

METAL TUBE FLOW METER MF200

Technical Data

MF200 for low flow of gas, liquid and steam

Material: aluminum alloy painted for case; body in stainless steel.

Indication: via magnetic coupling (no seals)

Scales: calibrated in l/h, m³/h, kg/h, %

Flow rate: water-0.4 l/h up to 6000 l/h
air-21 NL/h up to 150,000 NL/h

Connection types: BSP, NPT, flange type on request

Working Temperature:

Combine with electronic parts: -40°C~+150°C

Combine without electronic parts: -40°C~+180°C

Working Pressure: standard 100 kg/cm²; other options upon request

Connection size: 1/4" ~ 2"

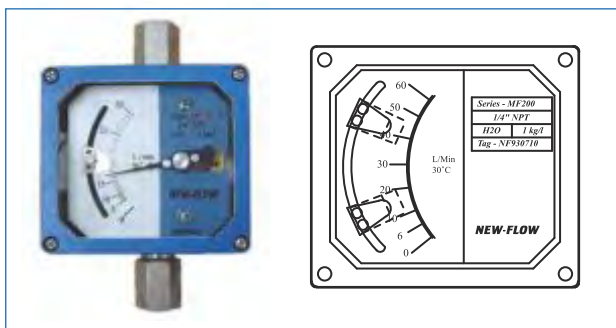
Protection Class: IP65

Accuracy: ± 2% F.S (± 1.6% F.S option)



Alarm Option

MF200-C (Inductive Switch)



• Adjustable inductive alarm switch

Hysteresis: ±2% 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 uncovered 3mA
active face covered 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

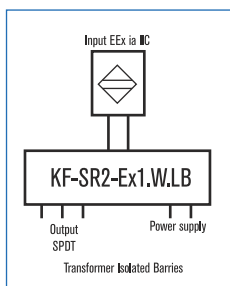
Contact setting point should be within 10% to 100% of F.S.

For 24VDC : 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 35% from first setting point.

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



MF200-R (Reed Switch)



• Adjustable reed alarm switch

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

Hysteresis: ±15% F.S (Dead Band)

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

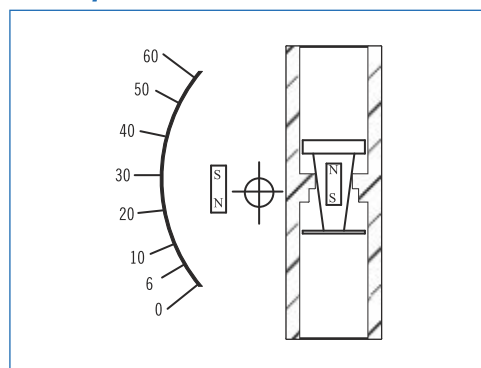
1 adjustable alarm

Contact setting point should be within 20% to 100% of F.S.

2 adjustable alarm

The second setting point should be a gap 20% from first setting point.

Principle



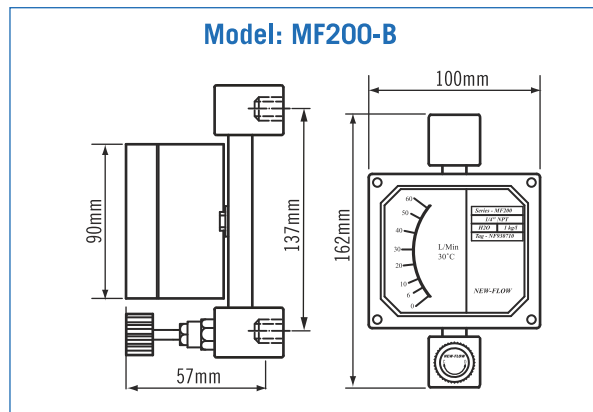
Dimensional Drawings

MF200-B Metal Tube Flow Meter

Basic Model:
Rear connection + needle valve

NOTE.

Max. range: 1000 L/H for Liquid; 30000 NL/H for Air
Connection size: 1/4"~3/4" BSP/NPT available

