FLOW SWITCH AND INDICATOR OF100 SERIES

Technical Data

Piston type for high viscosity
Fluid: Water, oil, other liquid available; Gases
Flow Range: 15~24,000 l/h (at Water) ; 0.4~600 Nm³/h (at Air)
Accuracy: ±3% F.S, On request: ±2.5% F.S
Size: ¼" to 2½"
Connetion 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: IP65, Explosion proof
Housing Material: NS, CS, MS type– Aluminum Alloy
ES type– SS316
Lens Material: Safety glass
Mounting: Veritcal, Horizontal available
Material: Wetted parts SS316; Teflon lining float for Gases application
Alarm Switch: Micro switch, Inductive switch available



NS Type (Indicating only)



CS Type (With inductive switch)

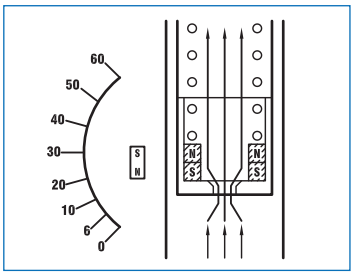


ES Type (Indicating only)



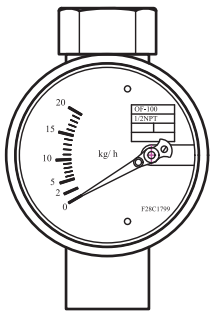
MS Type (With micro or reed switch)

