

Technical Data

BR250S for high flows of gas, liquid, steam and oil

Case Material: Aluminum alloy case with paint; SS316 available

Body Wetted Parts Material: SS316, others on request, indication via magnetic coupling (no sealed)

Lens Material: Safety Glass

Scales Calibrated: in l/h, m³/h, kg/h, %, etc.

Flow Rates For:

- Water: 30 l/h up to 400,000 l/h (special ranges on request)
- Air: 0.8 Nm³/h up to 1,200 Nm³/h (special ranges on request)

Connection Type: Thread Type, Flange Type or others available

Connection Size: ¼"~8"

Mounting: Vertical and Horizontal available

Mounting Length: 250mm standard for size ¼"~4",

300mm standard for size 5~8"; Special length is on request

Protection Class: Weather Proof IP66 / IP68 or Explosion proof available

Accuracy: ±2.5% F.S (±2.0% F.S option)

Max. Pressure: 40 kg/cm² (standard); Option: up to 100 kg/cm²

Working Temperature: -50°C to +200°C (standard); up to 400°C on request

Option: Switch available (Micro switch 5A/125VAC, 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

LCD Display:

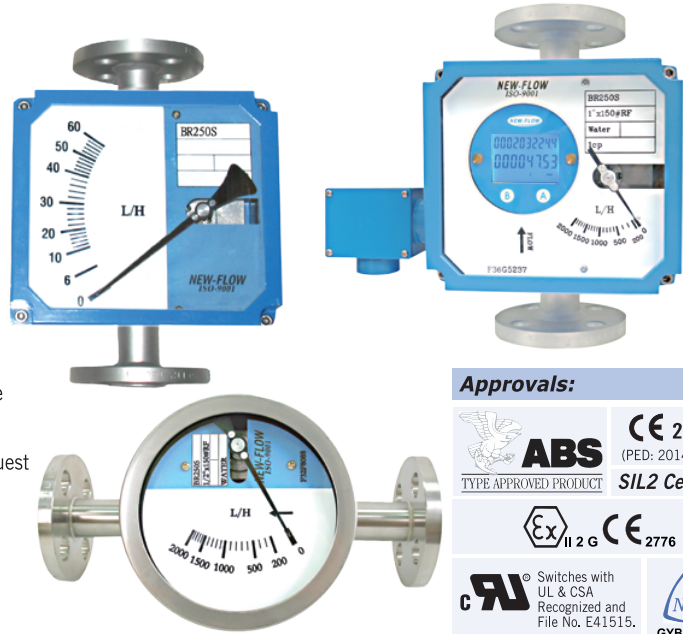
- Totalizer 10 Digital (Top) / Flow Rate 8 Digital (Bottom)
- Analog Output Available: 4~20mA (2-wires)
- Power Supply: 24 VDC

*HART® Communication: available

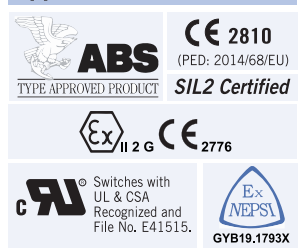
Two Wire Transmitter with HART® Protocol: 

–Galvanic Isolation

–Suitable for application in SIL 2 installations



Approvals:



Patent No.

Taiwan: M338981/M332936
China: 1187801

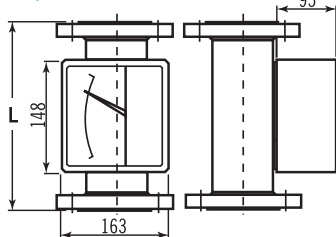


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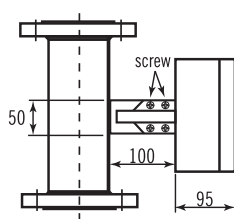
Dimensions-mm

IP66 Case Type: (A-1) Rectangle Bolt Tight Type
Housing Material: Aluminum alloy case with paint

1. Up to 200°C:



2. Up to 400°C c/w cooling element:

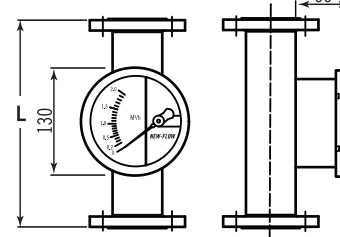


(A1)	Body Size									
	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	6"
L	250	250	250	250	250	250	250	250	300	300

• Flange rating is ANSI 150LB; please consult with the manufacturer for others flange rating and customized L length is on request.

