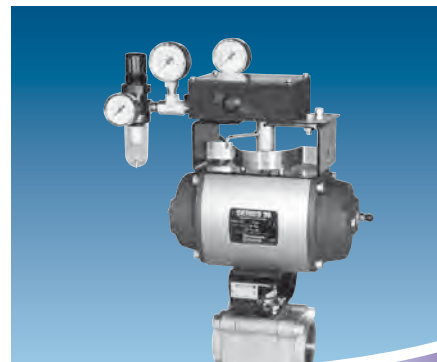




Worcester Controls Product Catalog



Experience In Motion

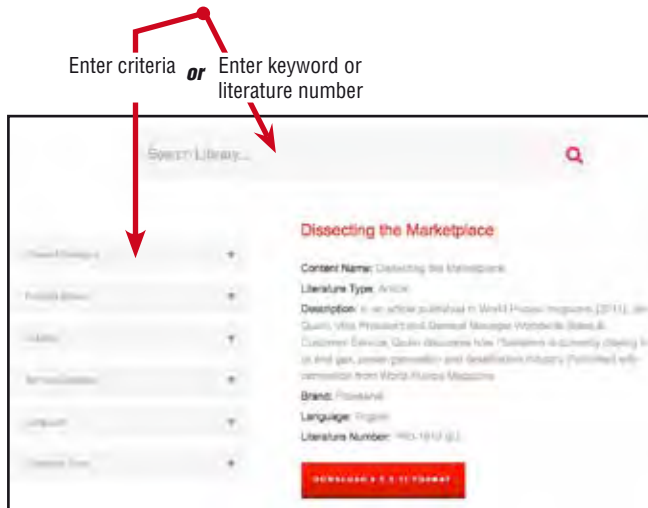


To Access Literature On-line

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Do This:

- 1 Go to www.flowserve.com/library
- 2 Search the library



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Flowserve rotary valves offer easy maintenance and automation backed by market-friendly expertise and quality heritage brands



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Series 44 3-Piece Regular Port



Features

- 3 Piece Regular Port 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
- Locking Device as standard

Sizes

- ¼” to 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

Get more information:

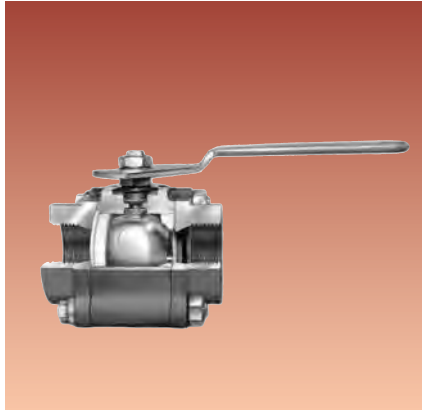
- Product brochure:
- WCABR1050

IOM:

- WCENIM2030

See page 2.

Series 59 3-Piece Full Port



Features

- 3 Piece Full Port design 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.
- Locking Device as standard

Sizes

- ¼” to 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

Get more information:

- Product brochure:
- WCABR1050

IOM:

- WCENIM2030 (for Miser)
- WCENIM2054 (for FM)

See page 2.

Series 45/59 3-Piece Larger Sizes



Features

- Large-diameter, 3 Piece design Ball Valve
- ASME Class 300 design
- Three piece design allows valve to act as a valve and union
- Large diameter bore for O.E.M. equipment and packaging systems
- Compact design with multiple options
- Tight Shut off and Bi-Directional sealing
- Cavity Filled Designs

Sizes

- 45 Series 2½” to 6”
- 59 Series 2½” to 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

Get more information:

- Product brochure:
- WCABR1050

IOM:

- WCENIM2046

See page 2.

Series 51/52 Flanged Regular Port



Features

- Flanged Regular Port Unibody Design
- ASME class 150/300
- Tight shut-off
- "Live loaded" stem seal
- Multiple soft and metal seat 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

Sizes

- 1/2" to 10" Flanged
- ASME 150# and 300# class

Materials

- Carbon Steel
- Stainless Steel

Standards

- ASME B16.34

Get more information:

- Product brochure:
- WCABR1013

IOM:

- WCENIM2014 (for small valves)
- WCENIM2015 (for large valves)
- WCENIM2052 (for FM)

See page 2.