Principle

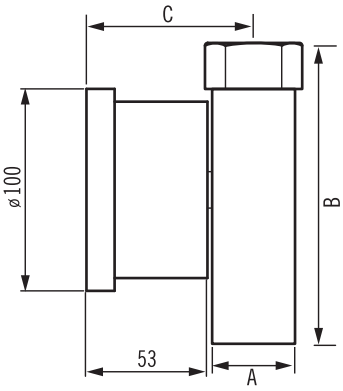


Dimensions

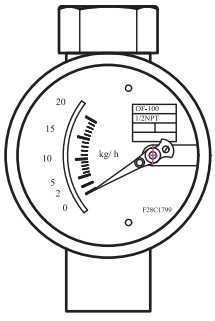
IP65

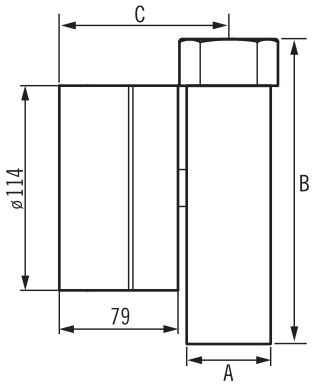


ES Type



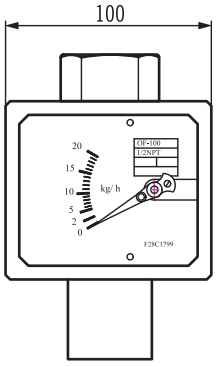
MS Type

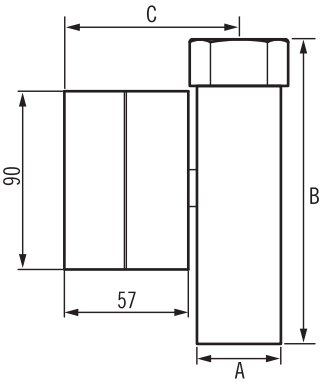




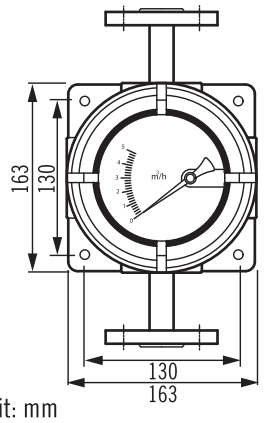
unit: mm

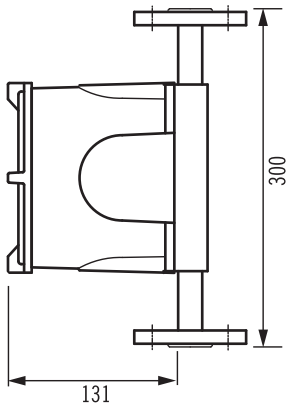
IP65 CS, NS TYPE





Explosion Proof



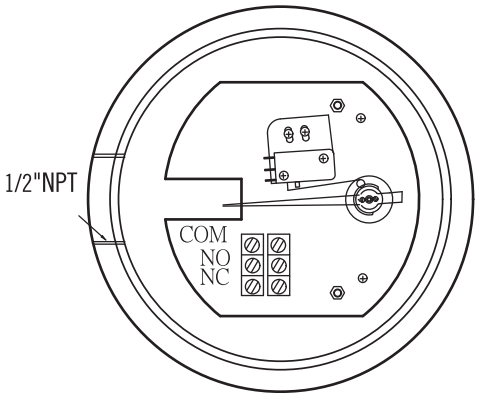


unit: mm

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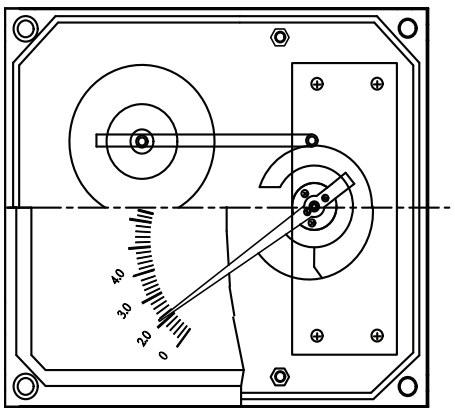
Alarm / Analog output

OF100–MS (Micro Switch)



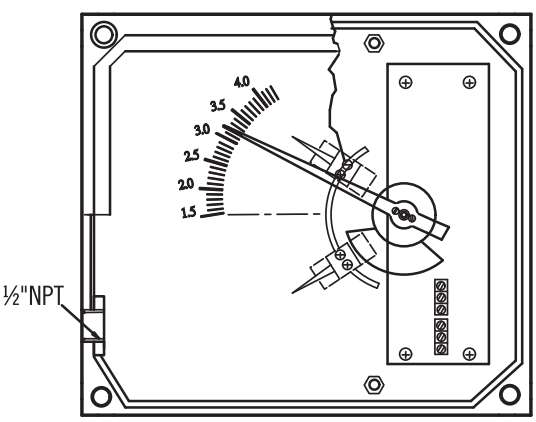
Adjustable Micro Switch, Series OF100-MS
1 adjustable alarm contact
Load: 5A/250VAC/125VAC/30VDC
Temperature: -25°C ~ +100°C (AMB)
Hysteresis: ±10% F.S (Dead Band)

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 ~ +100°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 uncoved 3mA
Active face coved 1mA
– Ambient temp: -25°C ~ +100°C

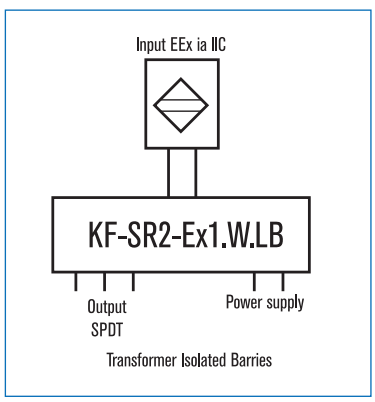
Isolated barriers output relay for inductive sensor:
– Rail mounting
– Control circuit EEx ia IIC
– EMC acc to NAMUR NE21
– Contact loading 253 VAC 2A SPDT 40 VDC 2A

