Worcester Controls Product Catalog

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SERIES 44

Features
• 3 Piece Swing out design Ball Valve
• ASME class 600 design
• Meets ASME B16.34 requirements (consult Pressure/Temperature Charts)
• "Live loaded" stem seal design
• Multiple soft and metal seat options
• Tight Shut off and Bi-Directional sealing
• Cavity Filled Designs
• Special Service Applications: UL, FM, USCG and other Special service approvals

Sizes
• ¼˝ - 2˝
• Screwed end
• Socket weld
• Butt weld, Solder ends (Brass only)

Materials
• Carbon Steel
• Stainless Steel
• Brass
• Monel
• Alloy 20
• Hastelloy-C

Standards
• ASME B16.34
• S.E. to ASME B 2.1
• S.W. to ASME B 16.11
• API 607 Fire Test

Get more information:
Product catalog: WCABR1050
IOMs WCAIM2030

See pages 2.

SERIES 59

Features
• 3 Piece Swing out design Ball Valve
• ASME class 600 design
• Meets ASME B16.34 requirements (consult Pressure/Temperature Charts)
• "Live loaded" stem seal design
• Multiple soft and metal seat options
• Tight Shut off and Bi-Directional sealing
• Cavity Filled Designs

Sizes
• ¼˝ - 2˝
• Screwed end
• Socket weld
• Butt weld

Materials
• Carbon Steel
• Stainless Steel

Standards
• ASME B16.34
• S.E. to ASME B 2.1
• S.W. to ASME B 16.11
• API 607 Fire Test

Get more information:
Product catalog: WCENIM2046
IOMs WCENIM2030 (for Miser)
WCENIM2046 (for large 59)
WCENIM2054 (for FM)

See pages 2.

SERIES 45

Features
• 3 Piece Full Port Ball Valve:
• ASME class 600 design
• Meets ASME B16.34 requirements (consult Pressure/Temperature Charts)
• "Live loaded" stem seal
• Multiple soft and metal seat options
• Tight Shut off and Bi-Directional Sealing
• Cavity Filled Designs
• Full Port design minimizes pressure drop across the valve and maintains a high efficiency, reducing pumping cost.

Sizes
• ¼˝ - 4˝
• Screwed end
• Socket weld
• Butt weld

Materials
• Carbon Steel
• Stainless Steel

Standards
• ASME B16.34
• S.E. to ASME B 2.1
• S.W. to ASME B 16.11
• API 607 Fire Test

Get more information:
Product catalog: WCABR1050
IOMs WCENIM2046

See pages 2.
**SERIES 51/52**

**Features**
- Flanged Unibody Design
- ASME class 150/300
- Tight shut-off
- “Live loaded” stem seal
- Multiple soft and metal seal options
- Wide variety of Body, Seat and Seal materials means dependable, high cycle control on Steam, Petroleum products, Chemicals and abrasive liquids
- Pre-drilled mounting holes for actuation
- Tight Shut off and Bi-Directional sealing
- Cavity Filled Designs

**Sizes**
- 1/2” - 10” Flanged
- ASME 150# and 300# class

**Materials**
- Carbon Steel
- Stainless Steel

**Standards**
- ASME B16.34
- API 607 Fire Test

Get more information:
Product catalog: WCABR1013

IOMs
WCENIM2014 (for small valves)
WCENIM2015 (for large valves)
WCENIM2054 (for FM)

See page 2.

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**SERIES 82 & 83**

**Features**
- Flanged Full-Port Unibody Design
- ASME class 150/300
- Tight shut-off
- “Live loaded” stem seal
- Multiple soft and metal seal options
- Full Port design minimizes pressure drop across the valve and maintains a high efficiency, reducing pumping cost.
- Wide variety of Body, Seat and Seal materials means dependable, high cycle control on Steam, Petroleum products, Chemicals and abrasive liquids
- Firesafe by design

**Sizes**
- ½”/¾”/1”/1.5”/2.5”/10”
- For 2” and 3” to 8”, See Series 818
- ASME 150# and 300# class

**Materials**
- Carbon Steel
- Stainless Steel

**Standards**
- ASME B16.34
- API 607 Fire Test

Get more information:
Product catalog: WCABR1016

IOMs
WCENIM2047

See page 2.

