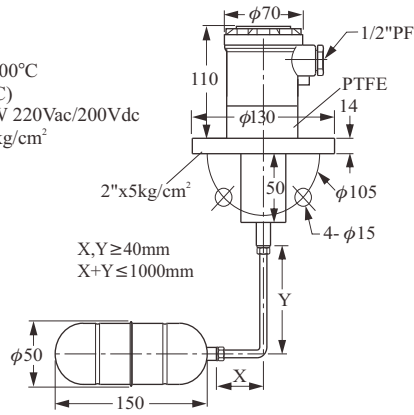


SIDE MOUNTING FLOAT LEVEL SWITCH

FF55DFM

Vertical High Temp.

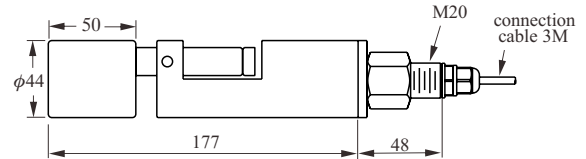
1. Housing material: Aluminum (IP65)
2. Suitable S.G.: 0.55
3. Operation temp.: -40~200°C
4. Contact form: SPDT(1C)
5. Contact rating: 1A, 60W 220Vac/200Vdc
6. Operation pressure: 30kg/cm²
7. Wetted parts: SUS304
8. Weight: approx. 2.8 kg



FF81E

Corrosion-proof

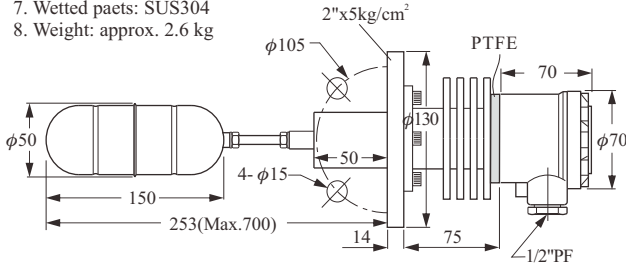
1. Suitable S.G.: 0.6
2. Operation temp.: -20~80°C
3. Contact form: SPDT(1C)
4. Contact rating: 1A, 30W 220Vac/200Vdc
5. Wetted parts: P.P.
6. Process connection: M20 Thread



FF62DFM

High Temp. Radiator

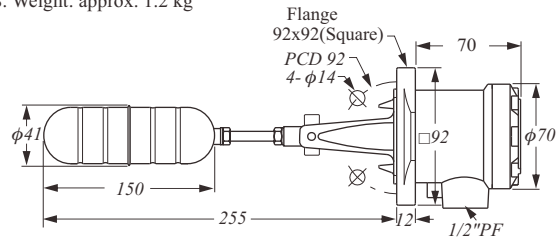
1. Housing material: Aluminum (IP65)
2. Suitable S.G.: 0.55
3. Operation temp.: -40~350°C
4. Contact form: SPDT(1C)
5. Contact rating: 5A/250Vac
6. Operation pressure: 30kg/cm²
7. Wetted parts: SUS304
8. Weight: approx. 2.6 kg



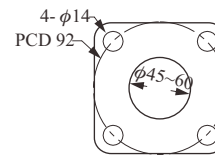
FF90CLO

Square Flange 92x92

1. Housing material: Aluminum (IP65)
2. Suitable S.G.: >0.65
3. Operation temp.: -20~100°C
4. Contact form: SPDT(1C)
5. Contact rating: 5A/250Vac
6. Operation pressure: 15kg/cm²
7. Wetted parts: SUS304
8. Weight: approx. 1.2 kg



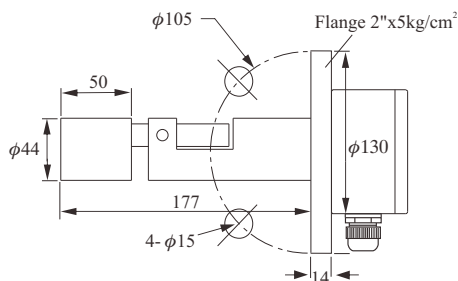
Drill Hole



FF80EFM

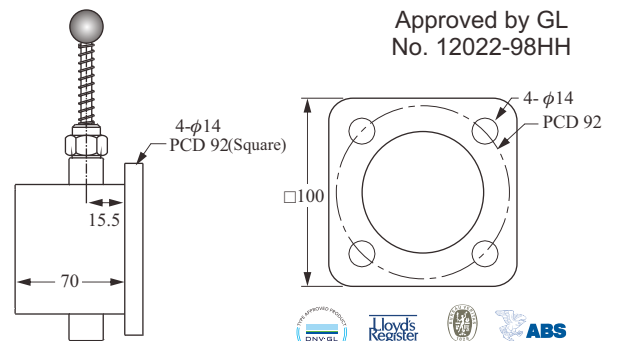
Corrosion-proof

1. Housing material: PC (IP65)
2. Suitable S.G.: 0.6
3. Operation temp.: -20~80°C
4. Contact form: SPDT(1C)
5. Contact rating: 1A, 30W 220Vac/200Vdc
6. Wetted parts: P.P.



Test Accessory FFB-0300

Approved by GL
No. 12022-98HH



Material: SS41



NEPSI PROOF No. GYJ111213 Ex d IIC T3~T6

PTB PROOF No. 05 ATEX 1025 Ex II 2G Ex d IIB T6~T4 Gb

Ex II 2D Ex tb IIIC T85°C~T135°C Db IP65

FEATURES

- Mounting flanges are custom-specifiable. (JIS, DIN, ANSI).
- A rich variety of floats can suit different specific gravity.
- Liquid-wetted material can be selected for SUS304 or SUS316 as well as explosion proof model.

SPECIFICATION

Housing: SUS316 (Ex d IIC T3~T6)

Contact : 3A/250Vac SPDT

Operating Temp.: -20~100°C

Wetted material: SUS304 or SUS316

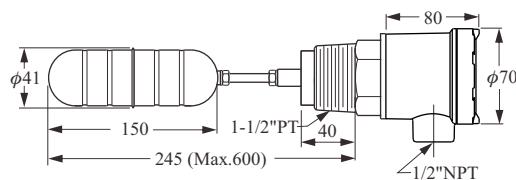
※ Certified by GL, ABS Marine grade are available.



► FF 70 CEQ

Operating pressure: 15 kg/cm²

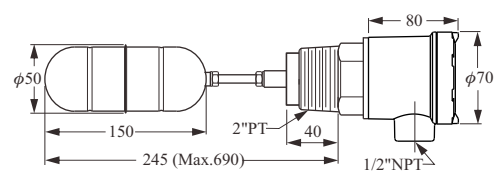
Suitable S.G.: 0.65



► FF70 DFQ

Operating pressure: 30 kg/cm²

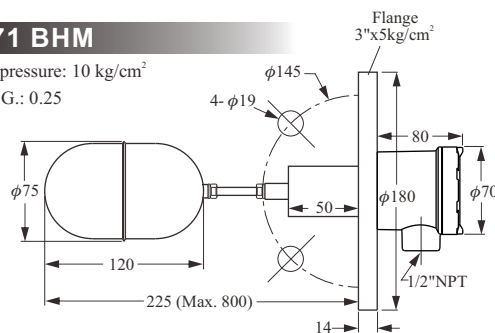
Suitable S.G.: 0.55



► FF 71 BHM

Operating pressure: 10 kg/cm²

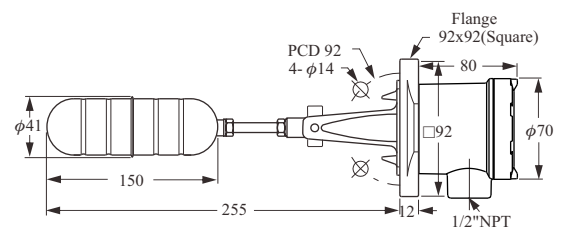
Suitable S.G.: 0.25



► FF 73 CLO

Operating pressure: 15 kg/cm²

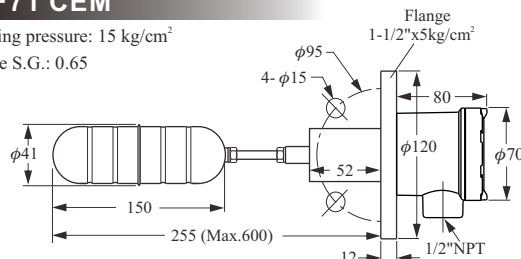
Suitable S.G.: 0.65



► FF71 CEM

Operating pressure: 15 kg/cm²

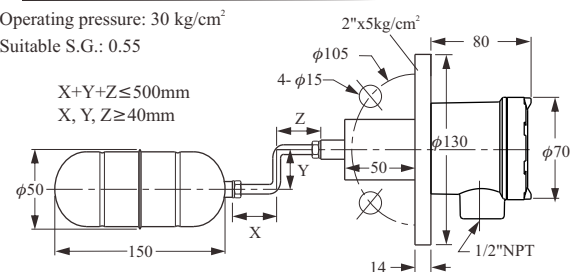
Suitable S.G.: 0.65



► FF 74 DFM

Operating pressure: 30 kg/cm²

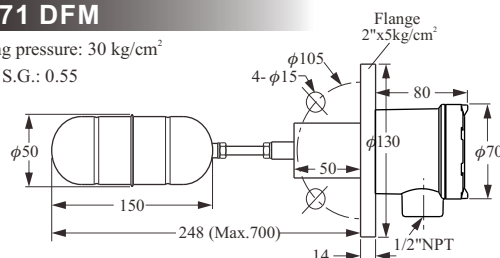
Suitable S.G.: 0.55



► FF71 DFM

Operating pressure: 30 kg/cm²

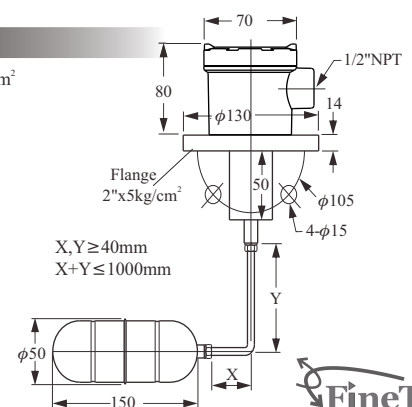
Suitable S.G.: 0.55



► FF 75 DFM

Operating pressure: 30 kg/cm²

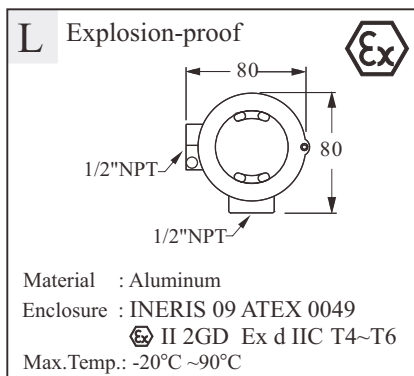
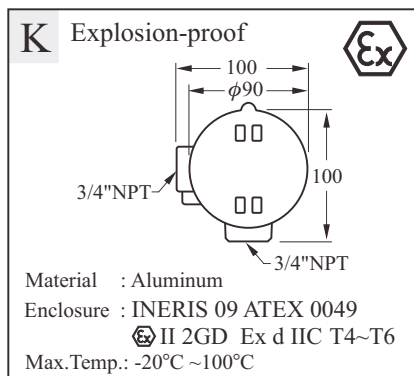
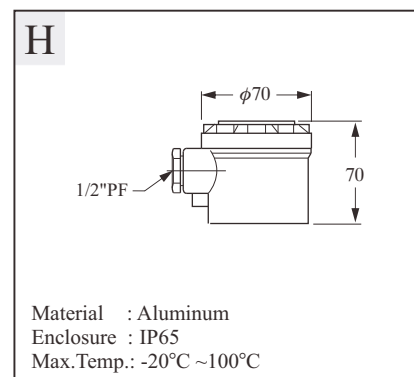
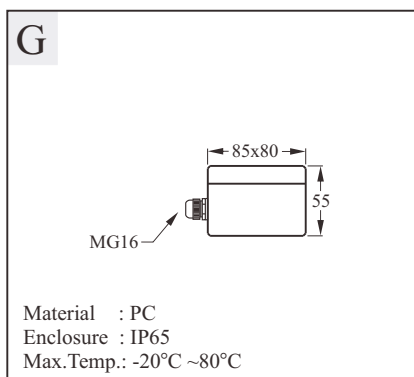
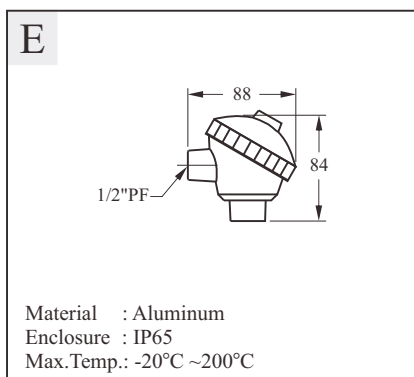
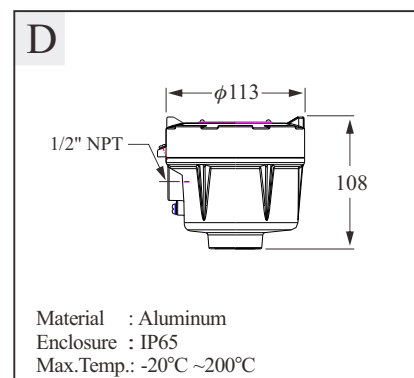
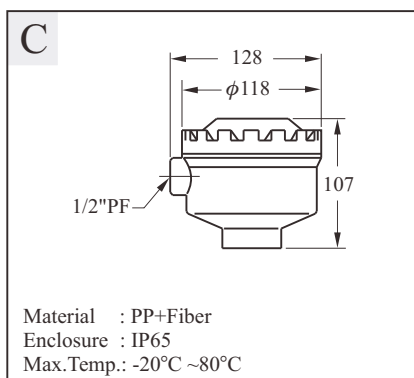
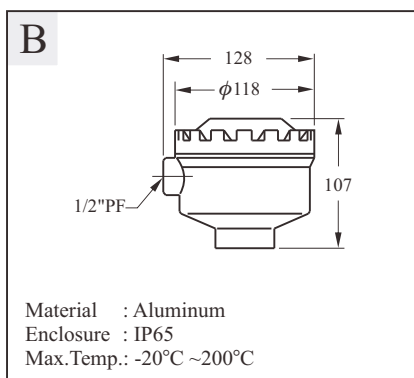
Suitable S.G.: 0.55



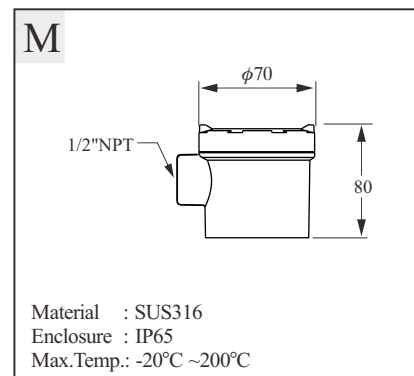
※ Cable Conduit (Optional Part) Please refer to page 45

29-1108: 1/2"NPT 29-1104: 3/4"NPT

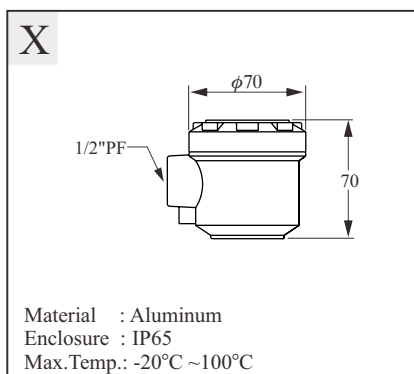
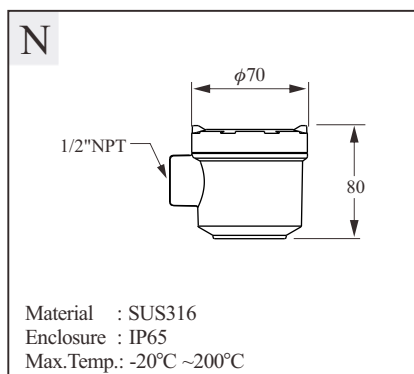
HOUSING SPECIFICATION



*Recommend for flow switch used



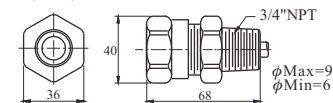
*Recommend for side float sw. used



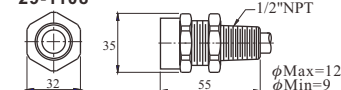
Cable Conduit Ex d IIC

Material: Washer ---NBR
Body--- Aluminum (3/4" NPT)
Nickel plated (1/2" NPT)

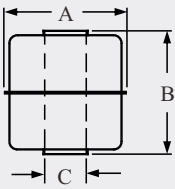
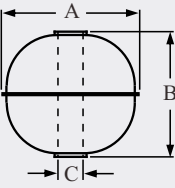
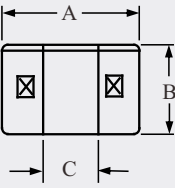
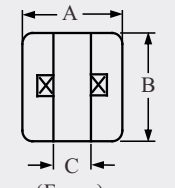
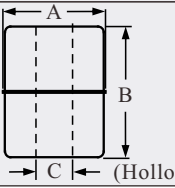
29-1104



