

Type LR125 Pressure Reducing Liquid Regulator

- Rugged design
- Reliable
- Thoroughly tested
- Internally actuated
- Compact
- 1, 2, 3, 4 in. body sizes
- Recommended for water and oil applications
- Full SST construction available for harsh environments
- API 614 Compliant
- Hydrogen Ready

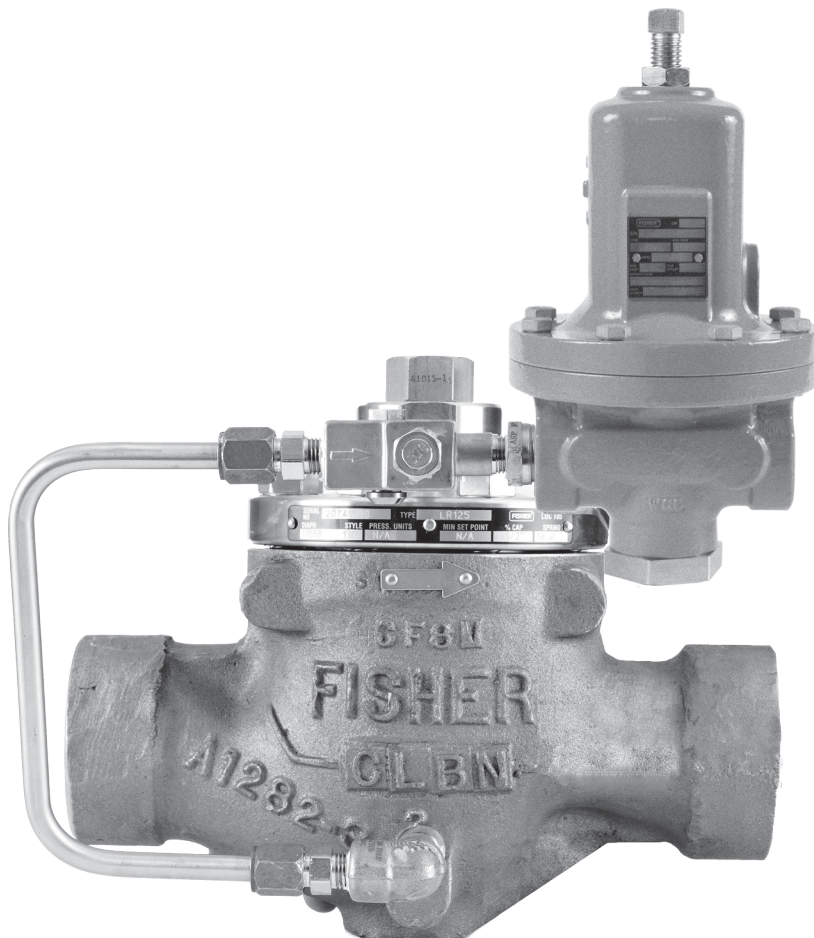


Figure 1. Type LR125 Pressure Reducing Liquid Regulator

Introduction

The Type LR125 pilot-operated, pressure reducing regulator is designed for liquid industrial/commercial applications. The Type LR125 provides smooth operation, tight shutoff and long life. Its internally actuated metal plug eliminates disadvantages associated with flexible element style regulators, and the specially engineered flow path deflects debris, protecting the seat from damage and erosion. The Type LR125 is used in conjunction with a Type MR95H/MR95HP pilot and Type 112 restrictor. An internal inlet strainer prevents large particles from entering the main valve, limiting damage to internal parts.

Features and Benefits

- 1 Tight Shutoff**—The Type LR125 uses a diaphragm and metal plug, eliminating the disadvantages of flexible element style regulators. When open, the metal plug deflects particles and debris away from the diaphragm. The result is enhanced resistance to particle erosion, which provides excellent shutoff over an extended life. When closed, loading pressure and the main spring push the diaphragm onto the tapered-edged seat on the cage.
- 2 Debris Protection**—The specially engineered flow path, along with the metal plug, allows flow through the regulator without seat impingement. The addition of an internal inlet strainer prevents large particles from entering the regulator, minimizing damage to internal parts.

Type LR125

Specifications

The Specifications section lists the specifications for the Type LR125 regulator. Factory specification is stamped on the nameplate fastened on the regulator at the factory.

Main Valve Body Sizes, End Connection Styles and Structural Design Ratings⁽¹⁾⁽²⁾

See Table 1

Maximum Inlet Pressures⁽¹⁾

Type LR125 Main Valve: See Table 1

Type MR95H/MR95HP Pilot: See Table 2

Type 112 Restrictor: 1500 psig / 103 bar

Maximum Outlet Pressure

Type LR125 Main Valve: See Table 1

Type MR95H/MR95HP Pilot: See Table 2

Outlet (Control) Pressure Ranges

See Table 3

Main Valve Plug Travel

1 in. / DN 25: 0.37 in. / 9.4 mm

2 in. / DN 50: 0.68 in. / 17 mm

3 in. / DN 80: 0.98 in. / 25 mm

4 in. / DN 100: 1.19 in. / 30 mm

Main Valve Minimum Differential Pressures⁽¹⁾

See Table 6

Temperature Capabilities⁽¹⁾

See Table 4

Main Valve Flow Direction

Up through the center of the cage and down through the cage slots

Main Valve Internal Inlet Strainer Sizes

1 in. / DN 25: 12 Mesh (0.0661 in. / 1.68 mm)⁽³⁾

2, 3 and 4 in. / DN 50, 80 and 100:

10 Mesh (0.0787 in. / 2 mm)⁽³⁾

Regulating Capacities

See Table 12

Flow and IEC Sizing Coefficients

Type LR125 Main Valve: See Table 7

Type MR95H/MR95HP Pilot: See Table 8

Type 112 Restrictor: See Table 9

Pressure Registration

External: 1/2 NPT

Spring Case Vent

Type Y602-12

Approximate Weights

See Table 10

Options

- Pre-piped Pilot Supply
- Travel Indicator

Construction Materials

Type LR125 Main Valve

Body: WCC Steel, CF8M or CF3M Stainless Steel

Bonnet: Steel or Stainless Steel

Bonnet Bushing: Steel or Stainless Steel

Cage: Stainless steel

Spring: Stainless steel

Top Plug: Stainless steel

Bottom Plug: Stainless steel

Internal Inlet Strainer: Stainless steel

Diaphragm: Nitrile (NBR) or Fluorocarbon (FKM)

O-rings: Nitrile (NBR) or Fluorocarbon (FKM)

Flanged Locknut: Stainless Steel

Backup Rings: Polytetrafluoroethylene (PTFE)

Upper Spring Seat: Stainless steel

Indicator Protector and Cover: Plastic

Indicator Stem: Stainless steel

Indicator Fitting: Stainless steel

Travel Indicator Plug: Stainless steel

Type MR95H/MR95HP Pilot

Body: WCC Steel or CF8M Stainless Steel

Spring Case: WCC Steel or CF8M Stainless Steel

Orifice: Stainless Steel

Diaphragm: Neoprene (CR) or Fluorocarbon (FKM)

Disk: Nitrile (NBR) or Fluorocarbon (FKM)

Mounting Parts

Pilot Mounting Pipe Nipple: Plated steel or Stainless steel

Pipe Fittings: Plated steel or Stainless steel

Tubing: Stainless Steel

Type 112 Restrictor

Body: 15-5 Stainless Steel

Groove Valve: Stainless steel

Retainer: Stainless steel

Pipe Plug: Stainless steel

O-rings: Nitrile (NBR) or Fluorocarbon (FKM)

1. The pressure/temperature limits in this Bulletin and any applicable standard or code limitation should not be exceeded.

2. Ratings and end connections other than ASME standards can usually be provided; contact your local Sales Office.

3. Nominal sieve opening

3 High Accuracy—Multiple control pressure ranges offered by Type MR95H/MR95HP pilot and lower accuracy class inherent to pilot operated pressure regulator design provide the Type LR125 with tight and accurate control.

4 Long Life—The robust design of the Type LR125 with its metal plug and specially engineered flow path allows flow through the regulator without seat impingement. The diaphragm design eliminates the possibility of taking a “set”, a common problem

with flexible element style regulators. To prevent damage, the diaphragm is fully supported in both the open and closed positions. These features enable the Type LR125 components to work longer with less wear and tear.

5 Full Usable Capacity—Fisher™ branded regulators are laboratory tested. One hundred percent of the published flow capacity can be used with confidence.