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**SERIES 818 / 828**

**Features**
- Split Body, Full-Port Design
- ASME class 150/300
- ISO 5211 mounting
- Full Port design minimizes pressure drop across the valve and maintains a high efficiency, reducing pumping cost.
- Wide variety of Body, Seat and Seal materials means dependable, high cycle control on Steam, Petroleum products, Chemicals and abrasive liquids
- Cavity Filled Designs

**Sizes**
- 2”, 3” - 8”
- ASME 150# and 300# class

**Materials**
- Carbon Steel
- Stainless Steel

**Standards**
- API 6D
- API 607 4th Edition
- NACE MR01-75
- BS 5500 Pressure Vessel Code

Get more information:
Product catalog: WCABR1015

IOMs
WCENIM2020 (for std. valve)
WCENIM2057 (for fugitive emission)

See page 2.
**Series 151 and 301**

**Features**
- Wafer Design
- Designed for light weight.
- Symmetrically balanced to avoid side loads from actuation 40-60% less weight than conventional ball valves
- Suitable for Steam processes including vegetable peelers, Steam ejectors, Distilleries, and more.

**Sizes**
- 3”, 4”, 6”
- ASME 150# and 300# class
- Rated at 720 CWP

**Materials**
- Bronze
- Ductile iron

Get more information:
Product catalog: WCABR1041

IOMs WCENIM2015

See page 2.

**Series D44/D4, D51, 18/19**

**Features**
- Multi-port Diverter Valves
- Three-piece or flanged design
- Bottom entry or side entry
- Full port or standard port
- 90 or 180 degree operation
- The D51 cast flanged have similar operations as the D44/D4 but for larger sizes.
- The D44/D4 3-piece diverter valve is designed to accept media through a bottom inlet port and direct it to either of two outlet ports.
- ASME 150 flanges
- The 18/19 Series is extremely adaptive.
  - Up to 5 ports
  - Multiple seat and body materials
  - Standard or full port
  - Optional fugitive emission design
  - Class 150 or 300
  - Screwed, socket or butt weld and slip-on flanges

**Sizes**
- ½” - 2” for D44/D4 3-piece valve
- For 2” - 8” for D51 flanged valve
- 1” - 6” for Series 18 & 19 valve

**Materials**
- Carbon Steel
- Stainless Steel

**Standards**
- ASME B16.34
- API 607 Fire Test

Get more information:
Product catalog: WCABR1052

IOMs
WCENIM2030 (for std. valve)
WCENIM2015 (for large valves)

See page 2.

**Series 94, 94-150, 94-300, 94-600**

**Features**
- Specially designed to control and minimize fugitive Emissions.
- Outstanding performance on high-cycle applications, where no stem leakage is allowed.
- Double “live loaded” stem seal design
- High Vacuum capability
- High cycle capability
- Suitable for Category M services
- Pressure classes to ASME 600

**Sizes**
- ½” - 2” 3 piece design
- Screwed end
- Socket weld
- Butt weld
- ½” to 8” Flanged design

**Materials**
- Carbon Steel
- Stainless Steel
- Hastelloy-C trim option

**Standards**
- ASME B16.34
- S.E. to ASME B 2.1
- S.W. to ASME B 16.11
- API 607 Fire Test

Get more information:
Product catalog:
WCABR1023

IOMs
WCENIM2003 (for std. valve)
WCENIM2057 (for fugitive emission)

See page 2.
Series CL94, CL44, CL 51/52

Features
• Special for Chlorine Service
• Liquid and gas
• Relief vent in ball vents to the high pressure side
• Constructed in accordance with the recommendations of the Chlorine Institute including special testing, cleaning and packaging
• Available with 94 FEM stem design
• Assembled in Class 1000 clean room
• Pressure classes to ASME 600