29-1108



FLOAT SPECIFICATIONS

MODEL	TYPE	$\phi A \times B \times \phi C$	S.G.	Max. Pressure (kg/cm ²)	Weight (g)	Material/Color	Max. Temp. (°C)
	S1	28x28x9.5	E>0.7	10	8	SUS 316 / 316L	200
	S3	45x55x15	E>0.65	12	37.6	SUS 316	200
	S6	75x108x20	E>0.5	10	165	SUS 316	200
	S13	38x50x15	E>0.62	12	22.9	SUS 316L	200
	S2	41x38x11	E>0.7	35	19.5	SUS 316	200
	S4	52x52x15	E>0.55	30	33.4	SUS 316	200
	S5	75x73x20	E>0.70	30	102.4	SUS 316	200
	S7	30x28x9.5	E>0.75	25	8	SUS 316 / 316L	200
	S8	100x100x20	E>0.5	15	249.7	SUS 304	200
	S9	150x150x30	E>0.45	15	534	SUS 304	200
	S10	30x32x9.5	E>0.75	50	8.6	SUS 316	200
	S11	28x32x9.5	E>0.82	30	8.1	SUS 316	200
 (Hollow)	P1	25x15x10	E>0.65	4	3.5	PP / white black	80
	P2	25x25x10	E>0.7	4	5	PP / white black	80
	P3	48x45x18.5	E>0.6	5	35.5	PP / black	80
	P4	20x25x10	E>0.7	4	3.7	PP / white black	80
	P5	20x20x8.1	E>0.75	4	4	PP / white	80
	P8	18.2x15.3x7.2	E>0.8	4	1.82	PP / black	80
 (Foam)	Q6	20x20x7.5	E>0.75	ATM	3.5	PP / white	80
	Q7	25x25x8.8	E>0.7	ATM	6.7	PP / white	80
	N1	25x15x10	E>0.5	ATM	2.7	NBR / black	100
	N2	18.5x26x10	E>0.7	ATM	3.3	NBR / black	100
	N3	19x20x10	E>0.55	ATM	2.4	NBR / black	100
	N4	17.5x25x10	E>0.65	ATM	2.5	NBR / black	100
	N5	30x45x12.8	E>0.5	ATM	11.5	NBR / black	100
 (Hollow)	F2	40x41.5x14	E>0.63	5	18.5	PP	80
	F3	45x45x20	E>0.65	5	35.7	PP	80
	F4	48x62x18	E>0.8	5	65.3	PVDF	120

※S5 float: E>0.65 for FC; E>0.61 for FG

※F4 float: E>0.8 for FC; E>0.75 for FG

MAGNETIC FLOAT LEVEL SWITCH

The magnetic level switch can be done as per customer's specified technical data such as the flange, thread, housing, float ball diameter, float ball number, the float traveling up or down actuated position by N.C. or N.O. output, the total float working distance (L) or

Example: FD B HM 7 S6 3 0405

It is requested the minimum interval for a single ball driving dual actuated positions (D) or neighboring two balls (B), or from the bottom to the lowest ball interval (C) or from the mounting position to the first ball (A), otherwise, there will be some magnetic mutually interference involved by insufficient interval. To ensure the defined distance, please see the data below:

FLOAT TYPE	S1	S2	S3	S4	S5	S6	P1	P2	P3	F4
A(mm)	25	32	40	39	50	70	23	27	47	55
B(mm)	50	64	82	78	99	136	44	55	85	98
C(mm)	25	32	40	39	50	70	23	31	43	50
D(mm)	30	40	55	50	65	70	30	30	45	65

E (mm)	SCREW
14	1/2"PT
16	3/4"PT
19	1"PT
22	1-1/4"PT
22	1-1/2"PT
25	2"PT
28	2-1/2"PT
32	3"PT

each independent float actuating position, please refer the order information to define the application specifications. A single ball driving dual actuated points or multiple balls driving multiple actuated points is available to apply on the order form.

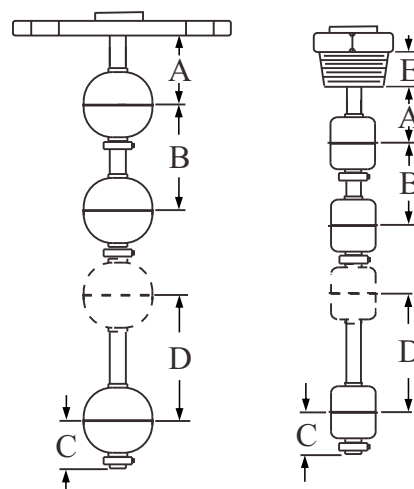
A = Minimum distance from the mounting position to the highest actuation level.

B = Minimum distance between any two actuation levels.

C = Minimum distance from end of the lowest level.

D = Minimum distance between two actuation levels by one float.

E = Screw length



FLOAT SPECIFIED THREAD /FLANG SIZE SELECTION

Float No.	Material	Float dia.	Thread Min. Size Requested	Flange Min. Size Requested	
				SCH40S	SCH80S
P1	P.P.	φ25x15	1"PF or 1"PT	1"x5K, 10K	1-1/4"x5K, 10K
P2,7	P.P.	φ25x25	1"PF or 1"PT	1"x5K, 10K	1-1/4"x5K, 10K
P3	P.P.	φ48x45	2"PF or 2"PT	2"x5K, 10K	2"x5K, 10K
F4	PVDF	φ48x60	2"PF or 2"PT	2"x5K, 10K	2"x5K, 10K
F2	P.P.	φ42x44	1-1/2"PF or 1-1/2"PT	2"x5K, 10K	2"x5K, 10K
S1	SUS	φ28x28	1"PF or 1"PT	1-1/4"x5K, 10K	1-1/4"x5K, 10K
S2	SUS	φ41x38	1-1/2"PF or 1-1/2"PT	1-1/2"x5K, 10K	2"x5K, 10K
S3	SUS	φ45x55	2"PF or 2"PT	2"x5K, 10K	2"x5K, 10K
S4	SUS	φ52x52	2"PF or 2"PT	2"x5K, 10K	2-1/2"x5K, 10K
S5	SUS	φ75x73	3"PF or 3"PT	3"x5K, 10K	3-1/2"x5K, 10K
S6	SUS	φ75x108	3"PF or 3"PT	3"x5K, 10K	3-1/2"x5K, 10K

MAGNETIC FLOAT LEVEL SWITCH

※ Certified by ABS, BV, DNV, GL, LR Marine grade are available.

F D B H M 7 S 6 3 0 5 0 0 A (T)

P: Pipe Shield
R: Sensor
T: Test Rod

Contact Form

A: SPST C: SPDT F: 1 float 2 points
G: 1 float 3 points — : No contact

Length:(L) Unit=mm

0500: below 500mm
1000: 501~1000mm
1500: 1001~1500mm ※ 500mm/per unit

Quantity of float (1~4)

Float Type (Please refer page8)

F2, F3, F4
P1,P2, P3, P4
S1, S2, S3, S4, S5, S6, S7, S0(S10)
Q7, N1, N2, N3, N4, N5

Stem

Code size	Material	Code size	Material	Code size	Material
0: ϕ 8	PP	6: ϕ 16	PVDF	A: ϕ 8	SUS316
1: ϕ 8	SUS304	7: ϕ 17.2	SUS304	B: ϕ 9.5	SUS316
2: ϕ 8	PVC	8: ϕ 12.7	P.P.	C: ϕ 12.7	SUS316
3: ϕ 9.5	SUS304	9: ϕ 12.7	PVC	D: ϕ 17.2	SUS316
4: ϕ 12.7	SUS304			E: ϕ 8	PFA
5: ϕ 17.2	P.P.			S: special	

Connection Type

Housing Type

B: AL. (Big space)
C: PP (Anti-acidity)
D: Aluminum
E: AL. (Small space)
G: PC (Anti-acidity)
D: Aluminum
K: AL. (Explosion-proof)
N: SUS304 or SUS316
P: Plastic IP65
—: Without housing
2: Without housing
(Side Mounting)
X: Aluminum

Size for flange or screw

A: 3/8" (10A)	I: 4"(100A)
B: 1/2" (15A)	J: 5"(125A)
C: 3/4" (20A)	K: 6"(150A)
D: 1" (25A)	S: Others
E: 1-1/2"(40A)	1: 1/8"
F: 2" (50A)	2: 1/4"
G: 2-1/2"(65A)	3: 1-1/4"(32A)
H: 3" (80A)	

Pressure range or other

M: 5kg/cm² JIS
N: 10kg/cm² JIS
O: 150Lbs ANSI
P: 300Lbs ANSI
Q: PT (Male)
R: PF(G) (Male)
T: BSP (Male)
U: NPT (Male)
S: Others
W: PN10 (10Bar)
X: PN16 (16Bar)
Y: PN25 (25Bar)
Z: PN40 (40Bar)
J :Adjustment screw
K:Adjustment flange
A: PT (Female)
B: PF (Female)
C: BSP (Female)
D: NPT (Female)

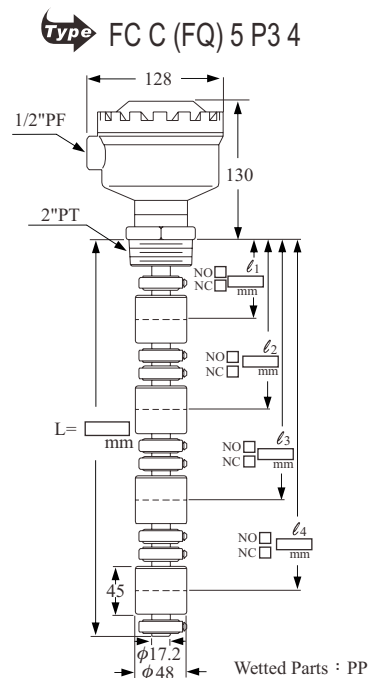
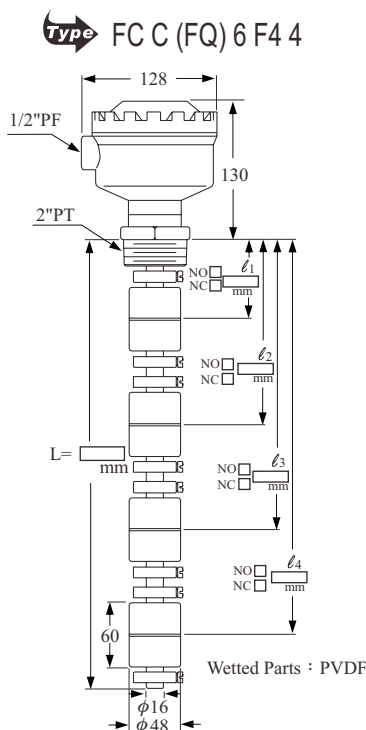
FC: Plastic (Stem)
FD: Metal (Stem)

MAGNETIC FLOAT LEVEL SWITCH



ANTI-CORROSION SCREW TYPE / FLANGE TYPE

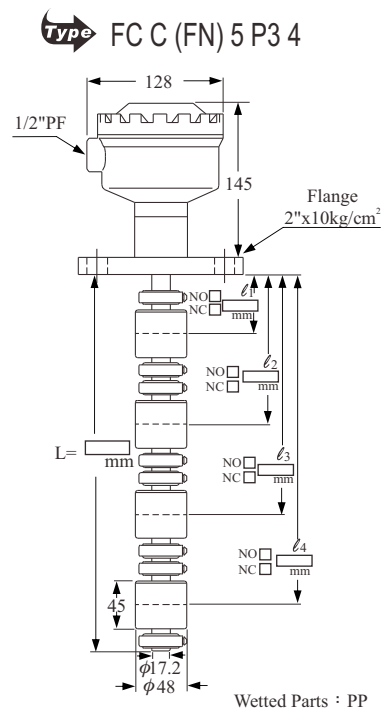
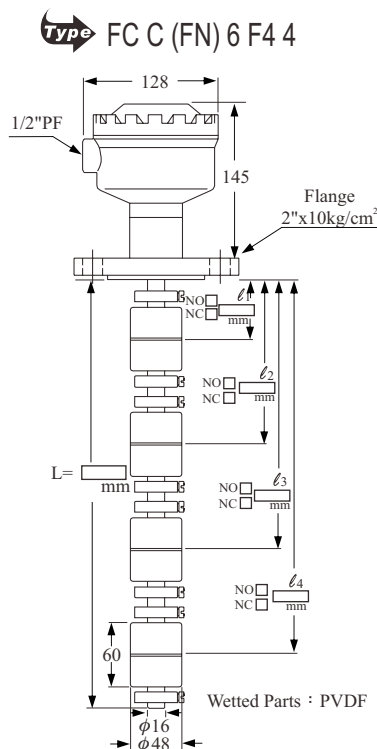
Housing material apply by PP, wet portion material options in PP, PVDF, specially applicable for chemical applications against corrosive environments.



Order information

Connection Flanges	Pipe Diameter	Float Type	Float Quantity
FQ=2" PT	6= $\phi 16$	F4=PVDF $\phi 48 \times 60$	1~4
FQ=2" PT	5= $\phi 17.2$	P3=PP $\phi 48 \times 45$	1~4
FN=2" 10kg/cm ²	6= $\phi 16$	F4=PVDF $\phi 48 \times 60$	1~4
FN=2" 10kg/cm ²	5= $\phi 17.2$	P3=PP $\phi 48 \times 45$	1~4

※FCC(FQ) & (FN)2" flange/thread are available, too.

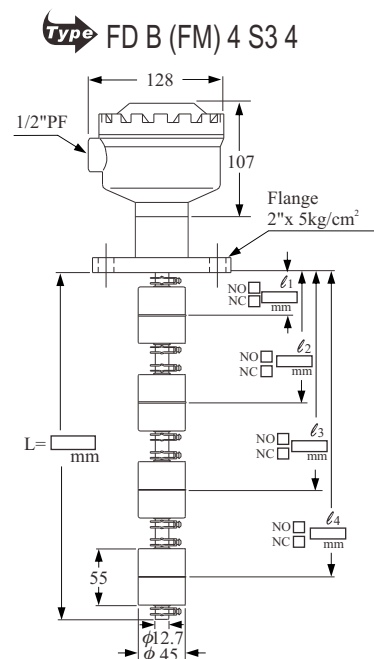
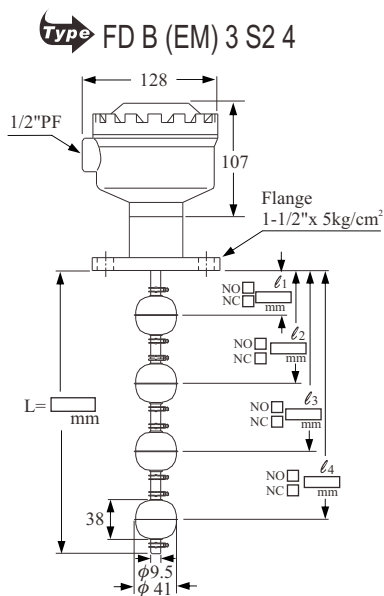


MAGNETIC FLOAT LEVEL SWITCH



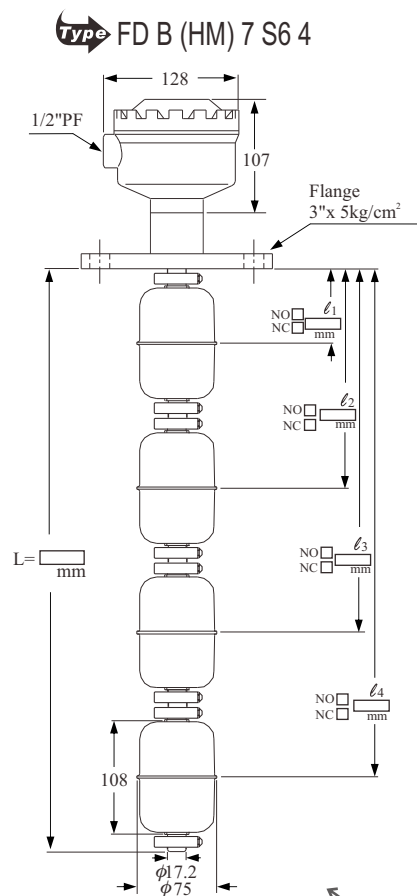
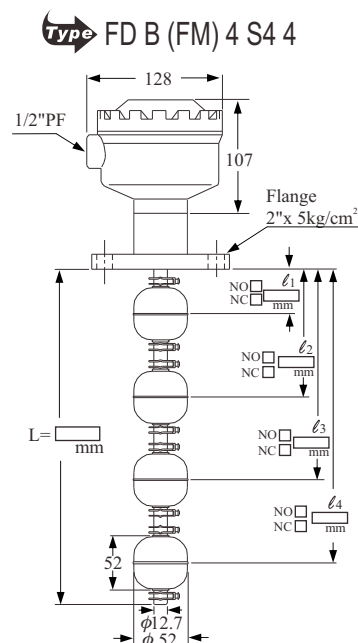
STANDARD FLANGE TYPE

The housing complies with the IP65 rating and can therefore be used in outdoor environment.



