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SPK81 Flow Switch

Features

- Optional power supply 24VDC or 220VAC
- OLED LCD screen, switchable display between the progress bar and digital display
- All stainless steel housing, IP67 protection
- Temperature compensation
- 2-way PNP | 2-way NPN | 1 relay output are optional
- No moving parts, maintenance-free
- Switch output, control point setting continuously on panel
- Compact size, support inverted display
- Mounting joint can be equipped with different interfaces for a variety of pipe diameters requirement



Introduction

SPK81 flow switch is an intelligent thermal diffusion principle-based flow monitoring sensor. It adopts ARM processing core and combines with high quality sensors and dedicated circuit. With temperature-compensation and calibration, it can ensure measurement accuracy in the case of water temperature change. It is available for real-time monitoring of pipe water flow. It can be used for cooling or lubrication system flow monitoring to realize pre-warning and protection for critical equipment when there is flow fault. It uses fully enclosed design, stainless steel construction to adapt to a variety of application environment. It is with overvoltage, overcurrent and reverse polarity protection function. With self-luminous OLED screen, it allows switchable display between the progress bar and digital display numbers. SPK81 supports quick action point set, also it has display inversion function that enables installation in any direction, and no need for frequent adjustment and maintenance. It can be applied for operation protection of large equipment in fields such as power generation, metallurgy, steel, paper, boilers etc.

Specification

Switch-off Time: 1s ~ 15s, 2s(typ.)

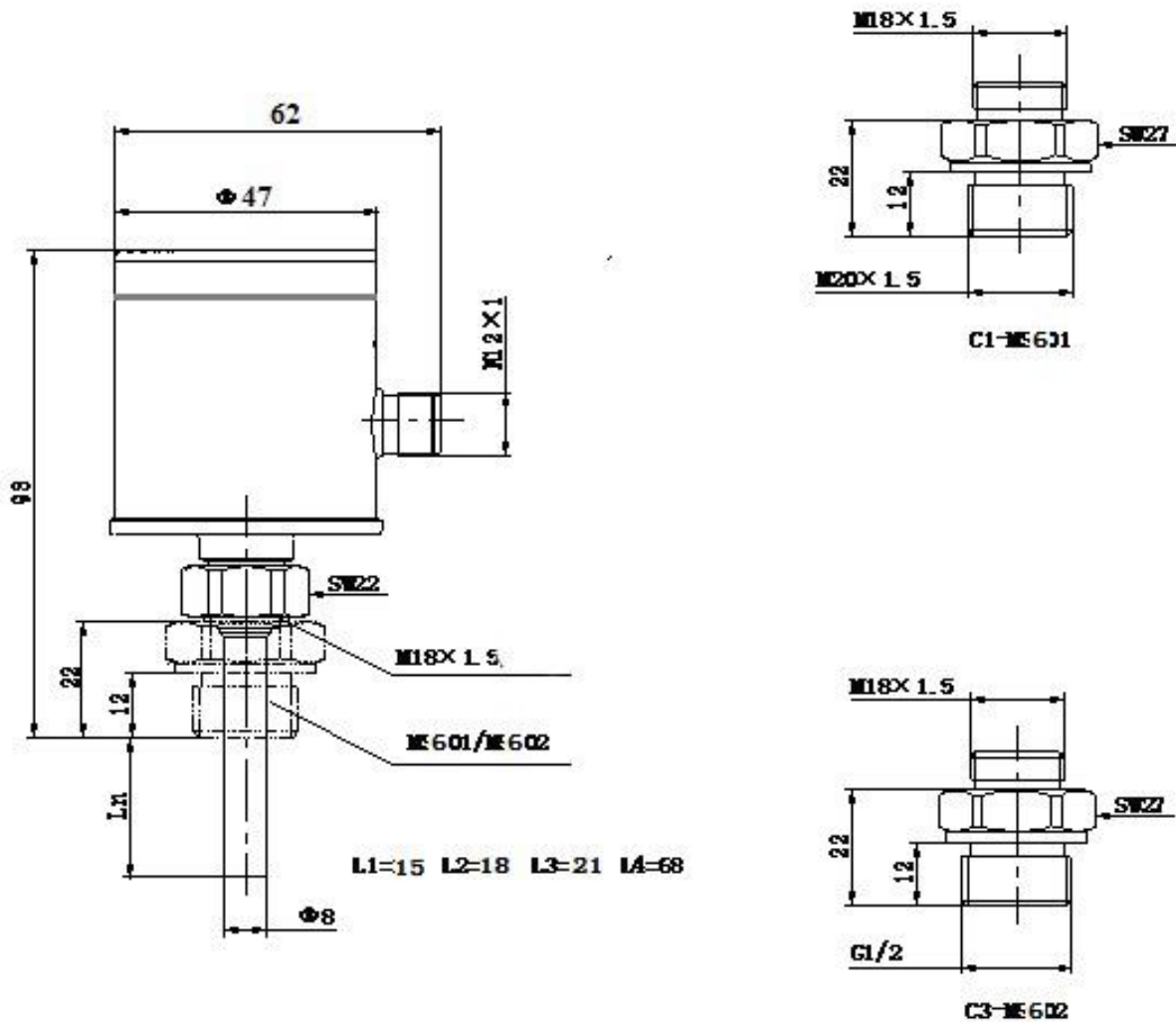
Measure Range: 1cm/s ~ 150cm/s (water); Optimal Range: 3cm/s ~ 100cm/s (water) Power Supply: (220±44)V AC; (24±4.8)V DC Working Current: ≤ 60mA Switch accuracy: ±10cm/s Hysteresis: ±2cm/s ~ ±8cm/s Initial time: 2s ~ 15s, 8s(typ.)	Output signal: 1 relay 2-way PNP 2-way NPN (optional) Output Function: NO,NC (optional) Relay Characters: Switch voltage: ≤ 250V AC / 30V DC Switch Current: ≤ 3A; Transistors Characters: Switch Voltage Drop: ≤ 1.5V Switch Current: ≤ 400mA
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SPK81 Flow Switch (V1.0)