IP68 Case Type: (B-1) Round Bayonet Ring Type (only for indicating)
Housing Material: SS316

1. Up to 200°C:

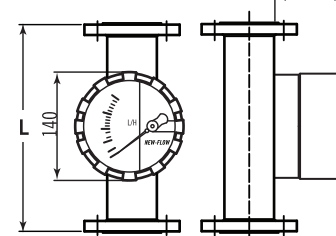


(B1)	Body Size									
	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	6"
L	250	250	250	250	250	250	250	250	300	300

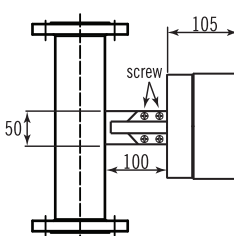
• Flange rating is ANSI 150LB; please consult with the manufacturer for others flange rating and customized L length is on request.

Case Type: (A-2) & (B-2) Round Screw Tight Type
Housing Material: IP66 (A-2) Aluminum alloy, IP68 (B-2) SS316

1. Up to 200°C:



2. Up to 400°C c/w cooling element:

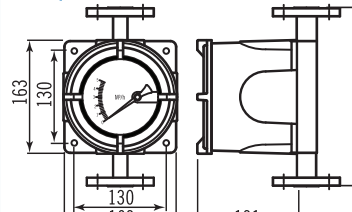


(A2)	Body Size									
	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	6"
L	250	250	250	250	250	250	250	250	300	300

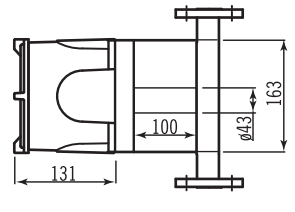
• Flange rating is ANSI 150LB; please consult with the manufacturer for others flange rating and customized L length is on request.

Explosion Proof Case Type: (C) Explosion Proof Certificate on Housing only
(D) & (D1) Taiwan Explosion Proof Certification
Housing Material: (C) Aluminum alloy, (D) Aluminum alloy, (D1) SS316

1. Up to 200°C:



2. Up to 400°C c/w cooling element:



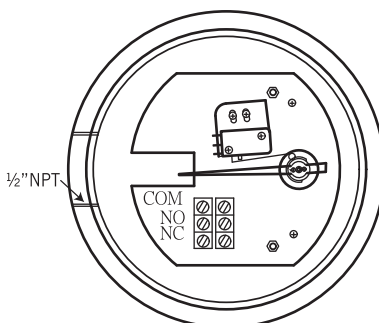
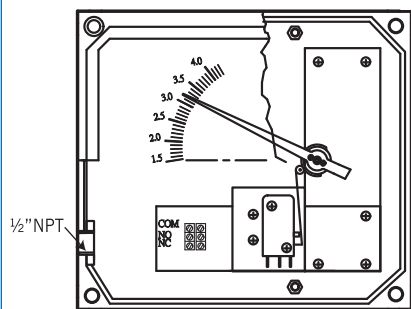
(C)	Body Size									
	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	6"
L	250	250	250	250	250	250	300	300	300	300

(D)	Body Size									
	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	6"
L	250	250	250	250	250	250	250	250	300	300

• Flange rating is ANSI 150LB; please consult with the manufacturer for others flange rating and customized L length is on request.

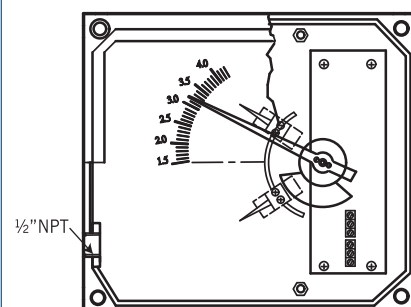
Alarm / Analog Output

BR-250S / GS-M (Micro Switch)



Adjustable Micro Switch, Series BR250S/GS-M
1 adjustable alarm contact
 Load: 5A/125VAC, 5A/250VAC, 2A/30VDC
 Temperature: -25°C ~ +70°C (AMB)
 Hysteresis: ±10% F.S (Dead Band)

BR-250S / GS-R (Reed Switch)



Alarm Switch: One or Two setting point, 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 < 40mA

