

Industrial Safety Valves, Regulators and Back Pressure Valves



FL Series

Pilot-Operated Pressure Reducing Regulators

The FL Series provides smooth and quiet operation, tight shutoff, and long life. The FL Series is in conformity with the Pressure Equipment Directive PED 2014/68/UE and is classified under Category IV.

Features:

- No Atmospheric Bleed
- Quiet Operation
- Control Accuracy
- Versatility
- Easy In-Line Maintenance
- Tight Shutoff
- High Capacity
- In-Service Travel Indicator

FL-BP Series

Pilot-Operated Pressure Reducing Regulators

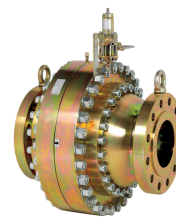
The FL-BP Series regulators are accurate pilot-operated, pressure balanced, soft seated regulators designed for low-pressure transmission/city gate, large capacity distribution systems, and power plant feeds.

The FL-BP Series provides smooth and quiet operation, tight shutoff, and long life.

The FL-BP Series is in conformity with the Pressure Equipment Directive PED 2014/68/UE and is classified under Category IV.

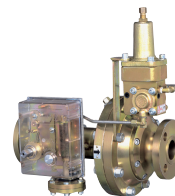
Features:

- No Atmospheric Bleed
- Quiet Operation
- Control Accuracy
- Versatility
- Easy In-Line Maintenance
- Tight Shutoff
- High Capacity
- In-Service Travel Indicator



TYPE FL

High Pressure Regulator or Monitor



TYPE BFL

High Pressure Regulator + Shutoff



TYPE MFL

High Pressure Regulator + Monitor



TYPE FL-BP

Low Pressure Regulator or Monitor



TYPE MFL-BP

Low Pressure Regulator + Monitor



TYPE BFL-BP

Low Pressure Regulator + Shutoff

Source:



Emerson Natural Gas
Technologies _Tartarini

FL-FR Series

Pilot-Operated Pressure Reducing Regulators - French Market Only

The FL-FR Series regulators are accurate pilot-operated, pressure balanced, soft seated regulators designed for high-pressure transmission/city gate, large capacity distribution systems, and power plant feeds.

The FL-FR Series provides smooth and quiet operation, tight shutoff, and long life.

The FL-FR Series is in conformity with the Pressure Equipment Directive PED 2014/68/UE and is classified under Category IV.

Available Configurations:

Type FL-FR-BP:

Low Pressure Regulator or Monitor

Type FL-FR-HP:

High Pressure Regulator or Monitor

Type MFL-FR-BP:

Low Pressure Regulator + Monitor

Type MFL-FR-HP:

High Pressure Regulator + Monitor

All FL-FR type regulators are available with or without:

Type SR / SRII:

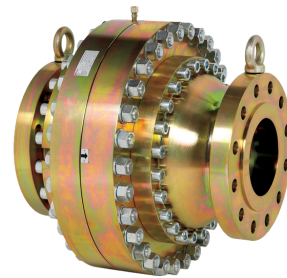
Silencer

Type SRS / SRSII:

Silencer with widened outlet flange

Features

- No Atmospheric Bleed
- Quiet Operation
- Control Accuracy
- Versatility
- Easy In-Line Maintenance
- Tight Shutoff
- High Capacity



TYPE FL-FR-HP

Cronos Series

Pilot-Operated Pressure Reducing Regulators

The Cronos Series regulators are accurate pilot-operated, pressure balanced, soft seated regulators designed for high pressure transmission/city gate stations, large capacity distribution systems, and power plant feeds.

They provide smooth and quiet operation, tight shutoff and long life. The regulator utilizes a main valve actuator, a type PRX pressure reducing pilot with a type SA/2 pilot supply regulator or a type PS pressure reducing pilot. The Cronos Series is in conformity with the Pressure Equipment Directive PED 2014/68/UE and is classified under Category IV.

