

# FEBCO 825YA

# FEBCO 825YAR

## SIZE

3/4", 1", 1 1/2", 2"

## DESCRIPTION

This is a reduced pressure assembly. Production began approximately 1989. The assembly uses the same internal parts and design as the 825Y. The model 825YAR has the replaceable check seat design as in the 825YR. The only difference in the 825YA versus the 825Y is the end design which incorporated a flanged configuration. These flanges allow the assembly to incorporate a versatile angel pattern orientation for installation. In 2004 there were some changes to the body which caused a change in its centerline dimension in the inlet vertical up and outlet vertical down orientation. The dimension change could be from 1/8"-1/4".

## BASIC REPAIR KIT

Repair parts contain all rubber discs, O-rings, and diaphragm.

<u>SIZE</u>	<u>PART NO</u>	<u>AIR GAP DRAIN</u>
3/4"-1 1/4"	905111	AGDY
1 1/2"-2"	905112	AGDY

## IMPORTANT FEATURES

*~Variable installation orientation*

*~See 825Y*

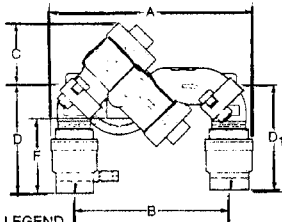
*~Factory repair information enclosed*





# Model 825YA Angle Pattern Reduced Pressure Backflow Preventer for Health Hazard Service

Vertical Flow In/Vertical Flow Out



**DIMENSION LEGEND**

- A Overall laying length, outside dimension
- B Centerline of inlet shutoff to centerline of outlet shutoff
- C Centerline of assembly to top
- D End of inlet shutoff to centerline of assembly
- E Centerline of assembly to end of outlet shutoff
- F Centerline of assembly to outside of relief valve
- G Bottom of relief port to end of inlet shutoff

Dimensions and Weights\* (U.S. - Inches)

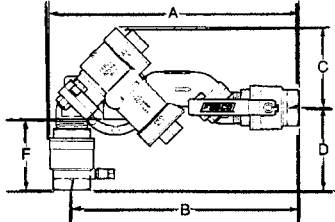
Size	A	B	C	D	D <sub>1</sub>	E	F	G	Net Wt. (Lbs.)
3/4"	10	8 1/2	4 1/2	4 7/8	4 5/8	4 1/2	3 1/2	1 1/2	15
1"	10 1/4	8 3/4	4 3/4	5 1/4	5	4 1/2	3 3/4	1 1/2	16 1/2
1 1/2"	14 1/4	11 1/2	5 3/4	5 7/8	6 1/2	5	4 5/8	2 1/2	38
2"	14 7/8	11 1/2	5 3/4	7 1/2	7 1/2	5	5 1/4	2 1/2	41

(Metric-mm)

Size	A	B	C	D	D <sub>1</sub>	E	F	G	Net Wt. (kgs.)
20	254	216	105	124	118	105	89	41	7
25	260	216	105	133	127	105	99	41	8
40	362	292	133	175	165	127	118	66	17
50	378	292	133	191	181	127	133	66	19

\* All dimensions are approximate.

Vertical Flow In/Horizontal Flow Out



**DIMENSION LEGEND**

- A Overall laying length, outside dimension
- B Centerline of inlet shutoff to end of outlet shutoff
- C Centerline of assembly to top
- D End of inlet shutoff to centerline of assembly
- E Centerline of assembly to outside of relief valve
- F Bottom of relief port to end of inlet shutoff

Dimensions and Weights\* (U.S. - Inches)

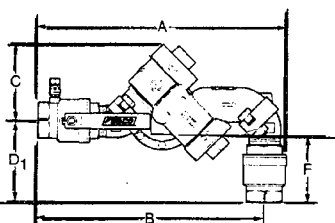
Size	A	B	C	D	D <sub>1</sub>	E	F	G	Net Wt. (Lbs.)
3/4"	12 1/2	11 1/2	5 3/4	3 3/4	N/A	4 1/2	3 1/2	1 1/2	15
1"	13 1/2	12 1/4	5 3/4	4	N/A	4 1/2	3 3/4	1 1/2	16 1/2
1 1/2"	18	16 1/2	6 1/2	5 1/4	N/A	5	4 1/2	2 1/2	38
2"	19	17 1/4	6 1/2	5 3/4	N/A	5	5 1/4	2 1/2	41

(Metric-mm)

Size	A	B	C	D	D <sub>1</sub>	E	F	G	Net Wt. (kgs.)
20	321	302	137	92	N/A	105	89	41	7
25	334	311	137	102	N/A	105	99	41	8
40	457	422	175	133	N/A	127	118	66	17
50	483	483	175	149	N/A	127	133	66	19

\* All dimensions are approximate.