Sizes
• ½” - 2” 3 piece design
• Screwed end
• Socket weld
• Butt weld
• ½” to 4” Flanged design

Materials
Carbon Steel/Monel Trim

Standards
• ASME B16.34
• Chlorine Institute Pamphlet 6
• MSS-SP-72, B31.1, B31.3

Get more information:
Product catalog:
WCABR1039
IOMs
WCENIM2003 (for series 94)
WCENIM2014 (for small 51/52)
WCENIM2015 (for large 51/52)
WCENBR2030 (for Miser)

See page 2.

Series: AF 44, FZ 44, AF 51/52, FZ 51/52, FM 51/52, AF 94, FZ 94, AF 818/828, EAF 818/828

Features
• Fire-Safe Valves
• Ensure operational integrity before, during, and after a fire.
• Tight Shut off, Anti static, no external leakage
• Available with 94 FEM stem design
• Pressure classes to ASME 600

Sizes
• ½” - 2” 3 piece design
• Screwed end
• Socket weld
• Butt weld
• ½” to 10” Flanged design

Standards
• ASME B16.34
• API 607 Fire Test
• EXES 3-1-2A
• BS 6755-PT2
• FM 7440

Get more information:
Product catalog:
WCABR1029
IOMs
WCENIM2003 (for series 94)
WCENIM2014 (for small 51/52)
WCENIM2015 (for large 51/52 & 151/301)
WCENIM2020 (for series 818/828)
WCENIM2030 (for Miser)
WCENIM2047 (for series 82/83)
WCENIM2052 (for 51/52 FM)
WCENIM2054 (for O&G shutoff FM)
WCENIM2057 (for fugitive emissions)

See page 2.

Series C4, C44, and C51

Features
• Cryogenic Services
• High-performance, shutoff valves for intermittent and continuous flow applications with temperatures to -425°F
• Positive Ball/Cavity relief with V3 vent hole
• Zero Leak packing
• Effective Bonnet Extensions
• Valves designed for low thermal stress, automation and Fire Safety
• Assembled in Class 1000 clean room
• Pressure classes to ASME 600

Sizes
• ½” - 2” 3 piece design
• Screwed end
• Socket weld
• Butt weld
• ½” to 6” Flanged design

Materials
• Brass
• Stainless Steel

Standards
• ASME B16.34
• API 607 Fire Test

Get more information:
Product catalog:
WCABR1040
IOMs
WCENIM2006 (for R12/R6 or earlier)
WCENIM2038 (for std. valve)

See page 2.
### WK44 High Purity Valves

**Features**
- High Purity, Cast 316L
- Class 100 Clean Room Assembly
- 30Ra interior surface finish
- Diverter and Three-way porting
- Aseptic purge connections
- Quick disconnect & Extended weld ends

**Specifications**
- Size Range: ½” - 2.0”
- Body Styles: 2-way and 3-way

**Materials:**
- ASTM A351-CF3M, ASTM A479
- Interior Surface Finish: 30Ra std, 15Ra electropolished
- Seats/Seals: PTFE, UHMWPE, Polyfill

**Agency Approvals**
- FDA(21CFR), USDA, USP

**Applications**
- Sterile steam, cosmetics and creams, oils, detergents, food processing

Get more information:
Product catalog: WCABR1035

IOMs WCAIM2030

See page 2.

### WK74 High Purity Valves

**Features**
- High Purity, Cast 316L - Tube bore
- Class 100 Clean Room Assembly
- 20Ra interior surface finish
- Controlled ferrite <5%
- Controlled sulfur for orbital welding
- CMTRs standard

**Specifications**
- Size Range: ½” - 4.0”
- Body Styles: 2-way and 3-way

**Materials:**
- ASTM A351-CF3M, ASTM A479
- Interior Surface Finish: 20Ra std, 10Ra electropolished
- Seats/Seals: PTFE, TFM, Polyfill

**Agency Approvals**
- ASME BPE, FDA(21CFR), USP Class 6, USDA

**Applications**
- High purity and aseptic processes, sterile steam, high purity water, fermentation, lyophilization, food processing

Get more information:
Product catalog: WCABR1037

IOMs WCAIM2018

See page 2.