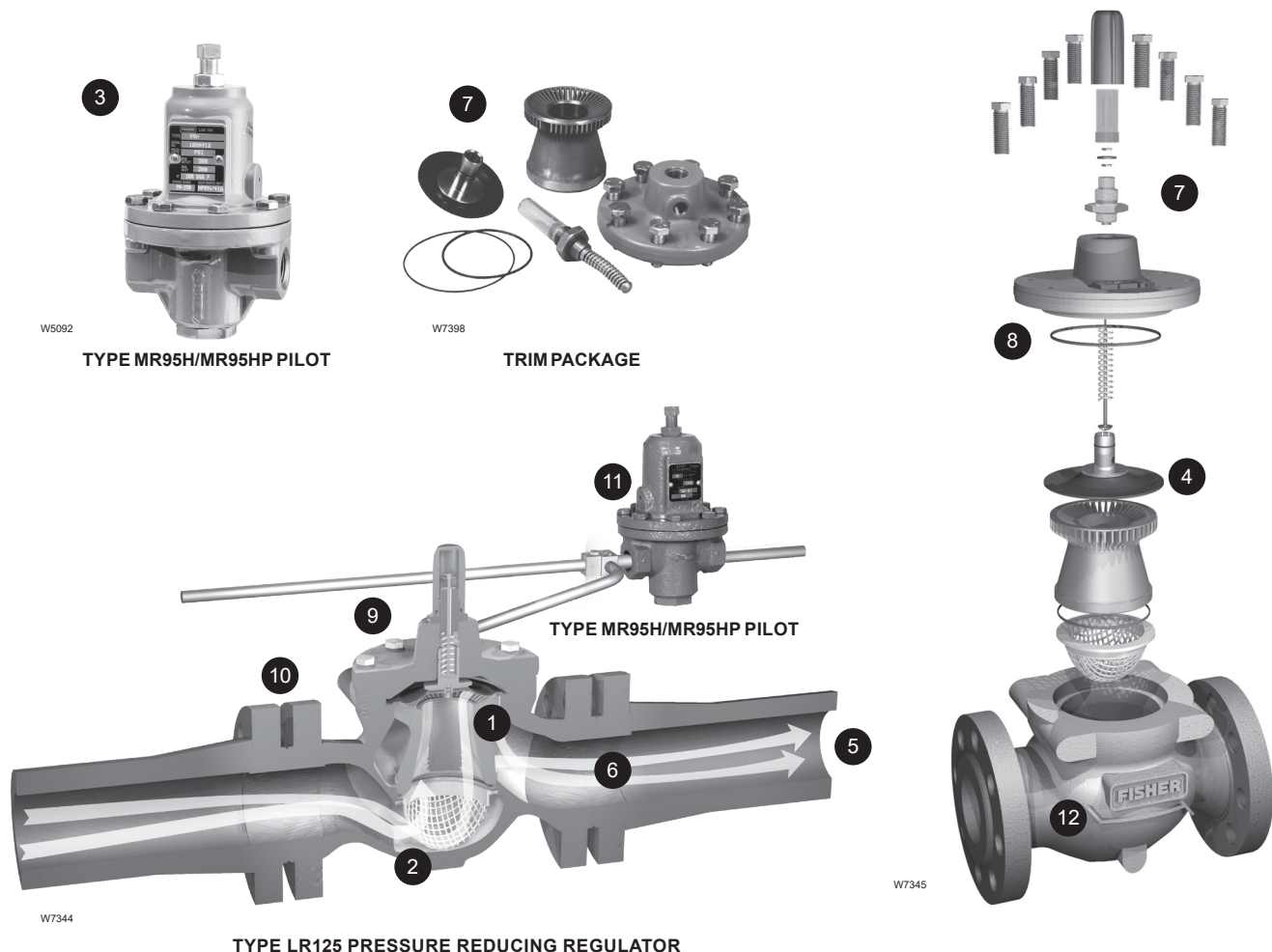


Figure 2. Type LR125 Features and Benefits

- 6 Thorough Laboratory Testing**—Emerson Process Management Regulator Technologies, Inc. (Emerson) state-of-the-art flow laboratory allows thorough testing of all new designs. Tests are conducted on Fisher branded regulators for performance features such as flow, strength, shutoff and material compatibility.
- 7 Easy In-Line Maintenance**—Top-entry design reduces maintenance time. Trim parts can be inspected, cleaned and replaced without removing the body from the pipeline. No special alignment is required when replacing the diaphragm.
- 8 O-ring Design**—The Type LR125 uses elastomer O-rings instead of gaskets, reducing maintenance and assembly time.
- 9 In-Service Travel Indicator**—The optional travel indicator responds to the precise movement of the diaphragm and plug assembly and shows the actual valve position. The travel indicator makes in-service inspection and troubleshooting easy. Also, it can be used for remote alarming and monitoring stem position.
- 10 Versatility**—The Type LR125 uses the E-body, making available the standard construction materials and end connections (ASME and EN) used by other E-body regulators and control valves. Type MR95H can handle inlet pressures up to 300 psig / 20.7 bar and outlet pressures from 15 to 150 psig / 1.0 to 10.3 bar. Type MR95HP can handle up to 600 psig / 41.4 bar and outlet pressures from 15 to 400 psig / 1.0 to 27.6 bar.
- 11 Easy-to-Maintain**—The pilot is designed to allow quick and simple in-line trim inspection and parts replacement.
- 12 Powder Paint Coating**—Carbon steel body is powder paint coated providing superior impact, abrasion and corrosion resistance.
- 13 Hydrogen Ready**—Products have been evaluated for material compatibility, potential leakage and permeation and susceptibility to embrittlement for Hydrogen applications. Based on an extensive evaluation and testing program, Type LS200 configurations are available for use in Hydrogen applications.

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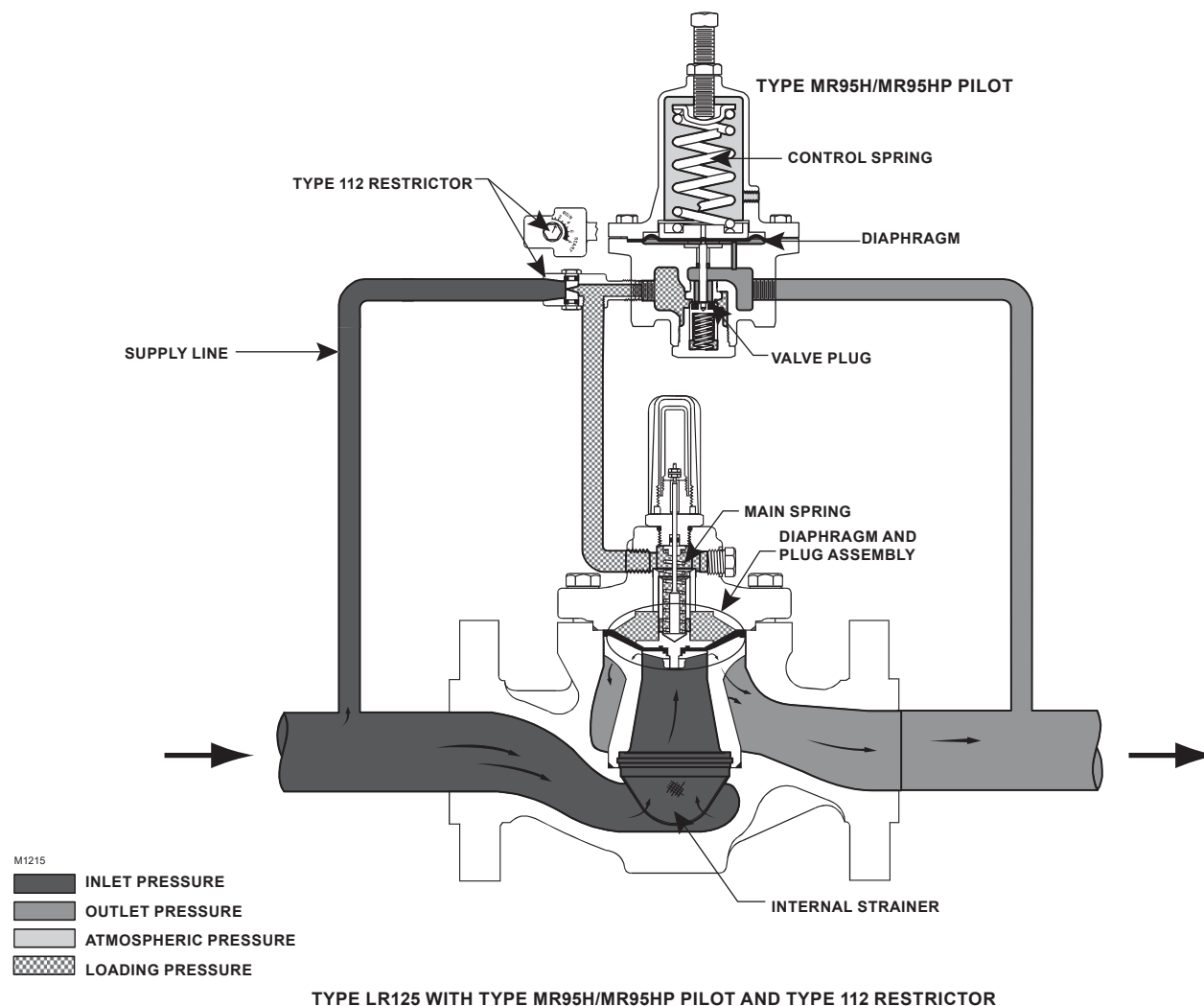


Figure 3. Type LR125 Operational Schematic

Pilot Type Description

Type MR95H—High-pressure pressure reducing pilot for 15 to 150 psig / 1.0 to 10.3 bar outlet pressures. Designed to handle inlet pressures up to 300 psig / 20.7 bar.