Series F519/F529 Flanged Full Port



Features

- Flanged Full Port Unibody Design
- ASME class 150/300
- ISO 5211 mounting
- "Live loaded" stem seal
- Multiple soft and metal seat 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

- 1/2" to 1 1/2"
- ASME 150# and 300# class

Materials

- Carbon Steel
- Stainless Steel

Standards

- ASME B16.34
- API 607 Fire Test

Get more information:

- Product brochure:
- WCENBR0032

IOM:

- WCEIM0519

See page 2.

Series F819/F829 Flanged Full Port



Features

- Flanged Full Port Split Body 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

Sizes

- 2" to 8"
- ASME 150# and 300# class

Materials

- Carbon Steel
- Stainless Steel

Standards

- API 6D
- API 607 4th Edition
- ASME B16.34
- NACE MR01-75

Get more information:

- Product brochure:
- WCENBR0032

IOM:

- WCENIM0013 (for std. valve)
- WCENIM2057 (for fugitive emission)

See page 2.

**Series 151 and 301
Wafer Pattern**



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" to 6"
- ASME 150# and 300# class

- Rated at 720 CWP

Materials

- Bronze
- Carbon Steel
- Stainless Steel
- Ductile iron

Get more information:

- Product brochure:
- WCABR1041

IOM:

- WCENIM2015

See page 2.

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



Features

- Multi-port Diverter Valves
- Three-piece or flanged design
- Bottom entry or side entry
- Full port or regular 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
 - . regular or full port
 - . Optional fugitive emission design
 - . Class 150 or 300
 - . Screwed, socket or butt weld and slip-on flanges

Sizes

- ½" to 2" for D44/D4 3-piece valve
- 2" to 8" for D51 Flanged valve
- 1" to 6" for Series 18 & 19 valve

Materials

- Carbon Steel
- Stainless Steel

Standards

- ASME B16.34
- API 607 Fire Test

Get more information:

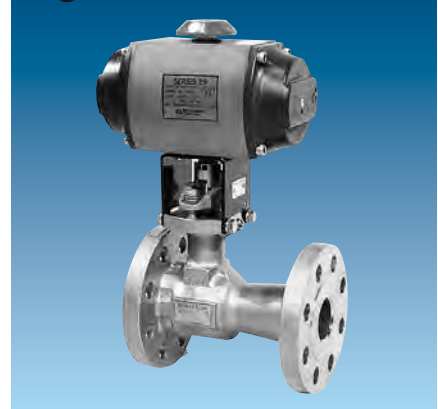
- Product brochure:
- WCABR1052

IOM:

- WCENIM2030 (for Miser)
- WCENIM2015 (for large valves)
- WCENIM0009 (for 18/19)

See page 2.

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



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" to 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 brochure:
- WCABR1023

IOM:

- WCENIM2003 (for Series 94)
- WCENIM2057 (for Series E818/828)

See page 2.

Series CL94, CL44, CL 51/52 Chlorine



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" to 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 brochure:
- WWCABR1039

IOM:

- WCENIM2003 (for series 94)
- WCENIM2014 (for small 51/52)
- WCENIM2015 (for large 51/52)
- WCENIM2030 (for Miser)

See page 2.

Series AF44, FZ44, AF51/52, FZ51/52, FM51/52, AF94, FZ94, F519/529, F819/829 Firesafe



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" to 2" 3 piece design
- Screwed end
- Socket weld
- Butt weld
- ½" to 10" Flanged design

Standards

- ASME B16.34
- API 607 Fire Test
- EXES 3-14-1-2A
- FM 7440

Get more information:

- Product brochure:
- WCABR1029

IOM:

- 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 Cryogenic



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" to 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 brochure:
- WCABR1040

IOM:

- WCENIM2006 (for R12/R6 or earlier)
- WCENIM2038 (for std. valve)

See page 2.

**Series WK70
High Purity**



Features

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

Sizes

- ½" to 2" 3 piece design
- Extended butt weld
- Hygienic Clamp

Materials:

- ASTM A182 F316L, ASTM A479
- Interior Surface Finish: 20Ra standard, 15Ra electropolished

- Seats/Seals: PTFE, Polyfill

Standards

- ASME BPE
- FDA(21CFR)
- USP VI
- USDA

Applications

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

Get more information:

- Product brochure:
- WCABR1036

- IOM:
- WCAIM2018

See page 2.