Available Configurations

Type C: Regulator

Type CB: Regulator + Shutoff

Type CBB: Regulator + Shutoff + Shutoff

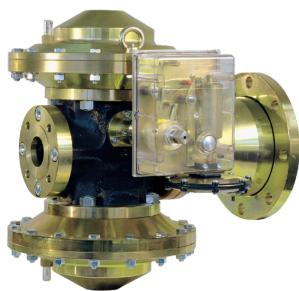
Type CC: Regulator + Monitor

Type CCB: Regulator + Monitor + Shutoff

Type CBS: 90° Flow Regulator + Shutoff

Type CCS: 90° Flow Regulator + Monitor

Type CCBS: 90° Flow Regulator + Monitor + Shutoff



TYPE CCB-SRS



TYPE CCBS

Features

- Control Accuracy
- Versatility
- Tight Shutoff
- No Atmospheric Bleed
- High Capacity
- In Service Travel Indicator
- Silencer Options

Cronos-FR Series

Pilot-Operated Pressure Reducing Regulators - French Market Only

The Cronos-FR Series regulators are accurate pilot-operated, pressure balanced, soft seated regulators designed for high pressure transmission/city gate stations, large capacity distribution systems and power plant feeds. They provide smooth and quiet operation, tight shutoff and long life.

The regulator utilizes a main valve actuator, and a Compact Pilot system.

The Cronos-FR Series is in conformity with the Pressure Equipment Directive PED 2014/68/UE and is classified under Category IV.

Available Configurations

- Type C-FR: Regulator
- Type CB-FR: Regulator + Shutoff
- Type CC-FR: Regulator + Monitor

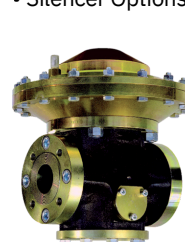
All Cronos-FR type regulators are available with or without:

Type SR: Silencer

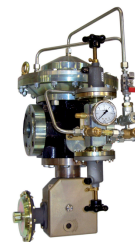
Type SRS: Silencer with widened outlet flange

Features

- Control Accuracy
- Versatility
- Tight Shutoff
- No Atmospheric Bleed
- High Capacity
- In Service Travel Indicator
- Silencer Options



TYPE C-FR



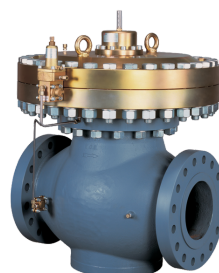
TYPE CB-FR

Type 971

Pilot-Operated Pressure Reducing Regulators

The type 971 regulators feature simple seat and counterbalanced valve. The "top entry" design allows easy maintenance operations without disassembling the regulator from the line. They assure high accuracy of the regulated pressure even when the inlet pressure is extremely variable.

The 971 type is in conformity with the Pressure Equipment Directive PED 2014/68/UE and is classified under Category III.



TYPE 971

Available Configurations

Type 971: Regulator

Type 971-E: Monitor

The type 971 regulator is available with type SR silencer.

Features

- Accuracy Maintained with Variable Inlet Pressure
- Easy Set-point Adjustment
- High Versatility for Different Applications

EZH and EZHSO Series

Pilot-Operated Pressure Reducing Regulators

Type EZH and EZHSO series regulators are accurate pilot-operated, pressure balanced, soft-seated regulators.

They are designed for use in high pressure natural gas transmission/city gate stations, large capacity distribution systems, and power plant feeds. They provide smooth and reliable operation, tight shutoff and long life.

The EZH and EZHSO Series are in conformity with the Pressure Equipment Directive PED 2014/68/UE and are classified under Category IV.

Available Configurations

Type EZH-OS2:

Type EZH pressure reducing regulator with an OS2 slam-shut device for over-pressure or overpressure and underpressure protection

Type EZHSO:

Spring-to-Open pilot-operated pressure reducing regulator for low to high outlet pressure

Type EZHSO-OS2:

Type EZHSO pressure reducing regulator with an OS2 slam-shut device for over-pressure or overpressure and underpressure protection



Features

- Control Accuracy
- Versatility
- Tight Shutoff
- No Atmospheric Bleed
- High Capacity
- In Service Travel Indicator
- Silencer Options

FISHER™

Regulator Solutions for Process Plants, General Manufacturing and Commercial Service

