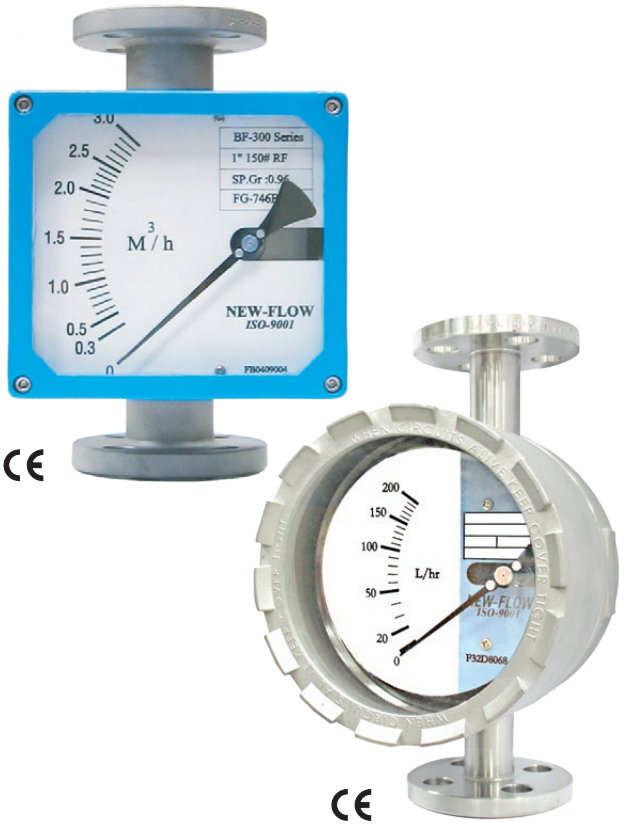
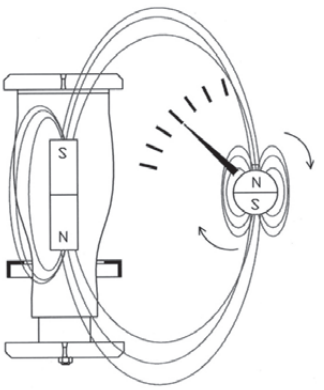
METAL TUBE FLOW METER BF300



Principle



Technical Data

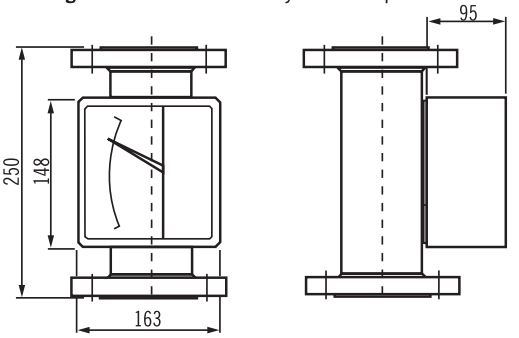
BF300 for High flows of gas, liquid and steam

Material: Aluminum alloy case with paint; SS316 available
Body wetted parts: SS316, Others on request.
Indication via magnetic coupling (no sealed)
Scales calibrated: in l/h, m³/h, kg/h, %, etc.
Flow rates for:
– Water: 4 l/h up to 100,000 l/h
(special ranges on request)
– Air: 0.1 Nm³/h up to 1200 Nm³/h
(special ranges on request)
Connection types:
– flange type, trip clamp & sanitary
(others on request)
Connection size: 1/2" ~ 5"
Mounting Length: 250mm Standard; Connection size bigger than 3", mounting length is 300mm;
300mm for Explosion proof
Temperature: -50°C to +200°C (300°C option)
Protection class: IP65 or Explosion Proof, CLASS I, GROUPS B, C &D; CLASS II, GROUPS E, F, & G; NEMA 4, 7, 9.
Accuracy: ±2% F.S(±1.6% F.S Option)
Max pressure: 40 kg/cm² (standard)
(Option: up to 100 kg/cm²)
Option: Switch available (Micro switch 5A/250VAC,2A/30VDC); Adjustable reed alarm switch available (form A bistable type, N.O. type); Adjustable inductive alarm switch available; 4~20mA 2-wires analog output available