Order information

Type	Housing Type			
FD	B	(HM)	7	S6 4
Connection Flanges	Pipe Diameter	Float Type	Float Quantity	
EM=1-1/2" 5kg/cm ²	3= $\phi 9.5$	S2= $\phi 41 \times 38$	1~4	
FM=2" 5kg/cm ²	4= $\phi 12.7$	S3= $\phi 45 \times 55$	1~4	
FM=2" 5kg/cm ²	4= $\phi 12.7$	S4= $\phi 52 \times 52$	1~4	
HM=3" 5kg/cm ²	7= $\phi 17.2$	S6= $\phi 75 \times 108$	1~4	

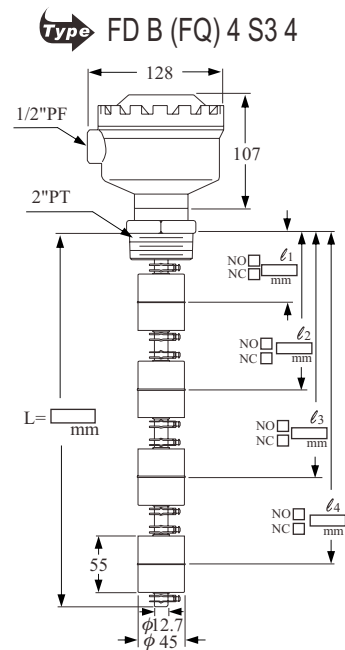
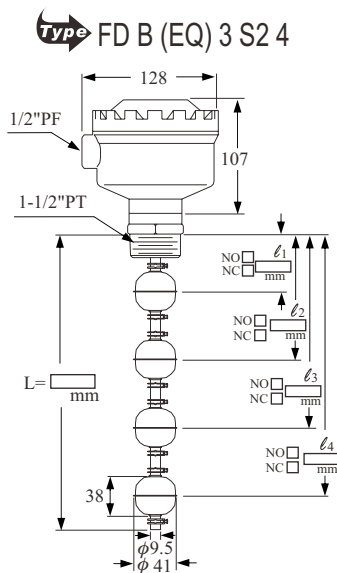


MAGNETIC FLOAT LEVEL SWITCH

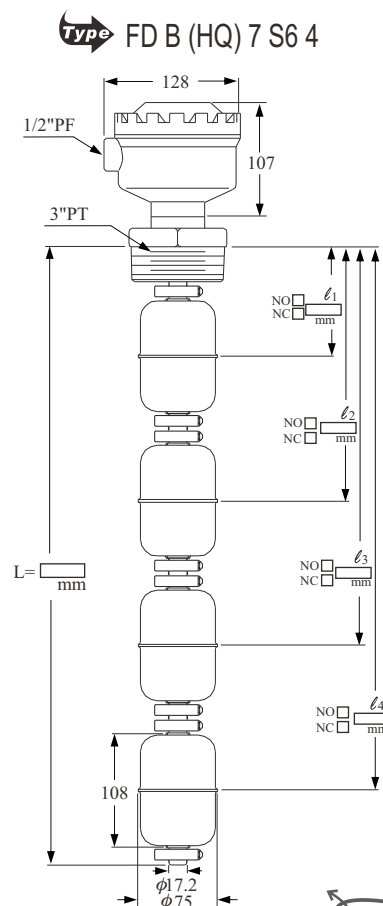
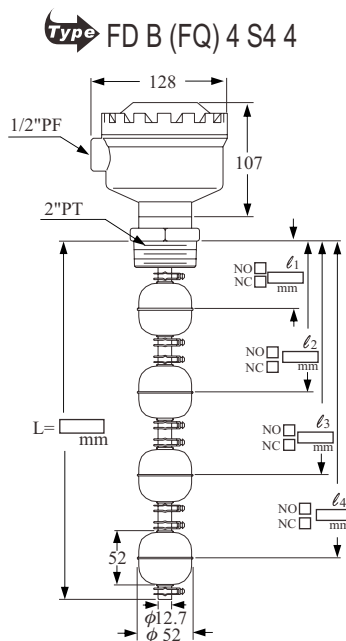
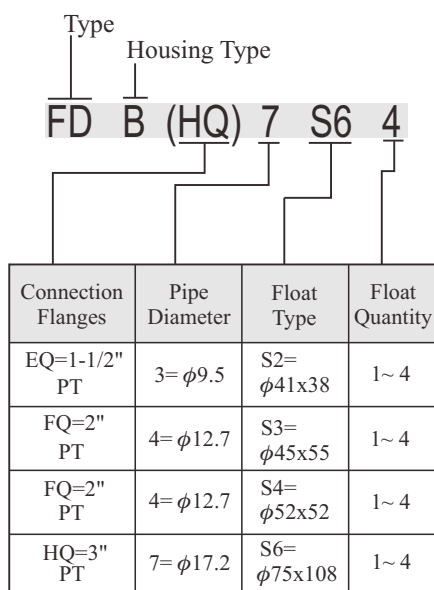


STANDARD SCREW TYPE

The housing complies with the IP65 rating and can therefore be used in outdoor environment.



Order information

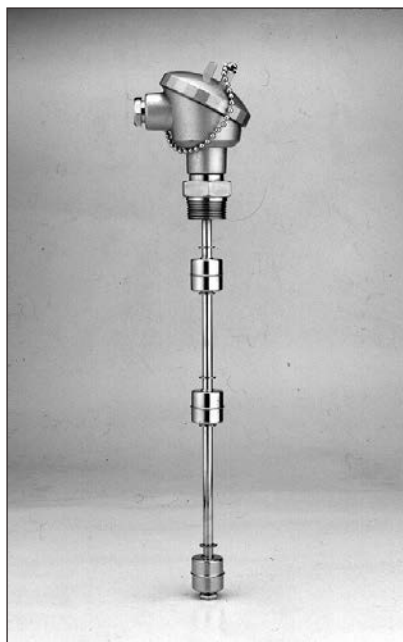


MAGNETIC FLOAT LEVEL SWITCH

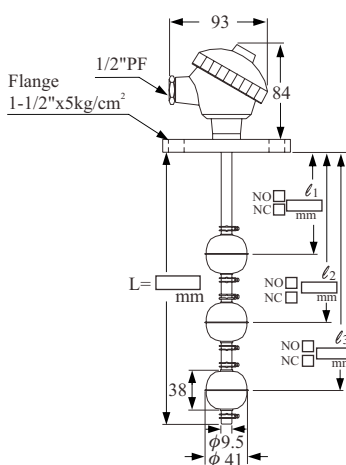


SCREW TYPE / FLANGE TYPE

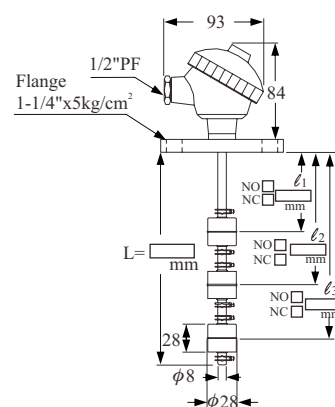
The housing complies with the IP65 rating and can therefore be used in outdoor environment.



Type FD E (EM) 3 S2 3



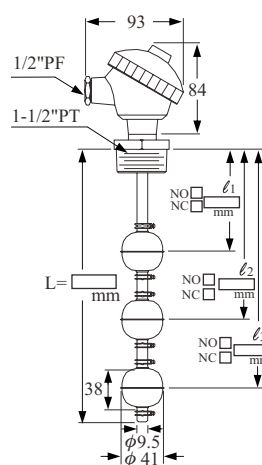
Type FD E (3M) 1 S1 3



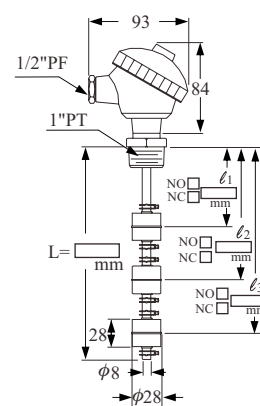
Order information

Type			
Housing Type			
FD E (3Q) 1 S1 3			
Connection Flanges	Pipe Diameter	Float Type	Float Quantity
EM=1-1/2" 5kg/cm ²	3= ϕ 9.5	S2= ϕ 41x38	1~ 3
3M=1-1/4" 5kg/cm ²	1= ϕ 8	S1= ϕ 28x28	1~ 3
EQ=1-1/2" PT	3= ϕ 9.5	S2= ϕ 41x38	1~ 3
DQ=1"PT	1= ϕ 8	S1= ϕ 28x28	1~ 3

Type FD E (EQ) 3 S2 3



Type FD E (DQ) 1 S1 3



MAGNETIC FLOAT LEVEL SWITCH ENCLOSURE EXPLOSION PROOF

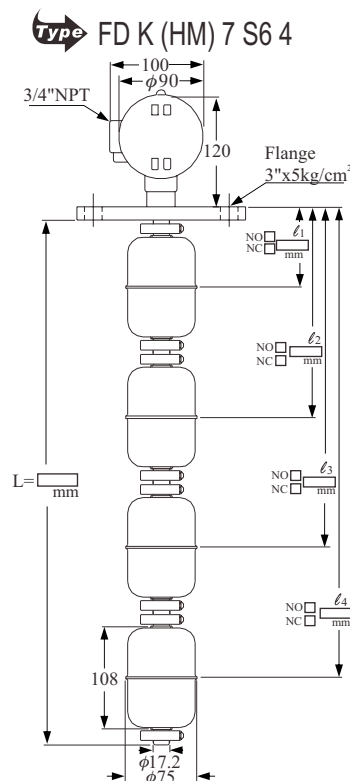
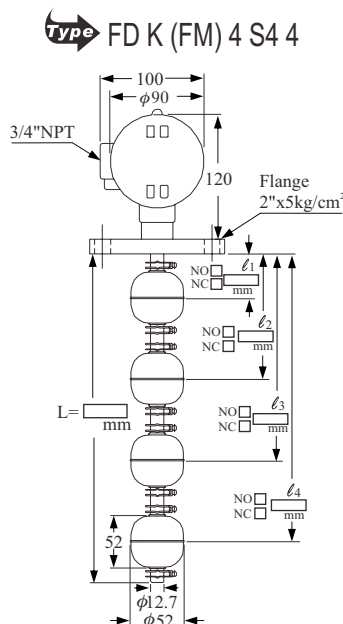
INERIS 09 ATEX 0049  II 2GD Ex d IIC T4~T6

 IM2 Ex d I Ex tD A21 T85~135°C

FLANGE TYPE

Order information

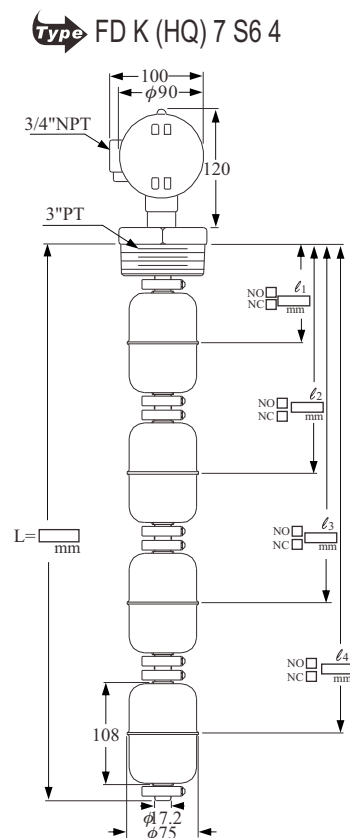
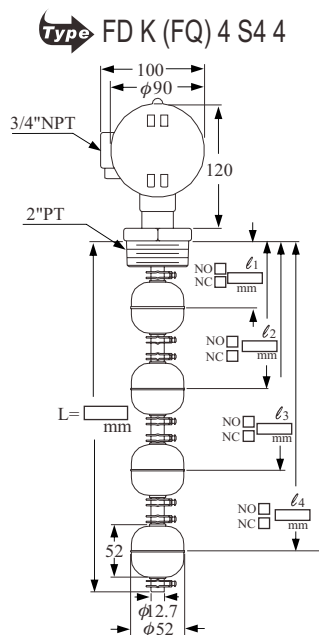
Type	Housing Type		
FD - K - HM - 7 - S6 - 4			
Connection Flanges	Pipe Diameter	Float Type	Float Quantity
EM=1-1/2" 5kg/cm ²	3= $\phi 9.5$	S2= $\phi 41 \times 38$	1~4
FM=2" 5kg/cm ²	4= $\phi 12.7$	S3= $\phi 45 \times 55$	1~4
FM=2" 5kg/cm ²	4= $\phi 12.7$	S4= $\phi 52 \times 52$	1~4
HM=3" 5kg/cm ²	7= $\phi 17.2$	S6= $\phi 75 \times 108$	1~4



SCREW TYPE

Order information

Type	Housing Type		
FD - K - HQ - 7 - S6 - 4			
Connection Flanges	Pipe Diameter	Float Type	Float Quantity
EQ=1-1/2" PT	3= $\phi 9.5$	S2= $\phi 41 \times 38$	1~4
FQ=2" PT	4= $\phi 12.7$	S3= $\phi 45 \times 55$	1~4
FQ=2" PT	4= $\phi 12.7$	S4= $\phi 52 \times 52$	1~4
HQ=3" PT	7= $\phi 17.2$	S6= $\phi 75 \times 108$	1~4



MAGNETIC FLOAT LEVEL SWITCH



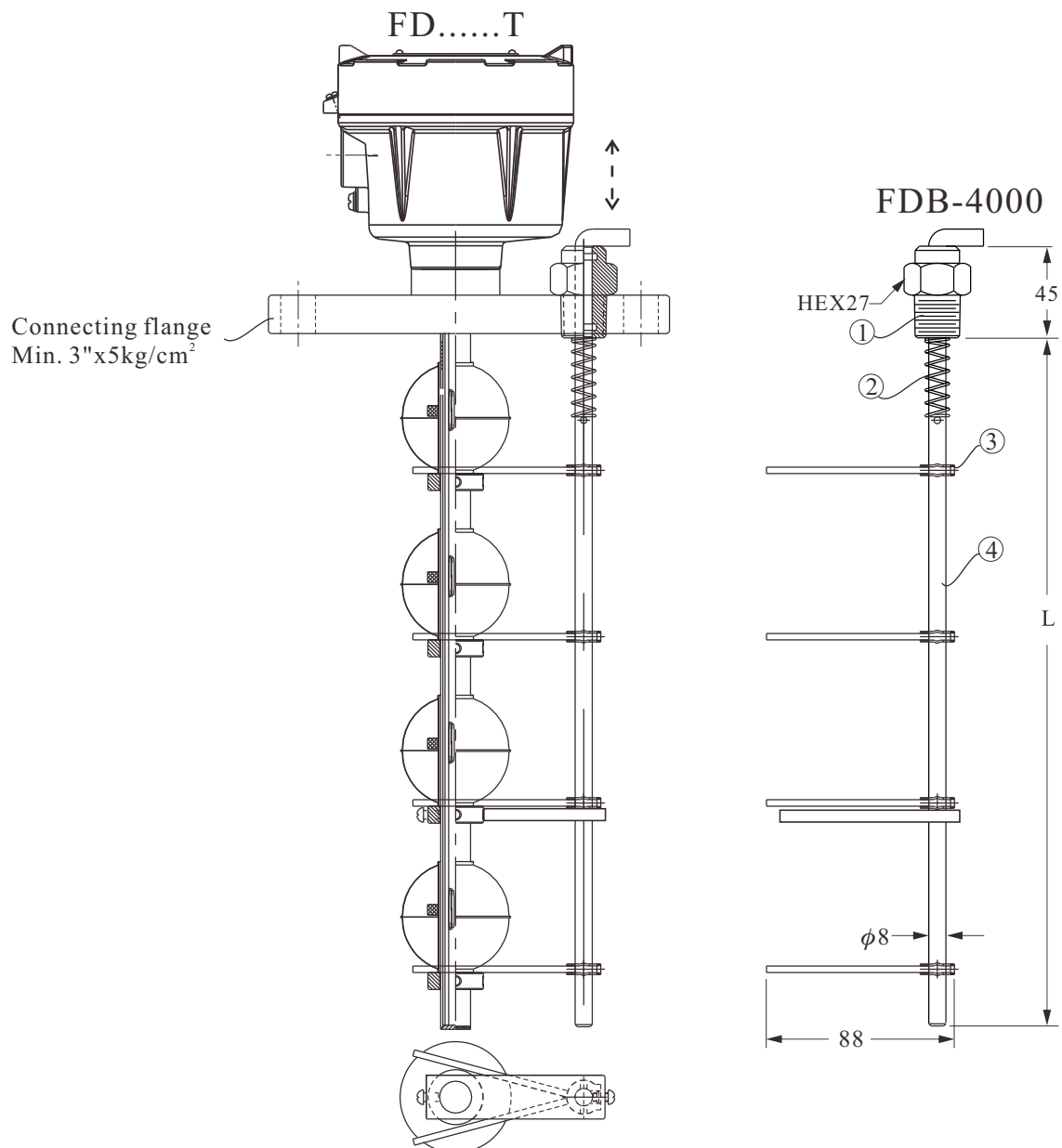
TEST ROD GL Marine Approval 50885-04HH

Function:

When the Test Rod is attached to a magnetic float level switch, user could test the performance of the magnetic switch directly by pulling the handle of the test rod on the top of the switch.