**Series WK74
High Purity**



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

Sizes

- 3" to 4" 3 piece design
- Extended butt weld
- Hygienic Clamp

Materials:

- ASTM A351-CF3M, ASTM A479
- Interior Surface Finish: 20Ra standard, 15Ra electropolished

- Seats/Seals: PTFE, Polyfill

Standards

- ASME BPE
- FDA(21CFR)
- USP VI
- USDA

Applications

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

Get more information:

- Product brochure:
- WCABR1037

- IOM:
- WCAIM2018

See page 2.

**Series TB59
Tank Bottom**



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 300

Sizes

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

Get more information:

- Product brochure:
- WCENBR1028

- IOM:
- WCENIM2001

See page 2.

Series 4, H44 and PT High-per Miser



Features

- High-Pressure Valves
- Resilient seated valves for High pressure and High Temperature applications
- Pressures above ASME 600 to 5000 psi
- Used in Steam, Hydraulics, gasses and fluids and CNG

Sizes

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

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 brochure:

- WCABR1051

IOM:

- WCENIM2015 (for large 51/51)
- WCENIM2030 (for Miser)

See page 2.

Series H71 Hydromizer



Features

- High-Pressure Valves
- Resilient seated valves for High pressure and High Temperature applications
- ASME Class 1500 (1" to 2")
- ASME Class 2500 (½" & ¾")
(Consult Brochure for PT curves and limitations)
- Used in Steam, Hydraulics, gasses and fluids, CNG and Subsea

Sizes

- ½" to 2" 3 piece design
- Screwed end
- Socket weld, Butt weld

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 brochure:

- WCABR1051

IOM:

- WCENIM2024

See page 2.

Series CPT Control Valve



Features

- The CPT is a characterized seat Control Valve with a revolutionary design
- Precision Control, high capacity
- Zero external leakage
- High Cycle Capacity
- Custom-cut Characterized Seats
- High Rangeability
- Efficient Shearing Action

Sizes

- ½" to 2" 3-piece design
- Screwed end
- Socket and Butt weld
- ½" to 4" Flanged design
- 3" to 6" Wafer design
- 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 brochure:

- WCABR1001

IOM:

- WCENIM2009 (for series 94)
- WCENIM2040 (for series 44,51,52)

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 F to 150 F

Supply Voltage

- 120, 240 VAC

Enclosure

- NEMA 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 brochure:

- WCABR1006 (36 Series)
- WCABR1007 (36T Series)

IOM:

- WCAIM2007

See page 2.

Series 75
Electric Actuator



Features

- Two year warranty
- Baked epoxy coated
- Permanently lubricate gear train
- Manual override
- Thermal overload protection
- Reversible rotary operation

Optional Features

- Extended duty cycle motors
- Fail safe capability
- Positioners and P.I.D. controllers
- Hard anodised coating

Torque Range

- 150 - 3000 in-lbs

Temperature Range

- -40 F to 150 F

Supply Voltage

- 120, 240 VAC, 12, 24 VDC

Enclosure

- NEMA 4, 4X

Hazardous Area Classification

- 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 brochure:

- WCABR1014

IOM:

- WCAIM2013

See page 2.

Series F72
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

Enclosure

- NEMA 4, 4X

Hazardous Area Classification

- Class 1, Div 1, Groups B, C, D
- FM 7411

Applications

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

Get more information:

Product brochure:

- WCENBR1022

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, Optional to 250 F

Supply Voltage

- 12, 24 VDC, 24, 120, 240, 480 VAC

Enclosure

- NEMA 1, 4, 4x

Hazardous Area Classification

- Class 1, Div 1, Groups A, B, C, D

Applications

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

Get more information:

- Product brochure:
- WCENBR1004

IOM:

- WCAIM2008

See page 2.

Series F39 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
- End cap air supply ports
- End mount solenoid/switch accessories
- Limit stops

Torque Range

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

Temperature Range

- -40 F to 212 F; (high temp option 300F)

Supply Voltage

- 12, 24 VDC, 24, 120, 240 VAC

Pressure Range

- 30-120psi DA, 40-120psi SR

Enclosure

- NEMA 1, 4, 4x

Hazardous Area Classification

- Class 1, Div 1, Groups A, B, C, D

Applications

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

Get more information:

- Product brochure:
- WCENBR1003

IOM:

- WCAIM2036

See page 2.