### WK70 High Purity Valves

**Features**
- High Purity, Forged F316L - Tube bore
- Class 100 Clean Room Assembly
- 20Ra interior surface finish
- Controlled ferrite <5% (<1% optional)
- Controlled sulfur for orbital welding
- CMTRs

**Specifications**
- Size Range: ½” - 4.0” (6.0” optional)
- Body Styles: 2-way and 3-way

**Materials:**
- ASTM A182 F316L, ASTM A479
- Interior Surface Finish: 20Ra std, 10Ra electropolished
- Seats/Seals: PTFE, TFM, Polyfill

**Agency Approvals**
- ASME BPE, FDA(21CFR), USP Class 6, USDA

**Applications**
- Pharmaceutical/Biotech, microelectronics, steam distribution and distillation, fermentation, lyophilization, food and beverage

Get more information:
Product catalog: WCABR1036

IOMs WCAIM2018

See page 2.
Features
- High-Pressure Valves
- Resilient seated valves for high pressure and high temperature applications
- Pressures above ASME 600 to 5000 psi and ASME Class 2500 (Consult Brochure for PT curves and limitations)
- Used in steam, hydraulics, gasses and fluids, CNG and subsea

Sizes
- ½" - 2" 3 piece design
- Screwed end
- Socket weld, Butt weld
- ½" to 6" Flanged design
- Wafer 3"-6"

Standards
- ASME B16.34
- S.E. to ASME B 2.1
- S.W. to ASME B 16.11 (Consult product catalog)

Get more information:
Product catalog:
WCABR1051

IOMs
WCENIM2015 (for large 51/51)
WCENIM2024 (for std. valve)
WCENIM2030 (for Miser)

See page 2.

Series: 4, H44, PT
High-per Mizer
H71 Hydromizer

TANK BOTTOM VALVES

Features
- Flush, Tank-bottom Drain valve
- For biotech, pharmaceutical, food, chemical and cosmetic processing
- Worcester 3 pc design advantages with a tank bottom end piece design
- Available prepared for O2 and vacuum services
- Pressure classes to ASME 600

Sizes
- 1" - 4" 3 piece design
- Screwed end
- Socket weld, Butt weld

Get more information:
Product catalog:
WCENBR1028

Installation instructions:
WCENIM2001

See page 2.

SERIES CPT
CONTROL VALVE

Features
- The CPT is a characterized seat control valve with a revolutionary patented design
- Precision control, high capacity
- Zero external leakage
- High cycle capacity
- Custom-cut characterized seats
- High rangeability
- Efficient shearing action

Sizes
- ½" - 2" 3-piece design
- Screwed end
- Socket and Butt weld
- ½" to 4" Flanged design
- Wafer 3"-6"
- Pressure classes to ASME 600 (Consult Literature)

Standards
- ASME B16.34
- S.E. to ASME B 2.1
- S.W. to ASME B 16.11 (Consult product catalog)

Get more information:
Product catalog:
WCABR1001

IOMs
WCENIM2009 (for series 94)
WCENIM2040 (for series 44)

See page 2.
**SERIES 36 ELECTRIC ACTUATOR**

**Features**
- Compact size
- Permanently Lubricated and sealed gear train
- Thermal overload protection
- Simple mounting and installation
- Additional output switch
- Solid-State timer option for automatic cycling

**Torque Range**
- 150 in-lb and 550 in-lb output torques

**Temperature Range**
- 0 deg F to 150 deg F maximum ambient

**Supply Voltage**
- 120 VAC 50/60, 240 VAC 50/60

**Standards**
- Type 1, 4 and 4X

**Applications**
- Industrial quarter-turn ball valves

**OEM installations**
- Air Drying Equipment
- Sampling systems
- Compressor installations
- Condensate draining
- Tank draining

Get more information:
Product catalog:
WCABR1006 or WCABR1007

IOM
WCAIM2007

See page 2.