Material:

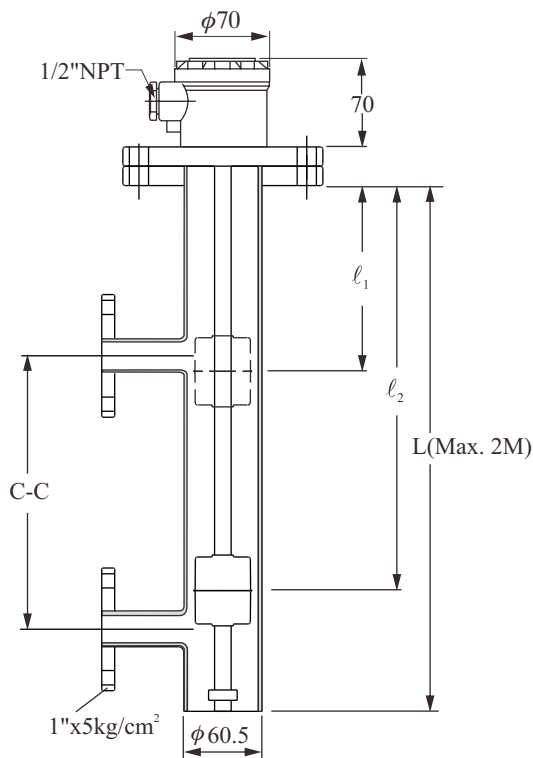
1. Rod Connection: Bronze
2. Compressed Spring: Stainless Steel
3. Positioning Clip: Stainless Steel
4. Test Rod Stem: Stainless Steel



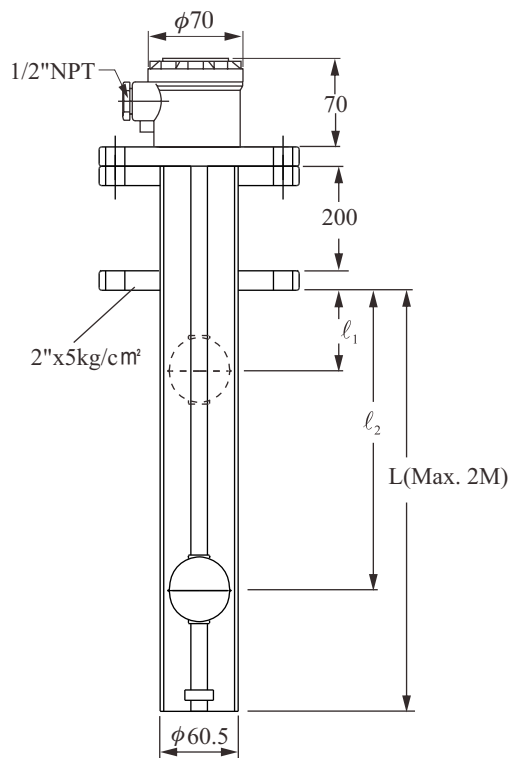
MAGNETIC FLOAT LEVEL SWITCH MARINE GRADE APPROVALS



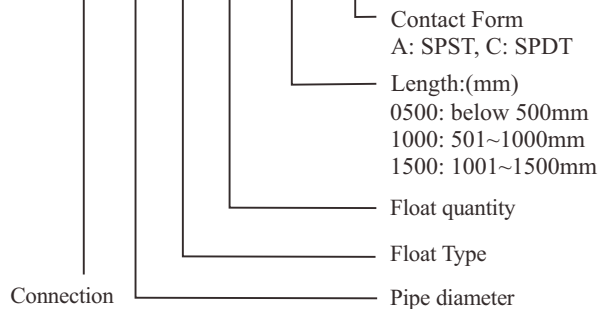
FH DM 4 S3 1



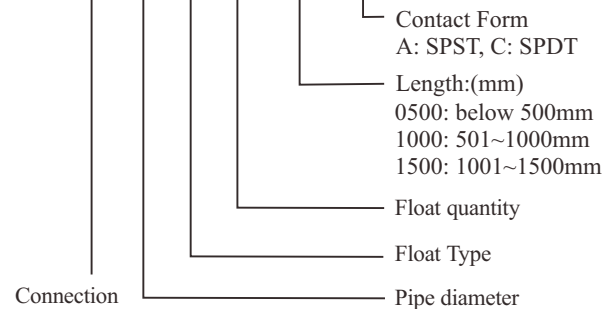
FM FM 4 S3 1



FH DM 4 S3 1 0500 A



FM DM 4 S3 1 0500 A



* Please specify the l_1 , l_2 , C-C and L while placing an order.
(Length from lower end of housing to center line of float ball)

Connection	Pipe Diameter	Float Type
DM=1"x 5kg/cm ²	4= ϕ 12.7	S3= ϕ 45x55
FM=2"x 5kg/cm ²	4= ϕ 12.7	S4= ϕ 52x52

NEPSI PROOF No.GYJ111215 Ex d IIC T3~T6

PTB PROOF No. 05 ATEX 1027 Ex II 2G Ex d IIB T6~T3 Gb

Ex II 2D Ex tb IIIC T85°C~T200°C Db IP65

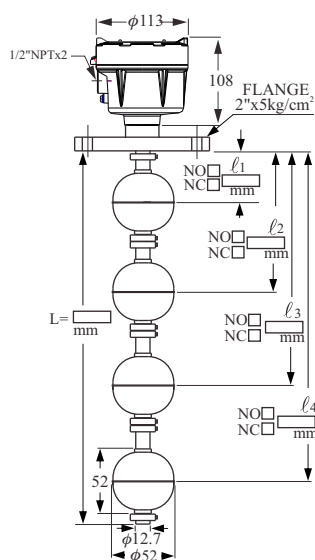
FEATURES

- Multiple points measuring, multiple level points are available for custom-built.
- It is used the magnet to actuate the reed switch without any extra power source. Operation life reaching 1 million times.
- All output signal wiring are simplified in same housing.
- It is more economical in budget than other level switches (multiple points).
- Rugged construction, material from engineering plastics (PVDF, PP, PVC) and stainless steels (SUS304, SUS316), it can be applied to versatile applications in chemical corrosion of acidity and alkalinity liquid, solvents or oil fuels.
- The reed switch and lead wire are isolated absolutely with liquids. All float switch (made of stainless steel) are applicable to high pressure and high temp. Performances.



FLANGE TYPE

FD7 D FM 4 S4 4



Specification

Switching Capacitance:
20W~50W, SPDT or SPST

Switching Current: Max. 0.5A

Carry Current: Max. 1A~2.5A

Suitable S.G.: >0.5

Operating Temperature:

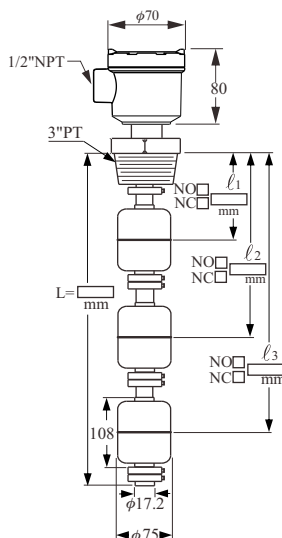
PP: -20°C~80°C

PVDF: -20°C~120°C

SUS: -20°C~120°C

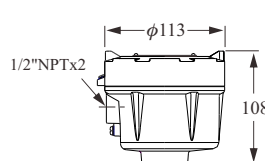
SCREW TYPE

FD7 N HO 7 S6 3

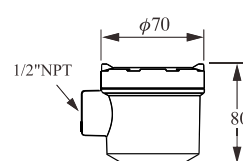


HOUSING SPECIFICATION

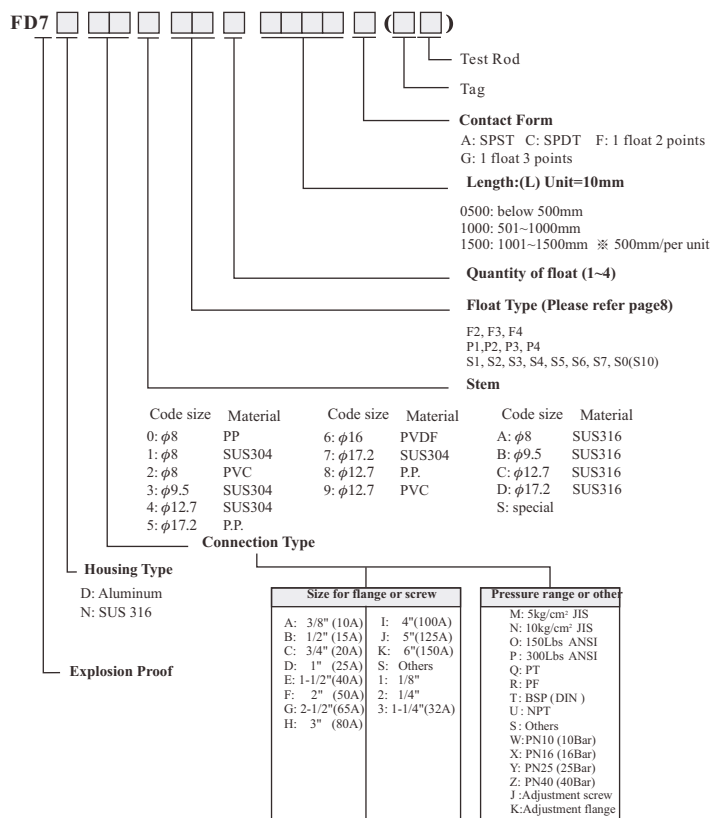
D: Aluminum



N: SUS316



ORDER INFORMATION



Cable Conduit (Optional Part) Please refer to page 45

29-1108: 1/2"NPT

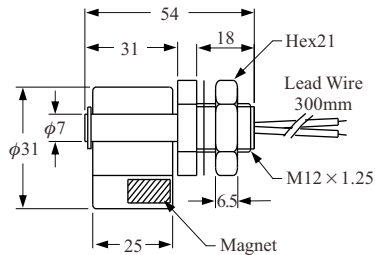
29-1104: 3/4"NPT

※Certified by ABS, BV, DNV, GL, LR
Marine grade are available.

MINI FLOAT LEVEL SWITCH

FCH11QD

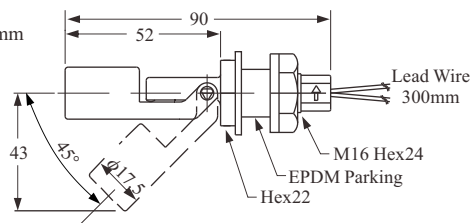
1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: PVC (UL1007 AWG22)
6. Max. pressure: ATM
7. Operation temp.: -20~80°C
8. Material: P.P.
9. Suitable S.G.: 0.6
10. Weight: 25 g
11. Drill hole: $\phi 12.5\text{mm}$



WASHER: NBR

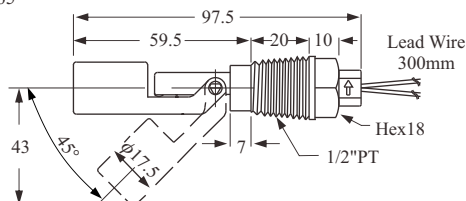
FCH21PD

1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL3266 AWG22)
6. Max. pressure: 4kg/cm²
7. Operation temp.: -20~80°C
8. Material: FCH21PD---PP (std.), FCH23FD---PVDF, FCH25GD---Polysulfone
9. Suitable S.G.: 0.65
10. Weight: 21.6 g
11. Drill hole: $\phi 16\text{mm}$



FCH31PD

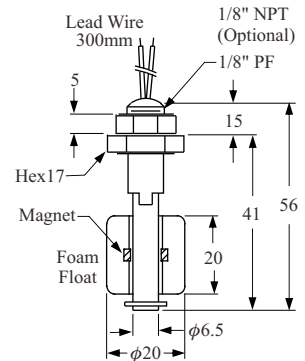
1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL3266 AWG22)
6. Max. pressure: 4kg/cm²
7. Operation temp.: -20~80°C
8. Material: FCH31PD---PP (std.), FCH33FD---PVDF, FCH35GD---Polysulfone
9. Suitable S.G.: 0.65
10. Weight: 20.8 g



- * P.P.---Not suitable for hydrocarbons
- * Individually consult with us for suitable application

FCV11QF

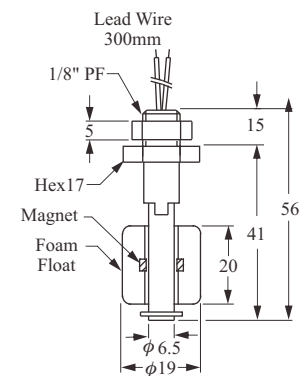
1. Switching capacity Max.: SPST 10W
2. Switching voltage Max.: 125Vac
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: PVC (UL1007 AWG22)
6. Reversible switch action: YES
7. Max. Pressure: ATM
8. Operation temp.: -20~80°C
9. Material: P.P.
10. Suitable S.G.: 0.75
11. Weight: 12 g
12. Drill hole: $\phi 10\text{mm}$



WASHER: NBR

FCV11NF

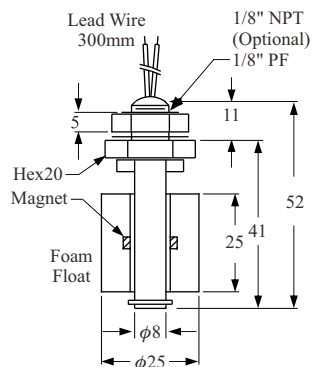
1. Switching capacity Max.: 10W/SPST
2. Switching voltage Max.: 125Vac
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL3266 AWG22)
6. Reversible switch action: NO
7. Max. Pressure: ATM
8. Operation temp.: -20~80°C
9. Material: NBR
10. Suitable S.G.: 0.55
11. Weight: 11 g
12. Drill hole: $\phi 10\text{mm}$



WASHER: NBR

FCV21QD

1. Switching capacity Max.: SPST/50W
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: PVC (UL1007 AWG22)
6. Reversible switch action: NO
7. Max. Pressure: ATM
8. Operation temp.: -20~80°C
9. Material: P.P.
10. Suitable S.G.: 0.7
11. Weight: 18 g
12. Drill hole: $\phi 10\text{mm}$



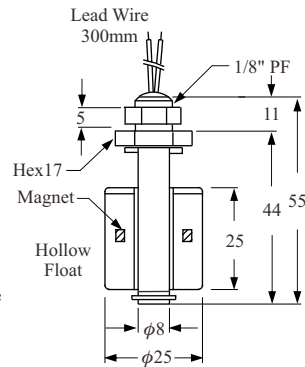
WASHER: NBR

- * P.P.---Not suitable for hydrocarbons
- * Individually consult with us for suitable application

MINI FLOAT LEVEL SWITCH

FCV31PD

1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: PVC (UL1007 AWG22)
6. Reversible switch action: YES
7. Max. pressure: 4kg/cm²
8. Operation temp.: -20~80°C
9. Material: FCV31PD---P.P. (std.)
FCV33FD---PVDF
FCV35GD---Polysuphone
10. Suitable S.G.: 0.7
11. Weight: 15 g
12. Drill hole: $\phi 10$ mm

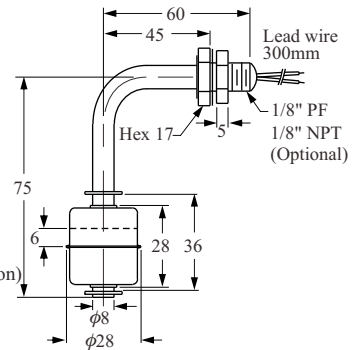


O-RING: VITON



FD3002D

1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL 3266 AWG22)
6. Reversible switch action: YES/below 80°
7. Max. pressure: 10kg/cm²
8. Operation temp.: -20~120°C (200°C Option)
9. Material: SUS 304 (SUS 316 Option)
10. Suitable S.G.: 0.7
11. Weight: 43 g
12. Drill hole: $\phi 10$ mm

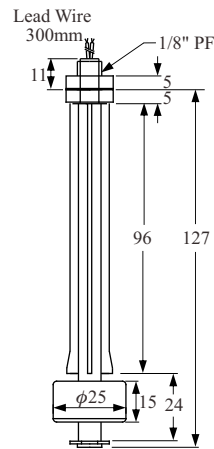


WASHER: NBR



FCV61NF/ FCV61PF

1. Switching capacity Max.: 10W/SPST
2. Switching voltage Max.: 125Vac
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: PVC (UL1007 AWG22)
6. Reversible switch action: NO
7. Max. Pressure: FCV61PF: 4kg/cm²
FCV61NF: ATM
8. Operation temp.: -20~80°C
9. Float Material: FCV61PF: P.P. (Hollow),
FCV61NF: NBR (Foam)
10. Suitable S.G.: FCV61PF: 0.65
FCV61NF: 0.5
11. Weight: 16 g
12. Drill hole: $\phi 10$ mm

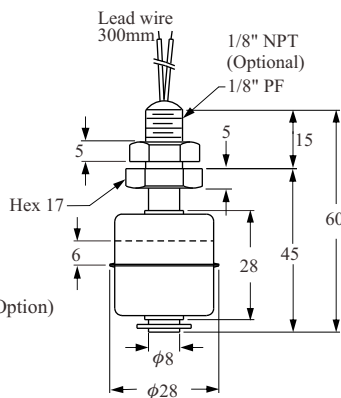


WASHER: NBR



FD3001D

1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL 3266 AWG22)
6. Reversible switch action: YES/below 80°
7. Max. pressure: 10kg/cm²
8. Operation temp.: -20~120°C (200°C Option)
9. Material: SUS 304 (SUS 316 Option)
10. Suitable S.G.: 0.7
11. Weight: 35 g
12. Drill hole: $\phi 10$ mm



