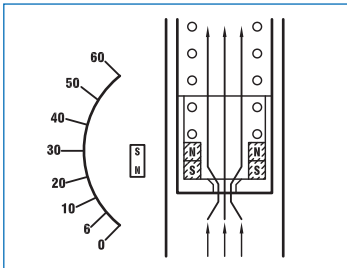


FLOW SWITCH AND INDICATOR OF100 SERIES

Technical Data

Piston type for high viscosity
Fluid: Water, oil, other liquid available; Gases
Flow Range: 15~30,000 l/h (at Water); 0.4~740 Nm³/h (at Air)
Accuracy: ±3% F.S, On request: ±2.5% F.S
Size: ¼" to 2½"
Connection Type: NPT, Flange type on request
Working Limits: Temperature: -40°C to +180°C
Working Pressure: 30 kg/cm²
 Option—100 kg/cm² for 1" or less
 Option—200 kg/cm² for 1½" or bigger
Protection Class: IP66, Explosion proof
Housing Material: NS, CS, MS type—Aluminum Alloy
 ES type—SS316
Lens Material: Safety glass
Mounting: Vertical, Horizontal available
Material: Wetted parts SS316; Teflon lining float for Gases application
Alarm Switch: Micro switch, Inductive switch available

Principle



Approvals:



Switches with UL & CSA Recognized and File No. E41515.



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NS Type (Indicating only)



CS Type (With inductive switch)



ES Type (Indicating only)



MS Type (With micro or reed switch)



GYB19.1793X

Patent No.

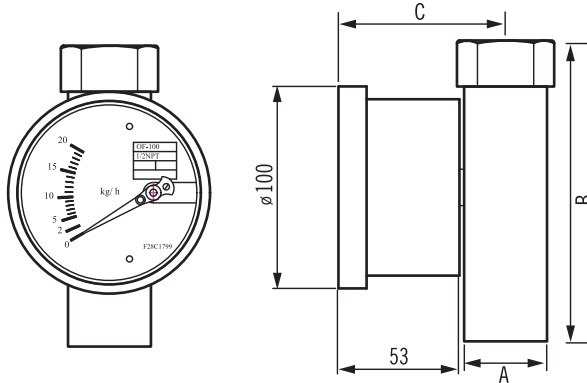
Taiwan: M285697 / M338982 / M332836
 China: 1187801

SIL2 Certified

Dimensions

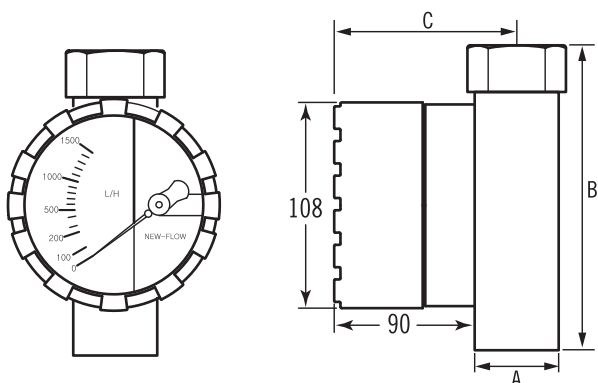
IP68

ES Type
 Housing Material: SS316



IP66

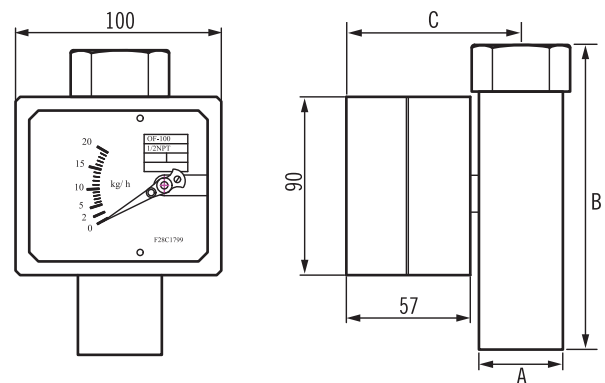
MS Type
 Housing Material: Aluminum alloy



