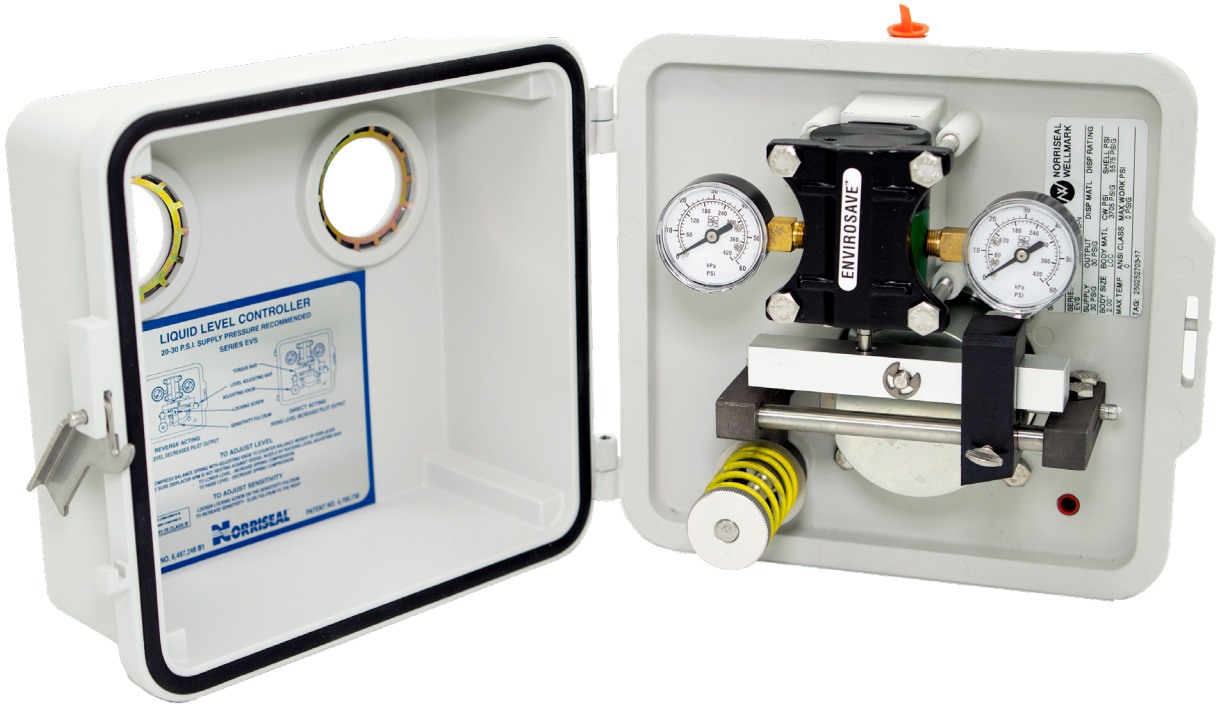


Norriseal Product Overview

Valve and flow control solutions

Liquid level controllers



Series EVS Zero-leak

Environmentally friendly liquid level controllers with patented Envirosave™ snap (on/off) pilot to prevent fugitive emissions and reduce bleeding of valuable gases. Service-enhanced design simplifies installation and inspection.

- Envirosave pilot rated at zero leakage in U.S. EPA Natural Gas STAR Program report (call for details)
- Back-mount design with flush-mount internals for easy access
- Uses proven, force-balance technology for reliability and long service life
- High sensitivity for either top level or interface control
- Weather-resistant sealed enclosure
- Complies with NACE MR0175-2002

Liquid level gauges



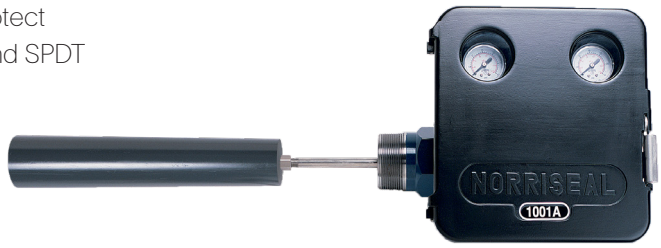
Series 1001 Pneumatic

Reliable and economical pneumatic liquid level controllers with no-bleed, force-balance operation. Available with patented Envirosave™ snap pilot to prevent fugitive emissions and reduce bleeding of valuable gases.

