

METAL TUBE FLOW METER BR250S – SPRING TYPE

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 5~10"; 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:

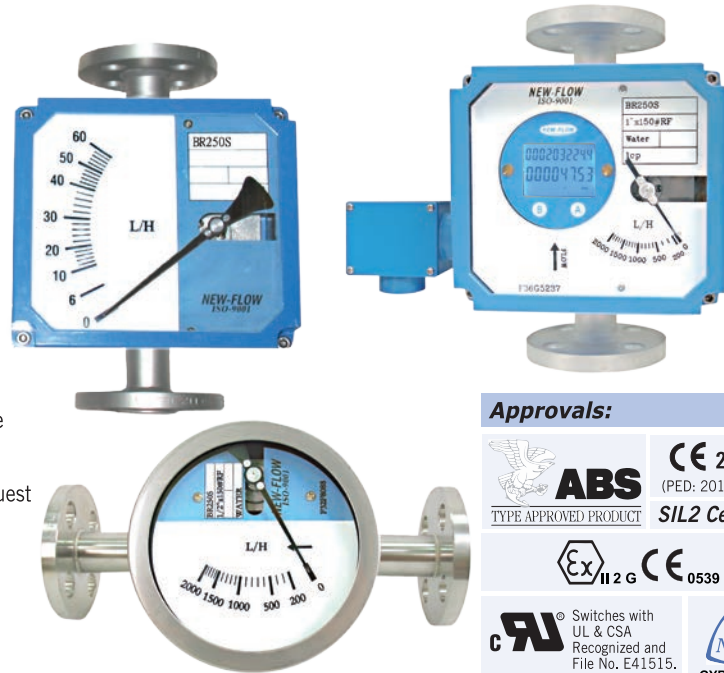
- Totalizer 10 Digital (Top) / Flow Rate 8 Digital (Bottom)
- Analog Output Available: 4~20mA (2-wires)
- Power Supply: 24 VDC

***HART® Communication:** available

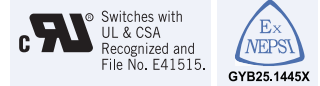
Two Wire Transmitter with HART® Protocol: 

–Galvanic Isolation

–Suitable for application in SIL 2 installations



Approvals:



Patent No.

Taiwan: M338981/M332936
 China: 1187801

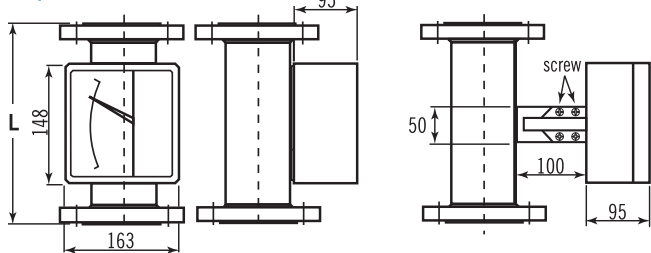


TD0400TJ
 工電(2015)第00151號
 (ITRI)2017第07-00302號

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:

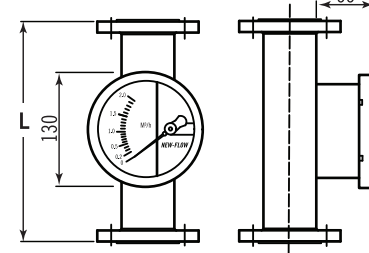


(A1)	Body Size									
	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	6"
L	250	250	250	250	250	250	250	250	300	300

• 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:

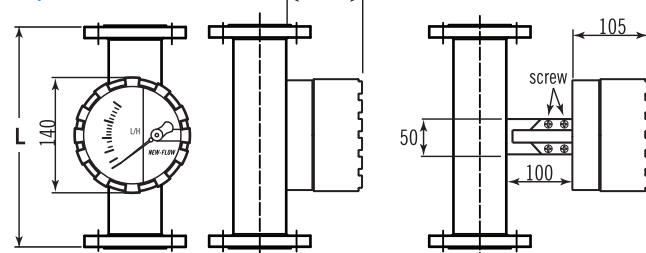


(B1)	Body Size									
	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	6"
L	250	250	250	250	250	250	250	250	300	300