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**SERIES 75 ELECTRIC ACTUATOR**

**Features**
- Two Year Warranty
- Baked Epoxy Coated
- Permanently Lubricate Gear Train
- Manual override
- Thermal Overload Protection
- Reversable Rotary Operation
- Optional Features
  - Extended Duty Cycle Motors
  - Fail Safe Capability
  - Positioners and P.I.D. Controllers
  - RTU Solar Power Interface

**Torque Range**
- 150 - 3000 in-lbs

**Temperature Range**
- -40 F to 150 F

**Supply Voltage**
- 120 & 240 VAC, 24 VDC

**Standards**
- Type 1, 4, 4X
- Class 1, Div 1, Groups C, D

**Applications**
- Process control for rotary valves, dampers and multi-turn chokes
- Boiler feed water
- Temperature control (steam, thermal fluid)
- Chemical, Power, Water/Waste Water, Food & Beverage, HVAC

Get more information:
Product catalog:
WCABR1014

IOM
WCAIM2013

See page 2.

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**SERIES 72 ELECTRO-HYDRAULIC ACTUATOR**

**Features**
- Fail-safe on power failure
- Fast moving valve closure
- Long operational life
- No hydraulic reservoir- mounts in any position
- No clutches, battery packs or clock springs
- Simple 2-wire control
- Two Year Warranty
- FM Approved
- Cost-effective

**Torque Range**
- Up to 900 in-lbs (end of spring)

**Temperature Range**
- 0 F to 150 F

**Supply Voltage**
- 120 & 240 VAC, 24 VDC

**Standards**
- Type 4, 4X
- Class 1, Div 1, Groups B,C,D

**Applications**
- Oil & Gas Safety Shut Off
- Tank Farms
- Water/Waste Water
- Burner Management
- Oil Field Steam Generators
- Dampers

Get more information:
Product catalog:
WCABR1025

IOM
WCAIM2049

See page 2.
**Series 34 Pneumatic Actuator**

**Features**
- Compact Scotch-Yoke design
- Baked epoxy coating
- Minimum air consumption
- Adjustable speed control
- Single external air and electrical connections
- Fail-safe spring return option
- Built-in solenoid air pilot
- High temperature option

**Torque Range**
- Up to 1000 in-lbs @ 100 psi input

**Temperature Range**
- -25 F to 160 F

**Supply Voltage**
- 24, 120, 240, 480 VAC; 12, 24 VDC

**Standards**
- Type 1, 4
- Class 1, Div 1, Groups A, B, C, D

**Applications**
- Industrial Qtr-Turn valve automation
- Automotive, OEM, Chemical & Water

Get more information:
Product catalog:
WCENBR1004

See page 2.

**Series 39 Pneumatic Actuator**

**Features**
- High Performance, High Cycle Design
- Two-Year warranty
- Twin piston, double rack & pinion
- Extruded, anodized aluminum body
- NAMUR, ISO mounting
- Polished stainless steel guide rods
- Multi-spring force transfer
- Dual male output shafts
- End cap air supply ports
- End mount solenoid/switch accessories

**Torque Range**
- Up to 60,000 in-lbs @ 120 psi input

**Temperature Range**
- -40 F to 212 F (high temp option 300F)

**Pressure Range**
- 30-120 psi DA, 40-120 psi SR

**Standards**
- Type 1, 4
- Class 1, Div 1, Groups A, B, C, D

**Applications**
- Chemical, Petrochemical & Refining,
- Power, Oil & Gas, Food & Beverage

Get more information:
Product catalog:
WCABR1003

See page 2.