- Snap (on/off) or throttle (proportional) control
- Right- or left-hand mount
- Field-configurable direct or reverse action
- Removable door
- Various arm lengths and displacer sizes
- Available in various connection types and body materials
- Options include SPDT or DPDT electric switches

Series 1001A Weatherproof

Features weatherproof case/cover with a secure lever latch to protect internals. Options include marine service, snap or throttle pilots, and SPDT or DPDT electric switches.



- O-ring gasket seals internals from outside weather
- Manifold-style pilot assembly
- Harmful exhaust gases are vented to an exhaust manifold
- Optional Envirosave™ snap pilot
- Right- or left-hand mount



Series 1001XL Back mount

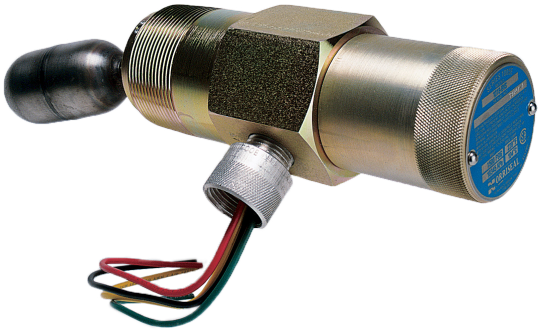
Includes the same features as the Series 1001A with the exception of a back mount connection. The 1001 XL also utilizes a no-bleed force balance operation.

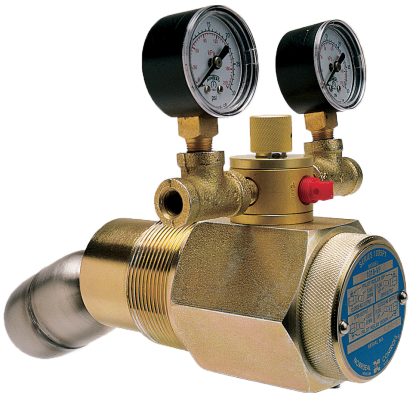
Liquid level switches

Series 1005E Electric

Float-actuated electric level switch designed for rugged use 2,000 psig maximum working pressure @ 220°F (104°C) as a high- or low-level alarm.

- Body available in carbon steel or 316 SST
- CSA listed and explosion-proof
- Available with SST or polypropylene float
- SPDT or DPDT options
- Can be mounted in an external chamber





Series 1005P1 Pneumatic

Pneumatic, float-actuated switch used as a high- or low-level switch or to operate a control valve. Features a three-way pilot valve with built-in manual override and optional porting for piped exhaust.

- Rugged carbon steel or 316 SST body with SST float
- Maximum 1,500 psig working pressure @ 220°F (104°C)
- Can be mounted in an external chamber

Series 1100A Pneumatic High/ Low No-bleed

Pneumatic liquid level switch that combines a cast carbon steel external chamber and a liquid level controller. Used in high- and low-level safety applications.

- Pneumatic switch
- Special marine service
- Top-, bottom- or side-mount connections
- Standard 1,480 psig maximum working pressure @ 220°F (104°C) (optional 2,220 psig working pressure)
- Optional Series 1100A incorporates an SPDT or DPDT electrical switch with a carbon steel external chamber



Chambers and domes



Series 1006 Vertical chamber

Externally mounted, vertical chambers used with Series 1001 and 1001A liquid level controllers.

- 1.0-in., 1.5-in., or 2.0-in. flanged or NPT process connections
- Side, top or bottom connections
- Accommodates various center-to-center dimensions up to 72-in.
- ANSI 150 to 2500 pressure classes
- 3-in. or 4-in. chamber diameters

Series 1006 Style 4V12 Horizontal chamber

Externally mounted carbon steel chamber (other materials available) used with Series 1001 and 1001A liquid level controllers.

- 1.0-in. NPT 3,000 psig working pressure @ 220°F (104°C) process connections top and bottom
- Level controller connection can be 2.0-in. NPT or flanged





Series 1006 Style 4V03 Horizontal chamber

Externally mounted carbon steel or 316 SST chamber used with Series 1002A, 1005E and 1005P1 liquid level switches.