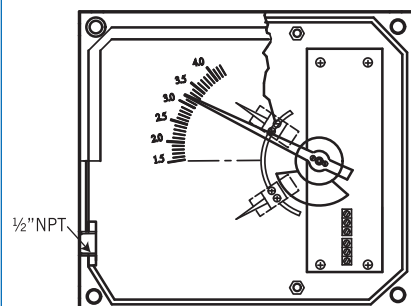
1 adjustable alarm

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

BR-250S / GS-C (Inductive Switch)

**Adjustable Inductive Alarm Switch**

Hysteresis: ±1% F.S (Dead Band)

Inductive Sensors Slotted Type: 3.5 mm 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 ~ +70°C

Isolated barriers output relay for inductive sensor

- Rail Mounting
- Control Circuit EEx ia IIC
- EMC acc to NAMUR NE21
- Contact Loading 250 VAC 2A SPDT 40 VDC 2A

1 adjustable alarm

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

For

24VDC : KFD2-SR2-Ex1.W

115VAC: KFA5-SR2-Ex1.W

230VAC: KFA6-SR2-Ex1.W

2 adjustable alarm

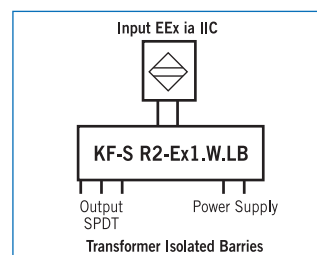
The second setting point should be a gap 65% from first setting point

For

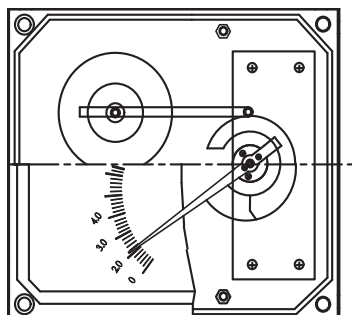
24VDC : KFD2-SR2-Ex2.W

115VAC: KFA5-SR2-Ex2.W

230VAC: KFA6-SR2-Ex2.W

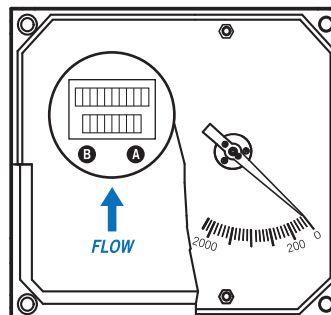


BR-250S / GT (Analog Output) / GTA (Hall Sensor)



Electric Transmitter BR-250S/GT/GTA
Analog Output Available: 4~20mA (2-wires)
No Alarm Switch Available
Power Supply: 24VDC
Temperature: -25°C ~ +70°C (AMB)

LCD Display / Totalizer

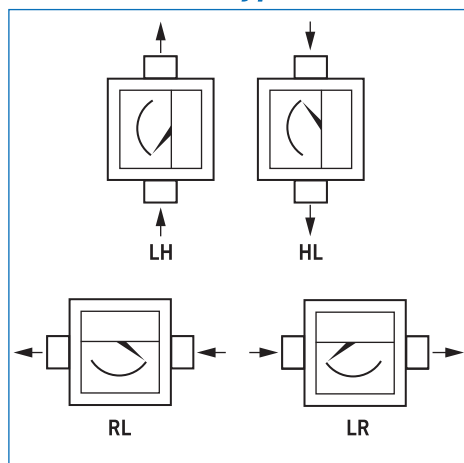


LCD Display: Totalizer 10 Digital (Top) / Flow Rate 8 Digital (Bottom)
Analog Output Available: 4~20mA (2-wires)
Power Supply: 24 VDC

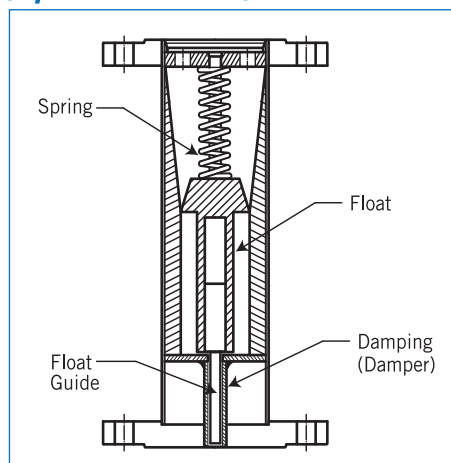
NOTE.