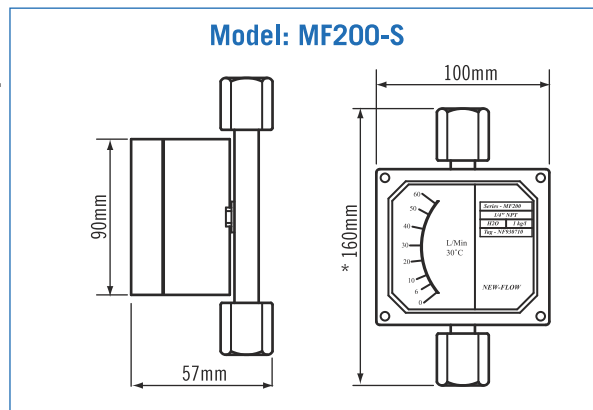


MF200-S Metal Tube Flow Meter

Basic Model:
Thread connection

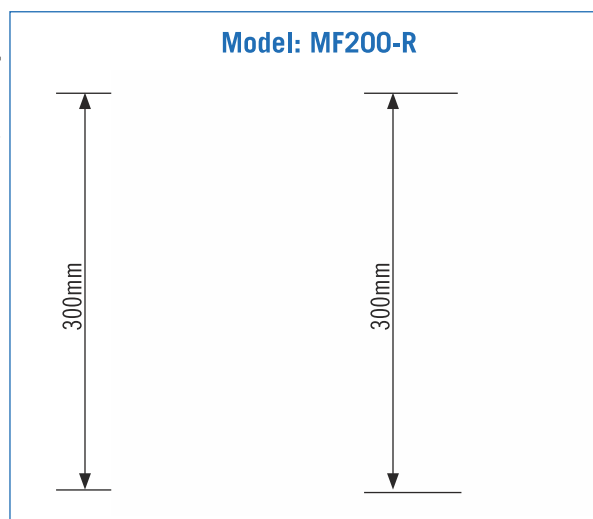
NOTE.