ACCESS Pneumatic Actuator



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 bus networks

Torque Range

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

Position Switch

- SPDT/DPDT, Gold Contact, Proximity

Temperature Range

- 0 F to 160 F

Supply Voltage

- 12, 24 VDC, 24, 120, 240 VAC

Pressure Range

- 40 to 120 psi

Enclosure

- NEMA 4, 4X

Hazardous Area Classification

- Class 1, Div 1, Groups B, C, D
- Intrinsically Safe, NRTL/C approved
UL CSA approved

Applications

- Digital Bus Networks, Chemical,
- Petrochemical & Refining, Oil & Gas,
- Food & Beverage, Pharmaceutical

Get more information:

- Product brochure:
- WCABR1024

IOM:

- WCAIM2027 (standard)
- WCAIM2028 (intrinsically safe)
- WCAIM2023 (DeviceNet)
- WCAIM2032 (AS-i)

See page 2.

Series ELK39 End Mounted Switch Box



Features

- End mount versus top mount
- Reduced assembly height
- Reduced installation envelope
- Eliminates mounting kits
- Multiple switch options
- Aluminum enclosure
- CSA & FM Approvals

Housing Material

- Die cast aluminum, epoxy coated

Enclosure

- NEMA 4, 4X; CSA approved

Hazardous Area Classifications

- Class1, Div1, Groups C,D
- Class1, Div2, Groups E,F, G

Position Switch

- SPDT/DPDT, Gold Contact, Proximity

Temperature Range

- 0 to 160 F

Switch Ratings

- SPDT-15 Amp, 125, 250, 480 VAC; 1/2A, 24 VDC
- DPDT-10Amp, 125, 250 VAC; 0.3A, 125 VDC
- Proximity Sensor - (5-200mA, 20-140 VAC, 10-140 VAC, UL listed, CSA Certified)

Applications

- Remote position indication
- Relay device for pumps
- Alarms and indicator lights
- Industrial, Chemical, Petrochemical installations

Get more information:

- Product brochure:
- WCABR1027

- IOM:
- WCAIM2051

See page 2.

Series WWS/WWM Top Mounted Switch Box



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 and solid state feedback options

Description

Provides a compact and economical globally certified weatherproof, non-incendive or intrinsically safe package for visual and remote electrical indication of valve position.

Housing Material

Die cast aluminum; dichromate conversion undercoat; electrostatic powder top coat
Engineered resin enclosure; 25-33% fiberglass-filled for harsh, corrosive applications

Enclosure

- IP66, IP67, NEMA 4, 4x

Hazardous Area Classifications

- Intrinsically Safe ATEX II 1GD Ex ia IIC T4/T5/T6
- Intrinsically Safe cCSAus, Cl. I, Div. 1, Gr. A,B,C,D, Cl. II, Div. 1, Gr. F,G, Cl. III T3
- 1, Gr. A,B,C,D, Cl. II, Div. 1, Gr. F,G, Cl. III T3
- Non-Incendive cCSAus, Cl. I, Div. 2, Gr. A,B,C,D, Cl. II, Div. 2, Gr E,F,G T3"

Get more information:

- Product brochure:
- WCENBR0135

- IOM:
- WCENIM0135

See page 2.

Series WPS/WPM Top Mount Switch Box



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 in harsh, corrosive environments. Globally-certified weatherproof, non-incendive or intrinsically safe package for visual and remote electrical indication of valve position.

Housing Material

Engineered resin enclosure; 25 - 33% fiberglass-filled for harsh, corrosive applications

Enclosure

- IP66, NEMA 4, 4x

Hazardous Area Classifications

- Intrinsically Safe ATEX II 1G Ex ia IIC T4/T5/T6
- Increased Safety ATEX II 2G Ex e mb IIC T6
- Intrinsically Safe IECEx Ex ia IIC T4/T5/T6
- Intrinsically Safe cFMus/cCSAus, Cl. I,II,III, Div. 1, Gr. A,B,C,D,E,F,G T5
- Non-Incendive cFMus/cCSAus, Cl. I, Div. 2, Gr. A,B,C,D, Cl. II, Div. 2, Gr E,F,G T5

Get more information:

- Product brochure:
- WCENBR0134

- IOM:
- WCENIM2075

See page 2.