1. This is for the case type (A-1) only.
2. Please refer to the catalogue of D-1000 for the explosion proof type.

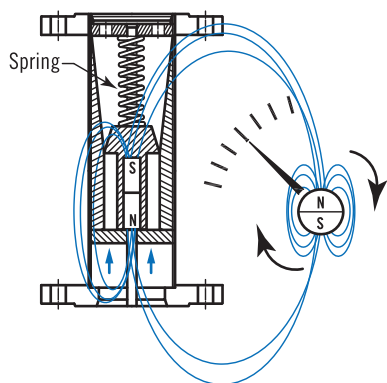
Flow Direction Type



Damping Mechanical (Option Function)



Principle



Standard Scales

Tube	L/H 20°C Water	NM ³ /H Air 0°C 1.013bar	Pressure Loss psig	Connection	Accuracy
BR250S01	30 ~ 300	0.8 ~ 8	≤3.5	1/2"	±2.5% F.S
BR250S02	40 ~ 400	1 ~ 10	≤3.8	1/2"	±2.5% F.S
BR250S03	50 ~ 500	1.2 ~ 12	≤3.7	1/2"	±2.5% F.S
BR250S04	70 ~ 700	1.7 ~ 17	≤3.6	1/2"	±2.5% F.S
BR250S05	80 ~ 800	2 ~ 20	≤3.8	1/2"	±2.5% F.S
BR250S06	100 ~ 1000	2.7 ~ 27	≤4.0	1/2"	±2.5% F.S
BR250S07	150 ~ 1500	4 ~ 40	≤4.2	1/2"	±2.5% F.S
BR250S08	180 ~ 1800	5 ~ 50	≤4.5	1/2"	±2.5% F.S
BR250S09	150 ~ 1500	4 ~ 40	≤3.8	3/4"	±2.5% F.S
BR250S10	200 ~ 2000	6 ~ 60	≤4.0	3/4"	±2.5% F.S
BR250S10-1	270 ~ 2700	6 ~ 60	≤4.0	3/4"	±2.5% F.S
BR250S11	300 ~ 3000	9 ~ 90	≤3.4	1"	±2.5% F.S
BR250S12	400 ~ 4000	12 ~ 120	≤3.6	1"	±2.5% F.S
BR250S13	600 ~ 6000	15 ~ 150	≤3.9	1"	±2.5% F.S
BR250S13-1	1000 ~ 10000	15 ~ 150	≤3.9	1"	±2.5% F.S
BR250S14	600 ~ 6000	15 ~ 150	≤3.6	1½"	±2.5% F.S
BR250S15	800 ~ 8000	24 ~ 240	≤3.8	1½"	±2.5% F.S
BR250S16	1000 ~ 10000	30 ~ 300	≤3.9	1½"	±2.5% F.S
BR250S17	1200 ~ 12000	35 ~ 350	≤4.3	1½"	±2.5% F.S
BR250S17-1	1500 ~ 15000	35 ~ 350	≤4.3	1½"	±2.5% F.S
BR250S18	1200 ~ 12000	35 ~ 350	≤3.2	2"	±2.5% F.S
BR250S19	1600 ~ 16000	50 ~ 500	≤3.4	2"	±2.5% F.S
BR250S20	2000 ~ 20000	60 ~ 600	≤3.8	2"	±2.5% F.S
BR250S21	2500 ~ 25000	70 ~ 700	≤4.1	2"	±2.5% F.S
BR250S21-1	3000 ~ 30000	70 ~ 700	≤4.1	2"	±2.5% F.S
BR250S22	2000 ~ 20000	70 ~ 700	≤3.0	2½"	±2.5% F.S
BR250S23	3000 ~ 30000	80 ~ 800	≤3.2	2½"	±2.5% F.S
BR250S23-1	3500 ~ 35000	80 ~ 800	≤3.2	2½"	±2.5% F.S
BR250S24	3000 ~ 30000	90 ~ 900	≤3.4	3"	±2.5% F.S
BR250S25	4000 ~ 40000	120 ~ 1200	≤3.7	3"	±2.5% F.S
BR250S25-1	6000 ~ 60000	120 ~ 1200	≤3.7	3"	±2.5% F.S
BR250S26	5000 ~ 50000	-----	≤3.6	4"	±2.5% F.S
BR250S27	6000 ~ 60000	-----	≤4.2	4"	±2.5% F.S
BR250S27-1	10000~100000	-----	≤4.2	4"	±2.5% F.S
BR250S28	10000~100000	-----	≤3.8	5"	±2.5% F.S
BR250S28-1	12000~120000	-----	≤3.8	5"	±2.5% F.S
BR250S29	12000~120000	-----	≤4.3	5"	±2.5% F.S
BR250S29-1	14000~140000	-----	≤4.3	5"	±2.5% F.S
BR250S30	15000~150000	-----	≤4.5	6"	±2.5% F.S
BR250S31	20000~200000	-----	≤4.6	6"	±2.5% F.S
BR250S32	25000~250000	-----	≤4.7	6"	±2.5% F.S
BR250S33	20000~200000	-----	≤4.6	8"	±2.5% F.S
BR250S34	30000~300000	-----	≤4.7	8"	±2.5% F.S
BR250S35	35000~350000	-----	≤4.7	8"	±2.5% F.S

