

Tyco Fire Products Model BFV-1 Butterfly Valve

General Description



The Model BFV-1 Butterfly Valve is specifically designed to provide for efficient control of fire protection water supplies. The Model BFV-1 is designed to meet the increasing pressure requirements of the Fire Protection Industry with a maximum operating pressure of 300 psi. Flow may be from either direction, and the valves may be positioned in any orientation. The valve is furnished with grooved ends for use with grooved couplings and can be easily adapted to flanged components utilizing Grinnell Figure 71 Class 150 flange adapters. The body and disc construction provides for increased strength and durability. The Model BFV-1 Butterfly Valve is provided with 2 sets of SPDT Supervisory Switches for use in outdoor and indoor applications. A high strength stainless steel upper stem is provided for dependability. The surfaces at the upper stem and lower trunnion areas incorporate a reduced dynamic torque and anti-compression set design to ensure low operating torque and increased seal longevity.

This unique Tyco design feature prevents elastomeric failure of the disc encapsulation that is commonly experienced

with other manufacturers. This is accomplished by providing uniform compression throughout the opening and closing operation of the disc.

The Model BFV-1 Butterfly Valves are a redesignation for the Central Figure 570, Central Figure 580 and Grinnell Figure 580.

WARNING

The Model BFV-1 Butterfly Valve described herein must be installed and maintained in compliance with this document, as well as with the applicable standards of the National Fire Protection Association, in addition to the standards of any other authorities having jurisdiction. Failure to do so may impair the integrity of this device.

The owner is responsible for maintaining his fire protection system and devices in proper operating condition. The installing contractor or sprinkler manufacturer should be contacted relative to any questions.

Technical Data

Model: BFV-1

Sizes: 2-1/2", 3", 4", 5", 6", 8" & 10"

Maximum Working Pressure: 300 psi (2068 kPa)

Factory Hydro Test: 100% at 600 psi (4137 kPa) in accordance with test requirements of MSS SP-67, UL, FM and ULC

Approvals: UL, FM and ULC for both indoor and outdoor use. Note: 8" - 10" are FM approved only. See Fire Protection Submittal Sheet for exact Listing / Approval information.

Materials of Construction:

Body: Ductile iron conforming to ASTM A-536, Grade 65-45-12

Body Coating: Epoxy

Disc: Ductile iron conforming to ASTM A-536, Grade 65-45-12

Disc Seal: Grade EPDM "E" encapsulated rubber conforming to ASTM D-2000

Upper Stem: Type 440 Stainless Steel

(2-1/2"-8") Type 17-4 Stainless Steel (10")

Lower Plug and Stem:

Type 17-4 Stainless Steel

Operator: Gear operator with iron housing coated with Epoxy

Bracket: Steel - Black Zinc Plated

Ordering Information

When placing an order, indicate the full product name. Please specify the quantity, valve model number, size, type of seal; EPDM "E", and part number from the following list.

Valve Size	Valve Part Number
2-1/2"	59-300-F-025
3"	59-300-F-030
4"	59-300-F-040
5"	59-300-F-050
6"	59-300-F-060
8"	59-300-F-080
10"	59-300-F-100

Tyco Fire Products, valves, accessories and other products are available throughout the U.S., Canada, and internationally, through a network of distribution centers. You may write directly or call 215-362-0700 for the distributor nearest you.

Care and Maintenance

The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in accordance with the applicable standards of the National Fire Protection Association (e.g., NFPA 25), in addition to the standards of any authority having jurisdiction. The installing contractor or product manufacturer should be contacted relative to any questions. Any impairment must be immediately corrected.

It is recommended that automatic sprinkler systems be inspected, tested, and maintained by a qualified Inspection Service.

Limited Warranty

Products manufactured by Tyco Fire Products are warranted solely to the original Buyer for ten (10) years against defects in material and workmanship when paid for and properly installed and maintained under normal use and service. This warranty will expire ten (10) years from date of shipment by Tyco Fire Products. No warranty is given for products or components manufactured by companies not affiliated by ownership with Tyco Fire Products or for products and components which have been subject to misuse, improper installation, corrosion, or which have not been installed,