**Access Actuator Pneumatic Actuator with Process Interface**

**Features**
- Integral solenoid & position switch
- Single electrical connection
- High flow spool valve
- Manual override and speed control
- No mounting brackets
- Diagnostic LED circuit board
- Digital Fieldbus networks

**Torque Range**
- Up to 60,000 in-lbs

**Enclosure**
- Type 4, 4X; U.L.; CSA approved
- Class 1, Div 1, Groups B, C, D
- Intrinsically Safe, NRTL/C approved

**Temperature Range**
- 0 F to 160 F

**Supply Voltage**
- 12, 24 VDC, 24, 120, 240 VAC

**Pressure Range**
- 40 to 120 psi

**Standards**
- 4, 4X, 7, 9 and 12

**Applications**
- Digital Fieldbus Networks, Chemical,
- Petrochemical & Refining, Oil & Gas,
- Food & Beverage, Pharmaceutical

Get more information:
Product catalog:
WCABR1024

See page 2.
**Access Actuator**

**Series ELK39**

**End Mount Position Switch**

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**Features**
- Integral solenoid & position switch
- Single electrical connection
- High flow spool valve
- Manual override and speed control
- No mounting brackets
- Diagnostic LED circuit board
- Digital Fieldbus networks

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**Enclosure**
- Die cast aluminum, epoxy coated

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**Standards**
- Type 4, 4X; U.L.; CSA approved
- Class 1, Div 1, Groups B, C, D
- Class 1, Div 2, Groups E, F, G

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**Position Switch**
- SPDT/DPDT, Gold Contact, Proximity

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**Temperature Range**
- 0 to 160 F

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**Switch Ratings**
- SPDT - 15 Amp, 24, 120, 240 VAC; 1/2A, 24VDC
- DPDT - 10 Amp, 24, 120, 240 VAC; 1/2A, 24VDC
- I.S.: (Gold Contacts), 1 Amp, 120 VAC, 1 Amp, RES (0.5A IND) 24 VDC
- Proximity Sensor - (5-200mA, 20-140VAC, 10-140VAC, UL listed, CSA Certified)

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**Applications**
- Digital Fieldbus Networks, Chemical, Petrochemical & Refining, Oil & Gas, Food & Beverage, Pharmaceutical

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Get more information:
Product catalog: WCABR1024
IOM WCAIM2027 (standard)
WCAIM2028 (intrinsically safe)
WCAIM2023 (DeviceNet)
WCAIM2032 (AS-i)

See page 2.
**UltraSwitch WPL Series**

**TOP MOUNT POSITION SWITCH**

**Features**
- UltraDome visual position indicators for high contrast, wide angle viewing
- Compliance to NAMUR VDI/VDE 3845 mounting specifications eliminates coupler and maximizes interchangeability
- Captive stainless steel cover screws
- Prewired multipoint terminal strip
- Quick-Set spring loaded cams are extra wide and splined to permit tool-free limit switch calibration
- Extensive switch offering for a wide range of applications including mechanical, proximity, solid state, and analog feedback options

**Description**
- Engineered resin enclosure provides excellent protection for harsh corrosive environments

**Housing Material**
- Non-metallic engineered resin

**Standards**
- NEMA 4, 4x

**Hazardous Area Classifications**
- Class I, Division 2, Groups A, B, C, D approvals when supplied with hermetically sealed magnetic proximity switches ATEX II 2 G EEx me II T4-T6 with Phazer II and BRS switches.
- Class II Division 2 Groups F&G

Get more information:
Product catalog: WCENBR1057

Product Specification WCENPS1055

IOM WCENIM2075

See page 2.