- 1.0-in. NPT process connections
- 1.5-in. and 2.0-in. NPT level switch connections
- 3,000 psig working pressure @ 220°F (104°C)

Control valves



Series 2023A “No Freeze”

Ideal for use as a high-pressure liquid dump valve for separators and other process vessels. Valve body is designed for constant trim immersion in vessel fluid.

- Threaded end connections
- Replaceable plug and seat
- Ball-type trim design
- Standard Series SST trim
- Maximum working pressure: 2,220 psig @ 100°F (38°C)

Series 2026/2027A “No Freeze”

The “No-Freeze” liquid control valves are designed for high-pressure service. The valve body screws directly into the vessel connection, immersing the plug and seat into the process liquid to resist freezing

- Adjustable or non-adjustable diaphragm actuators
- Carbon steel, hex body
- Hammer-nut closure
- Quick-change replaceable trim
- Maximum working pressure: 2,250 psig @ 100°F (38°C)





Series 2275/2276 Economy dump valves

Economical, high-pressure control valve for up to 3,750 psig working pressure. Adjustable tee body configuration can be plugged for either globe or angle flow.

- Screw-in closure
- Quick-change trim
- Non-adjustable actuator, direct or reverse
- Series 2275 Buna diaphragm
- Series 2276 Viton diaphragm

Control valves



Series 2400/2420 control valves

The Series 2400 control valve is ideal for oil and gas flow control. It is also a desirable selection where accurate travel indication is needed and positioners or limit switches are required. Temperature rating from -20°F (-29°C) to 400°F (204°C).

The Series 2420 control valve is the close coupled version of the Series 2400. If space and economy are important, or a positioner is not required, this model will give the same dependable service as the Series 2400. Temperature rating from -20°F (-29°C) to 400°F (204°C).

- 3/16-in. through 1¾-in. orifice sizes
- Modified percentage, quick opening, and equal percentage
- Hammer nut entry
- Yoke-mounted or close-coupled, pressed steel actuators, direct or reverse action
- Teflon packaging

Series 2220 High pressure / Series 2200 Open yoke

The Series 2220 is the proven, industry-standard high-pressure control valve. Used to control liquid or gas pressure in separators, scrubbers or other types of pressure vessels.

- Close-coupled design conserves space
- Hammer-nut entry allows quick access for trim inspection or replacement
- Variety of trims, seal materials and end connections
- Patented spherical plug and matching seat for precise seating alignment
- Quick-opening trim or throttling of modified or equal-percentage trim
- Pressure-relief feature of hammernut/body connection improves safety

The Series 2200 open yoke valve allows mounting of positioners, limit switches or other devices, provides exposed stem for accurate travel indication and enables service at elevated temperatures.



SERIES 2220

SERIES 2200

Control valves

SmartStep™ Control solution

The electric SmartStep actuator offers a fail-safe method to electric actuation and mounts to any of Norriseal's 2200, 2400 and 2700 series control valves. The solution is composed of a rotary electric actuator, a rotary to linear adapter, and Norriseal's best-in-class linear stem control valve.

- Fail-safe power backup option with capacitor technology eliminates the need for battery backup in case of a loss of power or control signal — it enables the valve to return to a preset safe position
- Ability to use digital on/off signal from switches or 4-20mA analog signal for throttling capabilities
- High-efficiency rotary-to-linear valve adapter kit





Series 2700A



Series 2720

Series 2700A General-purpose

Globe-bodied, bolted-bonnet control valve designed for a wide range of pressures, temperatures, materials and trims. Single-ported control valves have balanced, unbalanced and restricted-port trims for a variety of flow characteristics.

- Trim material: 17-4 ph SST, 316 SS, Stellite 6, Carbide
- Plug control trim: balanced, unbalanced (Mod %, quick open)
- Cage control trim: balanced (equal %, linear, CAVII, DB II)
- Trim options include erosionresistant, soft seat ring, noise abatement and cavitation control
- Direct or reverse-acting, yoke-mounted pneumatic diaphragm actuators
- Available in 1.0-in. through 4-in. sizes in ANSI 150 to 2500 pressure classes in threaded, raised face or ring joint end connections
- Space saving economical version option Series 2720 with close-coupled actuator (No yoke)

Control valves



Series 3023 Three-way

Three-way, two-position high pressure control valves used for diverting or blending applications. Designed to accommodate the high differential and static pressures of system switching by giving positive shut-off while maintaining high flow capabilities.