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

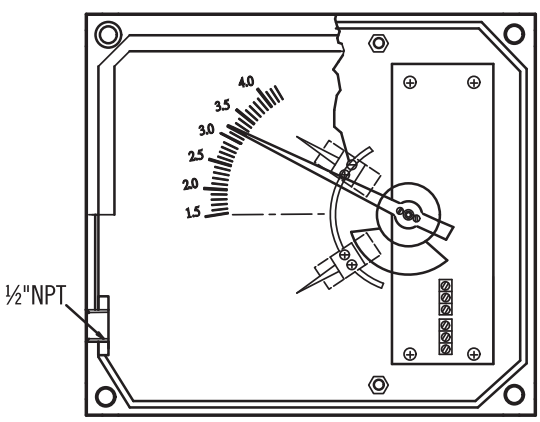
For 24VDC: KDF2-SR2-Ex1.W
115VAC: KFA5-SR2-Ex1.W
230VAC: KFA6-SR2-Ex1.W

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

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



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<1mA

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

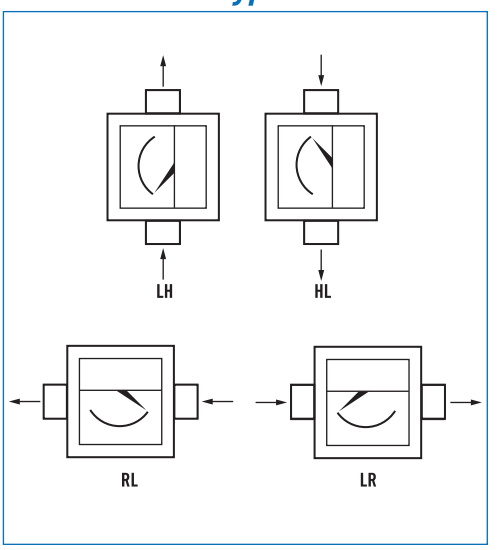
2 adjustable alarm
The second setting point should be a gap 20% from first setting point.

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Standard Scales

Tube	L/H Water 20°C	NM³/H Air 20°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	250 ~ 1250	6.4 ~ 32		150		1/2"
OF113	300 ~ 1600	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	600 ~ 4500	14 ~ 110		160		1 1/2"
OF118	800 ~ 6000	20 ~ 150		160		1 1/2"
OF119	900 ~ 7000	23 ~ 175		160		1 1/2"
OF120	1200 ~ 9600	30 ~ 240		160		1 1/2"
OF121	1600 ~ 13200	40 ~ 330		160		2"
OF122	2000 ~ 16200	50 ~ 400		160		2 1/2"
OF123	3000 ~ 24000	75 ~ 600		160		2 1/2"

Flow Direction Type



Ordering Information

OF100	Code	Type
	NS	Indicating only (Housing–Aluminum Alloy)
	ES	Indicating only (Housing–SS316)
	CS	With inductive switch
	MS	With Micro switch
	RS	With Reed switch
	GT	Indicating + 4~20mA (no alarm switch available)

Code	Switch
0	Without alarm switch
C1	One inductive alarm switch
C2	Two inductive alarm switches
M1	One Micro alarm switch
R1	One reed switch
R2	Two reed switches

Code	Body Material		
A	SS316	B	Option

Code	Connection Type
	(0) Thread Connection
	(5) JIS 5K (10) JIS 10K (20) JIS 20K
	(15) ANSI 150# (30) ANSI 300#
	(40) ANSI 400# (60) ANSI 600#
	(T) Other: _____

Code	Connection size
1	1/4"
2	1/2"
3	3/4"
4	1"
5	1-1/2"
6	2"
7	2-1/2"

Code	Protection Class
IP	IP65
Ex.	Explosion Proof: CLASS I, GROUPS B, C &D; CLASS II, GROUPS E, F, & G; NEMA 4, 7, 9

Code	Flow direction		
0	LH	10	RL
5	HL	20	LR

Code	Fluid
G	Gas
O	Oil
L	Liquid

Code	Range
S	Standard range

OF100					+					

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