**UltraSwitch WXCL Series**

**TOP MOUNT POSITION SWITCH**

**Features**
- UltraDome visual position indicators for high contrast, wide angle viewing
- Compliance to NAMUR VDI/VDE 3845 mounting specifications eliminates coupler and maximizes interchangeability
- Captive stainless steel cover screws
- Prewired multipoint terminal strip
- Quick-Set spring loaded cams are extra wide and splined to permit tool-free limit switch calibration
- Extensive switch offering for a wide range of applications including mechanical, proximity, solid state, and analog feedback options

**Description**
- Provides a heavy-duty and rugged globally-certified explosion-proof package for visual and remote electrical indication of valve position

**Housing Material**
- Die cast aluminum; dichromate conversion undercoat; electrostatic powder top coat

**Standards**
- NEMA 4, 4x, 7, 9, IP65, IP67

**Hazardous Area Classifications**
- Explosion-Proof (UL/CSA/ATEX) mechanical switch options
- Class I, Divisions 1, Groups C and D
- Class II, Divisions 1, Groups E, F and G
- ATEX II 2 G EEx d IIB T5
- Explosion-Proof (UL/CSA/ATEX) proximity/solid state switch options (except NJ)
- Class I, Division 1, Groups C and D
- Class I, Division 2, Groups A, B, C and D with select hermetically sealed proximity switches
- Class II, Divisions 1 and 2, Groups E, F and G
- ATEX II 2 G EEx d IIB T5

Get more information:
Product catalog: WCENBR1057

Product Specification WCENPS1056

IOM WCENIM2076

See page 2.

**Aviator Integrated Valve Controller**

**TOP MOUNT POSITION**

**Description**
- Designed for use with pneumatic rotary industrial valve actuators in hazardous locations. With the same features as the UltraSwitch, the Aviator provides actuator/valve control by receiving a direct solenoid voltage signal. Also provides remote indication of open and closed valve positions by completing separate electrical circuits.

**Housing Material**
- Aluminum (XV and CV models)
- Engineered Resin (WR model)

**Standards**
- ATEX EEx d IIB (CV model)
- NEMA 4, 4x (WR model)

**Hazardous Area Classifications**
- Class I, Division 1, Groups C and D
- Class II, Division 1, Groups E, F and G
- ATEX II 2 G EEx d IIB T5
- ATEX II 3 G EEx nC II T4-T6 with R4 P1, PP and B4 switch options.

Get more information:
Product catalog: WCENBR1057

See page 2.
**BUSwitch Integrated Valve Controller**

**TOP MOUNT POSITION**

**Description**
- Designed for use with pneumatic rotary industrial valve actuators in hazardous locations with digital fieldbus communications. With the same features as the Aviator, the BUSwitch provides actuator/valve control by receiving a direct solenoid voltage signal. Also provides remote indication of open and closed valve positions by completing separate electrical circuits. Available in the following fieldbus protocols: AS-i, DeviceNet, FOUNDATION Fieldbus and PROFIBUS DP.

**Housing Material**
- Aluminum (XV and CV models)
- Engineered Resin (WR model)

**Standards**
- NEMA 4, 4x, 7, 9 IP66/IP67 (XV model)
- ATEX Ex d IIB (CV model)
- NEMA 4, 4x (WR model)

**Hazardous Area Classifications**
- Class I, Division 1, Groups C, D
- Class II, Division 1, Groups E, F, G
- Class II, Division 2, F&G
- Class I, Division 2, Groups A, B, C and D
- Class I, Divisions 1 and 2, Groups A, B, C and D Intrinsically safe for FOUNDATION Fieldbus protocol only
- ATEX II 2 G Ex d IIB T4-T6
- ATEX II 3 G Ex nC II T4-T6 with Foundation Fieldbus only

Get more information:
- Product catalog: AXENBR0006
- Installation instructions: AXENIM0032 or for non-metallic AXENIM0097
- Product specification: AXENPS0059 or for non-metallic AXENPS0098
- Installation instructions: AXENIM0087 for AS-i protocol
- Installation instructions: AXENIM0048 for FOUNDATION Fieldbus protocol
- Installation instructions: LML0012 for PROFIBUS DP protocol

See page 2.