- Hammer-nut closure with hard, soft and blow case trims available
- Reverse acting, direct acting or pressure balanced
- Teflon® V-ring, spring loaded, non-adjustable packing
- Temperature range from –20°F (–29°C) to 180°F (82°C)
- Optional open yoke for temperatures up to 400°F (204°C)

Check valves

Series 7100
Flo-Lift® Piston check valve

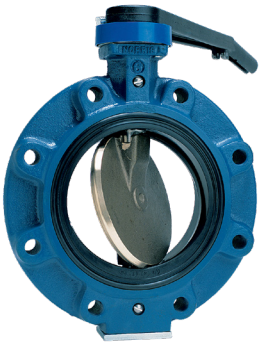
Non-slam piston check valve designed for positive prevention of backflow in gas, air or liquid systems. Optional reduced port trims for low-flow applications.



- Available in 1.0-in. through 4-in. sizes in ANSI 150 to 2500 pressure classes in threaded, raised face or ring joint end connections
- Built-in lifting device for easy piston removal and inspection
- High flow capacity
- Low pressure drop
- Bolted closure

Butterfly valves

Series R200/M200 Butterfly valves



Unique, angle-disc butterfly valves available in both resilient-seated and metal-lined designs. Feature bi-directional positive shutoff to 200 psig working pressure. Angle disc provides 360° uninterrupted differential sealing surface.

- Double-shaft seals and body bushings assure smooth, low-torque operation
- Independent flange seals
- Rigid-backed rubber seat easily field-replaced
- Non-wetted body available in lug or wafer designs
- Rigid drive, precision disc-to-shaft connection
- Resilient-seated design (R200) offered in a wide variety of elastomeric seat and seals
- Metal-lined design (M200) provides positive shutoff with minimum sealing material
- Available with a variety of manual, pneumatic, and electric actuation





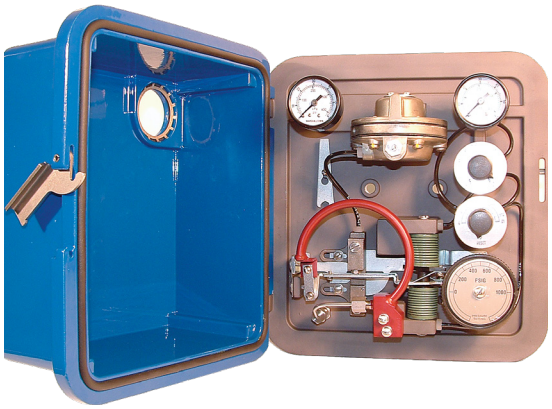


Series R285/M285 Butterfly valves

Exclusive, angle-disc butterfly valves provide bidirectional, positive shutoff to ANSI 150 standards (285 psig). Uses a rigid-drive, precision disc-to-shaft connection without load-bearing fasteners in the flow-stream. Available in both resilient-seated and metal-lined configurations.

- Angle disc with 360° uninterrupted differential sealing surface
- Double-shaft seals and shaft bushings assure smooth, low-torque operation
- Non-wetted body available in lug or wafer design
- Offered with a variety of manual, pneumatic, and electric actuation

Pressure controllers



Series 4900 Pneumatic

Combines reliable, low-emission operation with service enhanced design. Provides control in proportional-only (4950), proportional plus integral reset (4960). Standard pressure ratings up to 5,000 psig are available with 316 SST Bourdon tube sensing elements.

- Flush-mounted internals and open design allow easy access and repair
- Removable door
- Easy, field-reversible action
- Reduced leak paths minimize bleeding of valuable gases
- NACE additional options: K Monel Bourdon tube diaphragm seal



Since 1955, Norriseal products have been synonymous with quality, reliability, and cost efficiency. Our products are field-proven, backed by extensive application engineering, and manufactured with precision. That's why the Norriseal product line has set the performance standard for oil and gas production, refining, chemical processing, marine, power generation, and many other industrial applications.

For more information about our products and services, please contact our sales team

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