

SystempaK (Analog Type) Monitor Switch Module Model J-SMS 60

Introduction

The Monitor Switch Module (J-SMS60) provides an alarm contact output when an input signal exceeds the internal pre-set value by comparing the input with the pre-set value. Connection to the Azbil Corporation's Process Controller is made through the 50P connector of the SystempaK File for A-MC. A 1 to 5V DC input can connect to the Analog Input Module (for HAM).

Complete isolation is employed between the power, input, and output circuits.

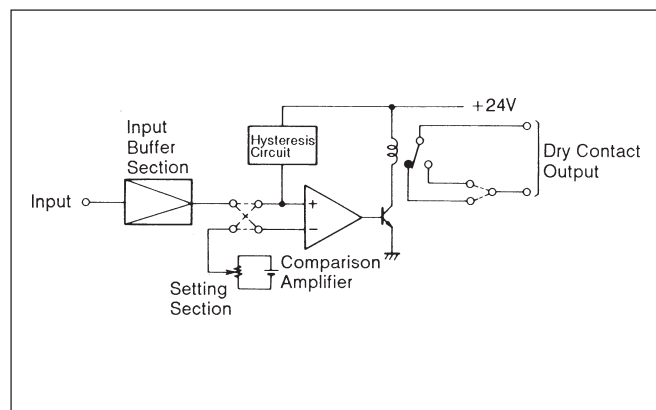
Specification

- Type: One PV, two alarm outputs
- Input signal: 1 to 5V DC or 4 to 20 mA DC
- Input impedance: 250 Ω (current), 1 M Ω (voltage input)
- Edge connector output: 1 to 5V DC (Not isolated from input. Used for a signal to A-MC through the A-MC I/O cable.)
- Output signal: Dry contact SPST
- Output contact capacity: 30V DC, 1A (resistive load)
100V AC, 0.3A (resistive load)
- Number of alarm points: Two points
- Alarm action:
 - Two-point alarm; Normally de-energized, or energized Hi of Lo, Hi and Hi, or Lo and Lo alarm
- Relay coil: Setting of energized or de-energized during alarm off times (by setting jumper)
- Relay contact: Setting of a-contact or b-contact (by setting jumper)
- Alarm setting range: 0 to 100%FS
- Dead band: 0.25%FS or less
- Setting accuracy: $\pm 0.25\%$ FS
- Insulation resistance: 500V DC, 100 M Ω min
(Mutual between input - output - GND - power terminal)
- Withstand voltage: 1000V AC, 1 minute
(Mutual between input - output - GND - power terminal)
- Power supply: 24V DC $^{+10}_{-15}\%$
- Current consumption:
 - 80 mA max. (at 24V) (two-point alarm)
- Ambient temperature:
 - Normal operating condition; 5 to 45°C
 - Operation limit; -5 to 55°C
- Ambient humidity: 0 to 90%RH
- Mounting: File
- Front mask color: Black
- Weight: 250 g
- Operating influence:
 - Supply voltage effect; $\pm 0.1\%$ FS/24V DC $^{+10}_{-15}\%$
 - Temperature effect; $\pm 0.25\%$ FS/10°C



Theory of Operation

An input provides a high common noise rejection by the high impedance amplifier in the Input Buffer circuit, and the Filter circuit removes any AC noise, resulting in stable 1 to 5V DC signal. The Comparison Amplifier compares an input signal with the pre-set signal (1 to 5V DC) to actuate the relay. The Hysteresis circuit prevents chattering when restoring the Comparison Amplifier after its operation.



Model Number Table

Basic Model Number	Selections		Additions	Description
	I	II		
J-SMS60				Monitor Switch Module (Analog Type)
	X			No varnish coated
	C			Varnish coated
		-1		Input signal: 1 to 5V DC
		-2		Input signal: 4 to 20 mA DC
			X	No Selections II
			-0	Without test report
			-1	With test report

Example: J-SMS60X-1X-0

Note) When ordering, specify the following alarm output type and Hi or Lo alarm setting value (%)

Output type	Relay coil (During alarm off times)	Output contact (During alarm off times)
N	De-energized	Open (a-contact)
A	De-energized	Closed (b-contact)
B	Energized	Closed (a-contact)
C	Energized	Open (b-contact)

Dimensions and Wirings

• Terminal screws: M3.5
• Use the pressured terminals with insulation sheath.

No.	Description
1 ^{*1}	—
2 ^{*1}	Input (-)
3	Input (+)
4	Output 1
5	Output 1
6	Output 2
7	Output 2
8	—
9	GND

*1 : 250Ω resistor is added for current input.

Please read the "Terms and Conditions" from the following URL before ordering or use:

<http://www.azbil.com/products/bi/order.html>

Specifications are subject to change without notice.

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