Switch-on time: 1s ~ 13s, 2s(typ.)	Display: OLED indicator, resolution 128×32 Electric Protection: Reverse, short-circuit, over-voltage
Housing: S.S. Button: PP Probe: S.S. Installation: Joint mounting + adaptor Endurance Pressure: 10MPa Set: Button Electric Connection: M12×1 5-pin plug Gross weight : 265g	Water Temp. : -20℃ ~ 80℃ Storage Temp. : -30℃ ~ 85℃ Working Temp. : -20℃ ~ 70℃ Protection: IP67 Temperature Compensation: 5℃ ~ 50℃(water) Electromagnetic Compatibility: GB/T 17626.2/3-2006, GB/T 17626.4-2008 Shock: ≤ 20g (GB/T 2423.10-2008) Impact: ≤ 50g/11ms (GB/T 2423.5-1995)

Note: The above specification test medium is water; 5cm/s~100cm/s; 20℃(Factory defaults)

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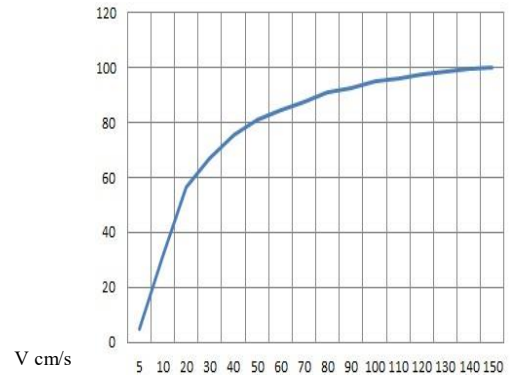
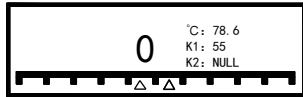
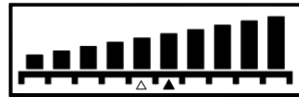
Two Display:

Curvilinear relation between digital indication and velocity:

Value

Progress Bar:

Digital Display:



▲ --Switch Point K1 △ --Switch Point K2

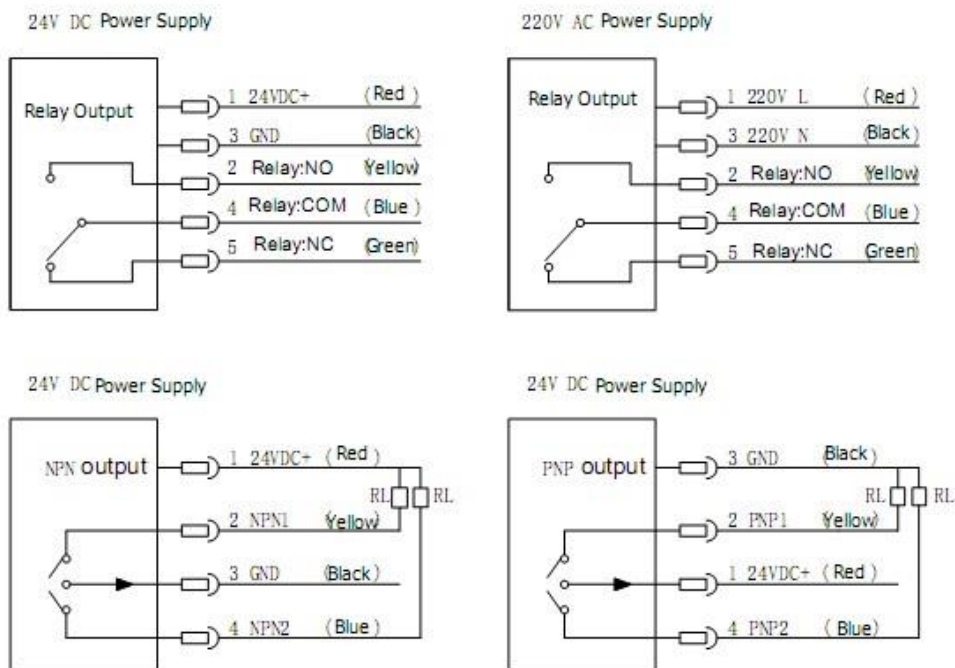
When Switch Point Sign light is flashing, it indicates that the velocity exceeds the switch action velocity.

Electric Connection

Terminal Definition:

	Color	Pin	220VAC Definition	24V DC Definition
<p>M12 x 1</p>	Red	1	Power L	IN+
	Black	3	Power N	IN-
	Yellow	2	Relay: NO	Replay NO, NPN1, PNP1
	Green	5	Relay: NC	Relay NC
	Blue	4	Relay: COM	Relay COM, NPN2, PNP2

Electric Connection



Order Guide

SPK81	Flow Switch				
	Code	Others			
	DC	24V DC			
	AC	220V AC (relay only)			
		Code	Pressure Connection		
		C1	M20×1.5 male adaptor (MS601)		
		C3	G1/2 male adaptor (MS602)		
			Code	Output	
			J	1×Relay Output	
			P	2×PNP Transistor Output (24V DC only)	
			N	2×NPN Transistor Output (24V DC only)	
				Code	Probe Length
				L1	18mm
				L2	28mm
				L3	40mm
				L4	68mm
SPK81	DC	C3	J	L1	Whole Spec.

Optional accessories: SP901 2m 5-pin M12×1 Female Elbow RVVP Cable(Standard)

SP601 M20×1.5 male adaptor

SP602 G1/2 male adaptor

Notes

1. Pressure port can be customized for users. Please note in the purchase order.
2. If users have special requirement, please contact us freely.