AIR Optimize energy efficiency of air systems by using accurate and durable instrument supply regulators, switching/lockup/trip valves and pneumatic panel loaders, which are available with filters and reliefs.	 67C Series Instrument Supply Regulators	 67D Series Pressure Reducing Regulators	 167D Series Switching Valves	 Types 1301F/1301G High Pressure Regulators	 Type 1098-EGR Pressure Reducing Regulator
STEAM Ensure accurate regulation and long service life in varying steam service conditions with pressure reducing and backpressure regulators for pressure reducing stations, steam tracing, steam injection, feedwater heater supply and flash tanks.	 Type 92B	 Type 92S	 Type 92C	 MR95 Series Pressure Reducing Regulators with Steam Construction Option	 MR98 Series Backpressure and Relief Valve with Steam Construction Option
TANK BLANKETING / VAPOR RECOVERY Reduce stored product volatility and enhance worker safety with protective blanketing and recovery systems controlled with accurate, low maintenance devices, which are available with special constructions for corrosive environments. Select products available in sanitary constructions with FDA/ADI/USP Class VI-approved wetted elastomers.	 T205/T208 Series Tank Blanketing and Vapor Recovery Regulators	 Type Y693 Gas Blanketing Regulator	 Type ACE95 Vapor Saver Tank Blanketing Valve	 Type Y696 Tank Vapor Recovery Regulator	 Types 1190/1290 Tank Blanketing and Vapor Recovery Pilot Operated Regulators
LIQUIDS Protect against corrosion and ensure stability with special construction materials and large turndown-ratio designs for lube oil, seal oil, condensate and water applications. Select products available in sanitary constructions with FDA/ADI/USP Class VI-approved wetted elastomers.	 MR95 Series Pressure Reducing Regulator with Special Alloy Construction	 Type MR105/MR108 Pressure Reducing and Backpressure Relief Liquid Regulators	 Type 92W Pressure Reducing Liquid Regulator	 Type 63EG-98H Pilot-Operated Backpressure / Relief Valve	 Type LR125/LR128 Pressure Reducing and Backpressure Control Liquid Regulators
PROCESS GASES Confidently regulate facility-wide gases and protect against unwanted chemical reactions with industry-proven regulator and backpressure valves for dry gas seal compressors, batch reactors, burners, mixers and vacuum control systems. Special constructions for cryogenic and oxygen service available. Select products available in sanitary constructions with FDA/ADI/USP Class VI-approved wetted elastomers.	 MR95 Series Pressure Reducing Regulators	 MR98 Series Backpressure and Relief Valves	 T205 Series Tank Blanketing Regulators	 T205VB Series Vacuum Breaker	 Type 1098-EGR Pressure Reducing Regulator
FUEL GAS Reduce unplanned shutdowns by ensuring accurate and reliable fuel gas distribution throughout plant utility systems with fast responding and easily maintained fuel and pilot gas regulators.	 CS400 Series	 Type CS800	 133 Series	 99 Series	 Type 1098-EGR
SANITARY Maintain high purity process pressure control with self-draining, polished 316L stainless steel regulators and backpressure valves that meet ASME BPE and European hygienic standards, which are applicable for clean steam and water-for-injection systems.	 Type SR5/SR8 Pressure Reducing and Backpressure Regulator	PRODUCT AND APPLICATION RESOURCES CAD Drawings are also available online. Visit the Online Product Catalog to view Bulletins, Instruction Manuals, Brochures and Schematics.  Industrial Regulators Application Guide: Convenient online eBook with product specifications, along with a comprehensive technical guide that provides best practices and principles of pressure regulators.  Regulator Toolkit: Download for more product information and sizing and selection wizard.			



Industrial Fisher Regulators -
Product Overview



Type 707

The 707 Safety Relief Valve is designed to take full advantage of its high lift capability by incorporating top and un-wetted guiding, which provides an unobstructed seat bore.



Type 716

The 716 Safety Relief Valve combines a top guided, unobstructed seat bore with full lift capability to provide maximum discharge capability.



Type 716H

The 716H Safety Relief Valve is a high- pressure version of the 716, in one orifice size: -7 (109 mm²).