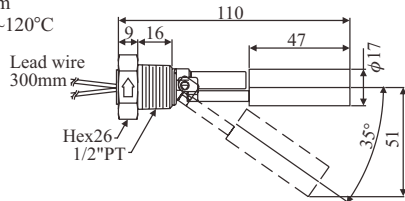
WASHER: NBR



MINI FLOAT LEVEL SWITCH

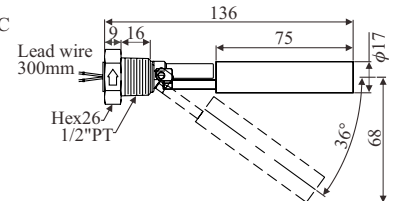
FDMH50/56

1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL 3266 AWG22)
6. Max. pressure: 5kg/cm²
7. Operation temp.: -20~120°C (Max:200°C)
8. Material: FDMH50: SUS304 FDMH56: SUS316L
9. Suitable S.G.: 0.92



FDMH60/66

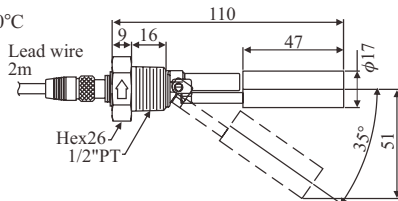
1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL 3266 AWG22)
6. Max. pressure: 5kg/cm²
7. Operation temp.: -20~120°C (Max:200°C)
8. Material: FDMH60: SUS304 FDMH66: SUS316L
9. Suitable S.G.: 0.75



CE

FDMH50A/56A

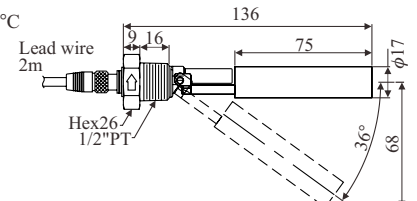
1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL 3266 AWG22)
6. Max. pressure: 5kg/cm²
7. Operation temp.: -20~80°C
8. Material: FDMH50: SUS304 FDMH56: SUS316L
9. Suitable S.G.: 0.92



CE

FDMH60A/66A

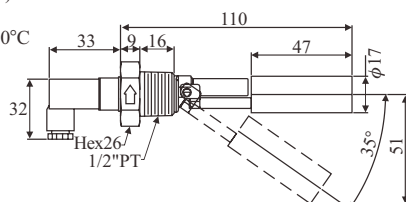
1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL 3266 AWG22)
6. Max. pressure: 5kg/cm²
7. Operation temp.: -20~80°C
8. Material: FDMH60: SUS304 FDMH66: SUS316L
9. Suitable S.G.: 0.75



CE

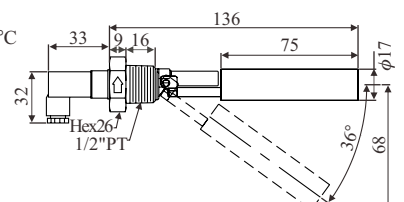
FDMH50C/56C

1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL 3266 AWG22)
6. Max. pressure: 5kg/cm²
7. Operation temp.: -20~120°C
8. Material: FDMH50: SUS304 FDMH56: SUS316L
9. Suitable S.G.: 0.92



FDMH60C/66C

1. Switching capacity Max.: 50W/SPST
2. Switching voltage Max.: 240Vac/200Vdc
3. Switching current Max.: 0.5A
4. Carry current Max.: 1A
5. Lead wire: XLPE (UL 3266 AWG22)
6. Max. pressure: 5kg/cm²
7. Operation temp.: -20~120°C
8. Material: FDMH60: SUS304 FDMH66: SUS316L
9. Suitable S.G.: 0.75



CE

CE

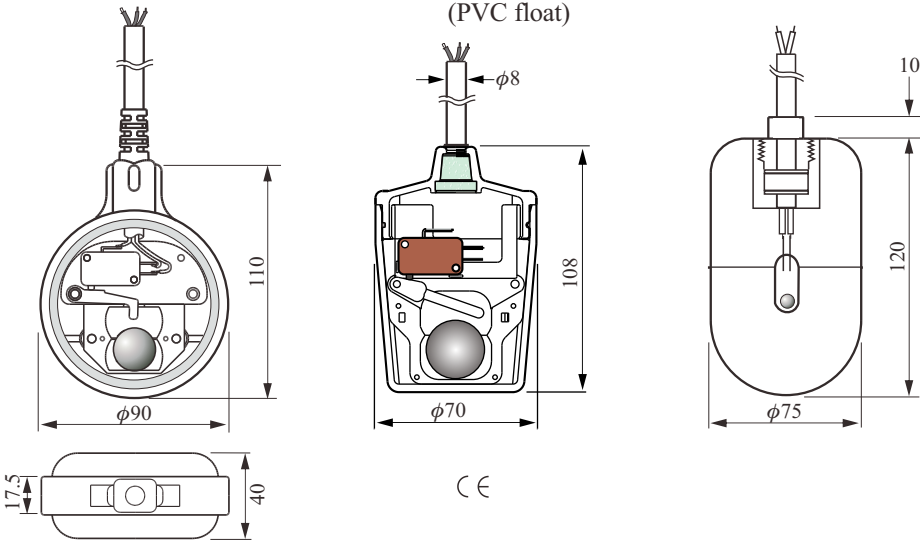
CABLE FLOAT LEVEL SWITCH

MODEL: FAC A/B/C
(P.P. float)

MODEL: FAR A/B/C
FAP A/B/C
(P.P. float)
FAD A/B/C
FAE A/B/C
(PVC float)

MODEL: FAS A/B/C
(SUS float)

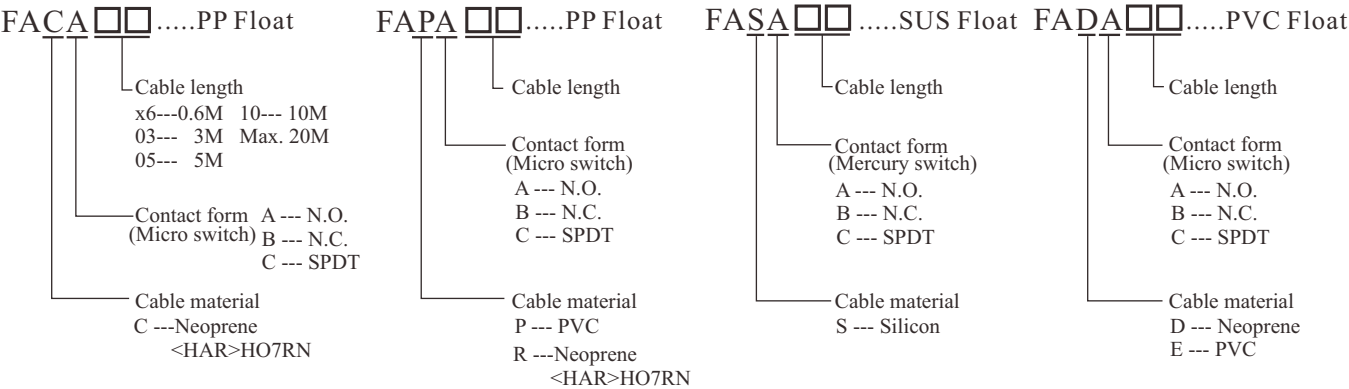
- 1. Cable
The <HAR> approved cable is extremely flexible to ensures a long life-time.
- 2. Enclosure
The rugged enclosure can prevent the damages from mechanical impact and chemical corrosion. The unit become more reliable.
- 3. Micro switch
Contact system is suitable for applications with high in-rush current.
- 4. Steel ball



Specification Of Float

Model	FAC A/B/C	FAP A/B/C	FAR A/B/C	FAD A/B/C	FAEA/B/C	FAS A/B/C
Float Material	P.P.			PVC		SUS304
Cable Specification	Neoprene Cable 1mm²x3C or 2C	PVC Cable 1.25mm²x3C or 2C	Neoprene Cable 1mm²x3C or 2C	Neoprene Cable 1mm²x3C or 2C	PVC Cable 1.25mm²x3C or 2C	Silicon Cable 0.75mm²x3C or 2C
Contact Rating	10A/250Vac (std.) or 15A/250Vac			10A/250Vac (std.) or 15A/250Vac		1A/230Vac
Contact Form	N.O. N.C. or SPDT			N.O. N.C. or SPDT		N.O. N.C. or SPDT
Operating Temp.	-10°C~80°C	0°C~60°C	-10°C~80°C	-0°C~60°C	0°C~60°C	0°C~170°C
Suitable S.G.	0.6			0.6		0.5
Weight Approx.	770g/5M	290g/1M	290g/1M	290g/1M	290g/1M	480g/5M
Pressure(Max.)	2 kg/cm²	2 kg/cm²	2 kg/cm²	2 kg/cm²	2 kg/cm²	2 kg/cm²

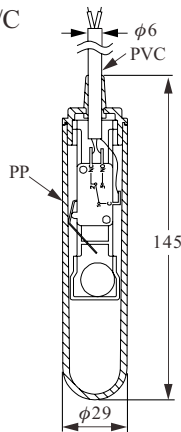
Float Type Code



CABLE FLOAT LEVEL SWITCH

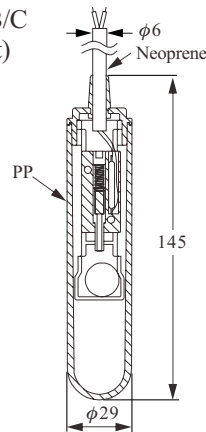
Micro Switch

Order No. FAL A/B/C
FAM A/B/C
(P.P. float)



Reed Switch

Order No. FAJ A/B/C
FAK A/B/C
(P.P. float)

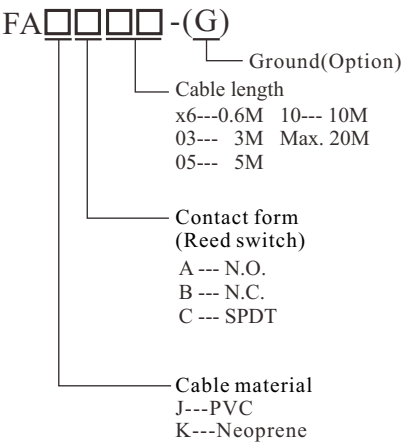
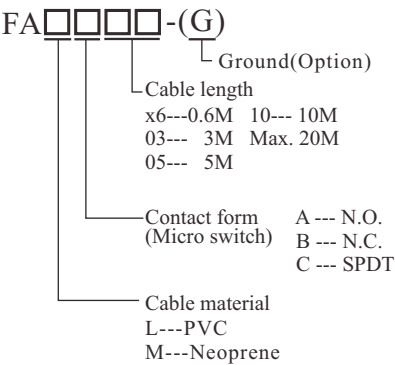


Specification Of Float

Float Material	PP	Pressure	4.5 kg/cm ²
Specific Gravity	≤0.8	Protection	IP-68

Switch	Micro Switch	Reed Switch
Model	FAL A/B/C---PVC FAM A/B/C---Neoprene	FAJ A/B/C---PVC FAK A/B/C---Neoprene
Contact Rating	3A 125/250 Vac	AC70(VA) / DC50(W)
Contact Form	NO、NC or SPDT	NO、NC or SPDT
Cable Spec	PVC(0.75mm ² x3C) or Neoprene	PVC(0.75mm ² x3C) or Neoprene
Switch Voltage	600 Vac	300 Vac / 350 Vdc
Isolation Resistance	Min 100 MΩ	Min 100 MΩ
Contact Resistance	Min 100mΩ	Min 100mΩ
Operating Temp.	0~60°C(PVC)----- Liquid State -10~80°C(Neoprene)Liquid State	0~60°C(PVC)----- Liquid State -10~80°C(Neoprene)Liquid State
Actuation Angle	Up18°±4°/ Down3°±3°	Up18°±4°/ Down3°±3°
Weight Approx.	113 ± 2g/1mCable	115 ± 2g/1mCable

Float Type Code



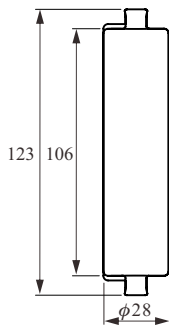
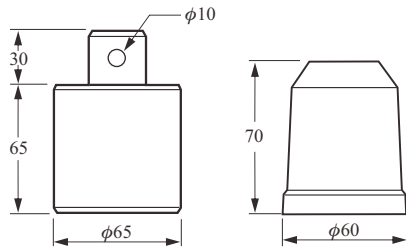
CABLE FLOAT LEVEL SWITCH

Weight Specifications

MODEL: FASW
(SUS304 Weight)
Weight: 1.8kg

MODEL: FAPW-03 (std.)
FAPW-05
(P.P. Weight)
Weight: 0.3kg (std.)
0.5kg

MODEL: FAB-0010
(P.P. Weight)
Weight: 0.15kg



Distances Of Control Point

	NO	NC
ℓ1: _____ mm	☐	☐
ℓ2: _____ mm	☐	☐
ℓ3: _____ mm	☐	☐
ℓ4: _____ mm	☐	☐
L: _____ mm		

Order Information

FB ☐ ☐ ☐ ☐ ☐ (☐ ☐ ☐ ☐ ☐)

Cable Length (unit: mm)

0500: 50mm
1000: 501~100cm
1500: 1001~1500mm
※ 50mm per unit
※ Over 10m, 1st digit=A
Ex: 15m= A150
20m= A200

Cable Material

S: Stainless N: Nylon

Weight quantity

1~4

Weight material

C: P.P.
S: SUS304
P: PP φ28x106.

Float quantity

1~4

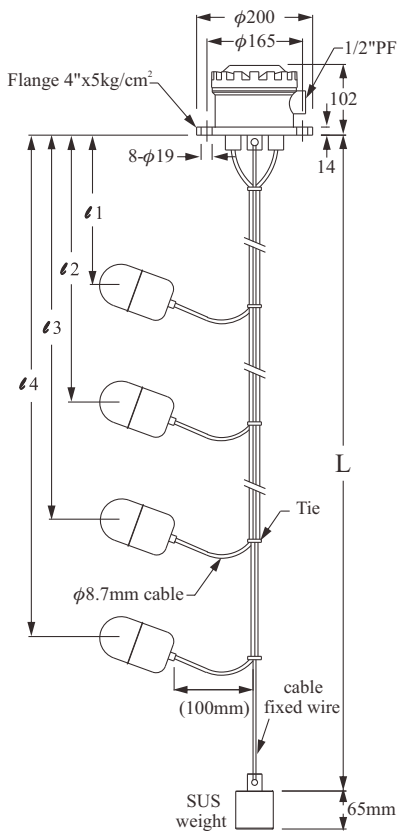
Float material

C: P.P. (φ90x110 Neoprene cable) L: P.P. (φ29x145 PVC cable)
P: P.P. (φ70x108 PVC cable) M: P.P. (φ29x145 Neoprene cable)
R: P.P. (φ70x108 Neoprene cable) G: P.P. (φ29x145 PVC cable)
S: SUS (φ75x120 Silicon cable) H: P.P. (φ29x145 Neoprene cable)
D: PVC (φ70x108 Neoprene cable) J: P.P. (φ29x145 PVC cable)
E: PVC (φ70x108 PVC cable) K: P.P. (φ29x145 Neoprene cable)

