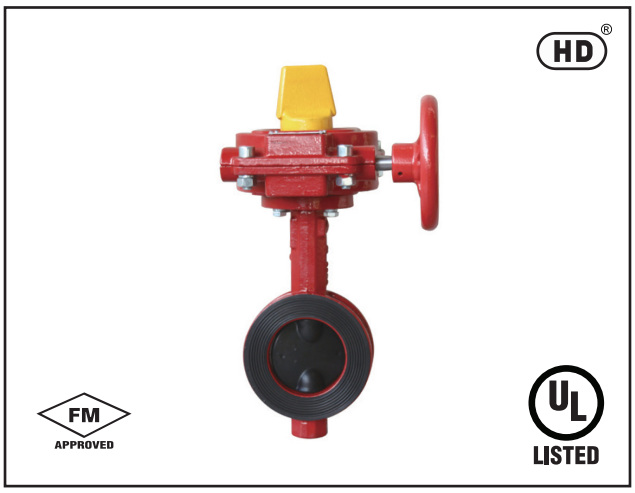
BUTTERFLY VALVE (FOR FIRE PROTECTION)

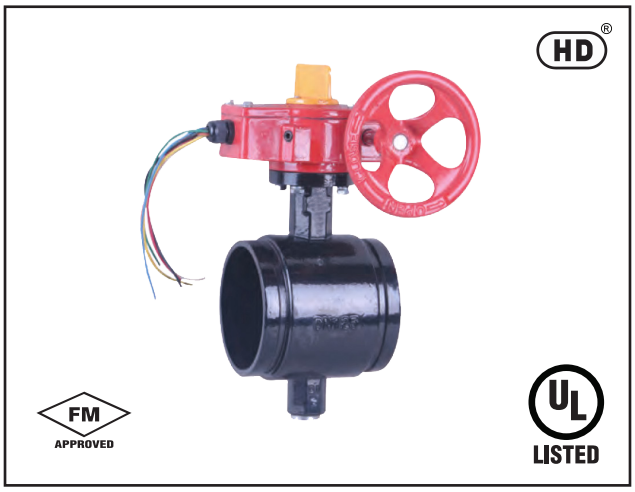
WITH INTEGRAL SUPERVISORY TAMPER SWITCH

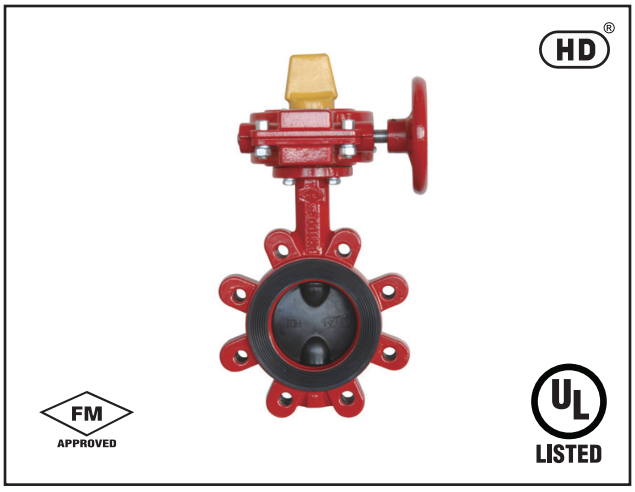
HD FIRE PROTECT PVT. LTD.

TECHNICAL DATA

SIZES	2" (50NB), 2.5" (65NB), 3" (80NB), 4" (100NB), 6" (150NB), 8" (200NB), 10" (250NB), 12" (300NB)
MAXIMUM WORKING PRESSURE.	300 psi (21 kg/sq.cm)
TEMPERATURE RATING	0 - 100°C
BODY	Ductile iron conforming to ASTM A-536, grade 65-45-12
DISC	Ductile iron ASTM A-536, EPDM Coated
COATING	Fusion Bond Epoxy Coating
APPROVALS	UL Listed & FM Approved
MODEL Wafer Type: Grooved Type: Lug Type:	 HDMW250, HDMW300, HDMWPN16 HDMG250, HDMG300, HDPGPN16 HDML250, HDML300, HDMLPN16 (Refer Table 1 for details)