*1 1/2" BSP, C to C = 170mm



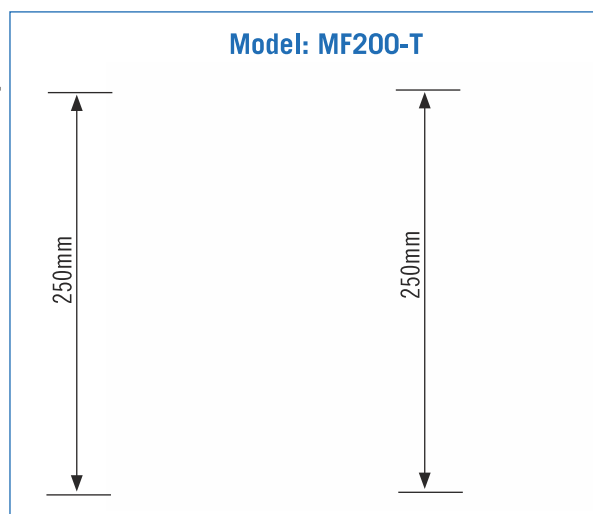
MF200-R Metal Tube Flow Meter

Flange-needle Model:
flange connection + needle valve



MF200-T Metal Tube Flow Meter

Flange Model:
flange connection



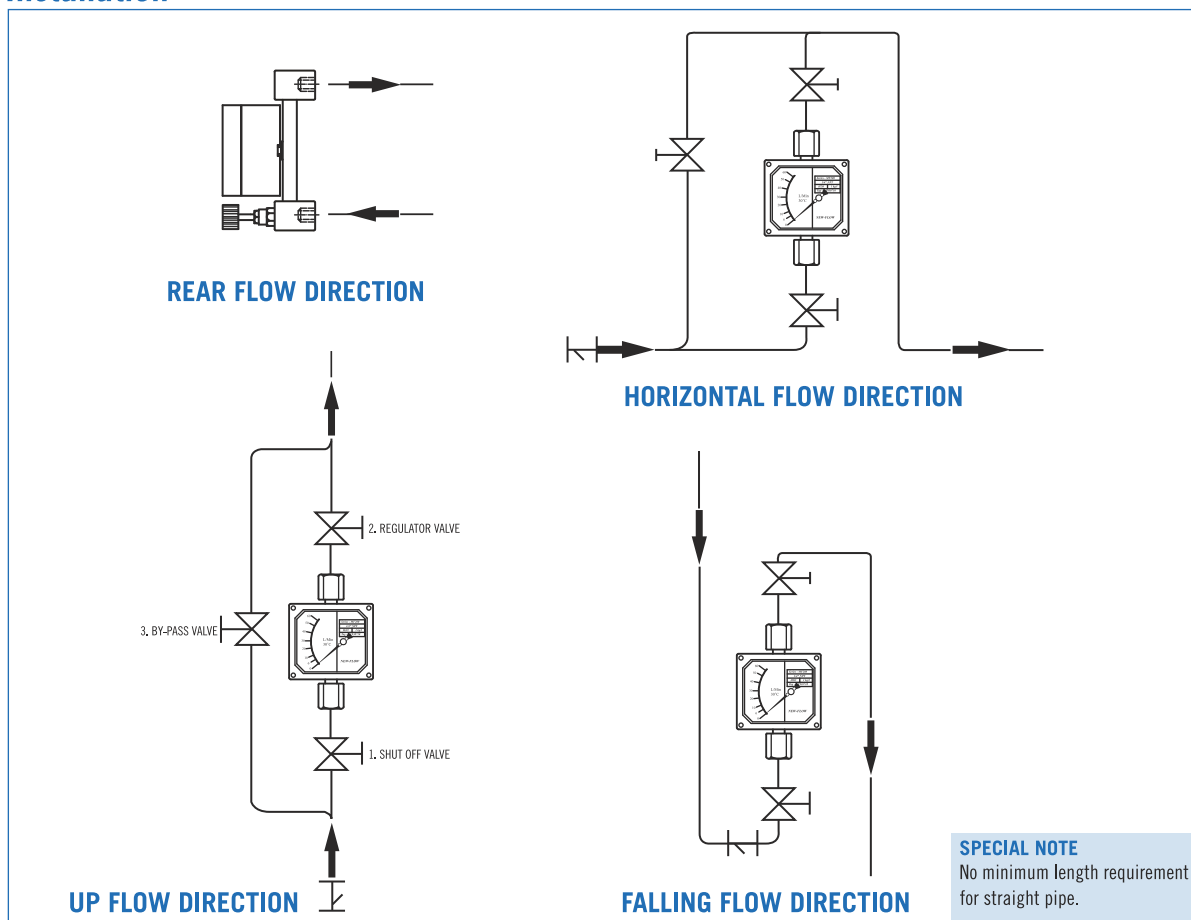
Standard Scales

Tube	L/H 20°C Water	NL/H Air 20°C 1.013 bar	ΔPmm Water	BSP/NPT	Accuracy (NOTE 1.)
MF2001	0.4 ~ 4	21~210	340	1/4"	±6% F.S
MF2002	0.6 ~ 6	33~330	340	1/4"	±3% F.S
MF2003	1 ~ 10	48~480	340	1/4"	±2% F.S
MF2004	1.5 ~ 15	60~600	340	1/4"	±2% F.S
MF2005	2 ~ 20	72~720	340	1/4"	±2% F.S
MF2006	3 ~ 30	90~900	340	1/4"	±2% F.S
MF2007	5 ~ 50	120~1200	340	1/4"	±2% F.S
MF2008	6 ~ 60	180~1800	340	1/4"	±2% F.S
MF2009	10 ~ 100	300~3000	340	1/4"	±2% F.S
MF2010	15 ~ 150	500~5000	340	1/2"	±2% F.S
MF2011	25 ~ 250	750~7500	340	1/2"	±2% F.S
MF2012	40 ~ 400	1200~12000	340	1/2"	±2% F.S
MF2013	60 ~ 600	1800~18000	340	1/2"	±2% F.S
MF2014	75~750	2000~20000	340	3/4"	±2% F.S
MF2015	100 ~ 1000	3000~30000	340	1"	±2% F.S
MF2016	150~1500	5000~50000	450	1-1/2"	±2% F.S
MF2017	200~2000	7500~75000	450	1-1/2"	±2% F.S
MF2018	300~3000	9000~90000	450	1-1/2"	±2% F.S
MF2019	350~3500	11000~110000	450	1-1/2"	±2% F.S
MF2020	400~4000	12000~120000	450	1-1/2"	±2% F.S
MF2021	600~6000	15000~150000	520	2"	±2% F.S

NOTE.

1. The accuracy ±6% F.S for tube MF2001; The accuracy ±3% F.S for tube MF2002.
The accuracy ±2% F.S for tube MF2003~MF2021 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.

Installation



MF200	Code	Connection	Code	Connection size
	S	Thread connection	4B	1/4" BSP (Female)
	R	Connection with needle valve	4N	1/4" NPT (Female)
	T	Flange connection	2B	1/2" BSP (Female)
	B	Rear connection with needle valve	2N	1/2" NPT (Female)
	Code	Type	6B	3/4" BSP (Female)
	G	Indicating only	6N	3/4" NPT (Female)
	GS	Indicating + switch	1B	1" BSP (Female)
	Code	Alarm	1N	1" NPT (Female)
	0	Without alarm switch	15B	1½" BSP (Female)
	C1	One inductive alarm switch	15N	1½" NPT (Female)
	C2	Two inductive alarm switches	20B	2" BSP (Female)
	R1	One reed switch	20N	2" NPT (Female)
	R2	Two reed switches	2F	½" Flange
	Code	Body material	6F	¾" Flange
	A	SS316	10F	1" Flange
	Code	Float & Wetted part material	15F	1 ½" Flange
	A	SS316	20F	2" Flange
	Code	Connection rating	Code	Protection Class
	0	Thread connection	IP	IP65
	5	JIS 5K	Code	Fluid
	10	JIS 10K	G	Gas
	20	JIS 20K	O	Oil
	15	ANSI 150#	L	Liquid
	30	ANSI 300#	S	Steam
	40	ANSI 400#	Code	Range
	60	ANSI 600#	S	Standard range
	T	Other:_____		Please directly fill out the flow range in the order code.

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.

Fluid name: _____
 Sp. Gr. (density): _____
 Viscosity: _____
 Press.: _____
 Temp.: _____
 Full scale: _____