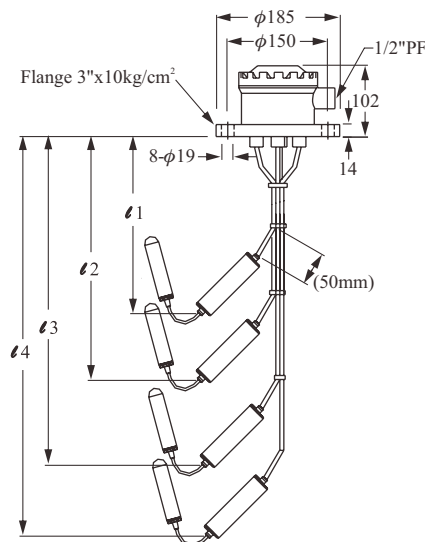
Housing

A: Aluminum B: Plastic S: SUS304

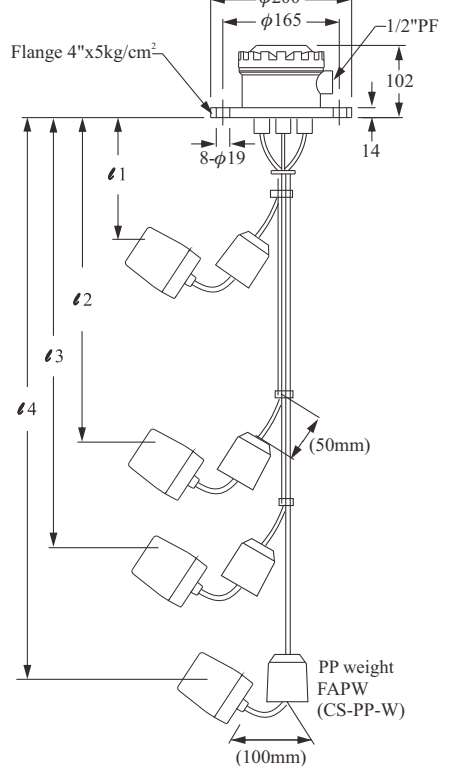
MODEL: FB A



MODEL: FB B



MODEL: FB B



SQ24 SPST Series

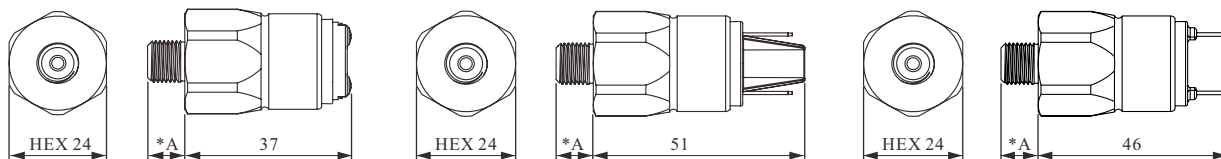
TYPE	SQ245 Series	SQ246 Series	SQ24U Series
Hex length	24mm	24mm	24mm
Body material	Zinc-Plated Steel ROHS	SUS316	Brass
Wiring	Screw Push-on Spade Terminal	Screw Push-on Spade Terminal	Screw Push-on Spade Terminal
Contact rating (Max.)	4A/ 50Vdc, 4A/ 250Vac	4A/ 50Vdc, 4A/ 250Vac	4A/ 50Vdc, 4A/ 250Vac
Response frequency	2Hz	2Hz	2Hz
Max. Voltage peak	1.5KV (IEC60947-2)	1.5KV (IEC60947-2)	1.5KV (IEC60947-2)
Electric insulation	100MΩ(IEC60092-54 section3)	100MΩ(IEC60092-54 section3)	100MΩ(IEC60092-54 section3)
Membrane materials/ Operation temperature	NBR(Standard) -10~100°C VITON -10~100°C EPDM -10~100°C NBR(Low Temp.) -30~100°C VITON(Low Temp.) -30~100°C EPDM(Low Temp.) -30~100°C	NBR(Standard) -10~100°C VITON -10~100°C EPDM -10~100°C NBR(Low Temp.) -30~100°C VITON(Low Temp.) -30~100°C EPDM(Low Temp.) -30~100°C	NBR(Standard) -10~100°C VITON -10~100°C EPDM -10~100°C NBR(Low Temp.) -30~100°C VITON(Low Temp.) -30~100°C EPDM(Low Temp.) -30~100°C
Pressure range	0.2~99bar (≤20bar with UL certification)	0.2~99bar (≤20bar with UL certification)	0.2~99bar (≤20bar with UL certification)
Piping selection	M10*1 (taper) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"	M10*1 (taper) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"	M10*1 (taper) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"
Contact model	NO, NC	NO, NC	NO, NC
Protection	IP67 (IEC 60529)	IP67 (IEC 60529)	IP67 (IEC 60529)
Mechanical life	1.5X10 ⁶ cycles (in 50 bar)	1.5X10 ⁶ cycles (in 50 bar)	1.5X10 ⁶ cycles (in 50 bar)
Screw torque	<0.35Nm	<0.35Nm	<0.35Nm
Shock resistance	ISO / IEC 17025, Half Sine Wave, Acceleration: 30G@14ms, ±X, ±Y, ±Z axis	ISO / IEC 17025, Half Sine Wave, Acceleration: 30G@14ms, ±X, ±Y, ±Z axis	ISO / IEC 17025, Half Sine Wave, Acceleration: 30G@14ms, ±X, ±Y, ±Z axis
Vibration resistance	ISO / IEC 17025, Sine Wave, 5-200 Hz, Acceleration: 10G, Displacement: 16 mm, Sweeping Rate: 1 Oct/ min, Test Direction: X, Y, Z axis, Test Time: 1hr for each	ISO / IEC 17025, Sine Wave, 5-200 Hz, Acceleration: 10G, Displacement: 16 mm, Sweeping Rate: 1 Oct/ min, Test Direction: X, Y, Z axis, Test Time: 1hr for each	ISO / IEC 17025, Sine Wave, 5-200 Hz, Acceleration: 10G, Displacement: 16 mm, Sweeping Rate: 1 Oct/ min, Test Direction: X, Y, Z axis, Test Time: 1hr for each

SQ245/ 246/ 24U Series

Screw:

Push-on:

Spade:



*A 9mm: M10*1 taper, M10, G1/8", PT1/8", NPT 1/8" 12mm: M12*1.5, G1/4", PT1/4", NPT 1/4"

(Unit: mm)

SQ24 High Pressure Series

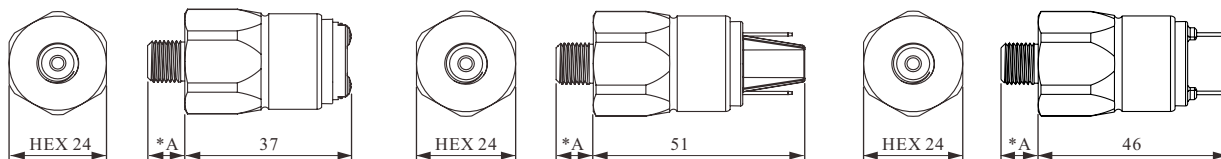
TYPE	SQ245 Series	SQ246 Series
Hex Length	24mm	24mm
Body Material	Zinc-Plated Steel ROHS	SUS316
Wiring	Screw Push-on Spade Terminal	Screw Push-on Spade Terminal
Contact rating (Max.)	4A/ 50Vdc, 4A/ 250Vac	4A/ 50Vdc, 4A/ 250Vac
Response Frequency	2Hz	2Hz
Max. Voltage Peak	1.5KV (IEC60947-2)	1.5KV (IEC60947-2)
Electric Insulation	100MΩ(IEC60092-54 section3)	100MΩ(IEC60092-54 section3)
Operation Temperature	-10°C ~100°C (IEC 60068-2-2)	-10°C ~100°C (IEC 60068-2-2)
Pressure Range	100~300bar	100~300bar
Pressure Acting Variation	± 5% full set point range @20°C	± 5% full set point range @20°C
Piping Selection	M10*1 (taper) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"	M10*1 (taper) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"
Contact Model	NO, NC	NO, NC
Body Protection	IP00 (IEC 60529)	IP00 (IEC 60529)
Protection	IP67 (IEC 60529)	IP67 (IEC 60529)
Mechanical Life	1.5X10 ⁶ cycles (in 50 bar)	1.5X10 ⁶ cycles (in 50 bar)
Screw Torque	<0.35Nm	<0.35Nm
Shock Resistance	ISO / IEC 17025, Half Sine Wave, Acceleration: 30G@14ms, ± X, ± Y, ± Z axis	ISO / IEC 17025, Half Sine Wave, Acceleration: 30G@14ms, ± X, ± Y, ± Z axis
Vibration Resistance	ISO / IEC 17025, Sine Wave, 5-200 Hz, Acceleration: 10G, Displacement: 16 mm, Sweeping Rate: 1 Oct/ min, Test Direction: X, Y, Z axis, Test Time: 1hr for each	ISO / IEC 17025, Sine Wave, 5-200 Hz, Acceleration: 10G, Displacement: 16 mm, Sweeping Rate: 1 Oct/ min, Test Direction: X, Y, Z axis, Test Time: 1hr for each

SQ245/ 246/ 24U Series

Screw:

Push-on:

Spade:



*A 9mm: M10*1 taper, M10, G1/8", PT1/8", NPT 1/8" 12mm: M12*1.5, G1/4", PT1/4", NPT 1/4"

(Unit: mm)

PRESSURE SWITCH

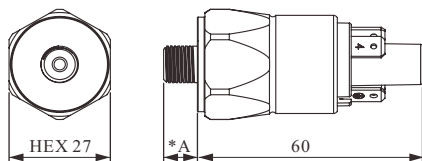


SQ27 SPDT Series

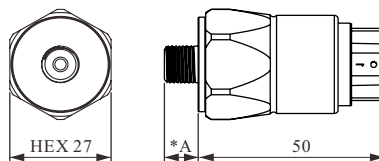
TYPE	SQ275 Series		SQ276 Series		SQ27U Series	
Hex Length	27mm		27mm		27mm	
Body Material	Zinc-Plated Steel		SUS316		Brass	
Wiring	Push-on	Spade Terminal	Push-on	Spade Terminal	Push-on	Spade Terminal
Contact rating (Max.)	2A/ 50Vdc, 4A/ 250Vac		2A/ 50Vdc, 4A/ 250Vac		2A/ 50Vdc, 4A/ 250Vac	
Response Frequency	2Hz		2Hz		2Hz	
Max. Voltage Peak	1.5KV (IEC60947-2)		1.5KV (IEC60947-2)		1.5KV (IEC60947-2)	
Electric Insulation	100MΩ(IEC60092-54 section3)		100MΩ(IEC60092-54 section3)		100MΩ(IEC60092-54 section3)	
Membrane materials/ Operation temperature	NBR(Standard) -10~100°C VITON -10~100°C EPDM -10~100°C NBR(Low Temp.) -30~100°C VITON(Low Temp.) -30~100°C EPDM(Low Temp.) -30~100°C		NBR(Standard) -10~100°C VITON -10~100°C EPDM -10~100°C NBR(Low Temp.) -30~100°C VITON(Low Temp.) -30~100°C EPDM(Low Temp.) -30~100°C		NBR(Standard) -10~100°C VITON -10~100°C EPDM -10~100°C NBR(Low Temp.) -30~100°C VITON(Low Temp.) -30~100°C EPDM(Low Temp.) -30~100°C	
Pressure Range	0.3~100bar (≤20bar with UL certification)		0.3~100bar (≤20bar with UL certification)		0.3~100bar (≤20bar with UL certification)	
Piping Selection	M10*1 (taper) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"		M10*1 (taper) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"		M10*1 (taper) M10*1, M12*1.5 PT1/8", PT1/4" G1/8", G1/4" NPT 1/8", NPT 1/4"	
Contact Model	SPDT		SPDT		SPDT	
Body Protection	IP00 (IEC 60529)		IP00 (IEC 60529)		IP00 (IEC 60529)	
Protection	IP65 (IEC 60529)		IP65 (IEC 60529)		IP65 (IEC 60529)	
Mechanical Life	1.5X10 ⁶ cycles (in 50 bar)		1.5X10 ⁶ cycles (in 50 bar)		1.5X10 ⁶ cycles (in 50 bar)	
Screw Torque	<0.35Nm		<0.35Nm		<0.35Nm	
Shock Resistance	ISO / IEC 17025, Half Sine Wave, Acceleration: 30G@14ms, ±X, ±Y, ±Z axis		ISO / IEC 17025, Half Sine Wave, Acceleration: 30G@14ms, ±X, ±Y, ±Z axis		ISO / IEC 17025, Half Sine Wave, Acceleration: 30G@14ms, ±X, ±Y, ±Z axis	
Vibration Resistance	ISO / IEC 17025, Sine Wave, 5-200 Hz, Acceleration: 10G, Displacement: 16 mm, Sweeping Rate: 1 Oct/ min, Test Direction: X, Y, Z axis, Test Time: 1hr for each		ISO / IEC 17025, Sine Wave, 5-200 Hz, Acceleration: 10G, Displacement: 16 mm, Sweeping Rate: 1 Oct/ min, Test Direction: X, Y, Z axis, Test Time: 1hr for each		ISO / IEC 17025, Sine Wave, 5-200 Hz, Acceleration: 10G, Displacement: 16 mm, Sweeping Rate: 1 Oct/ min, Test Direction: X, Y, Z axis, Test Time: 1hr for each	

SQ275/ 276/ 27U Series

Push-on:



Spade:

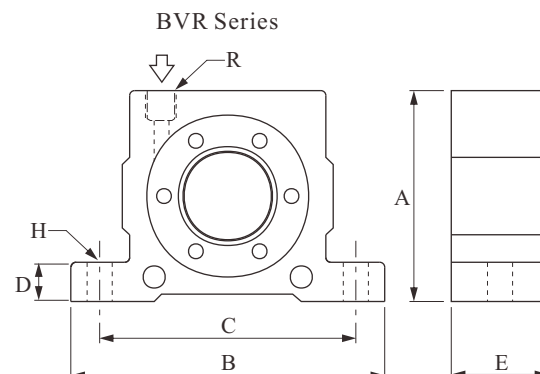
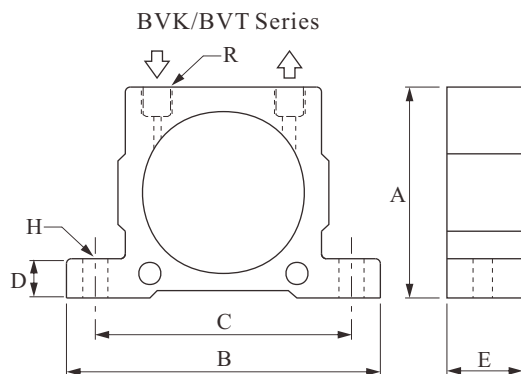


*A 9mm: M10*1 taper, M10, G1/8", PT1/8", NPT 1/8" 12mm: M12*1.5, G1/4", PT1/4", NPT 1/4"

(Unit: mm)

AIR VIBRATOR

BVK /BVR /BVT Series



BVR Pneumatic Roller Vibrator

Model No.	Frequency (V.P.M.)			Force (N)		
	2Bar 29PSI	4Bar 58PSI	6Bar 87PSI	2Bar 29PSI	4Bar 58PSI	6Bar 87PSI
BVK-10	22,500	28,000	34,000	250	470	710
BVK-13	15,000	18,500	22,500	320	550	870
BVK-16	13,000	17,000	19,500	450	800	1,100
BVK-20	10,500	14,500	16,500	720	1,220	1,720
BVK-25	9,200	12,200	14,000	930	1,570	2,050
BVK-32	7,800	9,700	12,500	1,510	2,470	3,210
BVR-50	25,000	35,000	36,000	1,070	2,920	4,220
BVR-65	19,000	21,000	26,000	2,730	4,830	6,120
BVR-80	15,500	18,500	19,000	3,000	6,090	7,450
BVR-100	11,000	14,000	16,000	3,750	6,750	8,900

Model No.	A	B	C	D	E	H	R
BVK-10	51	86	68	12	20	φ7	1/4"PF
BVK-13	67	113	90	16	24	φ9	1/4"PF
BVK-16	67	113	90	16	27	φ9	1/4"PF
BVK-20	83	128	104	16	33	φ9	1/4"PF
BVK-25	83	128	104	16	38	φ9	1/4"PF
BVK-32	103	160	130	20	44	φ11	3/8"PF
BVR-50	51	86	68	12	29	φ7	1/8"PF
BVR-65	67	113	90	16	37	φ9	1/4"PF
BVR-80	83	128	104	16	42.5	φ9	1/4"PF
BVR-100	103	160	130	20	52	φ11	3/8"PF

Unit= mm

BVT Pneumatic turbine Vibrator

Model No.	Frequency (V.P.M.)			Force (N)		
	2Bar 29PSI	4Bar 58PSI	6Bar 87PSI	2Bar 29PSI	4Bar 58PSI	6Bar 87PSI
BVT-10	27,500	35,000	37,500	840	1,390	2,400
BVT-13	26,000	30,000	33,000	1,400	2,440	3,730
BVT-16	17,000	21,500	24,000	1,220	2,090	3,160
BVT-20	17,000	20,000	23,000	2,170	4,040	5,520
BVT-25	12,000	15,500	17,000	2,120	3,510	5,070

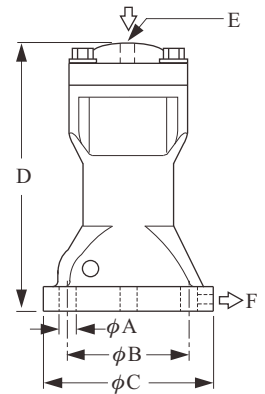
Model No.	A	B	C	D	E	H	R
BVT-10	51	86	68	12	33	φ7	1/8"PF
BVT-13	67	113	90	16	42	φ9	1/4"PF
BVT-16	67	113	90	16	42	φ9	1/4"PF
BVT-20	83	128	104	16	56	φ9	1/4"PF
BVT-25	83	128	104	16	56	φ9	1/4"PF

AIR HAMMER

BAH Series (Single Impact)

Model No.	A	B	C	D	E	F	Useful pressure	Air consumption	Impact	Weight
BAH-30	9	60	80	138	1/4" PT	1/8" PT	3~6 kg/cm ²	0.028 ℓ /e.t.	1.0 kg.m/s	1.1kg
BAH-40	11	75	100	166	1/4" PT	1/8" PT	3~6 kg/cm ²	0.082 ℓ /e.t.	2.8 kg.m/s	1.8kg
BAH-60	15	105	140	208	1/4" PT	1/8" PT	4~7 kg/cm ²	0.228 ℓ /e.t.	7.4 kg.m/s	4.0kg
BAH-80	19	140	172	269	3/8" PT	1/4" PT	4~7 kg/cm ²	0.455 ℓ /e.t.	12.5 kg.m/s	8.4kg

※ ℓ /e.t. means the air consumption (ℓ) per one shot.