NOTE

Performance Technical Data are effective with date of issue and are subject to change without prior notice.

Ordering Information

BR250S	Code	Type	Code	Connection Size	
SIL2 Certified	G	Indicating Only	4B	¼" BSP (Female)	4N ¼" NPT (Female)
	GS	Indicating + Switch	2B	½" BSP (Female)	2N ½" NPT (Female)
	GT	Indicating + 4~20mA (no alarm switch available)	6B	¾" BSP (Female)	6N ¾" NPT (Female)
	GTA	Hall Sensor Type / Indicating + 4~20mA (no alarm switch available)	10B	1" BSP (Female)	10N 1" NPT (Female)
	GTH	HART Type / Indicating + HART (no alarm switch available)	2F	¼" Flange	
		Code Alarm	4F	½" Flange	
	O	Without Alarm Switch	6F	¾" Flange	
	C1	One Inductive Alarm Switch	C2	Two Inductive Alarm Switches	
	M1	One Micro Switch	10F	1" Flange	
	R1	One Reed Switch	R2	Two Reed Switches	
	Code Housing Protection / Case Type / Material	12F	1½" Flange		
A1	IP66 / Rectangle Bolt Tight Type / Aluminum alloy		14F	1¾" Flange	
A2	IP66 / Round Screw Tight Type / Aluminum alloy		20F	2" Flange	
B1	IP68 / Round Bayonet Ring Type / SS316(indicating only)		22F	2½" Flange	
B2	IP68 / Round Screw Tight Type / SS316		30F	3" Flange	
C	(Ex. Certificate on Housing only) / Aluminum alloy Class I, Groups B, C & D; Class II, Groups E, F & G; NEMA 4, 7, 9		40F	4" Flange	
D	(Taiwan Explosion Proof Certification) / Aluminum alloy Ex d IIB + H2 T6 Gb		50F	5" Flange	
D1	(Taiwan Explosion Proof Certification) / SS316 Ex d IIB + H2 T6 Gb		60F	6" Flange	80F 8" Flange
X	(Europe Union ATEX Certification) / Aluminum alloy II 2 G Ex db IIB + H2 T6 Gb Ta -20°C to +60°C				
G	(China Explosion Proof Certification) / Aluminum alloy Ex d IIB + H2 T6 Gb				
	Code Body & Wetted Parts Material		Code Transmitter Type, 4~20mA		
A	SS316, Standard	B	SS316L	G	General Type
O	Option		O	Without Transmitter	
	Code Float Material		Code Fluid		
A	SS316	B	SS316L		(G) Gas (O) Oil (L) Liquid (S) Steam
O	Option			Code Range	
	Code Connection Rating			S	Standard Range
0	Thread Connection			Please direct fill out the flow range in the order code.	
5	JIS 5K			Code Flow Direction	
10	JIS 10K				(0) LH (5) HL (10) RL (20) LR
20	JIS 20K			Code LCD Display	
15	ANSI 150#			D0	With LCD Display IP66, for A1 case only
30	ANSI 300#			D	With LCD Display Explosion Proof, (assemble with D-1000)
60	ANSI 600#			N	Without
90	ANSI 900#			Code Damper	
T	Other: _____			D	With
				N	Without
				Code Conduit	
				N	Without
				1	½" NPT(F)
				2	¾" NPT(F)

CE Mark Request :
If stamp the CE2810 mark is necessary, please consult with the manufacturer.

BR250S +

NOTE:

- Custom-made flow range and flange size upon request.
- Please fill in the ordering information and service condition,

Special Instruction, if any:

Service Condition:

Fluid name: _____
 Sp. Gr. (Density): _____
 Viscosity: _____
 Press.: _____
 Temp.: _____
 Full Scale: _____

NOTE.1 LCD Display:

Assemble with D-1000 Series