Type MR95HP — High-pressure reducing pilot for 15 to 400 psig / 1.0 to 27.6 bar outlet pressures. Designed to handle inlet pressures up to 600 psig / 41.4 bar.

Principle of Operation

As long as the outlet (control) pressure is above the outlet pressure setting, the pilot valve plug or disk remains closed (Figure 3). Force from the main spring, in addition to inlet pressure bleeding through the restrictor, provide downward loading pressure to keep the main valve diaphragm and plug assembly tightly shutoff.

When the outlet pressure decreases below the pilot outlet pressure setting, the pilot plug or disk assembly opens. Loading pressure bleeds downstream through the pilot faster than it can be replaced through the supply line. This reduces loading pressure on top of the main valve diaphragm and plug assembly

and lets the unbalanced force between inlet and loading pressure overcome the main spring force to open the Type LR125 diaphragm and plug assembly.

As the outlet pressure rises toward the outlet pressure setting, it compresses the pilot diaphragm against the pilot control spring and lets the pilot valve plug or disk close. Loading pressure begins to build up on the Type LR125 diaphragm and plug assembly. The loading pressure, along with force from the main spring, pushes the diaphragm and plug assembly onto the tapered-edge seat, producing tight shutoff.

Installation

The robust design of the Type LR125 allows this regulator to be installed indoors or outdoors. This regulator is designed to withstand the elements. The powder paint coating protects regulator against minor impacts, abrasions and corrosion. When installed outdoors, the Type LR125 does not require protective housing. However, the Type MR95H/MR95HP pilot should be oriented so that the pilot spring case vent is pointed down. Otherwise, make sure the vent is protected so that rain,

Table 1. Type LR125 Main Valve Body Sizes, End Connection Styles, Structural Design Ratings and Maximum Operating Inlet Pressures⁽¹⁾

MAIN VALVE BODY SIZE		MAIN VALVE BODY MATERIAL	END CONNECTION STYLE ⁽²⁾	STRUCTURAL DESIGN RATING ⁽³⁾		MAXIMUM OPERATING INLET PRESSURE ⁽³⁾	
In.	DN			psig	bar	psig	bar
1, 2, 3 and 4	25, 50, 80 and 100	WCC Steel	NPT or SWE (1 and 2 in. only)	1500	103	600	41.4
			CL150 RF	290	20.0	290	20.0
			CL300 RF	750	51.7	600	41.4
			CL600 RF	1500	103		
			PN 16/25/40 RF ⁽⁴⁾	580	40.0		
		CF8M Stainless steel	NPT (1 and 2 in. only)	1440	99.2	550	37.9
			CL150 RF	275	19.0	275	19.0
			CL300 RF	720	49.6	550	37.9
			CL600 RF	1440	99.2		
			PN 16/25/40 RF ⁽⁴⁾	580	40.0		

1. The pressure/temperature limits in this Bulletin and any applicable standard or code limitation should not be exceeded.

2. Ratings and end connections for other than ASME standard can usually be provided. Contact your local Sales Office for assistance.

3. Maximum cold working pressure (CWP) per ASME B16.34 or product Bulletin limit, whichever is lowest. Temperature may decrease these maximum pressures.

4. Not available for 4 in. / DN 100 body size.

Table 2. Pilot Maximum Cold Working Pressure⁽¹⁾⁽²⁾

PILOT	BODY SIZE	BODY AND SPRING CASE MATERIAL	MAXIMUM INLET PRESSURE	MAXIMUM OUTLET PRESSURE
Type MR95H	1/2 NPT	Steel Stainless steel	300 psig / 20.7 bar 300 psig / 20.7 bar	300 psig / 20.7 bar 300 psig / 20.7 bar
Type MR95HP	1/2 NPT	Steel Stainless steel	600 psig / 41.4 bar 600 psig / 41.4 bar	600 psig / 41.4 bar 550 psig / 37.9 bar

1. The pressure/temperature limits in this Bulletin, and any applicable standard or code limitation should not be exceeded.

2. Temperature and/or the body end connection may decrease these maximum pressures.

Table 3. Outlet (Control) Pressure Ranges

PILOT	OUTLET PRESSURE RANGE		SPRING WIRE DIAMETER		SPRING FREE LENGTH		SPRING PART NUMBER AND COLOR
	psig	bar	In.	mm	In.	mm	
Type MR95H	15 to 30	1.0 to 2.1	0.207	5.26	2.50	63.5	ERCA04288A0, Yellow
	25 to 75	1.7 to 5.2	0.234	5.94	2.60	65.9	ERAA01910A0, Green
	70 to 150	4.8 to 10.3	0.283	7.19	2.44	62.0	ERAA01911A0, Red
Type MR95HP	15 to 100	1.0 to 6.9	0.281	7.14	2.50	63.5	ERCA04294A0, Unpainted
	80 to 400	5.5 to 27.6	0.375	9.53	2.60	63.5	ERCA04293A0, Unpainted

Table 4. Diaphragm Material Selection Information

	17E68 NITRILE (NBR)	17E97 NITRILE (NBR)	17E88 FLUOROCARBON (FKM)
Liquid Temperature	-20 to 150°F / -29 to 66°C	0 to 150°F / -18 to 66°C	0 to 250°F / -18 to 121°C ⁽¹⁾⁽²⁾
General Applications	Best for low pressure differential and cold temperature service applications.	Best for abrasive or erosive service applications.	Best for high temperature applications.
Heavy Particle Erosion	Fair	Excellent	Good

1. Fluorocarbon (FKM) is limited to 200°F / 93°C in hot water.

2. For differential pressures above 400 psig / 28 bar diaphragm temperature is limited to 150°F / 66°C.

Table 5. Main Valve Maximum Pressure Ratings, Diaphragm Selection Information and Main Spring Selection⁽¹⁾

BODY SIZE		DIAPHRAGM MATERIAL	MAXIMUM OPERATING INLET PRESSURE ⁽⁴⁾		MAXIMUM OPERATING DIFFERENTIAL PRESSURE ⁽³⁾⁽⁴⁾		MAXIMUM EMERGENCY INLET AND DIFFERENTIAL PRESSURE		MAIN SPRING COLOR
NPS	DN		psig	bar	psig	bar	psid	bar d	
1	25	17E68 Nitrile (NBR)	300	20.7	300	20.7	300	20.7	Black and Yellow
			600	41.4	600	41.4	600	41.4	Black and White ⁽²⁾
		17E88 Fluorocarbon (FKM)	300	20.7	300	20.7	300	20.7	Black and Yellow
			600	41.4	500	34	600	41.4	Black and White ⁽²⁾
2	50	17E68 Nitrile (NBR)	300	20.7	300	20.7	300	20.7	Green and White
			600	41.4	600	41.4	600	41.4	Green and White
		17E88 Fluorocarbon (FKM)	300	20.7	300	20.7	300	20.7	Red ⁽²⁾
			600	41.4	500	34	600	41.4	Green and White
									Red ⁽²⁾
3	80	17E68 Nitrile (NBR)	300	20.7	300	20.7	300	20.7	Light Blue and White
			600	41.4	600	41.4	600	41.4	Light Blue and White
		17E88 Fluorocarbon (FKM)	300	20.7	300	20.7	300	20.7	Black and White ⁽²⁾
			600	41.4	500	34	600	41.4	Black and White ⁽²⁾
4	100	17E68 Nitrile (NBR)	300	20.7	300	20.7	300	20.7	Green and White
			600	41.4	600	41.4	600	41.4	Red and White ⁽²⁾
		17E88 Fluorocarbon (FKM)	300	20.7	300	20.7	300	20.7	Green and White
			600	41.4	500	34	600	41.4	Red and White ⁽²⁾

1. See Table 1 for main valve structural design ratings and Table 2 for pilot ratings.

2. The black and white, red, and red and white springs are only recommended for applications where the maximum inlet pressure can exceed 300 psig / 20.7 bar.

3. Maximum differential pressures may be lower for applications where cavitation may be present.

4. These are recommendations that provide the best regulator performance for a typical application. Please contact your local Sales Office for further information if a deviation from the standard recommendations are required.