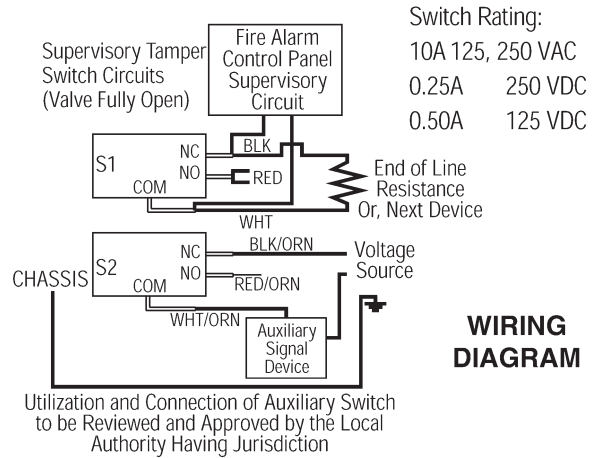
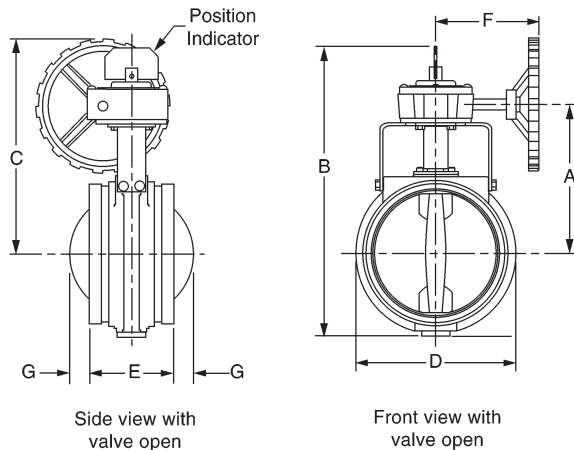
maintained, modified or repaired in accordance with applicable Standards of the National Fire Protection Association, and/or the standards of any other Authorities Having Jurisdiction. Materials found by Tyco Fire Products to be defective shall be either repaired or replaced, at Tyco Fire Products' sole option. Tyco Fire Products neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. Tyco Fire Products shall not be responsible for sprinkler system design errors or inaccurate or incomplete information supplied by Buyer or Buyer's representatives.

IN NO EVENT SHALL TYCO FIRE PRODUCTS BE LIABLE, IN CONTRACT, TORT, STRICT LIABILITY OR

UNDER ANY OTHER LEGAL THEORY, FOR INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LABOR CHARGES, REGARDLESS OF WHETHER TYCO FIRE PRODUCTS WAS INFORMED ABOUT THE POSSIBILITY OF SUCH DAMAGES, AND IN NO EVENT SHALL TYCO FIRE PRODUCTS' LIABILITY EXCEED AN AMOUNT EQUAL TO THE SALES PRICE.

THE FOREGOING WARRANTY IS MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Model BFV-1 Butterfly Valve



Nominal Dimensions								Approx. Weight
Size	A	B	C	D	E	F	G	
Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	lbs.
mm	mm	mm	mm	mm	mm	mm	mm	Kg.
2 1/2"	5.08	10.41	6.97	2.88	3.81	5.72	N/A*	12.0
73.0	129.0	264.4	177.0	73.0	96.8	145.3		5.4
3"	5.41	11.38	7.29	3.50	3.81	5.72	N/A*	14.0
88.9	137.4	289.1	185.2	88.9	96.8	145.3		6.4
4"	6.37	12.70	8.25	4.75	4.56	5.72	N/A*	22.0
114.3	161.8	322.6	209.6	120.7	115.8	145.3		10.0
5"	7.33	14.56	10.41	6.25	5.81	6.18	N/A*	31.0
141.3	186.2	369.8	264.4	158.8	147.6	157.0		14.1
6"	7.62	15.23	10.70	6.75	5.81	6.18	N/A*	36.0
168.3	193.5	386.8	271.8	171.5	147.6	157.0		16.3
8"	9.24	17.50	13.37	10.00	5.25	6.43	1.22	52.0
219.1	234.7	444.5	339.6	254.0	133.4	163.3	31.0	23.6
10"	11.81	21.78	16.93	12.00	6.25	7.96	1.75	75.0
273.0	299.9	553.2	430.0	304.3	158.8	202.2	44.5	34.1

* End of disc does not extend beyond valve body.

Friction Resistance	
Size	Equiv. Length in Feet
2 1/2"	6'
3"	7'
4"	6'
5"	10'
6"	13'
8"	14'
10"	16'

Note: Friction Resistance is specified in equivalent length of Std. weight (C-120) steel pipe.

General Notes: It is the Designer's responsibility to select products suitable for the intended service and to ensure that pressure ratings and performance data is not exceeded. Always read and understand the installation instructions (IH-1000). Never remove any piping component or correct or modify any piping deficiencies without first depressurizing and draining the system. Material and gasket selection should be verified to be compatible for the specific application.