DESCRIPTION

HD Butterfly Valves are available in three types: 1. Wafer Type 2. Grooved Type and 3. Lug Type, used in Fire Protection pipelines and applications. These are gear operated fitted with integral visual indicator and supervisory tamper switch. Wafer Type Butterfly Valves are suitable for installation between two flanges. These have universal design and can be connected between ANSI B 16 Class 125, ASME B16.5 Class 150 and BSEN 1092 PN10/PN 16 Flanges. Grooved joint dimensions are made in accordance with ANSI/ AWWA C606 (Ductile iron pipe and steel pipe) and metric pipe specifications.

Valve gearbox is fitted with two internal switches with SPDT contact to supervise valve open or closed position. HD Butterfly valves offer minimum flow restriction and pressure loss when used in the fully open position.

TABLE-I

Model	Description
HDMW	Butterfly valve with gearbox and micro-switches, Wafer type
HDMG	Butterfly valve with gearbox and micro-switches, Grooved type
HDML	Butterfly valve with gearbox and micro-switches, Lug type
Ending with	
250/300	Connect to flange complying with ASME B16.5, class 150
PN16	Connect to flange complying with EN 1092

INSTALLATION

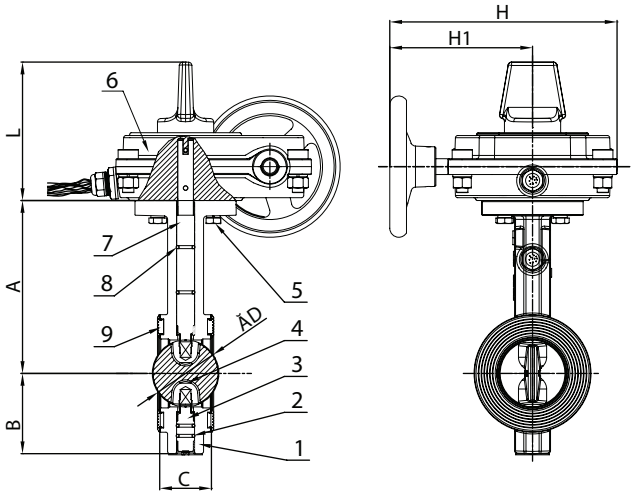
Wafer Type/Lug Type: HD Wafer Type Butterfly Valve can be installed vertically or horizontally with flow in either direction. Valve is self-sealing with no additional gasket needed. While inserting valve between the flanges, close the butterfly valve fully so that is can be properly positioned between the flanges. Insert and hand tighten the bolts, check whether valve disc is free while opening and closing. Electrical connections need to be connected as per wiring diagram.

Grooved Type: HD Grooved Type Butterfly valve should be connected to the piping system with approved grooved couplings and connections. It can be installed vertically or horizontally with flow in either direction.

MAINTENANCE

Inspect and verify proper operation on an semi-annual basis or according to the requirements of NFPA or Authority Having Jurisdiction (AHJ). Check for leakage at the valve pipe connection and body-to-operator connection. Installation, inspection and maintenance should be performed by a qualified person(s), certified by the Authority Having Jurisdiction. If the valve closes hard, please ensure that there is no debris clogged in the waterway around the seat area. Backing off the hand wheel and closing the butterfly valve again can often resolve this issue.

WAFER TYPE BUTTERFLY VALVE



Part No	Part	Material	Qty
1	Body	EPDM	1
2	O-Ring	NBR	2
3	Stub Shaft	SS431	1
4	Disc	EN-G JS-450-10+EPDM	1
5	Hex Nut	Carbon Steel Zink Plated	4
6	Signal Gear Box	Body: EN-G JS-450-10	1
7	Drive Shaft	SS431	1
8	O-Ring	NBR	2
9	End Face Steel	EPDM	2

NOTES:

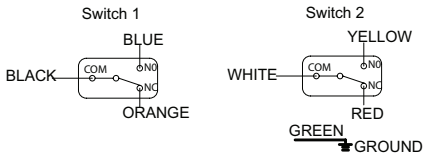
1) Dimensions given are in mm
2) Design: BS EN593
3) Top flange: ISO 5211
4) Flange specification: BS EN 1092-2 PN10/PN16 ASME B16.1 CL125, ASME B16.5 CL150, JIS B2210 10K
5) Working Pressure: PN16/ 250 psi/ 300 psi
6) Coating:Fusion Bonded Epoxy Coating Complies with ANSI/AWWA C550

Inch	mm	A	B	C	D	L	H1	H
2"	50	140.5	65	43±2	50.3	122.5	127	202.2
2.5"	65	153	71	46±2	60.8	122.5	127	202.2
3"	80	157.5	81	46±2	76	122.5	127	202.2
4"	100	176	95	52±2	98.5	122.5	127	202.2
5"	125	191	111	56±2	122.6	122.5	127	202.2
6"	150	202.5	133	56±2	148	122.5	127	202.2
8"	200	243.5	164	60±2	199	122.5	185	260.2
10"	250	273	196	68±2	252	122.5	185	260.2
12"	300	311	226	78±2	300.5	132	202.5	297.5

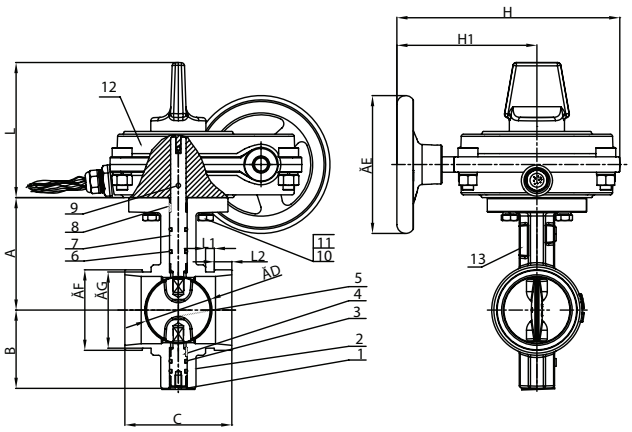
Signal description:

1.Switch parameters:16A 1/2HP 125/250VAC

2.Wiring diagram:



GROOVED TYPE BUTTERFLY VALVE



Part No	Part	Material	Qty
1	Plug	EPDM	1
2	Body	ASTM A536, 65-45-12	1
3	O-Ring	NBR	2
4	Bushing	SS304+PTFE	1
5	Stub Shaft	SS431	1
6	Disc	ASTM A536, 65-45-12+EPDM	1
7	Drive Shaft	SS431	1
8	Bushing	SS304+PTFE	4
9	Cylindrical Pin	SS304	1
10	Hex Nut	Carbon Steel Zink Plated	4
11	Spring Washer	Spring Steel, 65 MN	4
12	Gear Box	Body:ASTM A536, 65-45-12	1
13	Name Plate	Stainless Steel Plate	1

NOTES:

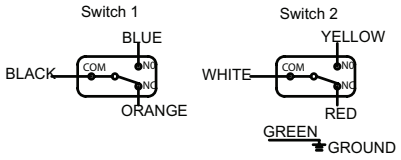
1) Dimensions given are in mm
2) Standard MSS SP-67;
   Face to Face dimension:MSS SP-67
3) Top flange: ISO 5211
4) Groove specification: AWWA C606
5) Working Pressure: PN16/ 250 psi/ 300 psi
6) Flange specification: BS EN 1092-2 PN10/ PN16, ASME B16.1 CL125, ASME B16.5 CL150, JIS B2210 10K