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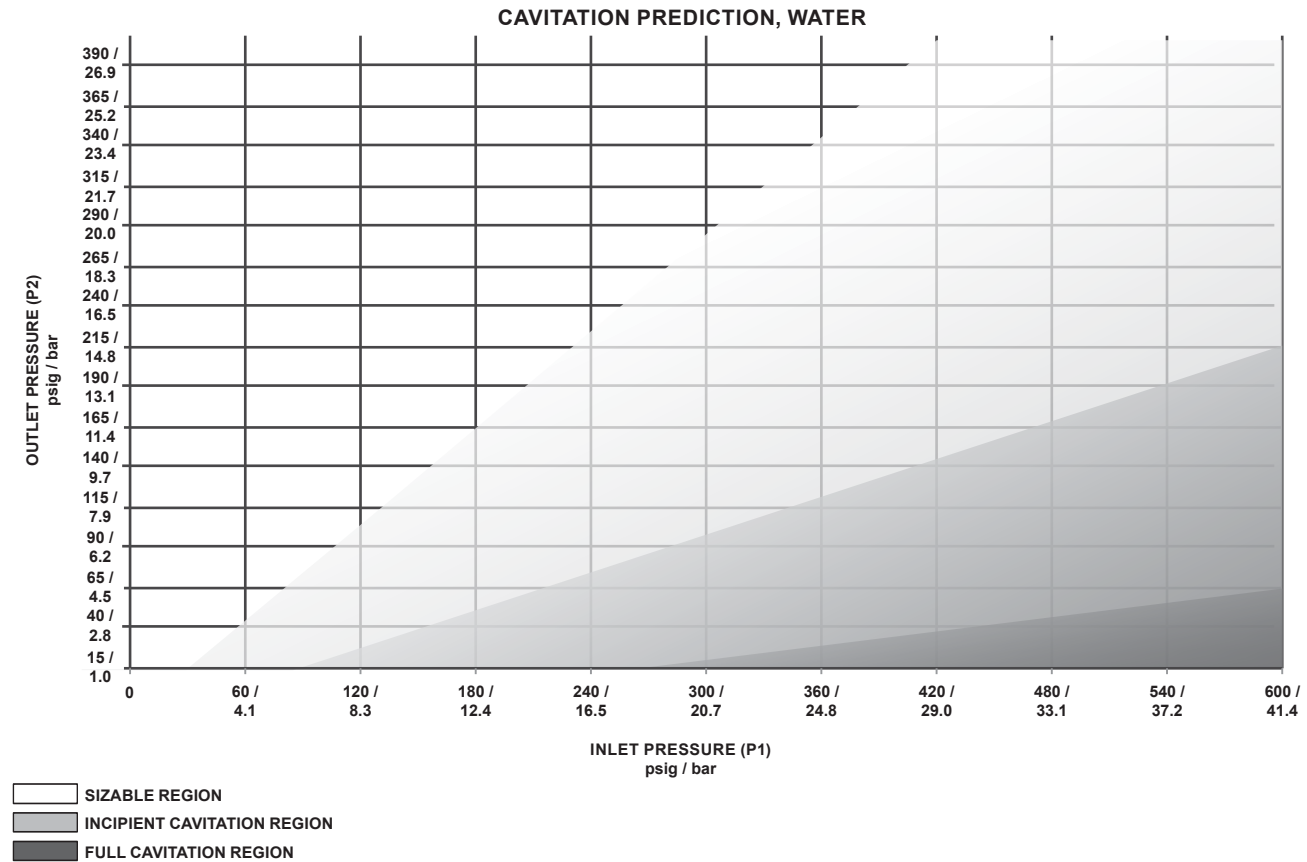


Figure 4. Cavitation Sizing for Water

Table 6. Main Valve Minimum Differential Pressures⁽¹⁾

MAIN VALVE BODY SIZE		MAIN SPRING PART NUMBER AND COLOR	DIAPHRAGM MATERIAL	MINIMUM DIFFERENTIAL, PERCENT OF CAPACITY			
				For 90% Capacity		For 100% Capacity	
In.	DN			psid	bar d	psid	bar d
1	25	GE12727X022, Black and Yellow	17E68 and 17E88	30	2.1	30	2.1
			17E97	35	2.5	35	2.5
		19B2401X022, Black and White	17E88 and 17E97	43	3.0	43	3.0
2	50	18B2126X022, Green and White	17E68 and 17E88	18	1.2	19	1.3
			17E97	24	1.7	24	1.7
		18B5955X012, Red	17E88 and 17E97	29	2.0	31	2.1
3	80	19B0781X022, Light Blue and White	17E68 and 17E88	21	1.5	28	1.9
			17E97	23	1.6	23	1.6
		19B0782X022, Black and White	17E88 and 17E97	32	2.2	38	2.6
4	100	18B8501X022, Green and White	17E68 and 17E88	16	1.1	30	2.1
			17E97	16	1.1	34	2.3
		18B8502X022, Red and White	17E88 and 17E97	21	1.5	40	2.8

1. See Table 1 for structural design ratings and Table 2 for pilot rating.

Table 7. Flow and Sizing Coefficients for Type LR125 Main Valve at 100% Capacity

MAIN VALVE BODY SIZE		REGULATING COEFFICIENTS		WIDE-OPEN COEFFICIENTS		K_m	IEC SIZING COEFFICIENTS		
In.	DN	C_v	C_1	C_v	C_1		X_T	F_D	F_L
1	25	14.8	33.4	15.2	33.5	0.88	0.706	0.06	0.94
2	50	50.8	37.2	52.4	37.2	0.92	0.875	0.09	0.96
3	80	91.4	38.8	94.1	38.8	0.94	0.952	0.09	0.97
4	100	147	38.7	151	38.7	0.85	0.947	0.09	0.92

Table 8. Flow and Sizing Coefficients for Type MR95H/MR95HP Pilot

BODY SIZE, IN. / DN	WIDE-OPEN COEFFICIENT	C_1	K_m	IEC SIZING COEFFICIENTS		
	C_v			X_T	F_D	F_L
1/2 / 15	2.9	35.5	0.79	0.797	0.70	0.89

$K_m = F_L^2$

Table 9. Type 112 Restrictor Flow Coefficients

RESTRICTOR SETTING	C _v	C _i
2	0.03	35
4	0.07	
6	0.14	
8	0.17	

Table 10. Approximate Weights Including Type MR95H/MR95HP Pilot and Restrictor

BODY SIZE		MAIN VALVE BODY, LBS / kg			
In.	DN	NPT or SWE	CL150 RF	CL300 RF	CL600 RF
1	25	22 / 10	24 / 11	28 / 13	32 / 15
2	50	51 / 23	54 / 24	58 / 26	65 / 29
3	80	103 / 47	107 / 49	110 / 50	123 / 56
4	100	139 / 63	145 / 66	159 / 72	192 / 87

moisture, insects or any debris will not accumulate inside or block the vent assembly. When installed indoors, install remote venting of the pilot spring case as required by applicable codes and regulations.

Overpressure Protection

Overpressuring any portion of a regulator or associated equipment may cause personal injury, leakage or property damage due to bursting of pressure-containing parts. Provide appropriate pressure relieving or pressure limiting devices to ensure that the limits in the Specifications section are not exceeded. Common methods of external overpressure protection include relief valves, monitoring regulators, shutoff devices and series regulation. Regulator operation within ratings does not prevent the possibility of damage from external sources or from debris in the pipeline. Install additional strainer or filter upstream of the regulator for applications with high levels of debris.

Cavitation Sizing

Note

The cavitation sizing graph in Figure 4 applies to water only. For cavitation sizing for other liquids, contact your local Sales Office.

Use Figure 4 to determine cavitation sizing of Type LR125. The Cavitation Prediction Curve depicts P1 and P2 combinations where cavitation is likely to occur. The curve shape was determined through analysis and lab confirmation on water. Determine the desired inlet pressure and outlet pressure of the system and find the intersection of those values on the graph.

No Cavitation Region—Cavitation is not expected in this region. Damage to regulator components and piping is highly unlikely as a result of cavitation.

Note

Emerson denies responsibility for damage and voids the warranty if the product is used within the Cavitation Region (see Figure 4).

Cavitation Region—Cavitation may occur. Damage to regulator components and piping is possible. The risk of damage increases as P1 and P2 move down and to the right on the table. Cavitation damage can be avoided by dividing the total pressure drop into stages so that the P1 and P2 combination falls into the “No Cavitation Region” at every stage.

Capacity Information

Note

Flow capacities are laboratory verified; therefore, regulators may be sized for 100% flow published capacities. It is not necessary to reduce published capacities.

The capacity information on the following pages is based on four % droop, 10%, 20%, 30% and 40%. Droop is the negative control deviation or pressure offset below the setpoint of the regulator.

