to deliver simple, precise on/off and modulating control.

Decades of manufacturing design and valve application experience coalesced as the foundation of ELEMENT. Bürkert R&D investigated real-world processing centres, exploring typical experiences at every step of commissioning, processing and life cycle. Bürkert R&D imagined improvements and investigated problems. And they solved every one of them.

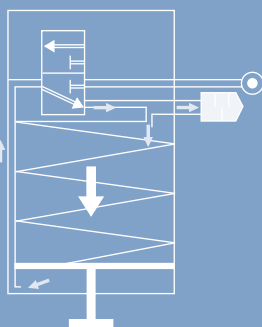
ELEMENT Process Valves shorten the steps you take to commission, operate, maintain and replace an effective and effortless process control system.



Actuator as Valve Opens



Actuator as Valve Closes



Inside the pneumatic actuator pilot air is recycled; used to open & close the actuator (instead of ambient air). This ensures no moisture, dust or particle contamination, plus lower running costs.

ELEMENT Process Valve Features

- Integrated position feedback & pilot valve for fast commissioning
 - No external tubing & no leaks – ever
 - Recycled pilot air, eliminating the problem of actuator contamination delivering extended service life
 - Built-in easy to service air filter to protect the integrated pneumatic valve and extend service life
 - High quality materials throughout; 316L Stainless Steel, PPS & food grade EPDM
 - Simple top access for configuration or optional electronic feedback with one minute, push button commissioning
 - Optional fieldbus interface for minimum tubing & wiring with maximum functionality
 - Smooth exterior design, engineered to EHEDG Guidelines and true IP65/67 ideal for clean process environments, washdown areas & arduous conditions
 - Specially engineered “double seals” that seal on two edges & are not recessed, for true IP65/67 ingress protection
 - Compact body and footprint
 - Super bright colour-coded LED position & fault indicators
- ... plus all the features you trust in our proven 2000 Series

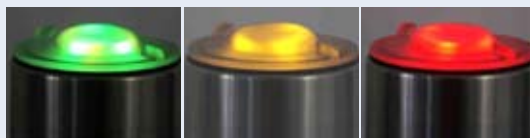


On/Off Control



Modulating Control

Super bright LEDs indicate Open, Closed & Bus Error



Depending on conditions LEDs are seen from distances 50m +



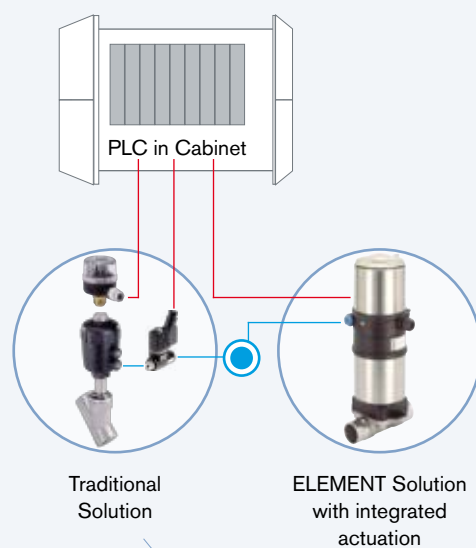


ELEMENT Integrated Actuation



On/Off and modulating ELEMENT valves draw pneumatic pilot and feedbacks into one single unit. Reduce wiring, tubing and connections, practically eliminating leakage.

- Minimal tubing & wiring
- Low power consumption
- Fast commissioning
- Autotune – no manual adjustments
- Future proof for simple upgrade & expansion



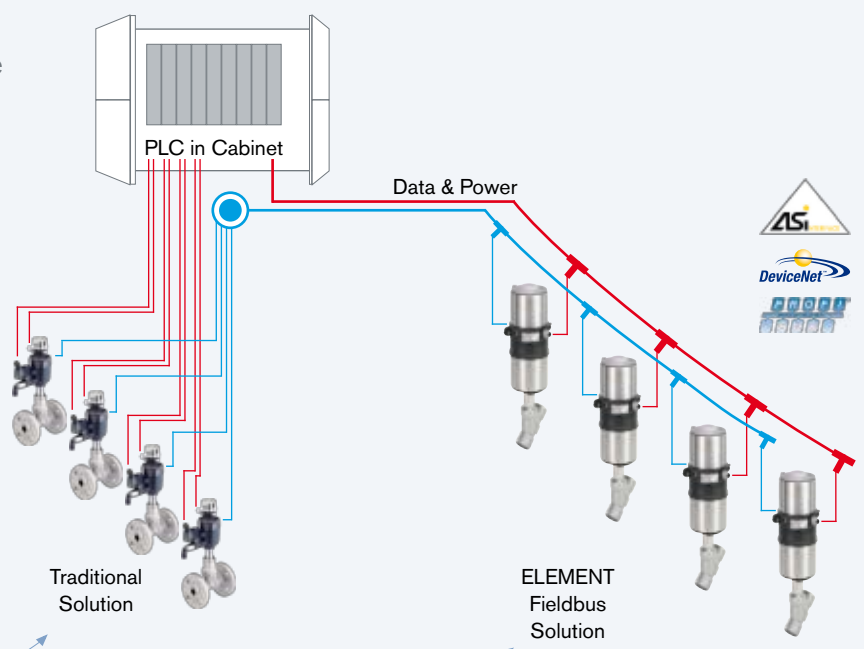
A single, complete, solution.



ELEMENT With Fieldbus

On/Off control available with ASi & DeviceNet. Modulating available with DeviceNet & Profibus:

- Integrated digital positioner
- Contactless feedback position sensor
- Autotune feature – no manual adjustments
- No external linkages, pipework
- Modular configuration for fast delivery
- All Stainless Steel 316L
- Autotune; no manual adjustments



ELEMENT Control Tree



Add valve and desired control unit:

On/Off Control



Type 8690
Position Control Unit

- For single & double acting actuators
- Micro or Proximity switches for position feedback
- IP65/67
- Zone 1 (intrinsically safe)
- Zone 2/22



Type 8691/95
Control Head

- For single & double acting actuators
- Analogue position sensor
- 2 position feedback outputs (transistor PNP)
- Optional ASi or DeviceNet
- Super bright LEDs
- Autotune feature, no manual adjustment
- IP65/67
- Zone 2/22

Modulating Control



Type 8692/93
TopControl Positioner

- For single & double acting actuators
- Analogue position feedback
- Independent proximity switch
- Digital input
- Digital output
- Process (PID) controller
- Profibus & DeviceNet
- Autotune for positioner & process controller
- Graphic LCD with backlight
- IP65/67
- Zone 2/22



Type 8694/96
TopControl Basic

- For single & double acting actuators
- Analogue position feedback
- Digital input
- LED position & status indication
- Autotune for positioner & process controller
- IP65/67



ELEMENT Package

ELEMENT has reached beyond process valves to encompass flow, level and analytical instrumentation.

ELEMENT instruments match the process valve range with true IP65/67 enclosures, “plug & play” simplicity and application-engineered features.

Bürkert’s hygienic glass free pH sensor with enamel sensor surface, able to remain in process even during CIP purification. Continuous and point level transmitters, including contactless level measurement of difficult and sanitary processes. High speed batching applications with Bürkert magflow meters coupled to ELEMENT for complete solutions.

Contact Bürkert for an ELEMENT demonstration and see for yourself.

Bürkert. We make ideas flow.



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