Dimensions-mm

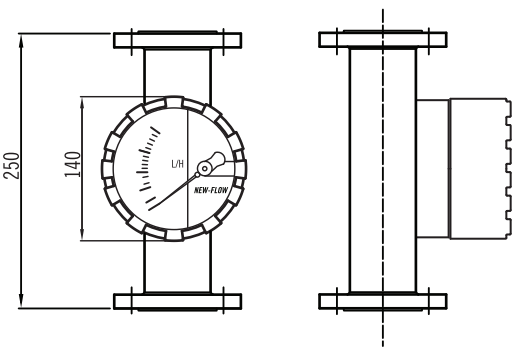
IP65

Case Type: (A-1) Rectangle Bolt Tight Type
Housing Material: Alunimum alloy case with paint



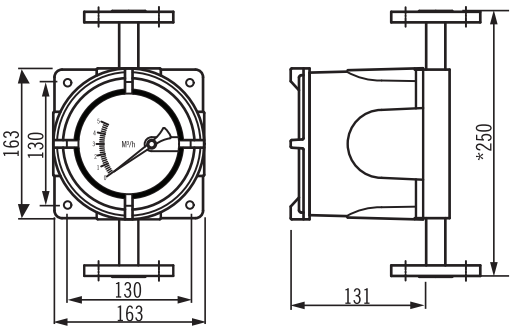
IP65

Case Type: (A-2) Round Screw Tight Type
Housing Material: Aluminum alloy
Case Type: (B) Round Screw Tight Type
Housing Material: SS316



Explosion Proof

Class I, Groups B,C & D; Class II, Groups E,F & G; NEMA 4,7,9



*Mounting length: 250mm standard
Connection size bigger than 3", mounting length is 300mm.

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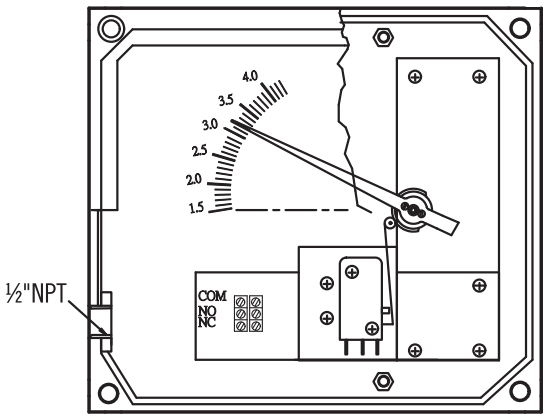
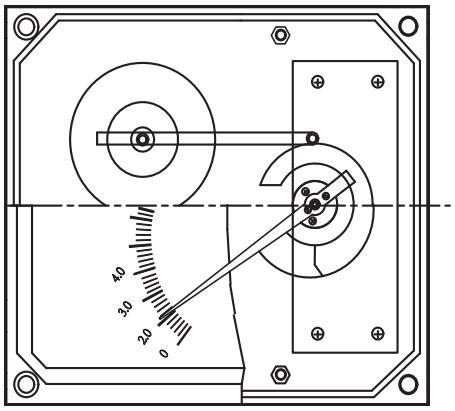
Alarm / Analog output

BF-300/GS-M (Micro Switch)



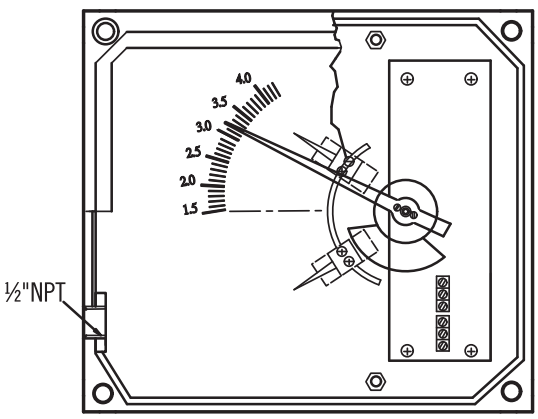
Adjustable Micro Switch, Series BF300/GS-M
1 adjustable alarm contact
Load: 5A/250VAC, 2A/30VDC
Temperature: -25°C ~ +100°C (AMB)
Hysteresis: ±10% F.S (Dead Band)

BF-300/GT (Analog Output)



Electric Transmitter BF-300/GT
Analog output available: 4~20 mA (2 wire)
No Alarm Switch Available
Power Supplier: 24Vdc
Temperature: +25°C ~ +100°C (AMB)

BF-300/GS-C (Inductive Switch)



Ajustable inductive alarm switch
Hysteresis: ±1% F.S (Dead Band)
Inductive sensors slotted type:
3.5mm slot switch
DC. voltage 2 wire's to DIN19234 (NAMUR) for use in hazardous areas.