Series WXCL Top Mounted Switch Box



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

Enclosure

- IP66, IP67, NEMA 4, 4X, 7 and 9

Hazardous Area Classifications

- Flameproof ATEX II 2GD Ex d IIB T5, Ex tD A21 IP66/IP67
- Flameproof IECEx Ex d IIB T5, Ex tD A21 IP66/IP67
- Explosion-Proof cCSAus Cl. I, Div. 1, Gr. C & D, Cl. II, Div. 1, Gr. E,F,G, Cl. III, T3
- Non-Incendive cCSAus Cl. I, Div. 2, Gr. A,B,C,D T3
- Intrinsically Safe FM(US/CAN)/cCSAus, Cl. I,II,III, Div. 1, Gr. A,B,C,D,E,F,G T5
- KOSHA Ex d IIB T5
- INMETRO Ex d IIB T5 Gb, Ex tb IIIC T100 °C Db IP65

Get more information:

- Product brochure:
- WCENBR1057

Product Specification:
WCENPS1056

- IOM:
- WCENIM2076

See page 2.

Series DS/DM UltraSwitch™ Top Mounted Switch Box



Features

- Tool-free Quick-Set™ cams
- Switches available in a wide range of options
- Easily accessed pre-wired terminal strip
- Minimum two open terminals are provided
- Housing of aluminum or corrosion resistant stainless steel
- Optional 4-20mA feedback signal

Description

Compact housing in aluminium or corrosion resistant stainless steel can be directly and easily mounted onto actuators for both rotary and linear indication and can be used as a junction box for direct connection of solenoid valves. Up to three cable entries and pre-wired switches to enable easy installation.

Housing Material

- Aluminum
- Stainless steel

Enclosure

- IP66, NEMA 4, 4X, 7 and 9

Hazardous Area Classifications

- Flameproof ATEX II 2G Ex d IIC T4 Gb, Ex tb IIIC T113 °C Db IP66
- Flameproof IECEx Ex d IIC T4 Gb, Ex tb IIIC T113 °C Db IP66
- Explosion-Proof CSA Cl. I, Div. 1, Gr. B,C,D, Cl. II, Div. 1, Gr. E,F,G, Cl. III T4
- Explosion-Proof cCSAus Cl. I, Div. 1, Gr. A,B,C,D, Cl. II, Div. 1, Gr. E,F,G, Cl. III T4

Get more information:

- Product brochure:
- WCENBR0136

IOM:
• WCENIM0136

See page 2.

Ives Equipment
www.ivesequipment.com
(877) 768-1600

Aviator BUSwitch Top Mount Integrated Valve Controller



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. 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 CAN bus protocols: AS-i, DeviceNet, Foundation Fieldbus and Profibus DP.

Housing Material

- Aluminum (WNXV models)
- Engineered Resin (WR model)

Enclosure

- IP65, NEMA 4, 4X, 7 and 9

Hazardous Area Classifications

- Flameproof ATEX II 2G Ex d IIB T3/T4
- Flameproof IECEx Ex d IIB T3/T4 IP65
- Explosion-Proof cCSAus Cl. I, Div. 1, Gr. C & D, Cl. II, Div. 1, Gr. E,F,G, Div. 2 F,G, Cl. III
- Flameproof cCSAus Cl. 1, Zone 1, Gr. IIB, Ex d IIB T3/T4 IP65, Aex d IIB T3/T4 IP65
- Non-Incendive cCSAus Class I, Div. 2, Gr. A,B,C,D
- Intrinsically Safe FM(US/CAN)/cCSAus, Cl. I,II,III, Div. 1, Gr. A,B,C,D,E,F,G T5

Get more information:

- Product brochure:
- WCENBR1057

IOM:
• AXENIOM0100

See page 2.

www.flowserve.com

Series APEX W7000 Top Mount Positioner



Description

Compact, rugged design provides accurate valve positioning at a competitive price. Available with pneumatic and electro-pneumatic input options that can be field retrofitted.

Housing Material

Die cast aluminum with electrostatic epoxy powder coating or TUFAM® Severe Service Coating

Features

- Non-interactive zero and span adjustment greatly simplifies and reduces calibration.
- Interchangeable I/P Modules allow positioner to be field converted for 3-15 psi or 4-20 mA input signals
- Multiple cam options allow configuration of positioner characteristics to match valve requirements
- Gold-plated spool valves available in low or high flow versions to match actuator/valve load requirements
- Low-profile flat or optional UltraDome visual indicator provides full-area, wide angle viewing of valve position.
- Top-Mounted UltraSwitch optional for position feedback requirements

Enclosure

NEMA 4, 4x

Hazardous Area Classifications

- FM/CSA Class I, Divisions 1 and 2, Groups B,C,D
- FM/CSA Class II, Groups E, F, G
- ATEX II 2 G EEx d IIB + H2
- ATEX II 2 G EEx d IIC
- FM Intrinsically Safe ATEX II 2 G EEx ia IIC
- FM Intrinsically Safe Class I, Division 1, Groups A,B,C,D

Get more information:

Product brochure:
• AXENBR0006

See page 2.

