

## REL-BFW-300 FM & UL Wafer Butterfly Valve

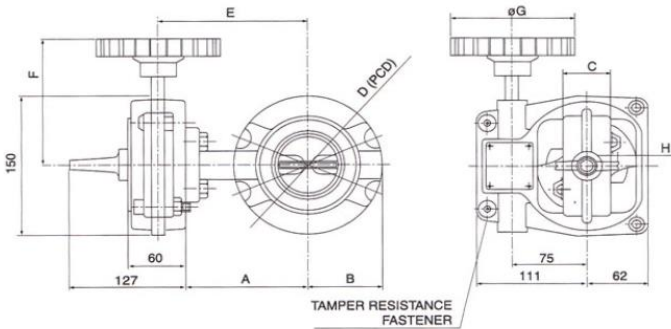


### Material List

Component	Material
Body	ASTM A-536 Nylon-11 Coated
Disc	ASTM A-536 EPOM Encapsulated
Upper & Lower Stems	AISI 420-SS
Worm Gear Shaft	AISI 410-SS
Housing	ASTM A-536
Hand Wheel	ASTM A-536
Flag Indicator	ASTM A-536
Shear Pin	ASTM A-510
Segment Gear	ASTM B-148 or B-584
Housing Gasket	EPDM Grade E
O-Rings (All)	EPDM Grade E

### Working Pressure & Temperature

Max. Working Pressure:	300PSI / 21.4Bar
Max. Test Pressure:	600PSI / 42.8Bar
Max. Working Temperature:	120°C



G : DISC CLEARANCE OF BODY SURFACE THROUGH END OF DISC IN THE OPEN POSITION

### Weights & Dimensions Inches / mm

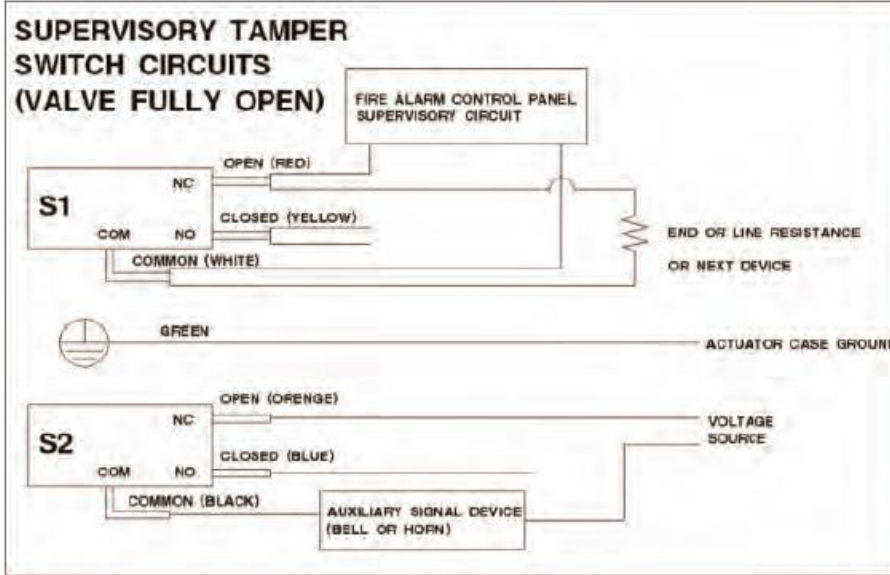
SIZE	A	B	C	D	E	F	G	H	Weight
2 1/2"	5.35 (136)	3.43 (87)	1.81 (46)	5.88 (149.4)	6.54 (166)	5.31 (135)	5.04 (128)	0.32 (8.2)	9.8 Kg
3"	5.63 (143)	3.66 (93)	3.80 (96.4)	6.62 (168.2)	6.81 (173)	5.31 (135)	5.04 (128)	0.57 (14.5)	10.8 Kg
4"	6.14 (156)	4.29 (109)	2.05 (52)	7.88 (200.2)	7.32 (186)	5.31 (135)	5.04 (128)	0.89 (22.7)	12.4 Kg
6"	7.40 (188)	5.67 (144)	2.20 (56)	10.6 (269.8)	8.58 (218)	8.66 (220)	8.66 (220)	1.79 (45.4)	17.4 Kg
8"	8.74 (222)	6.54 (166)	2.28 (58)	13.0 (330.2)	9.92 (252)	8.66 (220)	8.66 (220)	2.72 (69.1)	22.8 Kg

### Ordering Information

Description	Size	Part Number
Butterfly Valve FM/UL Wafer 300 PSI (Rasco)	65mm / 2 1/2"	7V00000031
Butterfly Valve FM/UL Wafer 300 PSI (Rasco)	80mm / 3"	7V00000032
Butterfly Valve FM/UL Wafer 300 PSI (Rasco)	100mm / 4"	7V00000033
Butterfly Valve FM/UL Wafer 300 PSI (Rasco)	150mm / 6"	7V00000034
Butterfly Valve FM/UL Wafer 300 PSI (Rasco)	200mm / 8"	7V00000035



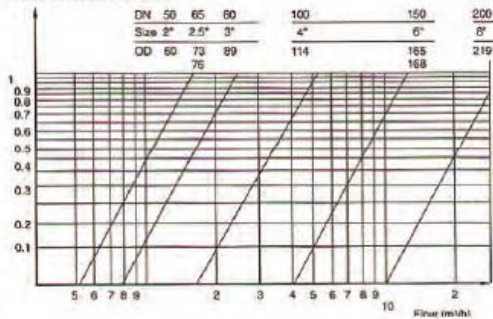
## Wiring Diagram



## Test Data

### GROOVED END

Flow characteristics



### Flow coefficient : Kv

Kv = m³/hour across valve at same standard condition (20°C, 1 bar)

DN (mm)	SIZE(in)	OD	30°	40°	50°	60°	70°	80°	90°
65	2 1/2"	73	12	27.4	53.1	96	138	156	163
65	2 1/2"	76	12	27.4	53.1	96	138	156	163
80	3"	89	18.9	39.4	78.9	144	210	243	249
100	4"	114	30	65.1	129	226	377	488	514
150	6"	165	84	184	369	634	964	1196	1286
150	6"	168	84	184	369	634	964	1196	1286
200	8"	219	165	339	677	1230	2002	2850	3129

$$Cv = \frac{7}{6} Kv$$

$$Kv = \frac{Q}{31.6} \sqrt{\frac{\rho_1}{\Delta P}}$$

$$Q = 31.6 Kv \sqrt{\frac{\Delta P}{\rho_1}}$$

Q = flow in m³/h

ΔP = pressure loss in bar

ρ1 = density in kg/m³

### WAFER TYPE

Flow characteristics

DN	65	80	100	150	200
Size	2-1/2"	3"	4"	6"	8"
Kv	210	330	610	1500	2700
Cv	240	385	712	1760	3150

Kv = m³/hour across valve at same standard conditions (20°C, 1 bar)  
Cv = GPM at 1 PSI differential pressure across valve at standard conditions (60°F, 14.7 PSIA)

### Flow Coefficients

The flow coefficient Kv is the follow in m³/h of water, at an average temperature of 20°C, crossing the valve with creating a headloss of 1 bar. The relation between Cv and Kv is:

$$Cv = \frac{7}{6} Kv$$

### Cv VS Disc Angle