– Power supply: 8 Vdc (Ri.approx. 1kΩ)
– Current consumption: Active face uncoved 3mA
Active face coved 1mA
– Ambient temp: -25°C ~ +100°C

Isolated barriers output relay for inductive sensor:

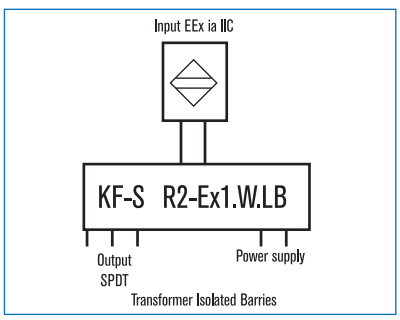
– Rail mounting
– Control circuit EEx ia IIC
– EMC acc to NAMUR NE21
– Contact loading 253 VAC 2A SPDT 40 VDC 2A

1 adjustable alarm
Contact setting point should be within 10% to 100% of F.S

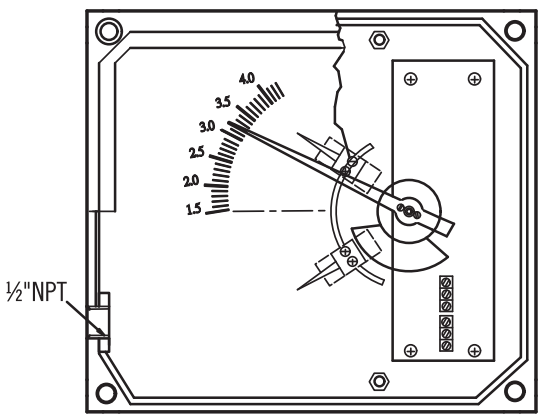
For 24VDC: KDF2-SR2-Ex1.W
115VAC: KFA5-SR2-Ex1.W
230VAC: KFA6-SR2-Ex1.W

2 adjustable alarm
The second setting point should be a gap 65% from first setting point.

For 24VDC: KFD2-SR2-Ex2.W
115VAC: KFA5-SR2-Ex2.W
230VAC: KFA6-SR2-Ex2.W



BF-300/GS-R (Reed Switch)



Alarm Switch:
one or two setting points, form A bistable type (N.O. type)

Hysteresis:
±10% F.S (Dead Band)

Switch Rating:
AC 125V 0.5A / DC 100V 10W / Max. DC 250V<1mA

1 adjustable alarm
Contact setting point should be within 10% to 100% of F.S.

2 adjustable alarm
The second setting point should be a gap 40% from first setting point.