Series APEX W8000 Top Mount Positioner



Description

The APEX 8000 positioner provides extremely precise control for a wide range of valve and damper applications. The two-stage pneumatic relay provides faster, more sensitive response characteristics to meet the most demanding control objectives. Pneumatic and electro-pneumatic input options available that can be field retrofitted. Also available with many advanced features such as limit switch feedback, analog feedback and UltraDome visual position indicators.

Housing Material

Die cast aluminum with electrostatic powder coating or optional epoxy coating

Enclosure

NEMA 4, 4x, 7 and 9

Hazardous Area Classifications

- FM Class I, Divisions 1 & 2, Groups B,C,D, Class II, Divisions 1 & 2, E,F,G
- FM Intrinsically Safe Class I, Division 1, Groups A, B, C, D T4
- FM Class I Zone 0 AEx ia IIC T4
- FM Non-incendive Class I, Division 2, Groups A, B, C, D T4
- ATEX Intrinsically Safe II 1 G EEx ia IIC T6
- FM Class I, Division 2, IIC T4
- ATEX II 2 GD EEx d IIB + H2 T6

Get more information:

Product brochure:
• AXENBR0007

IOM:
• WCENIM2078

See page 2.

Series L93 Pulsair Top Mount Positioner



Features

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

Housing Material

- Die cast aluminum, epoxy paint
- Stainless steel

Enclosure

- IP66, NEMA 4x

Hazardous Area Classification

- ATEX - EExd, EEx ia, EEx nI
- CSA - Class1, Div1, Groups BCDEFG
I.S. - Class1, Div1, Group A,B,C,D
- FM - Class1, Div1, Groups B,C,DI.
I.S. - Class1, Div1, Group A,B,C,D

Temperature Range

- -22F to 185F

Accessories

- Position indication, fail freeze, remote mount

Applications

- High performance digital process control for linear and rotary actuators for modulating control

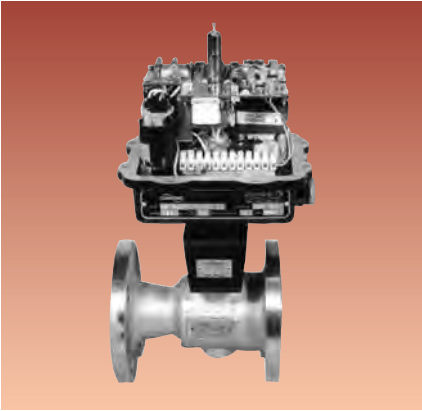
Get more information:

Product brochure:
• AWCABR1019

IOM:
• WCAIM2055

See page 2.

Series AF17 Electric Actuator Positioner



Features

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

Housing Material

- Die cast aluminum, epoxy paint

Supply Voltage

- 12, 24 VDC, 120, 240 VAC

Standard Inputs

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

Temperature Range

- -40F to 150F

Accessories

- Analog output module

Applications

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

Get more information:

- Product brochure:
- WCABR1000

IOM:

- WCAIM 2031
- WCAIM2050

See page 2.

Series DFP17 DataFlo Electric Actuator Positioner



Features

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

Housing Material

- Die cast aluminum, epoxy paint

Supply Voltage

- 12, 24 VDC, 120, 240 VAC

Standard Inputs

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

Temperature Range

- -40F to 150F

Accessories

- Analog output module

Applications

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

Get more information:

- Product brochure:
- WCENBR1021

IOM:

- WCAIM2037

See page 2.

Series DFC17 DataFlo Electric Actuator Controller



Features

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

Housing Material

- Die cast aluminum, epoxy paint

Supply Voltage

- 24 VDC, 120, 240 VAC

Standard Inputs

- 4-20mA, RTD, Thermocouple

Temperature Range

- -40F to 150F

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 brochure:
- WCENBR1021

IOM:

- WCENIM2026

See page 2.



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