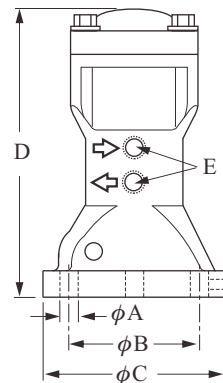
BVP Series (Reciprocate)

BVP - S series: Impacting Model

BVP - C series: Suspended Model

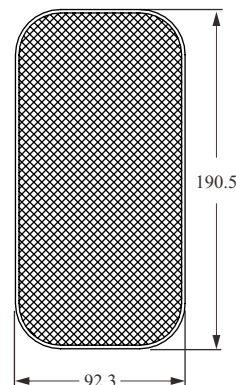
Model No.	A	B	C	D	E
BVP-30C/S	9	60	80	138	1/8" PF
BVP-40C/S	11	75	100	166	1/4" PF
BVP-60C/S	15	105	140	208	1/4" PF

Model No.	Frequency (V.P.M.)			Force (N)			Air consumption (l / min)	weight
	2kg/cm ²	4kg/cm ²	6kg/cm ²	2kg/cm ²	4kg/cm ²	6kg/cm ²		
BVP-30C	1765	2308	2857	195	380	560	230	0.9 kg
BVP-40C	1333	1677	1875	275	531	715	249	1.9 kg
BVP-60C	1000	1200	1340	404	780	1030	269	4.5 kg
BVP-30S	1900	2800	3500	3600	5400	6200	250	1.0 kg
BVP-40S	1700	2400	3000	6450	8750	9400	270	2.1 kg
BVP-60S	1200	1800	1900	6900	12850	13850	300	4.8 kg



RA Air Pad

- Drawing to include English and Metric units: inch (mm)
- Air supply. to read: 3-5psi, clean, dry air
- Air consumption to read: 4.2scfm @ 1psi (1.2m3/min @ 0.07bar)
5.7scfm @ 2psi (1.6m3/min @ 0.14bar)
6.5scfm @ 3psi (1.8m3/min @ 0.21bar)
7.1scfm @ 4psi (2.0m3/min @ 0.28bar)
7.6scfm @ 5psi (2.2m3/min @ 0.35bar)
- Material of construction
body: Zinc-Plated Steel
diffuser: Fiberglass (up to 650°F/343°C)
diffuser screens: Zinc-Plated Steel
air inlet nipple/nut: Brass
spacer/washer: Zinc-Plated Steel
washer/gasket: Buna-N (up to 180°F/82°C)
brackets/lock-washer: Zinc-Plated Steel
mtg. kit gaskets: Neoprene or equal (up to 180°F/82°C)



CONVEYER BELT MISALIGNMENT SWITCH / SAFETY CABLE PULL SWITCH

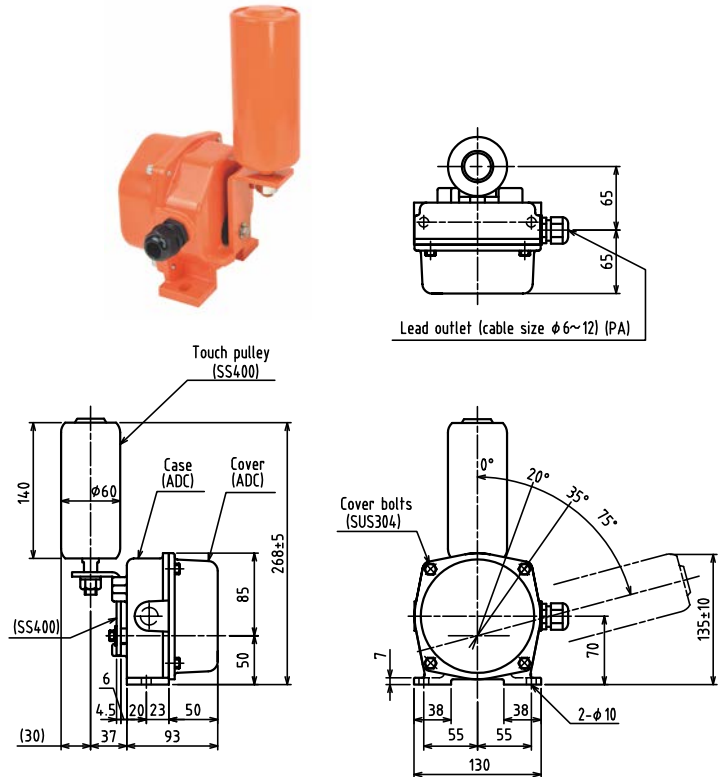
Conveyer Belt Misalignment Switch

Features

- Simple Installation, response sensitive
- Roller arm can move up to 75 degrees in either direction
- Dust tight, IP 67 weatherproof, Die cast aluminum housing
- Roller lever actuating angle 20° for alarm signal and 35° for shutting down system
- To Save Process downtime, product loss and replacing cost of damaged conveyer belt

Specification

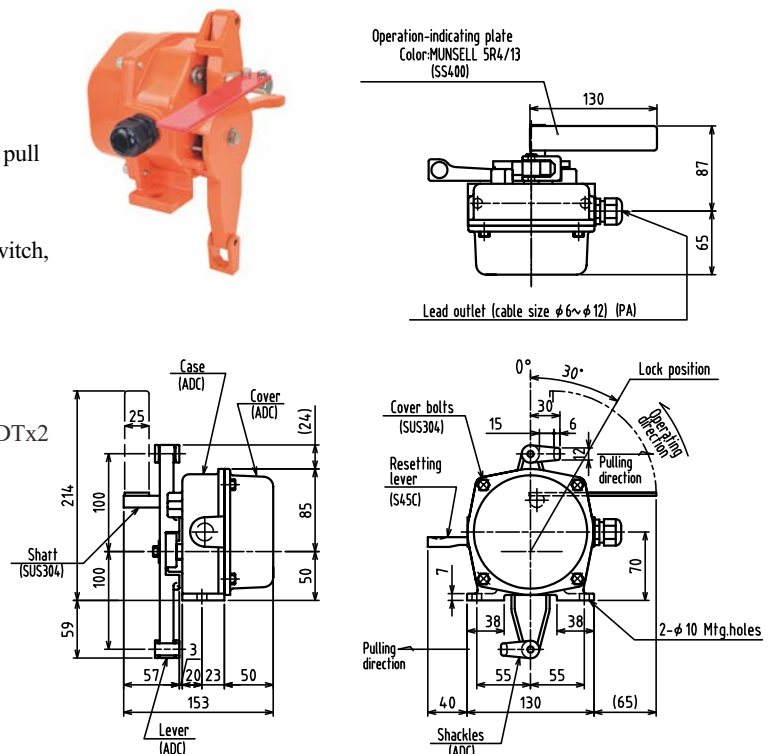
1. Switching Capacity: 15A,125/250 Vac 1/2A 125 Vdc SPDTx2
2. Action Force: 3.4~5.4N.m (0.35~0.55kgf.m)
3. Reset Way: Auto
4. Ambient Temp.: -20~60°C
5. Enclosure Protection Grade: IP67
6. Enclosure Material: Die cast ADC
7. Weight: Approx. 2.9kg



Safety Cable Pull Switch

Features

- Universal design for bi-direction activation
- Compact design for tight-fit areas, IP67 rugged die cast aluminum housing
- Manual reset lever
- Easily orientated at either end or intermediate position in pull cable run
- Cable Pull 30° for shutting down system
- Highly visible black arm easily shows condition of the switch, indicating alarm or normal



Specification

1. Switching Capacity: 15A,125/250 Vac 1/2A 125 Vdc SPDTx2
2. Action Force: 49A9.8n (5A1kgf.m)
3. Reset Way: Manual
4. Ambient Temp.: -20~60°C
5. Enclosure Protection Grade: IP67
6. Enclosure Material: Die cast ADC
7. Weight: Approx. 2.9kg

MICROPROCESSOR BARGRAPHIC DISPLAY PANEL METER NON-LINEAR TANK VOLUME CONVERSION SOFTWARE

Panel Meter Series

Features

- 4 or 5 digits numerical display.
- 101-segment LED bargraph display.
- Modulized design, flexible to fit different applications by input signal, output signal and relay contacts.
- Standard input module supports most process signals, including: ($\pm 5V$, $\pm 10V$, $\pm 20V$, $\pm 200V$, $20mA$, $200mA$) jumper selectable.
- PB-2471 and PM-2430 monitor two channel signal in one unit.
- Support "Non-Linear Tank Volume Conversion" function, direct volume indication for any kind of tanks. (Optional)
- Optional output control including signal output and up to 6 relay contacts. (PB-2471 up to 8 relay)
- Wide range power supply: AC85V~265V.

Applicable to our varieties continuous level transmitter for linear display and control performances please refer capacitance level indicator, magnetostrictive transmitter, float level indicator, hydrostatic pressure transmitter, By pass level indicator,...etc.



PB-2471



PB-1471

48 (W) x144 (H) x121.5 (D) 48 (W) x144 (H) x121.5 (D)

Specifications

1. Input Signal: 5V, 10V, 20V, 200V, 20mA, 200mA...
2. Consumption Rating: 12VA (max.)
3. Relay Output: 4 or 6 POINTS SPST
4. Contact Current: 3A/250VAC (max.)
5. Input Signal: 4~20mA / 2~10Vdc, 0~20mA / 0~10Vdc.
6. Digital Display: 4 or 5 digit, 101 segment LED bar graph
7. Operating Temp.: 0~55°C
8. Power Supply: 85~265Vac, 18~36Vdc
9. Accuracy: $\pm 0.1\%$ FS



PB-1570

144 (W) x48 (H) x121.5 (D)



PB-1470

144 (W) x48 (H) x121.5 (D)



PM-2430

96 (W) x48 (H) x128.5 (D)



PM-1530

96 (W) x48 (H) x128.5 (D)



PM-1430

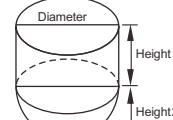
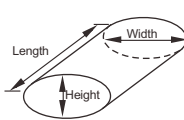
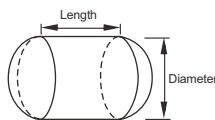
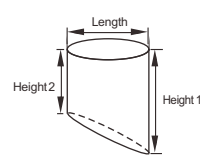
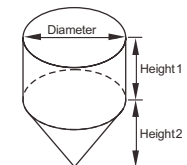
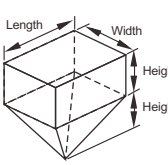
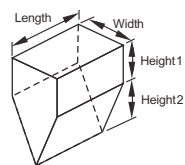
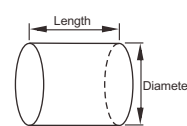
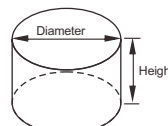
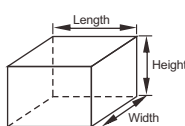
96 (W) x48 (H) x128.5 (D)

Tank Type

Non-linear Tank Volume Conversion Feature

Panel Meter Series support volume adjustment function for non-linear tanks. By means of a 20-point look-up table, panel meter calculate tank volume according to the material level measured.

Bundled with this package, a software is provided, user simply select tank type shown as below, and enter necessary dimension, tank volume and 20 control points will be calculated and reported.



CONTROLLER FOR DUST COLLECTOR SYSTEM

AE-210/220/240

Features

- LCD display allows the users to obtain up-to-date operation status.
- Microprocessor control gives high time accuracy.
- Remote control.
- RS485 Modbus communication protocol.

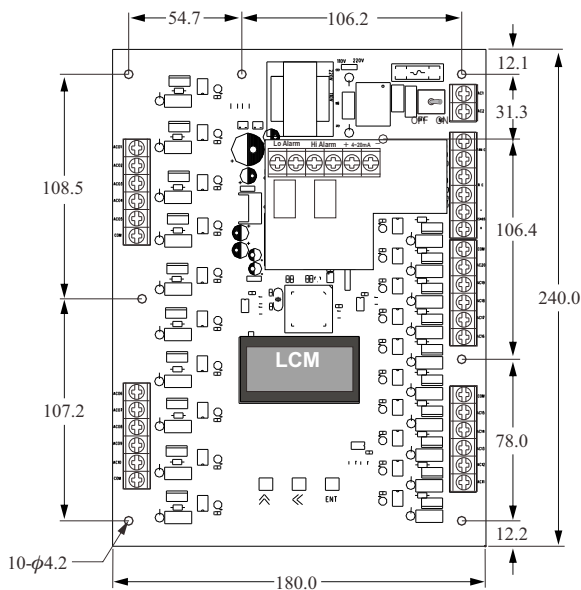
AE-210

Specifications

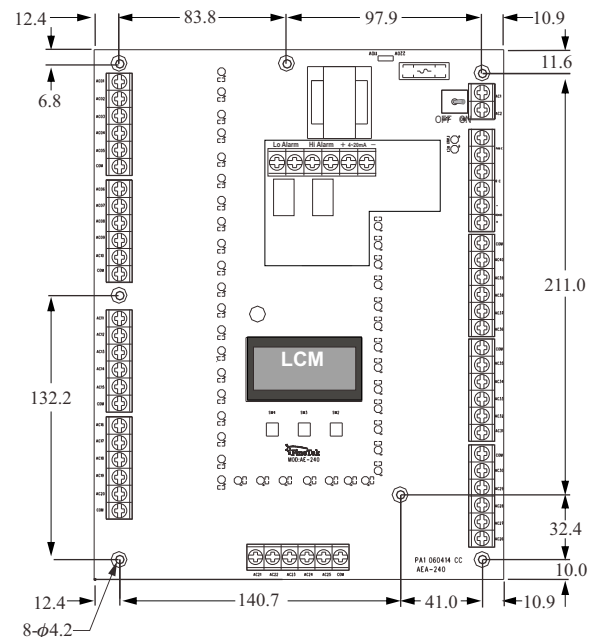
1. Power supply: 110V/220V, -10%, +20%, 50Hz/60Hz
2. Operating Temperature: -10°C~60°C
3. Operating Humidity: 20~80%
4. Accuracy: 3% F.S.
5. Display: LCM Dot matrix 8x2
6. Dial: 3 push buttons
7. Spray Time Range: 10mSec~9.99Sec
8. Interval Range: 1Sec~999Sec
9. Number of Sequence: 10/ 20/ 40 (Option)
10. Output: Transistor
11. Operating Range: 200 VA
12. Pressure Differential:
Max.20/ 60/ 100/ 1000 mBar (Option)
13. Measurement Unit: mBar / Kpa / psi / cmH₂O
14. Alarm setup: High/low alarm set point
15. Alarm Output: 2 sets of relay output
SPST-ON: 3A / 250Vac; 3A/30Vdc
16. Analog output:
4~20mA, max. Load 500W (Option)
17. Communication protocol: RS 485 Modbus
18. Memory: By EEPROM
19. Dimension: AE-210(10 points)--- 160x160mm.
AE-220(20 points)--- 180x240mm.
AE-240(40 points)--- 205x265mm.

*CASE (Optional Part)

AE-220



AE-240



CONTROLLER FOR DUST COLLECTOR SYSTEM

AE110A/120A/140A

Features

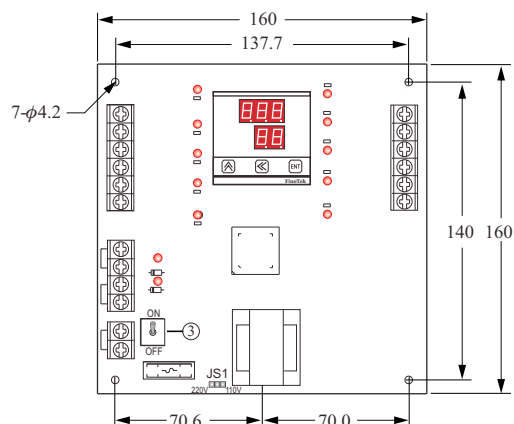
- Digital Indication, user friendly and clear working condition
- Microprocessor control for more precise working timing
- Remote control for distant working operation.
- Optional anti-water and anti-dust casing for longer product life-span
- Shut Down Clean Cycle function.