Table 11 shows Cv values at different % droop and selected inlet pressures and outlet pressure settings.

Table 12 shows the liquid regulating capacities of the Type LR125 regulator at selected inlet pressures and outlet pressure settings. Flows are in gallons per minute (GPM) and liters per minute (L/min) of water.

Type LR125

Table 11. $C_v^{(1)}$ at % Droop (Pressure Offset Below Setpoint)⁽²⁾

SPRING RANGE AND COLOR	SET PRESSURE		INLET		1 IN. / DN 25				2 IN. / DN 50				3 IN. / DN 80				4 IN. / DN 100			
	psig	bar	psig	bar	10%	20%	30%	40%	10%	20%	30%	40%	10%	20%	30%	40%	10%	20%	30%	40%
15 to 30 psig / 1.0 to 2.1 bar Yellow	15	1.0	45	3.1	14.8	14.8	14.8	14.8	39.7	44.2	48.3	50.8	83.0	89.2	91.4	91.4	133.4	143.4	147.0	147.0
			50	3.4	14.8	14.8	14.8	14.8	39.2	44.4	48.4	50.6	83.3	89.6	91.4	91.4	134.0	144.1	147.0	147.0
			60	4.1	14.8	14.8	14.8	14.8	38.3	44.9	48.5	50.0	84.1	90.4	91.4	91.4	135.2	145.4	147.0	147.0
			65	4.5	14.8	14.8	14.8	14.8	37.8	45.2	48.6	49.7	84.5	90.8	91.4	91.3	135.8	146.0	147.0	146.8
	20	1.4	50	3.4	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.8	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			60	4.1	14.8	14.8	14.8	14.8	48.5	50.7	50.7	50.4	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			70	4.8	14.8	14.8	14.8	14.8	46.1	50.0	50.4	49.9	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			75	5.2	14.8	14.8	14.8	14.8	44.9	49.7	50.3	49.7	91.2	91.4	91.4	91.4	146.7	147.0	147.0	146.1
	30	2.1	60	4.1	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.8	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			75	5.2	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.7	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			90	6.2	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.2	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			100	6.9	14.8	14.8	14.8	14.8	47.6	50.8	50.6	49.8	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
25 to 75 psig / 1.7 to 5.2 bar Green	25	1.7	55	3.8	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.8	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			75	5.2	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.6	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			80	5.5	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.5	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			90	6.2	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.3	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
	50	3.4	80	5.5	14.8	14.8	14.8	14.8	49.0	50.1	49.9	49.7	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			100	6.9	14.8	14.8	14.8	14.8	49.1	50.1	50.0	49.8	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			125	8.6	14.8	14.8	14.8	14.8	49.2	50.0	50.1	50.1	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			150	10.3	14.8	14.8	14.8	14.8	49.3	50.0	50.2	50.3	91.4	91.4	91.4	90.9	147.0	147.0	147.0	146.2
	75	5.2	110	7.6	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.8	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			125	8.6	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.8	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			150	10.3	14.8	14.8	14.8	14.8	49.8	49.8	49.5	49.9	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			175	12.1	14.7	14.8	14.8	14.8	45.3	46.4	46.4	47.1	86.1	87.9	88.0	88.7	138.5	141.3	141.6	142.6
			200	13.8	14.2	14.5	14.6	14.5	40.7	43.1	43.3	44.2	80.6	83.4	84.0	84.6	129.6	134.2	135.0	136.0
70 to 150 psig / 4.8 to 10.3 bar Red	70	4.8	100	6.9	14.8	14.8	14.8	14.8	50.5	49.4	49.3	49.9	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			125	8.6	14.8	14.8	14.8	14.8	46.1	46.0	46.6	47.5	87.7	88.6	89.5	91.4	141.1	142.5	143.9	147.0
			150	10.3	14.7	14.7	14.7	14.8	41.6	42.7	43.8	45.0	82.8	84.0	84.9	86.6	133.1	135.0	136.5	139.2
			175	12.1	14.6	14.8	14.8	14.8	44.6	46.0	46.0	46.7	85.2	87.0	87.2	87.9	137.1	139.9	140.2	141.4
			190	13.1	14.5	14.8	14.8	14.8	46.4	47.9	47.3	47.7	86.7	88.8	88.5	88.8	139.4	142.8	142.4	142.8
			200	13.8	14.5	14.8	14.8	14.8	47.7	49.2	48.2	48.4	87.7	90.0	89.5	89.3	141.0	144.7	143.9	143.7
			130	9.0	14.8	14.8	14.8	14.8	50.8	50.0	49.6	49.7	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			150	10.3	14.8	14.8	14.8	14.8	50.1	49.5	49.2	49.3	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
	100	6.9	175	12.1	14.8	14.8	14.8	14.8	48.4	48.9	48.7	48.8	90.7	91.4	91.4	91.4	145.8	147.0	147.0	147.0
			200	13.8	14.8	14.8	14.8	14.8	46.7	48.3	48.2	48.4	88.1	90.3	90.4	90.4	141.6	145.2	145.4	145.3
			250	17.2	14.2	14.2	14.2	14.2	43.2	47.1	47.3	47.4	82.8	86.2	86.5	86.5	133.2	138.6	139.1	139.2
			275	19.0	13.9	13.7	13.7	13.7	41.5	46.5	46.8	46.9	80.2	84.1	84.5	84.6	129.0	135.3	135.9	136.1
			155	10.7	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.8	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			175	12.1	14.8	14.8	14.8	14.8	50.8	50.8	50.8	50.6	91.4	91.4	91.4	91.4	147.0	147.0	147.0	147.0
			200	13.8	14.8	14.8	14.8	14.8	45.8	47.5	48.3	48.3	88.4	90.5	91.2	91.2	142.2	145.5	146.6	146.7
			250	17.2	14.8	14.8	14.8	14.8	43.6	46.4	46.9	47.0	85.2	87.7	88.2	88.1	137.0	141.1	141.9	141.8
	125	8.6	275	19.0	14.7	14.6	14.6	14.6	42.5	45.8	46.3	46.3	83.6	86.3	86.7	86.6	134.4	138.9	139.5	139.3
			300	20.7	14.5	14.3	14.3	14.3	41.4	45.3	45.6	45.6	82.0	85.0	85.2	85.1	131.8	136.6	137.1	136.8
			180	12.4	14.8	14.8	14.8	14.8	45.4	47.2	49.0	49.0	89.2	91.3	91.4	91.4	143.5	146.8	147.0	147.0
			200	13.8	14.8	14.8	14.8	14.8	45.0	46.7	48.3	48.3	88.8	90.7	91.4	91.4	142.8	145.9	147.0	147.0
			225	15.5	14.8	14.8	14.8	14.8	44.5	46.2	47.5	47.5	88.2	90.0	90.9	90.9	141.8	144.7	146.3	146.2
			250	17.2	14.8	14.8	14.8	14.8	44.0	45.7	46.6	46.6	87.5	89.3	89.9	89.8	140.8	143.6	144.7	144.4
			275	19.0	14.8	14.8	14.8	14.8	43.5	45.2	45.8	45.7	86.9	88.5	88.9	88.6	139.8	142.4	143.0	142.5
			300	20.7	14.8	14.8	14.8	14.8	43.1	44.6	44.9	44.9	86.3	87.8	87.9	87.4	138.8	141.2	141.4	140.6
200	13.8	250	17.2	14.8	14.8	14.8	14.8	48.9	48.0	46.6	45.7	88.9	89.7	89.6	89.2	143.1	144.3	144.0	143.5	
		300	20.7	14.6	14.3	14.2	13.9	48.6	47.2	46.1	45.1	86.4	87.9	87.9	87.6	139.0	141.4	141.3	141.0	
		400	27.6	14.2	14.1	14.0	13.5	41.1	41.5	41.9	40.4	81.3	84.2	84.5	84.4	130.8	135.5	135.9	135.9	
		300	20.7	14.8	13.6	13.9	14.0	46.6	44.3	44.5	44.5	88.7	89.3	89.1	88.6	142.6	143.7	143.2	142.5	
		400	27.6	14.4	14.1	14.1	14.1	43.6	43.7	43.3	42.8	83.6	85.7	85.7	85.4	134.5	137.9	137.8	137.4	
		500	34.5	14.0	14.0	13.9	13.6	39.8	41.0	41.0	39.6	78.5	82.1	82.3	82.2	126.4	132.0	132.3	132.3	
		350	24.1	14.8	12.7	13.0	12.1	46.4	44.9	44.1	43.8	88.4	89.0	88.6	87.9	142.2	143.1	142.4	141.5	
		400	27.6	14.8	14.3	14.3	13.5	44.5	43.6	42.9	42.6	85.9	87.1	86.9	86.4	138.2	140.2	139.7	139.0	
300	20.7	500	34.5	14.2	14.0	14.0	13.6	41.0	41.5	42.0	40.0	80.8	83.5	83.5	83.2	130.0	134.4	134.2	133.9	
		600	41.4	13.8	13.7	13.7	13.5	39.4	39.4	39.8	38.5	75.8	79.9	80.1	80.0	121.9	128.5	128.8	128.8	
		450	31.0	14.8	14.3	14.3	14.0	46.4	46.1	44.0	43.5	87.9	88.2	87.6	86.7	141.4	142.0	140.8	139.5	
		500	34.5	14.6	14.3	14.1	13.9	44.5	43.6	43.3	42.6	85.4	86.4	85.9	85.1	137.4	139.0	138.0	136.9	
400	27.6	600	41.4	14.2	14.0	14.0	13.6	41.0	41.5	41.2	39.2	80.3	82.8	82.5	81.9	129.2	133.2	132.6	131.8	