unit=mm

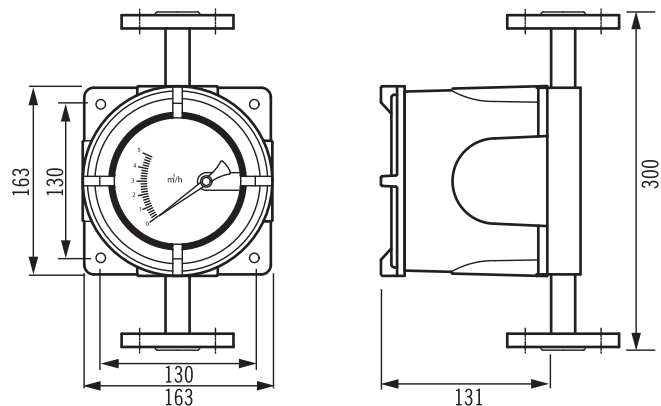
IP66

CS, NS Type
 Housing Material: Aluminum alloy



Explosion Proof

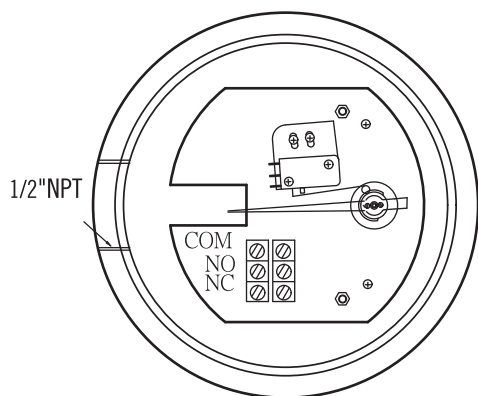
Housing Material: Aluminum alloy, SS316 available
 • Explosion Proof Certificate on Housing Only
 • Taiwan Explosion Proof Certification



unit=mm

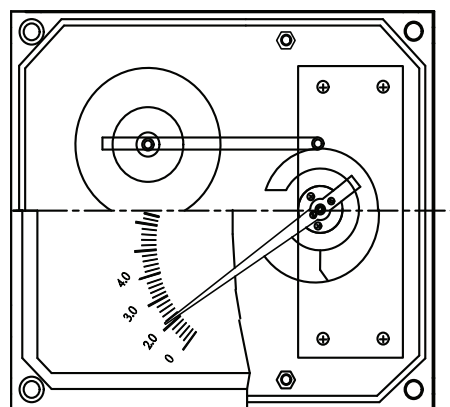
Alarm / Analog output

OF100-MS (Micro Switch)



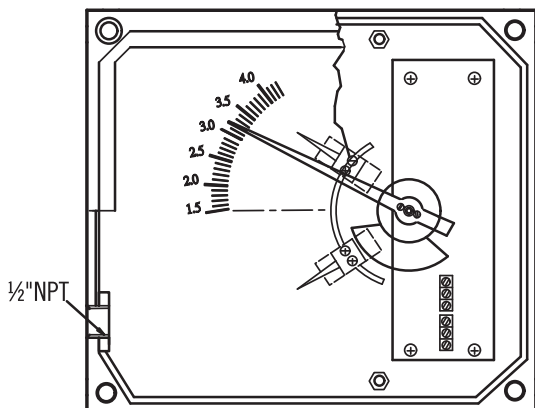
Adjustable Micro Switch, Series OF100-MS
1 adjustable alarm contact, or 2 adjustable alarm contact on request
Load: 5A/125VAC, 5A/250VAC, 2A/30VDC
Temperature: -25°C ~ +70°C (AMB)
Hysteresis: ±10% F.S (Dead Band)

OF100/GT (Analog Output)



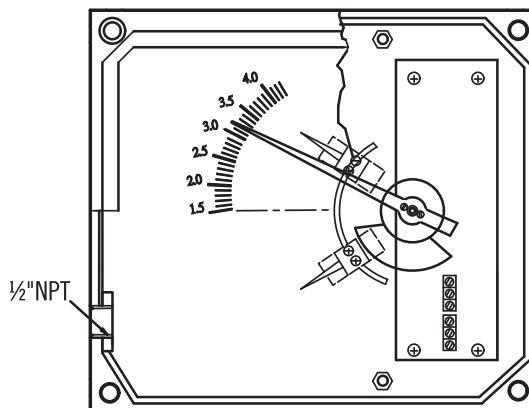
Electric Transmitter OF100/GT
Analog output available: 4~20mA (2 wire)
No Alarm Switch Available
 Effective range within 20% to 100%
Power supplier: 24V dc
Temperature: -25°C ~ +70°C (AMB)

OF100-CS (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 ~ +70°C

OF100-RS (Reed Switch)



Alarm Switch:
 one or two setting points, form A bistable type (N.O. type)
Hysteresis:
 ±15% of full scale (Dead Band)
Switch Rating:
 AC 125V 0.5A / DC 100V 10W / Max. DC 250V < 40 mA
1 adjustable alarm
 Contact setting point should be within 20% to 100% of F.S.

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

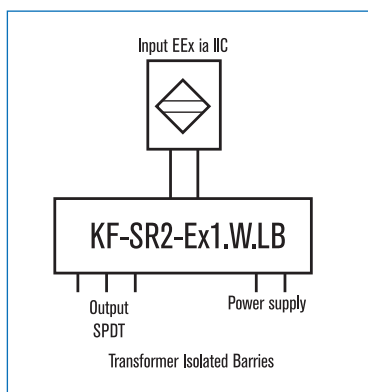
Contact setting point should be within 20% to 100% of F.S

- 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 40% from first setting point.