• 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:

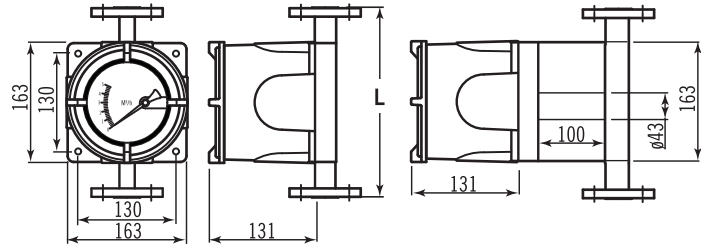


(A2) (B2)	Body Size									
	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	6"
L	250	250	250	250	250	250	250	250	300	300

• 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

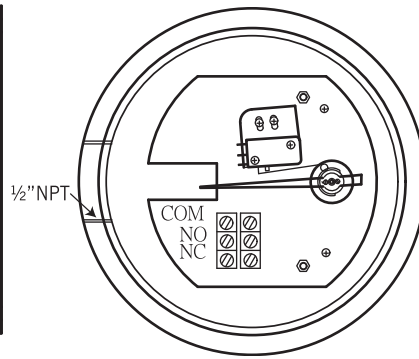
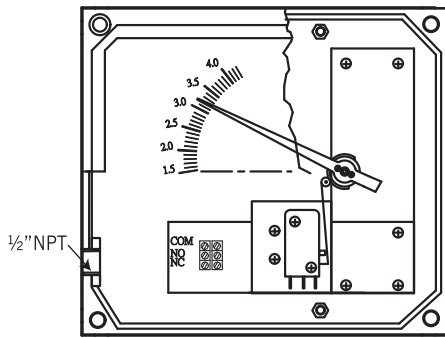
• Flange rating is ANSI 150LB; please consult with the manufacturer for others flange rating and customized L length is on request.

(D) (D1)	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.

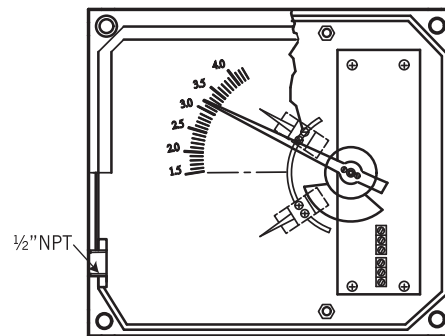
Alarm / Analog Output

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)

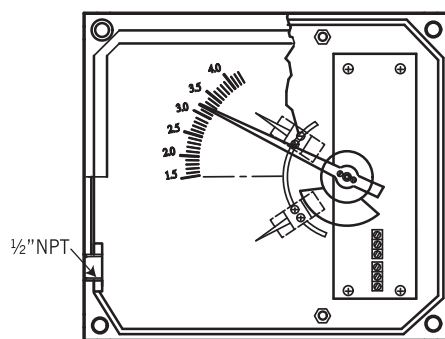


Alarm Switch: One or Two setting point, form A bistable type (N.O Type)
Hysteresis: ±10% F.S (Dead Band)
Switch Rating: AC 125V 0.5A / DC 100V 10W / Max. DC 250V < 40mA

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)



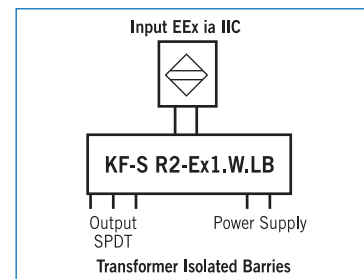
Adjustable Inductive Alarm Switch
Hysteresis: ±1% F.S (Dead Band)
Inductive Sensors Slotted Type: 3.5 mm Slot Switch