Inch	mm	A	B	C	E	F	G	L	L1	L2	H1	H	D
2"	50	89	65	81±1.5	125	60.3	57.15	122.5	7.93	15.88	127	202.2	50.3
2.5"	65	102	71	97±1.5	125	73.0	69.09	122.5	7.93	15.88	127	202.2	60.8
2.5"	65	102	71	97±1.5	125	76.1	72.26	122.5	7.93	15.88	127	202.2	60.8
3"	80	109	81	97±1.5	125	88.9	84.94	122.5	7.93	15.88	127	202.2	76
4"	100	128	95	116±1.5	125	114.3	110.08	122.5	9.53	15.88	127	202.2	98.5
5"	125	141	111	148±1.5	125	139.7	135.48	122.5	9.53	15.88	127	202.2	122.6
5"	125	141	111	148±1.5	125	141.3	137.03	122.5	9.53	15.88	127	202.2	122.6
6"	150	153	133	148±1.5	225	165.1	160.90	122.5	9.53	15.88	127	202.2	148
6"	150	153	133	148±1.5	225	168.3	163.96	122.5	9.53	15.88	127	202.2	148
8"	200	184	164	133±3.3	225	219.1	214.40	122.5	11.1	19.05	185	260.2	199
10"	250	216	196	159±3.3	225	273.0	268.28	122.5	12.7	19.05	185	260.2	252
12"	300	254	226	165±3.3	225	323.9	318.29	132	12.7	19.05	202.5	297.5	300.5

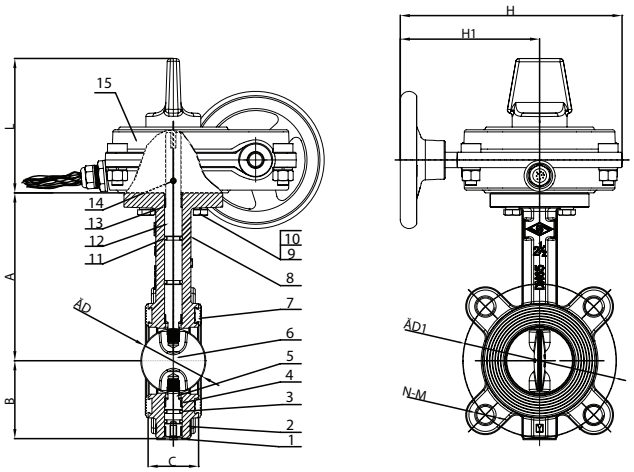
Signal description:

1.Switch parameters:16A 1/2HP 125/250VAC

2.Wiring diagram:



LUG TYPE BUTTERFLY VALVE



Part No	Part	Material	Qty
1	Plug	EPDM	1
2	Body	ASTM A536, 65-45-12	1
3	O-Ring	NBR	2
4	Bushing	SS304+PTFE	2
5	Stub Shaft	SS431	1
6	Disc	ASTM A536, 65-45-12+EPDM	1
7	Gasket	EPDM	2
8	Name Plate	Stainless Steel Plate	1
9	Hex Nut	Carbon Steel Zink Plated	4
10	Spring Washer	Spring Steel, 65 MN	4
11	O-Ring	NBR	2
12	Drive Shaft	SS431	1
13	Bushing	SS304+PTFE	2
14	Cylindrical Pin	SS304	1
15	Signal Gear Box	Body:ASTM A536, 65-45-12	1

NOTES:

1) Dimensions given are in mm
2) Standard MSS SP-67;
   Face to Face dimension: ISO5752,Basic series 20
3) Top flange: ISO 5211
4) Flange specification: ASME B16.1 CL125, ASME B16.5 CL150, JIS B2210 10K
5) Working Pressure: 250 psi/ 300 psi
6) Coating:Fusion Bonded Epoxy Coating Complies with ANSI/AWWA C550

Inch	mm	A	B	C	L	H1	H	ØD	N-M	ØD1
2"	50	140.5	65	43±2	122.5	127	202.2	50.3	4-5/8	120.7
2.5"	65	153	71	46±2	122.5	127	202.2	60.8	4-5/8	139.7
3"	80	157.5	81	46±2	122.5	127	202.2	76	4-5/8	152.4
4"	100	176	95	52±2	122.5	127	202.2	98.5	8-5/8	190.5
5"	125	191	111	56±2	122.5	127	202.2	122.6	8-3/4	215.9
6"	150	202.5	133	56±2	122.5	127	202.2	148	8-3/4	241.3
8"	200	243.5	164	60±2	122.5	127	202.2	199	8-3/4	298.5
10"	250	273	196	68±2	122.5	127	202.2	252	12-7/8	362
12"	300	311	226	78±2	122.5	127	202.2	300.5	12-7/8	431.8

HD FIRE PROTECT PVT. LTD.
Protecting What Matters Most to You

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