

Flow Switch

Model: MDFS110

Applications

- For gaseous, liquid, particulates-containing, viscous and aggressive media
- Water and wastewater pressure control
- Monitoring and control of pump
- Metal processing industry
- Controlling flowing value of the refrigerant and the lubricant
- Leak monitoring in process lines

Special features

- Optional: 4 to 20 mA analog output to read out the flow rate as percentage value
- Optional power supply 24VDC or 220VAC
- LED flicker and display flow and switch situation at real time
- 2-way PNP / 2-way NPN / 1 relay output
- All stainless steel housing, IP67 protection
- Temperature compensation
- Switch output, control point setting
- Mounting joint can be equipped with
- Compact size, support inverted display

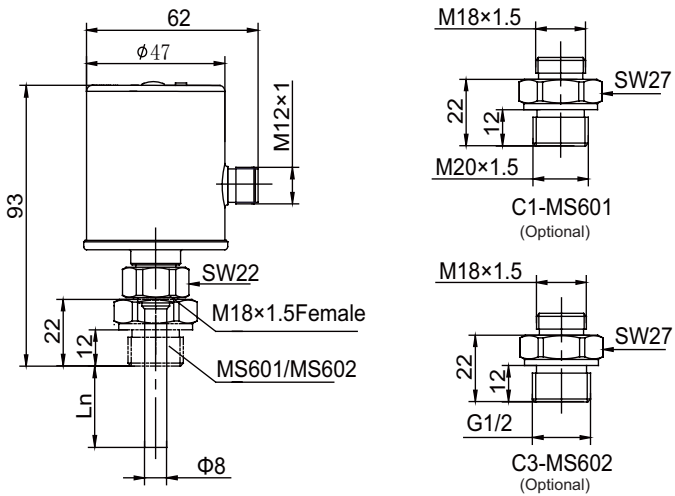
Description

- | | |
|-----------------------------------|--|
| ■ Measuring range | 1cm/s ~ 150cm/s (water) |
| ■ Optimal range | 3cm/s ~ 100cm/s (water) |
| ■ Switch Accuracy | ±10 cm/s |
| ■ Power supply | (24 ± 4.8)VDC/220VAC |
| ■ Working current | ≤ 60 mA |
| ■ Output signal | 1relay/2 NPN/2 NPN/2 NPN + 4~250mADC |
| ■ Hysteresis | ±2cm/s ~ ±8cm/s |
| ■ Switch-off time | 1s ~ 15s, 2s(tyo.) |
| ■ Switch-on time | 1s ~ 13s, 2s(tyo.) |
| ■ Relay characters | Switch voltage: ± 250VDC/30VDC
Switch current: ≤ 3A |
| ■ Transistors character | Switch voltage drop: ≤ 1.5V
Switch current: ≤ 400mA |
| ■ Electrical protection | Reverse, short - circuit, over-voltage |
| ■ Housing | Stainless steel |
| ■ Probe | Stainless steel |
| ■ Display | OLED indicator, resolution 128 * 32 |
| ■ Electrical connection | M12*15-pin plug |
| ■ Water temp. | -20°C ~ 80 °C |
| ■ Storage temp. | -30°C ~ 85 °C |
| ■ Working temp. | -20°C ~ 70 °C |
| ■ Protection | IP67 |
| ■ Temperature compensation | -5°C ~ 50 °C (water) |
| ■ Shock | ≤ 3g(GB/T JJG 882-20004) |



Outline Connection (Unit: mm)

Outline Construction and Installation are shown below:



Two Display:

Progress Bar



Digital Display



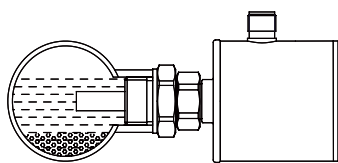
▲ Switch Point K1

△ Switch Point K2

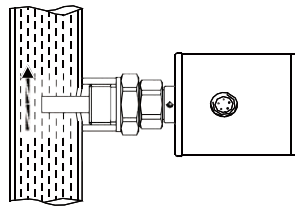
When Switch Point Sign light is flashing, it indicates that the velocity exceeds the switch action velocity

Suggested installation method:

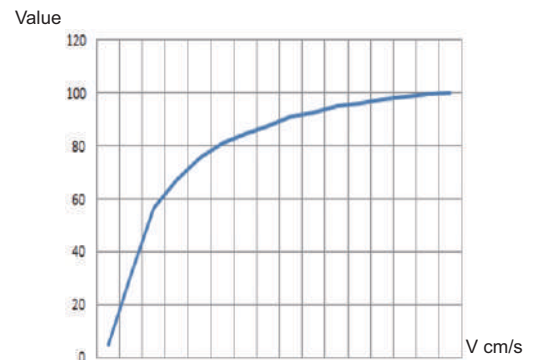
Horizontal Pipe:



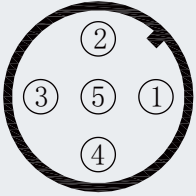
Vertical Pipe:

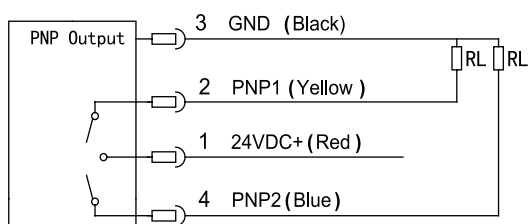
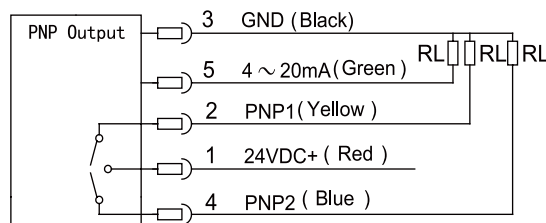
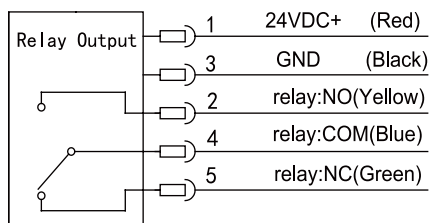


Curvilinear relation between digital indication and velocity:



Electrical Connection

 M12x1	Color	Pin	220VAC Definition	24V DC Definition
	Red	1	Power L	IN+
	Black	3	Power N	IN-
	Yellow	2	Relay: NO	Relay NO, NPN1, PNP1
	Green	5	Relay: NC	Relay NC, 4mA ~ 20mADC
	Blue	4	Relay: COM	Relay COM, NPN2, PNP2



MDFS110 flow switch

ORDERING CODE	Example:	MDFS110	2	M	R	2	Note
Power supply							
2 - 24 VDC			2				
4 - 110 VAC							
6 - 220 AC							
Process Connection							
M - M20 * 1.5 male				M			
G - G 1/2 male							
O - Other							
Out put							
R - 1 * Relay output					R		
N - 2 * NPN transistor output							
P - 2 * PNP transistor output							
A - 2 * PNP + 4 ~ 20mA output							
Probe length							
1 - 15mm						2	
2 - 18mm							
3 - 21mm							
4 - 68mm							
5 - Other							Note



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