Horizontal Flow In/Vertical Flow Out



**DIMENSION LEGEND**

- A Overall laying length, outside dimension
- B Centerline of inlet shutoff to end of outlet shutoff
- C Centerline of assembly to top
- D End of inlet shutoff to centerline of assembly
- E Centerline of assembly to end of outlet shutoff
- F Centerline of assembly to outside of relief valve
- G Bottom of relief port to end of inlet shutoff

Dimensions and Weights\* (U.S. - Inches)

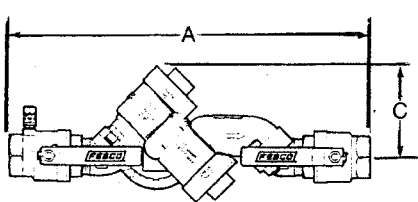
Size	A	B	C	D	D <sub>1</sub>	E	F	G	Net Wt. (Lbs.)
3/4"	12 1/2	12 1/2	5 3/4	3 3/4	N/A	4 1/2	3 1/2	1 1/2	15
1"	13 1/2	12 1/2	5 3/4	3 3/4	N/A	4 1/2	3 1/2	1 1/2	16 1/2
1 1/2"	18 1/2	17	6 1/2	4 7/8	N/A	5	4 1/2	2 1/2	38
2"	19 1/2	17 1/2	6 1/2	5 1/2	N/A	5	4 7/8	2 1/2	41

(Metric-mm)

Size	A	B	C	D	D <sub>1</sub>	E	F	G	Net Wt. (kgs.)
20	327	308	137	86	N/A	105	83	41	7
25	340	318	137	95	N/A	105	89	41	8
40	467	432	175	124	N/A	127	108	66	17
50	492	448	175	140	N/A	127	124	66	19

\* All dimensions are approximate.

Horizontal Flow In/Horizontal Flow Out



**DIMENSION LEGEND**

- A Overall laying length, outside dimension
- C Centerline of assembly to top
- E Centerline of assembly to outside of relief valve
- G Centerline of assembly to outside of flange

Dimensions and Weights\* (U.S. - Inches)

Size	A	B	C	D	D <sub>1</sub>	E	F	G	Net Wt. (Lbs.)
3/4"	15 1/2	N/A	5 3/4	N/A	N/A	4 1/2	N/A	1 1/2	15
1"	16 1/4	N/A	5 3/4	N/A	N/A	4 1/2	N/A	1 1/2	16 1/2
1 1/2"	22	N/A	6 1/2	N/A	N/A	5	N/A	2 1/2	38
2"	23 3/4	N/A	6 1/2	N/A	N/A	5	N/A	2 1/2	41

(Metric-mm)

Size	A	B	C	D	D <sub>1</sub>	E	F	G	Net Wt. (kgs.)
20	394	N/A	137	N/A	N/A	105	N/A	41	7
25	413	N/A	137	N/A	N/A	105	N/A	41	8
40	559	N/A	175	N/A	N/A	127	N/A	66	17
50	594	N/A	175	N/A	N/A	127	N/A	66	19

\* All dimensions are approximate.

## Features

- Installation versatility simplifies new and retrofit installations.
- Eliminates pipe elbows, nipples and unions from the installation.
- Reduces installation time, labor costs and materials.
- Compact design simplifies retrofit.
- Integral flanged union connections allow assembly to be removed from the line for freeze protection or maintenance without the danger of spool substitution.
- USC Foundation approved in all four configurations.
- Modular relief valve internal components for ease of maintenance.
- Smaller, less costly protective enclosures can be used to provide freeze protection and vandalism protection due to compact size of valve.
- Field tested design for reliability and performance.
- Replaceable relief valve seat ring for longer valve life.
- Low head loss for optimum performance.

All internal components are interchangeable with the Febco Model 825Y providing the same ease of maintenance and reliable operation.

## Approvals

USC Foundation for CCC & HR

## Characteristics and Materials

- Maximum working pressure — 175 PSI
- Hydrostatic test pressure — 350 PSI
- Temperature range — 32°F to 140°F
- Fluid — Water
- End Detail — Threaded ANSI / ASME B1.20.1
- Main valve body — Bronze ASTM B584
- Relief valve body — Bronze ASTM B584
- Elastomers — Seat Disc: Nitrile ASTM D-200  
Diaphragms: Nitrile, fabric reinforced.
- Springs — Stainless Steel, 300 series

Vertical Flow In/Vertical Flow Out  
Model 825YA Flow Curves