Type 746

The 746 combines top guiding, unobstructed seat bore and full lift capability, to ensure the highest possible discharge rate thus maximum plant protection. Conventional and balanced bellows versions.



Type 766

The 766 Safety Valve is a double spring high lift valve with high discharge capacity. It incorporates an adjustable blowdown ring and a freely pivoting disc for positive re-seating.



Type 716T

The 716T is the ultimate solution to hot water system protection. A combined pressure and temperature safety valve, it protects unvented hot water systems, against both excess pressure and excess temperature.



Type 776

The 776 is designed for cryogenic services down to -196°C. With maximum discharge capacities, it provides positive sealing through a freely pivoted disc with PCTFE soft seat.



Types 480/85/90

The 480/85/90 are liquid relief valves with a cartridge assembly: the spring/spindle assembly can be removed without altering the spring setting to easily clean the seat surface whenever required.



Type 616D

The 616D is a high capacity safety valve for low-pressure air applications. With a blowdown ring, it delivers precise relieving and re-seating pressures.





A-16, A-31, A-31S

Small Pressure Regulating Valves For Water, Air, Light Oil

Model: A-16, A-31 and A-31S

Features:

Reduces high pressure to lower outlet pressure within close limits. Good for inlet pressures up to 300 psi. Maximum temperature 180°F (82°C).



A-360, A-361, A-365

Small Commercial Pressure Regulating Valves

Model: A-360, A-361, A-365

Features:

Recommended for regulating the flow of air, oils, gases and all non-corrosive fluids. Not for use on steam.



B

Model: B

Features:

- Automatically maintains, within close limits, the desired reduced pressure in the service line.
- Threaded connections.
- Iron body valves are for initial pressures up to 200 psi on water, air, oil, or other liquids and gases, and for initial pressures up to 150 psi on steam.
- Maximum delivery pressure in all cases is 125 psi.
- Bronze body valves are for initial pressures up to 400 psi on water, air, oil, etc. and for pressures up to 250 psi on steam.
- Maximum delivery pressure 150 psi.
- Teflon® Seat available for temperatures to 350° maximum on steam.



B-95

Model: B-95

Features:

- Automatically maintains, within close limits, the desired reduced pressure in the service line.
- Threaded connections.
- Investment cast carbon steel and stainless steel bodies, chambers and bottom plug, with stainless steel trim and a choice of Teflon® or BUNA-N-seating.
- Initial pressure up to 720 psig, reduced pressures up to 400 psig and the operating temperature range is -320°F to +450°F depending on the trim options.



Cash Valve Industrial pressure regulating and back pressure valves overview.



BBC

Pressure Regulating Valve For Heavy Oil

Model: BBC

Features:

- Direct acting, single seat, spring loaded diaphragm.
- Maintains lower pressure within reasonably close limits.
- Iron or bronze bodies, threaded connections, Monel® or BUNA-N diaphragm.
- Stainless steel piston and seat, both of which are renewable.
- Standard valve equipped with square head adjusting screw.



E-55

High Capacity Pressure Regulating Valve

Model: E-55

Features:

- Aspirated design for close pressure control.
- Handles high and variable flow rates well beyond the limitations of ordinary regulators.
- Bronze body with stainless steel body seat.
- Brass built in strainer is easily removed for cleaning. Maximum initial pressure, 400 psi.
- Delivery pressure: maximum 300 psi; minimum 25 psi.
- Maximum temperature 180°F (82°C).



G-60

High Capacity Pressure Regulating Valve

Model: G-60

Features: Self-contained, self actuated, threaded connections.

Produces exceptional control with high capacity. Its design offers a wide range of adjustment and exceptional sensitivity of control.



LS

High Pressure Regulating Valve

Model: LS

Features:

- Single seated, spring loaded, direct acting diaphragm type regulator.
- Maintains reduced pressure within reasonably close limits regardless of inlet fluctuations.
- Maximum initial pressure up to 2,400 psi.
- Delivery pressure: maximum, 500 psi; minimum, 40 psi. Bronze body, spring chamber and bottom plug; stainless steel piston/piston assemblies, cylinders, seat ring and strainer screens; BUNA-N diaphragm and O-rings.
- Self-renewable seat ring may be flipped over and reinstalled rather than replaced.