Table 12. Capacity⁽¹⁾, Water (GPM / L/min) for 1 and 2 in. / DN 25 and 50 Bodies at % Droop (Pressure Offset Below Setpoint)⁽²⁾

SPRING RANGE AND COLOR	OUTLET PRESSURE		INLET		1 IN. / DN 25								2 IN. / DN 50							
					10%		20%		30%		40%		10%		20%		30%		40%	
	psig	bar	psig	bar	GPM	L/min	GPM	L/min	GPM	L/min	GPM	L/min	GPM	L/min	GPM	L/min	GPM	L/min	GPM	L/min
15 to 30 psig / 1.0 to 2.1 bar Yellow	15	1.0	45	3.1	83	314	85	322	87	329	89	337	223	844	254	961	284	1075	305	1155
			50	3.4	89	337	91	344	93	352	95	360	237	897	274	1037	304	1151	324	1226
			60	4.1	101	382	103	390	104	394	106	401	261	988	311	1177	341	1291	357	1351
			65	4.5	106	401	108	409	109	413	111	420	272	1030	329	1245	359	1359	372	1408
	20	1.4	50	3.4	84	318	86	326	89	337	91	344	287	1086	296	1120	305	1155	313	1185
			60	4.1	96	363	98	371	100	379	103	390	314	1189	336	1272	344	1302	349	1321
			70	4.8	107	405	109	413	111	420	113	428	333	1261	368	1393	378	1431	380	1438
			75	5.2	112	424	114	432	116	439	117	443	339	1283	382	1446	393	1488	394	1491
	30	2.1	60	4.1	85	322	89	337	92	348	96	363	292	1105	305	1155	317	1200	329	1245
			75	5.2	103	390	106	401	109	413	112	424	352	1332	363	1374	373	1412	383	1450
			90	6.2	117	443	120	454	123	466	126	477	403	1526	413	1563	422	1597	426	1613
			100	6.9	126	477	129	488	132	500	134	507	407	1541	443	1677	450	1703	451	1707
25 to 75 psig / 1.7 to 5.2 bar Green	25	1.7	55	3.8	84	318	88	333	91	344	94	356	290	1098	301	1139	311	1177	321	1215
			75	5.2	107	405	110	416	112	424	115	435	368	1393	377	1427	385	1457	392	1484
			80	5.5	112	424	115	435	117	443	119	450	385	1457	393	1488	402	1522	407	1541
			90	6.2	122	462	124	469	126	477	128	485	417	1579	425	1609	433	1639	435	1647
	50	3.4	80	5.5	88	333	94	356	99	375	105	397	290	1098	317	1200	335	1268	351	1329
			100	6.9	110	416	115	435	119	450	124	469	364	1378	388	1469	403	1526	417	1579
			125	8.6	132	500	136	515	140	530	144	545	440	1666	461	1745	475	1798	488	1847
			150	10.3	152	575	155	587	159	602	162	613	505	1912	524	1984	538	2037	551	2086
	75	5.2	110	7.6	96	363	105	397	112	424	119	450	331	1253	359	1359	385	1457	410	1552
			125	8.6	112	424	119	450	126	477	132	500	385	1457	410	1552	433	1639	454	1719
			150	10.3	134	507	140	530	146	553	152	575	452	1711	472	1787	489	1851	511	1934
			175	12.1	153	579	159	602	164	621	169	640	469	1775	498	1885	514	1946	536	2029
			200	13.8	164	621	171	647	177	670	180	681	469	1775	510	1931	526	1991	551	2086
			200	6.9	90	341	98	371	106	401	113	428	307	1162	327	1238	352	1332	380	1438
70 to 150 psig / 4.8 to 10.3 bar Red	70	4.8	125	8.6	117	443	123	466	129	488	135	511	363	1374	382	1446	406	1537	432	1635
			150	10.3	137	519	143	541	148	560	154	583	388	1469	414	1567	440	1666	468	1772
			175	12.1	154	583	161	609	166	628	171	647	472	1787	501	1896	516	1953	539	2040
			190	13.1	164	621	171	647	176	666	180	681	523	1980	555	2101	562	2127	580	2196
			200	13.8	170	644	178	674	182	689	186	704	558	2112	591	2237	592	2241	608	2302
			200	9.0	94	356	105	397	115	435	124	469	321	1215	353	1336	384	1454	416	1575
	100	6.9	150	10.3	115	435	124	469	132	500	140	530	388	1469	414	1567	440	1666	468	1772
			175	12.1	136	515	144	545	152	575	159	602	446	1688	476	1802	499	1889	524	1984
			200	13.8	155	587	162	613	169	640	175	662	489	1851	529	2002	550	2082	572	2165
			250	17.2	180	681	185	700	191	723	196	742	547	2071	614	2324	634	2400	653	2472
			275	19.0	189	715	191	723	197	746	202	765	565	2139	649	2457	670	2536	687	2601
			155	10.7	96	363	110	416	122	462	132	500	331	1253	377	1427	417	1579	454	1719
	125	8.6	175	12.1	117	443	128	485	138	522	148	560	402	1522	440	1666	475	1798	506	1915
			200	13.8	138	522	148	560	157	594	165	625	429	1624	475	1798	512	1938	541	2048
			250	17.2	174	659	181	685	189	715	196	742	512	1938	568	2150	598	2264	622	2355
			275	19.0	187	708	193	731	200	757	206	780	542	2052	606	2294	633	2396	655	2479
			300	20.7	198	750	203	768	209	791	214	810	567	2146	640	2423	665	2517	684	2589
			180	12.4	99	375	115	435	128	485	140	530	305	1155	365	1382	424	1605	465	1760
80 to 400 psig / 5.5 to 27.6 bar Silver Spring	200	13.8	200	13.8	119	450	132	500	144	545	155	587	363	1374	418	1582	471	1783	507	1919
			225	15.5	140	530	152	575	162	613	172	651	422	1597	474	1794	520	1968	552	2090
			250	17.2	159	602	169	640	178	674	187	708	472	1787	521	1972	561	2124	589	2230
			275	19.0	175	662	184	697	193	731	201	761	515	1949	562	2127	597	2260	622	2355
	250	17.2	300	20.7	190	719	199	753	207	784	214	810	553	2093	599	2267	627	2373	650	2461
			250	17.2	141	534	156	591	168	636	187	708	409	1548	455	1722	489	1851	521	1972
			300	20.7	160.0	606	169	640	179	678	187	708	532	2014	558	2112	583	2207	605	2290
			400	27.6	210.0	795	219	829	226	856	226	856	609	2305	643	2434	676	2559	676	2559
	300	20.7	300	20.7	139.0	526	161	609	176	666	188	712	404	1529	443	1677	497	1881	545	2063
			400	27.6	191	723	200	757	212	803	223	844	577	2184	618	2339	650	2461	676	2559
			500	34.5	232	878	242	916	251	950	254	961	660	2498	710	2688	739	2797	741	2805
			350	24.1	139	526	155	587	172	651	172	651	415	1571	471	1783	522	1976	571	2161
	400	27.6	400	27.6	172	651	181	685	197	746	200	757	507	1919	552	2090	592	2241	632	2392
			500	34.5	215	814	226	856	238	901	243	920	622	2355	669	2532	715	2707	716	2710
			600	41.4	251	950	260	984	271	1026	277	1049	716	2710	748	2831	786	2975	789	2987
			450	31.0	140	530	163	617	186	704	203	768	440	1666	526	1991	574	2173	630	2385
	400	27.6	500	34.5	173	655	192	727	209	791	224	848	527	1995	585	2214	642	2430	687	2601
			600	41.4	220	833	234	886	250	946	258	977	635	2404	694	2627	737	2790	744	2816