DC. voltage 2 wire's to DIN19234 (NAMUR) for use in hazardous areas
 – Power Supply: 8 VDC (Ri.approx. 1kΩ)
 – Current Consumption: Active face uncovered 3mA; Active face covered 1mA
 – Ambient Temp.: -25°C ~ +70°C

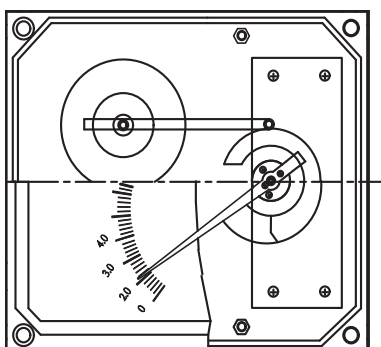
Isolated barriers output relay for inductive sensor
 – Rail Mounting
 – Control Circuit EEx ia IIC
 – EMC acc to NAMUR NE21
 – Contact Loading 250 VAC 2A SPDT 40 VDC 2A

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

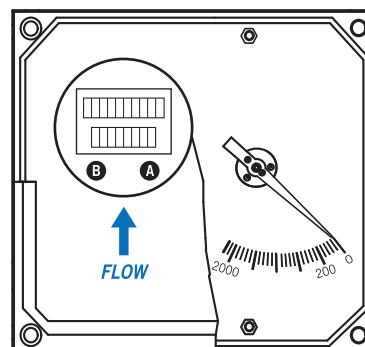


BR-250S / GT (Analog Output) / GTA (Hall Sensor)



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

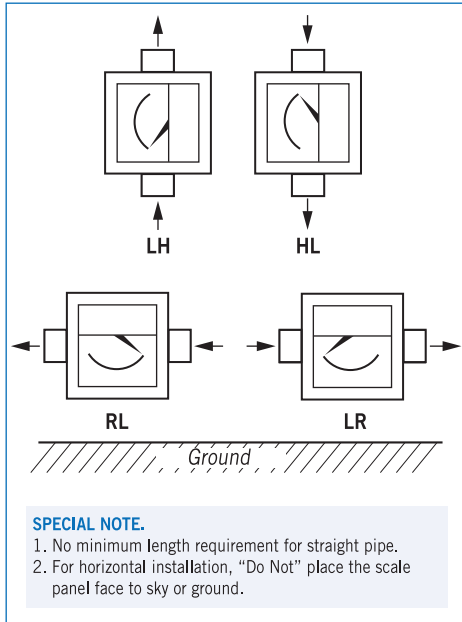


LCD Display: Totalizer 10 Digital (Top) / Flow Rate 8 Digital (Bottom)
Analog Output Available: 4~20mA (2-wires)
Power Supply: 24 VDC

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.

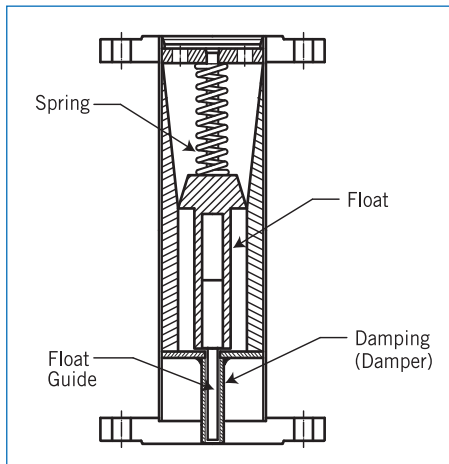
Flow Direction Type



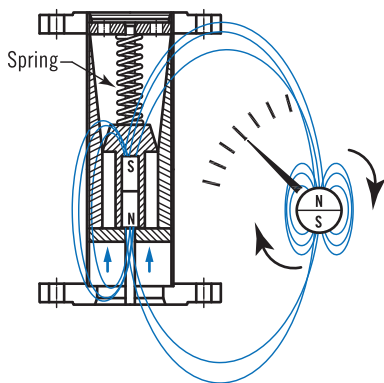
Standard Scales

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

Damping Mechanical (Option Function)



Principle



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