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Standard Scales

Tube	L/H 20°C Water	NM^3/H Air 20°C 1.013bar	PmmWater	Connection	Accuracy (NOTE 1.)	Remark
BF3001	4 ~ 30	0.1 ~ 1	≤750	1/2"	±5% F.S	Unsuitable for transmitter GT type.
BF3002	4 ~ 40	0.13 ~ 1.3	≤750	1/2"	±5% F.S	Unsuitable for transmitter GT type.
BF3003	5.5 ~ 55	0.17 ~ 1.7	≤750	1/2"	±5% F.S	Unsuitable for transmiiter GT type.
BF3004	8 ~ 80	0.2 ~ 2	≤750	1/2"	±2% F.S	
BF3005	16 ~ 160	0.5 ~ 5	≤750	1/2"	±2% F.S	
BF3006	18 ~ 180	0.6 ~ 6	≤750	1/2"	±2% F.S	
BF3007	30 ~ 300	1 ~ 10	≤750	1/2"	±2% F.S	
BF3008	50 ~ 500	1.5 ~ 15	≤750	1/2"	±2% F.S	
BF3009	60 ~ 600	1.8 ~ 18	≤750	1/2"	±2% F.S	
BF3010	70 ~ 700	2 ~ 20	≤750	1/2"	±2% F.S	
BF3011	100 ~ 1000	3 ~ 30	≤750	3/4"	±2% F.S	
BF3012	120 ~ 1200	4 ~ 40	≤750	1"	±2% F.S	
BF3013	160 ~ 1600	5 ~ 50	≤700	1"	±2% F.S	
BF3014	200 ~ 2000	6 ~ 60	≤700	1"	±2% F.S	
BF3015	240 ~ 2400	7 ~ 70	≤700	1"	±2% F.S	
BF3016	280 ~ 2800	8.5 ~ 85	≤700	1"	±2% F.S	
BF3017	320 ~ 3200	9 ~ 90	≤700	1"	±2% F.S	
BF3018	350 ~ 3500	10 ~ 100	≤700	1"	±2% F.S	
BF3019	500 ~ 5000	14 ~ 140	≤650	1½"	±2% F.S	
BF3020	600 ~ 6000	15 ~ 150	≤650	1½"	±2% F.S	
BF3021	700 ~ 7000	20 ~ 200	≤650	1½"	±2% F.S	
BF3022	800 ~ 8000	24 ~ 240	≤650	1½"	±2% F.S	
BF3023	1000 ~ 10000	30 ~ 300	≤650	2"	±2% F.S	
BF3024	1200 ~ 12000	35 ~350	≤650	2"	±2% F.S	
BF3025	1400 ~ 14000	40 ~ 400	≤650	2"	±2% F.S	
BF3026	1500 ~ 15000	45 ~ 450	≤1000	2"	±2% F.S	
BF3027	1800 ~ 18000	60 ~ 600	≤800	2½"	±2% F.S	
BF3028	2000 ~ 20000	75 ~ 750	≤800	2½"	±2% F.S	
BF3029	2300 ~ 23000	90 ~ 900	≤850	3"	±2% F.S	
BF3030	2500 ~ 25000	120 ~ 1200	≤1000	3"	±2% F.S	
BF3031	2800 ~ 28000	---------	≤1100	3"	±2% F.S	
BF3032	3000 ~ 30000	---------	≤1200	3"	±2% F.S	
BF3033	3500 ~ 35000	---------	≤1000	4"	±2% F.S	
BF3034	4000 ~ 40000	---------	≤1000	4"	±2% F.S	
BF3035	5000 ~ 50000	---------	≤1200	4"	±2% F.S	
BF3036	6000 ~ 60000	---------	≤1500	4"	±2% F.S	
BF3037	10000 ~ 100000	---------	≤2500	5"	±2% F.S	

NOTE.

1. The accuracy ±5% F.S for tube BF3001~BF3003.
   The accuracy ±2% F.S for tube BF3004~BF3037 and option ±1.6% F.S on request.
2. Performance Technical Data are effective with date of issue and are subject to change without prior notice.

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Ordering Information

BF300	Code	Type
	G	Indicating only
	GS	Indicating + switch
	GT	Indicating + 4~20mA (no alarm switch available)

Code	Alarm
0	Without alarm switch
C1	One inductive alarm switch
C2	Two inductive alarm switches
M1	One micro switch
R1	One reed switch
R2	Two reed switches

Code	Housing protection / Case type / Material
A1	IP65 / Rectangle bolt tight type / Aluminum alloy
A2	IP65 / Round screw tight type / Aluminum alloy
B	IP65 / Round screw tight type / SS316
C	Explosion proof / Aluminum alloy Class I, Groups B, C & D; Class II, Groups E, F & G; NEMA 4,7,9

Code	Body & wetted parts
A	SS316, standard
B	SS316L
O	Option

Code	Float material
A	SS316
B	SS316L
O	Option

Code	Connection rating
0	Thread connection
5	JIS 5K
10	JIS 10K
20	JIS 20K
15	ANSI 150#
30	ANSI 300#
60	ANSI 600#
90	ANSI 900#
T	Other:_____

Code	Connection size
2B	1/2" BSP (Female)
2N	1/2" NPT (Female)
6B	3/4" BSP (Female)
6N	3/4" NPT (Female)
10B	1" BSP (Female)
10N	1" NPT (Female)
4F	½" Flange
6F	¾" Flange
10F	1" Flange
12F	1½" Flange
20F	2" Flange
22F	2½" Flange
30F	3" Flange
40F	4" Flange
50F	5" Flange

Code	Transmitter Protection
G	IP65 (General type)
Ix.	Intrinsically Safe (EExiaIICT6), IP65
O	Without transmitter

Code	Fluid
G	Gas
O	Oil
L	Liquid
S	Steam

Code	Range
S	Standard range
	Please directly fill out the flow range in the order code.

BF300								+					Complete ordering code

NOTE:
1. Custom-made flow range and flange size upon request.
2. Please fill in the ordering information and service condition, and fax this sheet along with your inquiry to 886-7-8225588.

Special instruction, if any:

_____

_____

_____

Service Condition:

Fluid name: _____

Sp. Gr. (density): _____

Viscosity: _____

Press.: _____

Temp.: _____

Full scale: _____

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