PRESSURE TEMPERATURE RATINGS		
Body	Maximum	
	Inlet Pressure	Temperature °F (°C)
Iron	400	180° (82°)
	250	410° (210°)
Bronze	400	180° (82°)
	300	500° (260°)
Carbon Steel or Stainless Steel	450	750° (399°)
	720	180° (82°)



FR, FR-6, FR-10

Back Pressure Valves

Model: FR, FR-6, FR-10

Features:

- Protects against periodic high pressures; maintains a desired inlet pressure by relieving to a lower variable pressure, or to atmosphere.
- Relieves dependably at adjusted pressures; shuts tight after relieving.
- Features unique "Floating Ring" seating arrangement that produces perfect seat contact.
- The FR valves afford unusually close regulation, repeatability of opening pressure and close reseating pressures.



FRM, FRM-2

Back Pressure Valves

Model: FRM, FRM-2

Features:

Automatically maintains a constant inlet or back pressure. Functions as a pressure limiting regulator, not as a safety device. Bronze body, stain less steel seat ring and disc.



K-5, K-5C

Back Pressure Valves

Model: K-5, K-5C

Features:

- High-capacity valves. For flow up to 200 gallons per minute in the larger sizes.
- Bronze body and trim, threaded connections, bottom and side female connections, brass spring chamber, stain less steel adjusting spring, high temperature gas kets.
- K-5 has a metal seat. K-5C has a soft seat for tight shut-off. Relief pressures range from 5 to 150 psi.



K-10

Back Pressure Valves

Model: K-10

Features:

- Bronze angle body, stainless steel trim, threaded connections, single metal-to-metal seat only, bot tom female inlet, side female outlet. Relief pressure ranges from 15 to 600 psi.
- Maximum temperature is 450°F (232°C).



K-15

High Pressure, Angle By-pass Valve

Model: K-15

Features:

- Angle type by-pass valve handles high pressure up to 1500 psi in brass body.
- Threaded connections.
- Maximum temperature: 450°F (232°C).



KP

Pilot Operated Back Pressure Valve

Model: KP

Features:

- Offers high-capacity, extremely accurate control. Main valve features brass construction, BUNA-N diaphragm and seat disc, stainless steel spring.
- Pilot is brass with stainless steel spring, seat disc and seat ring; bronze diaphragms for air service or neoprene diaphragms for water. Pressure setting 15 to 200 psi.



CP, CP2

Compressor Pilot Valve

Model: CP and CP2

Features:

- Bronze body, bronze trim, with stainless steel seat ring and disc. Maximum Controlled pressure of 600 psig.



A-31VR

Small Vacuum Regulating Valve

Model: A-31VR

Features:

- Furnished in forged brass, with neoprene seat and diaphragm.
- Two adjustable ranges of 2" to 16" and 10" to 30" mercury vacuum.
- All connections are 1/4" IPS.
- Standard valve is plain brass.
- Closely controls low capacity vacuum systems.
- The vacuum source is connected to the bottom of the valve, one sideconnection is for a gauge, the other side connects to the system in which vacuum is to be controlled.
- The sensitive top screw automatically adjusts the vacuum source to maintain the desired vacuum in the system.



D-51, D-52

Vacuum Regulating or Breaker Valves

Model: D-51, D-52

Features:

- Fully adjustable and furnished with bronze bodies, threaded connections and internal parts, neoprene-nylon diaphragms, stainless steel body seats and composition discs.
- Two ranges - 2" to 30" mercury.



D-53

Two Position Control Valve

Model: D-53

Features:

- All bronze, with renewable stainless steel valve seat of full port diameter, renewable composition seat disc, neoprene-nylon diaphragm.
- Rust-proof steel bolting.
- Full port diameter means full capacity and low pressure drop through the valve.
- For maximum hook-up flexibility, diaphragm pressure connection may be indexed to any of four positions: over inlet, over outlet, or either side.
- Maximum body pressure 250 psi; diaphragm pressure 300 psi.
- Maximum temperature 180°F (82°C).