Specifications

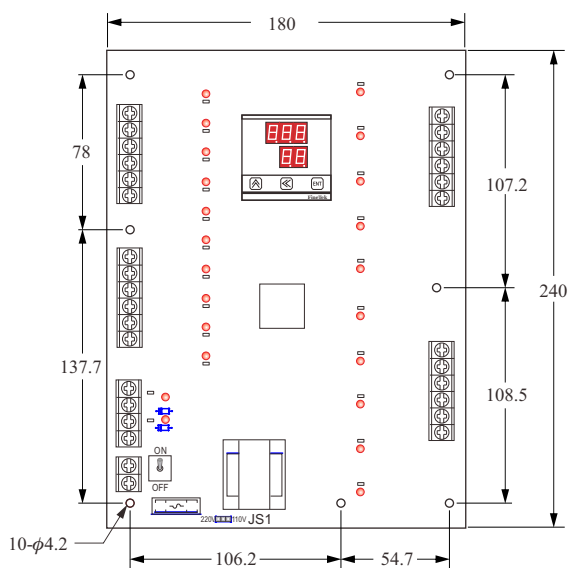
1. Power supply: 110V/220V, -10% , +20% , 50Hz/60Hz
2. Interval adjustable range: 1~999s
3. Spray time adjustable range: 10ms~9.99s
4. Fuse: 3A
5. Operating temperature : 0 ~80°C
6. Indication: 2 Sets of digital display
7. Input: 3 Push buttons
8. Relay contact: 200VA
9. Shut Down Clean Cycle: 0~99 Times
10. Dimension: AE110A(10 points)--- 160x160mm
AE120A(20 points)--- 180x240mm
AE140A(40 points)--- 205x265mm

*CASE (Optional Part)

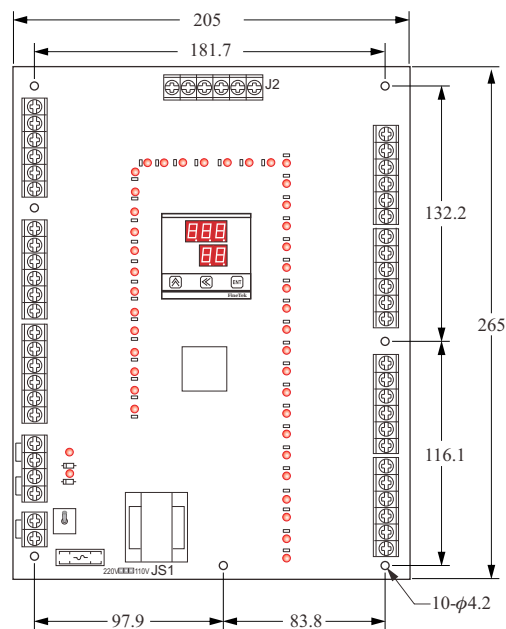
AE110A



AE120A



AE140A



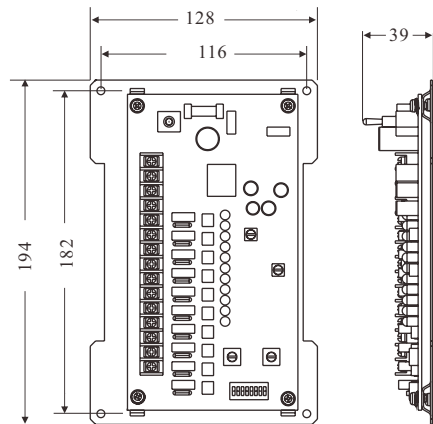
CONTROLLER FOR DUST COLLECTOR SYSTEM

AE71□A

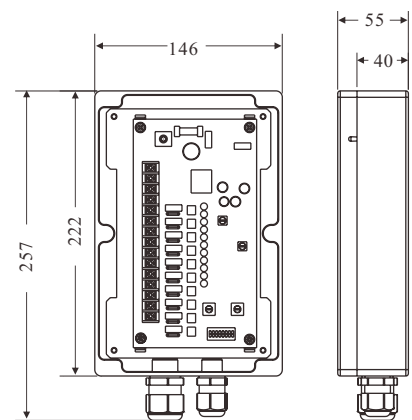
Specifications

1. Power supply: 100~240Vac,50Hz/60Hz
2. Interval adjustable range: 2~60s
3. Spray time adjustable range: 20~200ms
4. Fuse: 3A
5. Ambient temperature : -25~75°C
6. Case material: Cover-----PC
BOX-----ABS

***AE710A**



***AE711A**

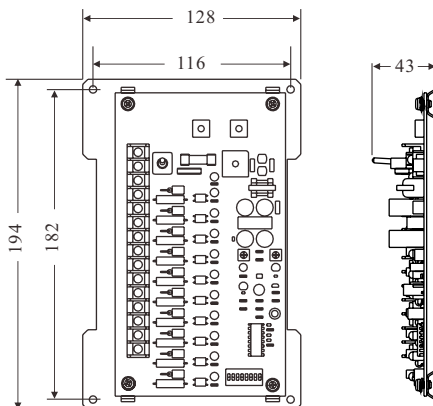


AE71□D

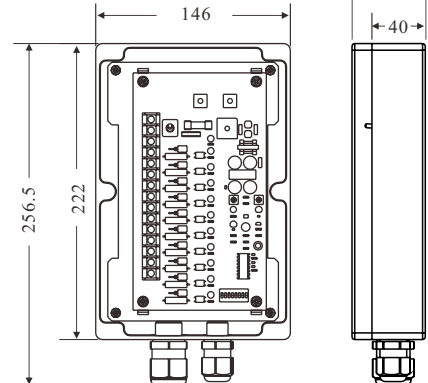
Specifications

1. Power supply: 24Vdc $\pm 10\%$
2. Interval adjustable range: 2~60s
3. Spray time adjustable range: 20~200ms
4. Fuse: 3A
5. Ambient temperature : -25~75°C
6. Case material: Cover-----PC
BOX-----ABS

***AE710D**



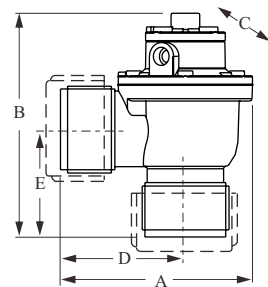
***AE711D**



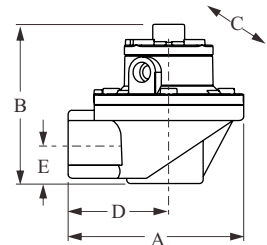
VALVE AND CONTROLLER FOR DUST COLLECTOR SYSTEM

Dual Diaphragm

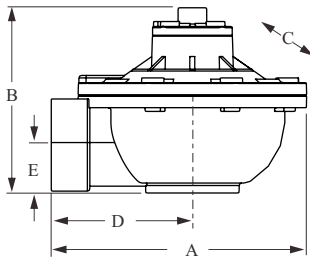
Model No. BRD-42NC



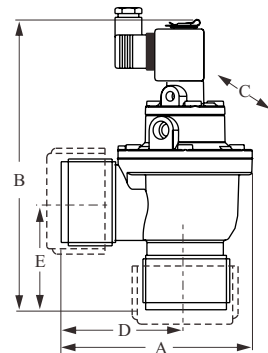
Model No. BRD-42SC



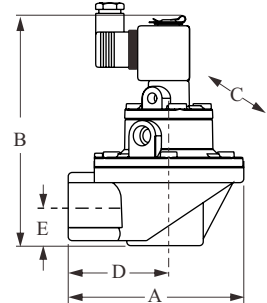
Model No. BRD-□2SC



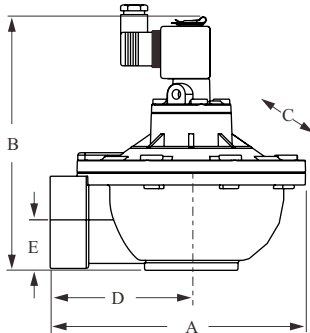
Model No. BRD-42NC□



Model No. BRD-42SC□



Model No. BRD-□2SC□



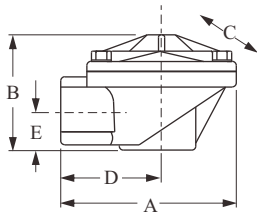
Model No.	ORIFICE		A		B		C (Width)		D		E		Cv Factor
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
BRD-42NC	1-1/2"	40	5.78	147	6.77	172	4.37	111	3.6	92	3.00	76	51
BRD-42SC	1-1/2"	40	5.78	130	5.16	131	4.37	111	3.6	76	3.00	36	51
BRD-52SC	2"	50	8.07	205	5.87	149	7.24	184	4.45	113	1.55	40	106
BRD-62SC	2-1/2"	62	8.27	210	6.69	170	7.24	184	4.65	118	1.89	48	136
BRD-72SC	3"	76	8.58	218	7.83	199	7.87	200	4.65	118	2.48	63	167
BRD-42NC□	1-1/2"	40	5.78	147	8.82	224	4.37	111	3.6	92	3.00	76	51
BRD-42SC□	1-1/2"	40	5.78	130	7.20	183	4.37	111	3.6	76	3.00	36	51
BRD-52SC□	2"	50	8.07	205	7.91	201	7.24	184	4.45	113	1.55	40	106
BRD-62SC□	2-1/2"	62	8.27	210	8.74	222	7.24	184	4.65	118	1.89	48	136
BRD-72SC□	3"	76	8.58	218	9.88	251	7.87	200	4.65	118	2.48	63	167

※□ please select and fill from 1~7 from spec. of (1: 110Vac 2: 220Vac 3: 24Vdc) flying lead type
(5:110Vac 6: 220Vac 7: 24Vdc) DIN connector

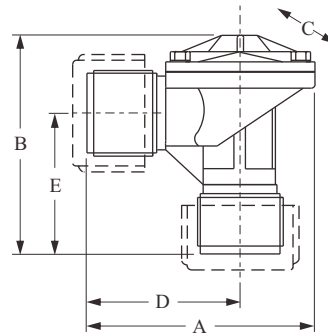
VALVE AND CONTROLLER FOR DUST COLLECTOR SYSTEM

Single Diaphragm

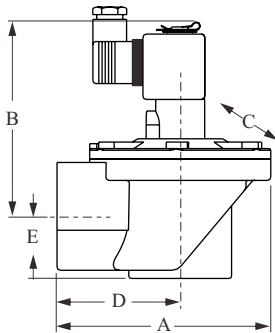
Model No. BRD-□□SC



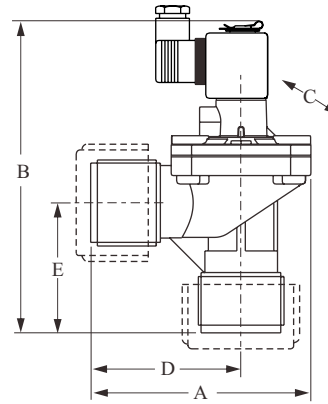
Model No. BRD-□□NC



Model No. BRD-□□SC□



Model No. BRD-□□NC□



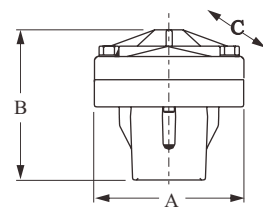
Model No.	ORIFICE		A		B		C (Width)		D		E		Cv Factor	Weight (kg)
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm		
BRD-20SC	3/4"	20	3.95	100	2.97	75	3.44	87	2.19	56	0.78	20	11.2	0.42
BRD-25SC	1"	25	4.13	105	3	76	3.25	83	2.50	64	0.87	22	18.5	0.52
BRD-40SC	1-1/2"	40	3.95	130	4.91	125	4.38	111	4.5	76	1.28	36	43	0.96
BRD-20NC	3/4"	20	4.41	112	4	102	3.44	87	2.63	67	1.78	45	11.2	0.62
BRD-25NC	1"	25	4.62	117	5	127	3.25	83	3	76	2.75	70	18.5	0.96
BRD-40NC	1-1/2"	40	5.79	147	5.47	139	4.38	111	3.6	92	3	76	43	1.1
BRD-20SC□	3/4"	20	3.95	100	4.8	122	3.44	87	2.19	56	0.78	20	11.2	0.6
BRD-25SC□	1"	25	4.13	105	4.96	126	3.25	83	2.50	64	0.87	22	18.5	0.75
BRD-40SC□	1-1/2"	40	3.95	130	6.06	154	4.38	111	4.5	76	1.28	36	43	1.16
BRD-20NC□	3/4"	20	4.41	112	5.83	148	3.43	87	2.63	67	1.87	45	11.2	0.83
BRD-25NC□	1"	25	4.62	117	6.96	177	3.25	83	3	76	2.75	70	18.5	1.22
BRD-40NC□	1-1/2"	40	5.79	147	7.64	194	4.38	111	3.6	92	3	76	43	1.77

※ □ please select and fill from 1~7 from spec. of (1: 110Vac 2: 220Vac 3: 24Vdc) flying lead type
(5: 110Vac 6: 220Vac 7: 24Vdc) DIN connector

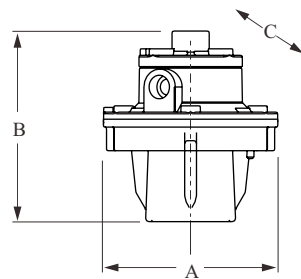
VALVE AND CONTROLLER FOR DUST COLLECTOR SYSTEM

Full Immersion

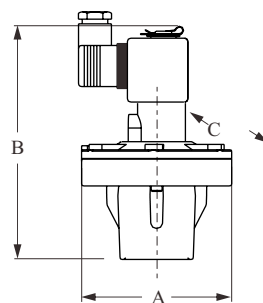
Model No. BRD-□□MM



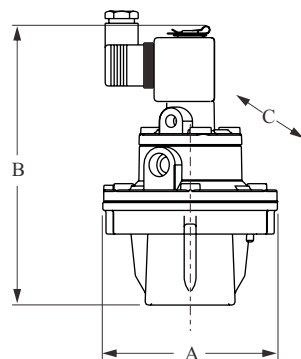
Model No. BRD-42MM



Model No. BRD-□□MM□



Model No. BRD-42MM□



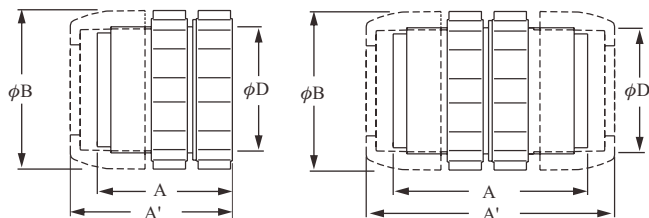
Model No.	ORIFICE		A		B		C (Width)		Cv Factor
	inch	mm	inch	mm	inch	mm	inch	mm	
BRD-42MM	1-1/2"	40	5.78	147	4.88	124	4.37	111	51
BRD-42MM□	1-1/2"	40	5.78	147	6.92	176	4.37	111	51
BRD-25MM	1"	20	3.95	100	3.11	79	3.44	87	30
BRD-25MM□	1"	40	6.12	130	5.74	146	4.38	111	43

※□ please select and fill from 1~7 from spec. of (1: 110Vac 2: 220Vac 3: 24Vdc) flying lead type
(5:110Vac 6: 220Vac 7: 24Vdc) DIN connector

VALVE AND CONTROLLER FOR DUST COLLECTOR SYSTEM

Bulkhead Connector

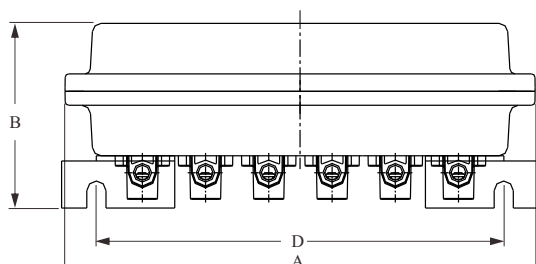
Model No. BDB-□□D Model No. BDB-□□DD



Model No.	Size	A(mm)	A'(mm)	φB(mm)	φD(mm)
BDB-20D	3/4"	60.5	70	58.5	45~51
BDB-20DD	3/4"	91	110	58.5	45~51
BDB-25D	1"	69	80	70	56~62
BDB-25DD	1"	101	123	70	56~62
BDB-40D	1-1/2"	75	90	88	72~78
BDB-40DD	1-1/2"	108	138	88	72~78

Pilot Solenoid Valve & Enclosure

Model No. BDB-06□□

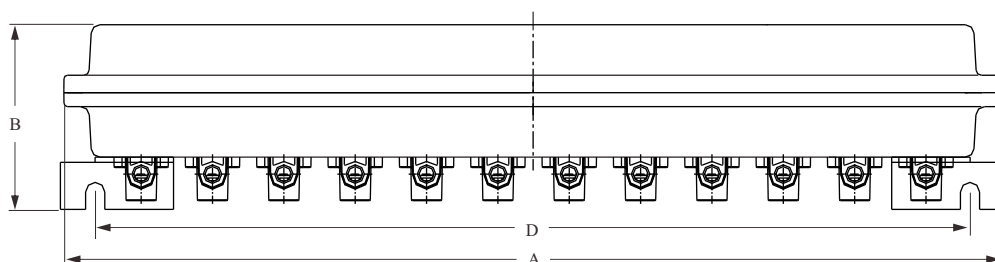


Model No.	Quantity of Solenoid	A(mm)	B(mm)	C(mm)	D(mm)
BDB-06V□□	6	270	106	160	234
BDB-12V□□	12	480	106	160	446
BDB-06W□□	6	270	106	160	234
BDB-12W□□	12	480	106	160	446

※ First □ Please select and fill from A~F
Pneumatic Connection: (A: 1/8"PT B: 1/8"NPT C: 1/8"G)
(D: 1/4"PT E: 1/4"NPT F: 1/4"G)
Second □ Please select and fill from 1~3
Power Supply(1:110Vac 2:220Vac 3:24Vdc) Flying Lead Type

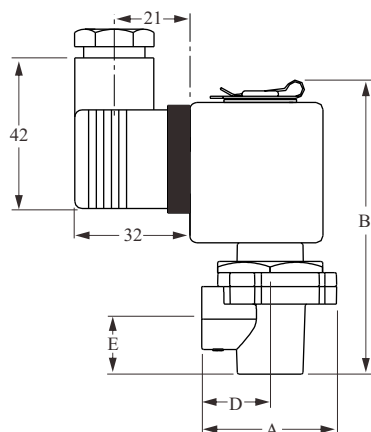
Model No. BDB-12□□

※ W --- Explosion proof type
V --- Non-Explosion proof type



Pilot Valve

Model No. BDB-V□□



Model No.	Screw	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
BDB-V□□	1/8"PT	38.5	83.5	34	19.5	16

※ First □ Please select and fill from A~F
Pneumatic Connection: (A: 1/8"PT B: 1/8"NPT C: 1/8"G)
(D: 1/4"PT E: 1/4"NPT F: 1/4"G)
Second □ Please select and fill from 1~7
Power Supply(1:110Vac 2:220Vac 3:24Vdc) Flying Lead Type
(5:110Vac 6:220Vac 7:24Vdc) DIN Connector