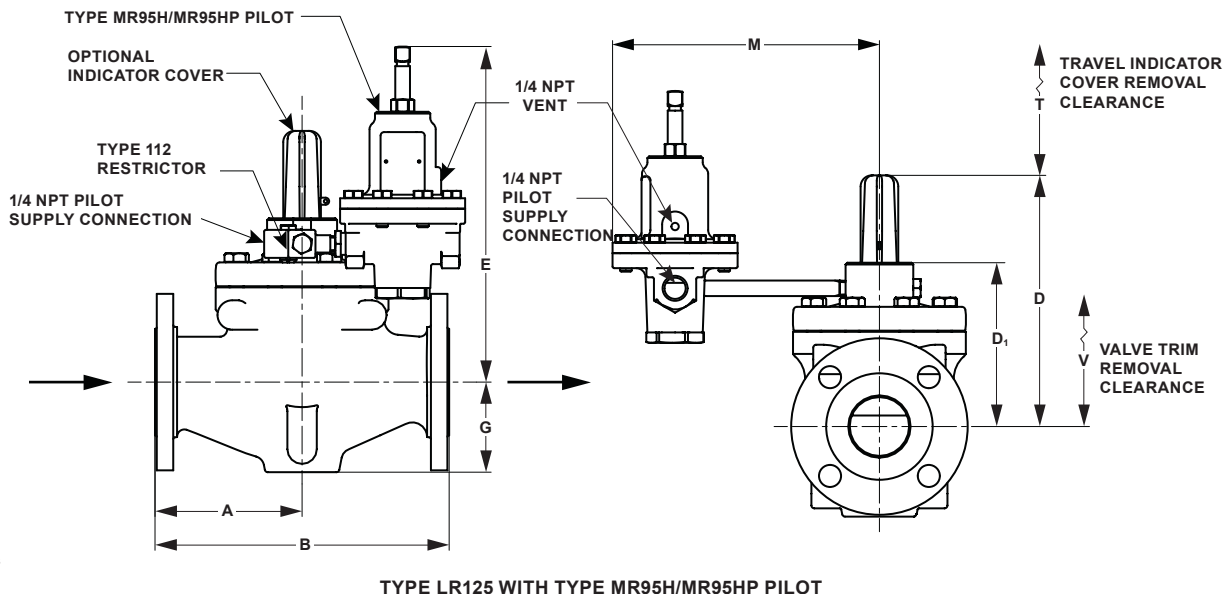
— Exceeds recommended maximum pressure drop ratio of 0.65.

1. Type LR125 on liquid service with 1/2 NPT Type MR95H/MR95HP Pilot, 100% Cage Capacity with internal inlet strainer and Type 112 Restrict

Type LR125

Table 12. Capacity⁽¹⁾, Water (GPM / L/min) for 3 and 4 in. / DN 80 and 100 Bodies at % Droop (Pressure Offset Below Setpoint)⁽²⁾ (continued)

SPRING RANGE AND COLOR	OUTLET PRESSURE		INLET		3 IN. / DN 80								4 IN. / DN 100							
					10%		20%		30%		40%		10%		20%		30%		40%	
	psig	bar	psig	bar	GPM	L/min	GPM	L/min	GPM	L/min	GPM	L/min	GPM	L/min	GPM	L/min	GPM	L/min	GPM	L/min
15 to 30 psig / 1.0 to 2.1 bar Yellow	15	1.0	45	3.1	466	1764	512	1938	537	2033	548	2074	749	2835	824	3119	863	3267	882	3339
			50	3.4	503	1904	552	2090	574	2173	585	2214	810	3066	888	3361	924	3498	941	3562
			60	4.1	573	2169	626	2370	643	2434	653	2472	922	3490	1007	3812	1034	3914	1050	3975
			65	4.5	606	2294	661	2502	675	2555	683	2585	975	3691	1063	4024	1085	4107	1099	4160
	20	1.4	50	3.4	517	1957	533	2018	548	2074	563	2131	832	3149	857	3244	882	3339	906	3430
			60	4.1	592	2241	606	2294	620	2347	633	2396	953	3607	975	3691	997	3774	1018	3854
			70	4.8	659	2495	672	2544	684	2589	696	2635	1060	4013	1080	4088	1100	4164	1120	4240
			75	5.2	689	2608	702	2657	714	2703	725	2744	1107	4190	1129	4274	1148	4346	1160	4391
	30	2.1	60	4.1	525	1987	548	2074	571	2161	592	2241	844	3195	882	3339	918	3475	953	3607
			75	5.2	633	2396	653	2472	672	2544	690	2612	1018	3854	1050	3975	1080	4088	1110	4202
			90	6.2	725	2744	743	2813	759	2873	776	2937	1167	4418	1194	4520	1221	4622	1247	4720
			100	6.9	781	2956	797	3017	812	3074	828	3134	1256	4754	1282	4853	1307	4948	1331	5038
25 to 75 psig / 1.7 to 5.2 bar Green	25	1.7	55	3.8	521	1972	541	2048	560	2120	578	2188	838	3172	870	3293	900	3407	930	3520
			75	5.2	662	2506	678	2567	693	2623	708	2680	1065	4031	1090	4126	1115	4221	1139	4312
			80	5.5	693	2623	708	2680	723	2737	737	2790	1115	4221	1139	4312	1162	4399	1185	4486
			90	6.2	751	2843	765	2896	778	2945	792	2998	1208	4573	1230	4656	1252	4739	1273	4819
	50	3.4	80	5.5	541	2048	578	2188	613	2320	646	2445	870	3293	930	3520	986	3732	1039	3933
			100	6.9	678	2567	708	2680	737	2790	765	2896	1090	4126	1139	4312	1185	4486	1230	4656
			125	8.6	818	3096	843	3191	867	3282	891	3373	1315	4978	1355	5129	1395	5281	1433	5424
			150	10.3	937	3547	959	3630	980	3710	996	3770	1506	5701	1542	5837	1576	5966	1602	6064
	75	5.2	110	7.6	596	2256	646	2445	693	2623	737	2790	958	3626	1039	3933	1115	4221	1185	4486
			125	8.6	693	2623	737	2790	778	2945	818	3096	1115	4221	1185	4486	1252	4739	1315	4978
			150	10.3	830	3142	867	3282	903	3418	937	3547	1335	5054	1395	5281	1452	5496	1506	5701
			175	12.1	893	3380	942	3566	974	3687	1011	3827	1436	5436	1515	5735	1567	5932	1626	6155
70 to 150 psig / 4.8 to 10.3 bar Red	70	4.8	200	13.8	927	3509	987	3736	1020	3861	1053	3986	1492	5648	1588	6011	1640	6208	1693	6409
			100	6.9	556	2105	606	2294	653	2472	696	2635	894	3384	975	3691	1050	3975	1120	4240
			125	8.6	691	2616	736	2786	780	2953	833	3153	1111	4206	1184	4482	1255	4751	1339	5069
			150	10.3	772	2922	814	3081	853	3229	900	3407	1242	4701	1309	4955	1372	5194	1447	5477
			175	12.1	902	3414	949	3592	978	3702	1014	3838	1450	5489	1526	5777	1574	5958	1631	6174
			190	13.1	977	3698	1028	3891	1051	3978	1080	4088	1571	5947	1653	6257	1691	6401	1737	6575
	100	6.9	200	13.8	1026	3884	1080	4088	1099	4160	1123	4251	1650	6246	1737	6575	1768	6693	1806	6836
			130	9.0	578	2188	646	2445	708	2680	765	2896	930	3520	1039	3933	1139	4312	1230	4656
			150	10.3	708	2680	765	2896	818	3096	867	3282	1139	4312	1230	4656	1315	4978	1395	5281
			175	12.1	836	3165	891	3373	937	3547	980	3710	1345	5091	1433	5424	1506	5701	1576	5966
			200	13.8	924	3498	989	3744	1031	3903	1069	4047	1486	5625	1590	6019	1658	6276	1719	6507
			250	17.2	1048	3967	1124	4255	1160	4391	1193	4516	1685	6378	1807	6840	1866	7064	1918	7260
	125	8.6	275	19.0	1091	4130	1175	4448	1210	4580	1241	4698	1755	6643	1890	7154	1946	7366	1995	7552
			155	10.7	596	2256	678	2567	751	2843	818	3096	958	3626	1090	4126	1208	4573	1315	4978
			175	12.1	723	2737	792	2998	855	3237	914	3460	1162	4399	1273	4819	1375	5205	1470	5565
			200	13.8	827	3131	905	3426	967	3660	1020	3861	1330	5035	1455	5508	1555	5886	1640	6208
			250	17.2	999	3782	1074	4066	1124	4255	1166	4414	1607	6083	1728	6541	1808	6844	1875	7098
			275	19.0	1065	4031	1142	4323	1188	4497	1225	4637	1714	6488	1837	6954	1910	7230	1970	7457
	150	10.3	300	20.7	1122	4247	1201	4546	1243	4705	1276	4830	1805	6833	1932	7313	1999	7567	2052	7768
			180	12.4	599	2267	707	2676	792	2998	867	3282	963	3645	1137	4304	1273	4819	1395	5281
			200	13.8	716	2710	811	3070	891	3373	959	3630	1151	4357	1305	4940	1433	5424	1542	5837
			225	15.5	836	3165	922	3490	996	3770	1056	3997	1345	5091	1483	5614	1602	6064	1699	6431
			250	17.2	939	3555	1018	3854	1083	4100	1135	4296	1510	5716	1637	6197	1742	6594	1826	6912
			275	19.0	1029	3895	1102	4172	1160	4391	1205	4561	1654	6261	1773	6712	1865	7060	1938	7336
80 to 400 psig / 5.5 to 27.6 bar Silver Spring	200	13.8	300	20.7	1109	4198	1178	4459	1228	4648	1267	4796	1783	6749	1895	7173	1975	7476	2038	7715
			250	17.2	744	2816	851	3221	940	3558	1017	3850	1197	4531	1369	5182	1510	5716	1636	6193
			300	20.7	946	3581	1040	3937	1112	4209	1175	4448	1523	5765	1673	6333	1787	6765	1892	7162
			400	27.6	1206	4565	1304	4936	1363	5160	1412	5345	1940	7344	2099	7946	2191	8294	2274	8608
	250	17.2	300	20.7	768	2907	893	3380	996	3770	1085	4107	1235	4675	1437	5440	1601	6060	1745	6606
			400	27.6	1106	4187	1212	4588	1286	4868	1350	5110	1779	6734	1950	7382	2067	7824	2172	8222
			500	34.5	1302	4929	1422	5383	1484	5618	1538	5822	2096	7934	2286	8653	2385	9028	2475	9369
			350	24.1	791	2994	933	3532	1048	3967	1146	4338	1272	4815	1501	5682	1685	6378	1845	6984
	300	20.7	400	27.6	979	3706	1102	4172	1198	4535	1282	4853	1576	5966	1773	6712	1926	7291	2062	7806
			500	34.5	1225	4637	1346	5095	1422	5383	1488	5633	1972	7465	2167	8203	2285	8650	2395	9066
			600	41.4	1377	5213	1516	5739	1582	5989	1640	6208	2214	8381	2438	9229	2544	9630	2640	9993
			450	31.0	834	3157	1006	3808	1142	4323	1256	4754	1341	5076	1619	6129	1836	6950	2022	7654
400	27.6	500	34.5	1010	3823	1159	4387	1274	4823	1372	5194	1626	6155	1865	7060	2047	7749	2207	8354	
		600	41.4	1244	4709	1386	5247	1476	5587	1554	5883	2002	7578	2229	8438	2372	8979	2501	9467	
■ — Exceeds recommended maximum pressure drop ratio of 0.65.																				
1. Type LR125 on liquid service with 1/2 NPT Type MR95H/MR95HP Pilot, 100% Cage Capacity with internal inlet strainer and Type 112 Restrictor Setting of “4”.																				
2. Values published in this table are laboratory tested and are presented based on % drop (negative control deviation only) or pressure offset below setpoint.																				