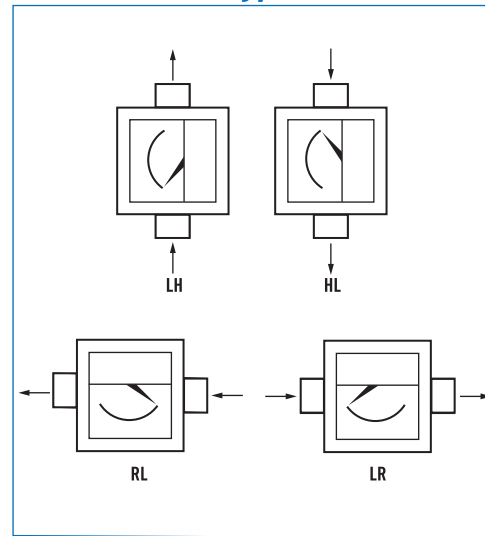
- For 24VDC: KFD2-SR2-Ex2.W
- 115VAC: KFA5-SR2-Ex2.W
- 230VAC: KFA6-SR2-Ex2.W



Standard Scales

Tube	L/H Water 20°C	NM ³ /H Air 0°C 1.013bar	A	B	C	BSP/ NPT
OF101	15 ~ 70	—		150		1/4"
OF102	18 ~ 80	0.4 ~ 2		150		1/4"
OF103	20 ~ 100	0.5 ~ 2.5		150		1/4"
OF104	25 ~ 125	0.6 ~ 3.2		150		1/4"
OF105	30 ~ 150	0.75 ~ 3.8		150		1/4"
OF106	40 ~ 210	1 ~ 5		150		1/2"
OF107	60 ~ 330	1.5 ~ 7.5		150		1/2"
OF108	70 ~ 400	1.6 ~ 8		150		1/2"
OF109	120 ~ 650	3 ~ 15		150		1/2"
OF110	160 ~ 800	4 ~ 20		150		1/2"
OF111	190 ~ 950	4.8 ~ 24		150		1/2"
OF112	300~1500	6.4 ~ 32		150		1/2"
OF113	200~1000	8 ~ 40		150		3/4"
OF114	350 ~ 1900	10 ~ 50		150		3/4"
OF115	500 ~ 2700	13 ~ 65		150		3/4"
OF116	700 ~ 3500	18 ~ 90		150		1"
OF117	800 ~ 6000	20 ~ 150		150		1"
OF118	800 ~ 6000	20 ~ 150		160		1 1/2"
OF119	900 ~ 7000	23 ~ 175		160		1 1/2"
OF120	2000~ 14000	70~ 350		160		1 1/2"
OF121	1500 ~ 20000	100 ~ 500		160		2"
OF122	2000 ~ 16200	50 ~ 400		160		2 1/2"
OF123	3000 ~ 30000	140 ~ 740		160		2 1/2"

Flow Direction Type



Ordering Information

OF100	Code	Type	Code	Housing Protection / Material																	
SIL2 Certified	NS	Indicating only (Aluminum alloy)	A	Weather proof type, IP66 / IP68																	
	ES	Indicating only (SS316)	C	(Ex. Certificate on Housing only) / Aluminum alloy Class I, Groups B, C & D; Class II, Groups E, F & G; NEMA 4, 7, 9																	
	GS	CS	With Inductive Switch	D	(Taiwan Explosion Proof Certification) / Aluminum alloy Ex d IIB + H2 T6 Gb																
		MS	With Micro Switch	D1	(Taiwan Explosion Proof Certification) / SS316 Ex d IIB + H2 T6 Gb																
	RS	MS	With Reed Switch	X	(Europe Union ATEX Certification) / Aluminum alloy II 2 G Ex db IIB + H2 T6 Gb Ta -20°C to +60°C																
		RS	With Reed Switch																		
	GT	Indicating+4~20mA (no alarm switch available)		G	(China Explosion Proof Certification) / Aluminum alloy Ex d IIB + H2 T6 Gb																
	GTA	Hall Sensor Type / Indicating + 4~20mA (no alarm switch available)																			
	GTH	HART Type / Indicating + HART (no alarm switch available)		<table border="1"> <thead> <tr> <th>Code</th> <th>Flow Direction</th> </tr> </thead> <tbody> <tr> <td>(O) LH (5) HL (10) RL (20) LR</td> <td></td> </tr> </tbody> </table>		Code	Flow Direction	(O) LH (5) HL (10) RL (20) LR													
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