**PM15 & PM15E Positioner**

**Pneumatic & Electropneumatic**

**TOP MOUNT POSITION**

**Description**
- Simple calibration
- Modular design
- External I/P module
- High gain, high capacity spool valve
- Gold plated spool valve
- Stainless internals
- Gauge ports
- Multiple feedback accessories
- NAMUR output shaft
- ISO mounting

**Features**
- Linear and rotary actuator control
- Loop powered, microprocessor design
- Simple user interface
- High visability graphic display
- Auto calibration
- Two-stage air delivery
- Piezoelectric low power control
- “Zero” air bleed design
- Digital communication options
- NAMUR output, ISO mounting

**Enclosure**
- Die cast aluminum, epoxy paint

**Ingress Protection**
- IP66, NEMA 4

**Approvals**
- ATEX - EExd, EEx ia, EEx nl
- CSA - Class1, Div1, Groups BCDEFG
- FM - Class1, Div1, Groups B,C,D

**Temperature Range**
- -40°F to 185°F

**Accessories**
- Position indication, fail freeze, remote mount

**Applications**
- Accurate and reliable control of linear and rotary pneumatic actuators for modulating control

**Industries served:** All

Get more information:
- Product catalog: WCABR1032
- IOM
- WCAIM2016
- WCAIM2017

See page 2.
**AF17 Positioner**

**Positioners - Electric**

**Actuation**

**Features**
- Solid-state circuit board
- Multiple signal inputs
- LED calibration
- Deadband control
- Direct and reverse acting
- Position feedback

**Enclosure**
- Die cast aluminum, epoxy paint

**Supply Voltage**
- 120VAC, 240VAC, 12VDC, 24VDC

**Standard Inputs**
- 1-5mA, 4-20mA, 10-50mA, 0-135 ohm
  - 0-1000 ohm, 0-5 VDC, 0-10 VDC

**Temperature Range**
- -40°F To 150°F

**Accessories**
- Analog output module

**Applications**
- Position control for rotary electric actuators to control valves and dampers.

**Industries served:** All

Get more information:
- Product catalog: WCABR1027

IOM
- WCAIM 2031
- WCAIM2050

See page 2.

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**DFP17 - DataFlo Positioner**

**Positioners - Electric**

**Actuation**

**Features**
- Microprocessor control
- Pushbutton calibration
- Speed control
- Electronic travel stops
- Adjustable dead band
- Multiple I/O options
- Digital network communications
- 20 programmable functions

**Enclosure**
- Die cast aluminum, epoxy paint

**Supply Voltage**
- 120VAC, 240VAC, 12VDC, 24VDC

**Standard Inputs**
- 1-5mA, 4-20mA, 10-50mA, 0-135 ohm
  - 0-1000 ohm, 0-5 VDC, 0-10 VDC

**Temperature Range**
- -40°F To 150°F

**Accessories**
- Analog output module

**Applications**
- High performance control for Qtr-turn and Multi-turn rotary electric actuators for modulating control of valves and dampers.

**Industries served:** All

Get more information:
- Product catalog: WCABR1024

IOM
- WCAIM2037

See page 2.

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**DFC17 - DataFlo Controller**

**Controllers - Electric**

**Actuation**

**Features**
- Microprocessor PID control
- Autotuning
- Local process control
- Pushbutton calibration
- Performance monitoring
- Multiple I/O options
- Modbus network communications
- RS485 network communications
- Desk top software

**Enclosure**
- Die cast aluminum, epoxy paint

**Supply Voltage**
- 120VAC, 240VAC, 24VDC

**Standard Inputs**
- 4-20mA, RTD, Thermocouple

**Temperature Range**
- -40°F To 150°F

**Accessories**
- Analog output, 24VDC power supply

**Applications**
- Direct process control (P.I.D.) for flow, temperature, pressure, level and Ph applications. Primary industries: Food & beverage, OEM, Industrial & Automotive

Get more information:
- Product catalog: WCABR1024

IOM
- WCAIM2026

See page 2.
To find your local Flowserve representative, visit www.flowserve.com or call USA 1 800 225 6989