ERAA00985_B

Figure 5. Type LR125 Dimensions

Table 13. Type LR125 Dimensions

BODY SIZE		DIMENSIONS, IN. / mm													
		A			B			D	D ₁	E	G	M		T	V
In.	DN	CL150 RF	CL300 RF	CL600 RF	CL150 RF	CL300 RF	CL600 RF					WCC Steel	CF8M SST		
1	25	3.62 / 91.9	3.88 / 98.6	4.13 / 104.9	7.25 / 184.2	7.75 / 196.9	8.25 / 209.6	7.40 / 189.0	5.40 / 137.0	11.39 / 289.3	2.40 / 60.0	8.10 / 205.8	8.10 / 205.8	2.97 / 75.4	9.40 / 238.8
2	50	5.0 / 127.0	5.3 / 133.4	5.6 / 143.0	10.00 / 254.0	10.50 / 266.7	11.25 / 286.0	9.00 / 229.0	6.89 / 175.0	11.65 / 295.9	3.10 / 79.0	8.18 / 207.8	9.18 / 233.2	2.00 / 51.0	11.00 / 279.4
3	80	5.9 / 149.3	6.3 / 158.8	6.6 / 168.3	11.75 / 298.5	12.50 / 317.5	13.25 / 336.6	13.30 / 338.0	9.33 / 236.9	13.68 / 347.5	3.80 / 97.0	8.66 / 220.0	9.66 / 245.4	3.80 / 97.0	15.00 / 381.0
4	100	6.9 / 176.3	7.3 / 184.2	7.8 / 196.9	13.88 / 352.6	14.50 / 368.3	15.50 / 393.7	14.70 / 373.0	10.47 / 265.9	15.24 / 387.1	5.10 / 130.0	9.52 / 241.8	9.52 / 241.8	3.80 / 97.0	17.00 / 431.8

Ordering Information

Carefully review each specification, then complete the Ordering Guide on this page. If a pilot setpoint is not requested, the regulator will be factory set at the approximate midrange. Please complete the specifications worksheet at the bottom of the ordering guide on page 12.

Ordering Guide

Body Size (Select One)

- ☐ 1 in. / DN 25***
- ☐ 2 in. / DN 50***
- ☐ 3 in. / DN 80***
- ☐ 4 in. / DN 100***

Body Material and End Connection Style (Select One)

WCC Steel Body

- ☐ NPT (Available in 1 and 2 in. bodies only)***
- ☐ SWE (Available in 1 and 2 in. bodies only)***
- ☐ CL150 RF***
- ☐ CL300 RF***
- ☐ CL600 RF***
- ☐ PN 16/25/40 RF* (Not available in 4 in. body) _____ specify rating

CF8M Stainless Steel Body

- ☐ NPT (Available in 1 and 2 in. bodies only)***
- ☐ CL150 RF***
- ☐ CL300 RF***
- ☐ CL600 RF***
- ☐ PN 16/25/40 RF* (Not available in 4 in. body) _____ specify rating

Main Valve Diaphragm Material (Select One)

- ☐ 17E68 Nitrile (NBR) (low minimum differential capability) **(standard)*****
- ☐ 17E97 Nitrile (NBR) (high erosion resistant)***
- ☐ 17E88 Fluorocarbon (FKM) (high temperature capability)**

Main Valve O-ring Material (Select One)

- ☐ Nitrile (NBR) **(standard)*****
- ☐ Fluorocarbon (FKM)**

Travel Indicator (Select One)

- ☐ No **(standard)*****
- ☐ Yes***

Inlet Body Tap (Select One)

- ☐ Inlet body tap only **(standard)*****
- ☐ Inlet body tap with pre-piped pilot supply***
- ☐ Inlet/outlet body taps only***
- ☐ Inlet/outlet body taps with pre-piped pilot supply and pilot bleed***

Type LR125

Ordering Guide (continued)

Pilot Diaphragm Material (Select One)

- ☐ Neoprene (CR) (standard)***
☐ Fluorocarbon (FKM)**

Pilot Valve Plug Material (Select One)

- ☐ Nitrile (NBR) (standard)***
☐ Fluorocarbon (FKM)***

Pilot Outlet Pressure Range (Select One)

Type MR95H

- ☐ 15 to 30 psig / 1.0 to 2.1 bar, Yellow***
☐ 25 to 75 psig / 1.7 to 5.2 bar, Green***
☐ 70 to 150 psig / 4.8 to 10.3 bar, Red***

Type MR95HP

- ☐ 15 to 100 psig / 1.0 to 6.9 bar, Unpainted
☐ 80 to 400 psig / 5.5 to 27.6 bar, Unpainted

Regulators Quick Order Guide

***	Readily Available for Shipment
**	Allow Additional Time for Shipment
*	Special Order, Constructed from Non-Stocked Parts. Consult your local Sales Office for Availability.
Availability of the product being ordered is determined by the component with the longest shipping time for the requested construction.	

Main Valve Replacement Parts Kit (Optional)

- ☐ Yes, send one diaphragm cartridge and O-rings kit to match this order.

Pilot Replacement Parts Kit (Optional)

- ☐ Yes, send one replacement kit to match this order.

Specification Worksheet

Application:

Specific Use _____

Line Size _____

Fluid Type _____

Specific Gravity _____

Temperature _____

Does the Application Require Overpressure Protection?

- ☐ Yes ☐ No

Pressure:

Maximum Inlet Pressure _____

Minimum Inlet Pressure _____

Differential Pressure _____

Set Pressure _____

Maximum Flow _____

Accuracy Requirements:

Less Than or Equal To:

- ☐ 5% ☐ 10% ☐ 20% ☐ 40%

Construction Material Requirements (if known):

Webadmin.Regulators@emerson.com

Fisher.com

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LinkedIn.com/company/emerson-automation-solutions

Twitter.com/emr_automation

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