

SystempaK (Digital/Single Case) Monitor Switch Module Model J-SSP 80

Introduction

The Monitor Switch Module (J-SSP 80) is a signal conversion module housed in a single case and provides PV monitor and rate of change functions.

The J-SSP 80 issues an alarm contact output when an input signal exceeds the internal pre-set value by comparing the input with the pre-set value.

The rate of change function issues an alarm contact output when a rate of change of input signal exceeds the internal pre-set value (rising or lowering direction).

The Monitor Switch Module provides the built-in square root extraction function for input processing of differential pressure flowmeter.

Setting of these functions are done with dedicated Handy Communicator (J-SHC00) in the field.

Specification

Input signal:

1 to 5V DC or 4 to 20mA DC

Input bias current:

-1 μ A or less (voltage)

Input impedance: 250 Ω (current)

Output signal: Dry contact SPST

Number of alarms: 2 points

Output contact capacity:

30V DC, 1A (resistive load)

100V AC, 0.3A (resistive load)

Alarm output state:

Setting of normally energized or de-energized (by Handy Communicator).

Setting of normally open or closed contact (by setting jumper).

Alarm action:

PV monitor;

Upper or lower limit (One-point alarm)

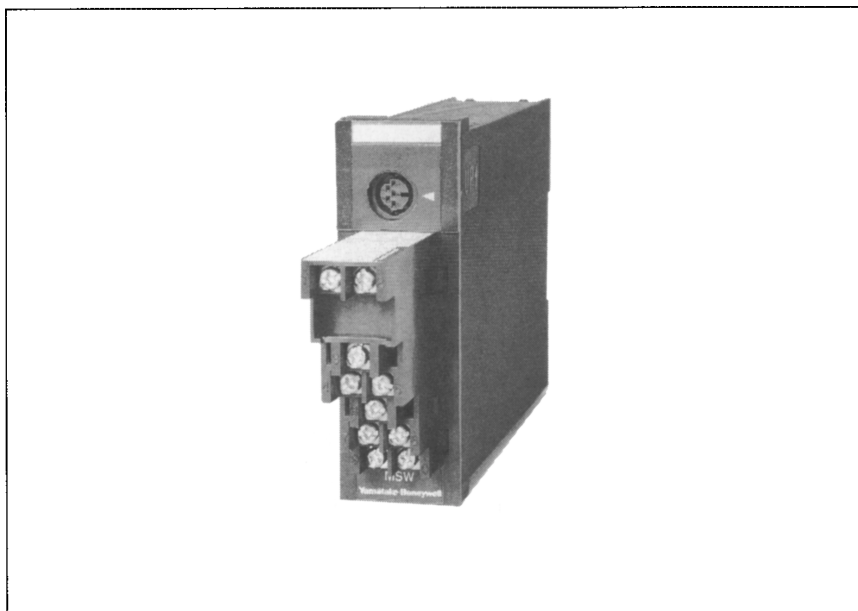
Upper/lower limit, or upper/upper or lower/lower limit (Two-point alarm)

Rate of change monitor;

Rising or lowering rate of change

Digital filter setting range:

0 to 999.9 seconds



Alarm setting range:

PV monitor; -5 to +105%

Rate of change monitor;

Rising rate of change —
0 to +799.9%FS/min.

Lowering rate of change —
0 to -699.9%FS/min.

Dead band (hysteresis width):

0.0 to 100.0%FS

Setting accuracy:

PV monitor; $\pm 0.1\%$ FS

Rate of change monitor;

Width of change — $\pm 0.1\%$ FS

Time — $\pm 1/16$ min.

[For 1 min. of measuring time at rate of change setting less than 100% and for 1/8 min. of measuring time at rate of change setting more than 100%]

Common mode rejection ratio:

120dB (at 50Hz)

Power supply: 24V DC $\pm 15\%$

Current consumption:

200mA or less (at 24V DC)

Ambient temperature: 5 to 45°C

Ambient humidity: 0 to 90%RH

Mounting:

Panel, Wall, DIN rail mounting

Color of front mask: Black

Weight: 450g

Operating influence:

Supply voltage effect;
 $\pm 0.2\%$ FS/24V DC $\pm 15\%$

Temperature effect;
 $\pm 0.2\%$ FS/10°C

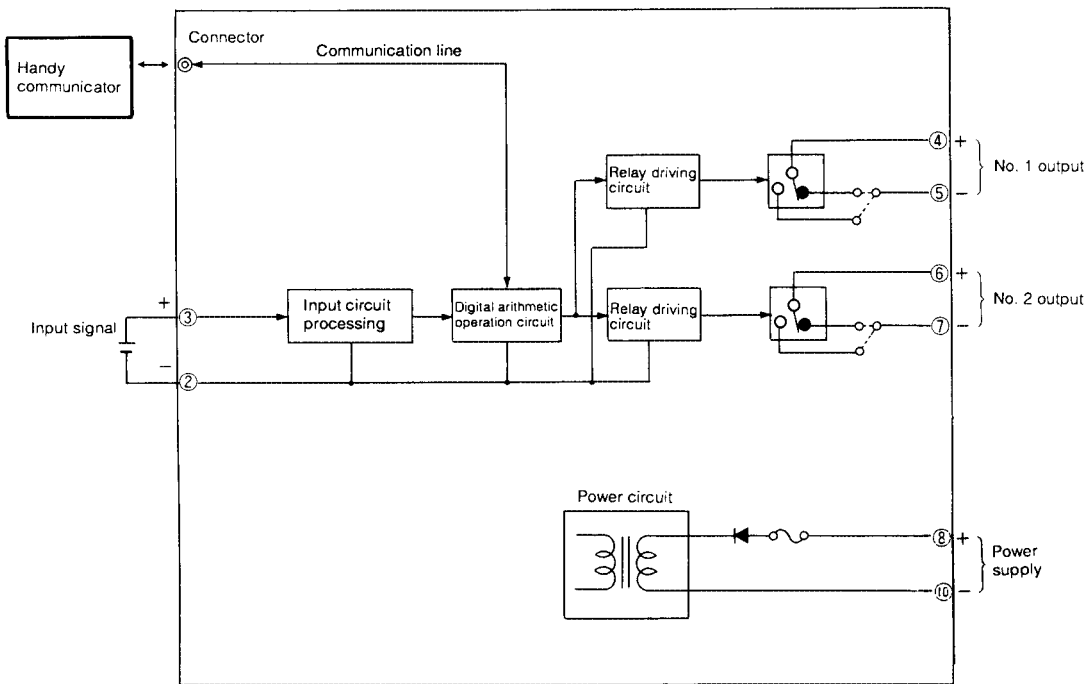
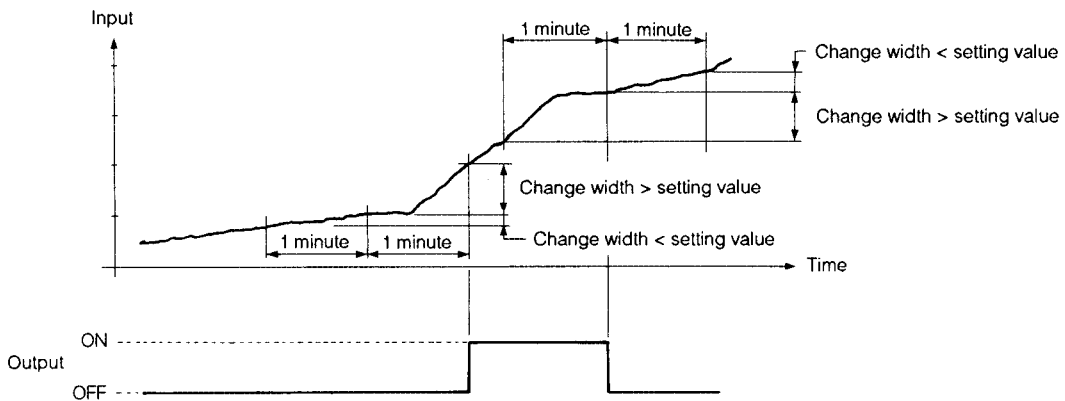


Figure 1. Functional block diagram of monitor switch module

(1) Rate of change setting less than 100%;

An alarm issues when the width of change exceeds its setting value by comparing the difference between the sampling data before 1 minute and current value with a positive or negative side of the change width setting after sampling 16 data for one minute (data per 1/16 minute).



(2) Rate of change setting more than 100%;

An alarm issues when the width of change exceeds its setting value by comparing the difference between the sampling data before 1/8 minute and current value with a positive or negative side of the change width setting after sampling 2 data for 1/8 minute (data per 1/16 minute).

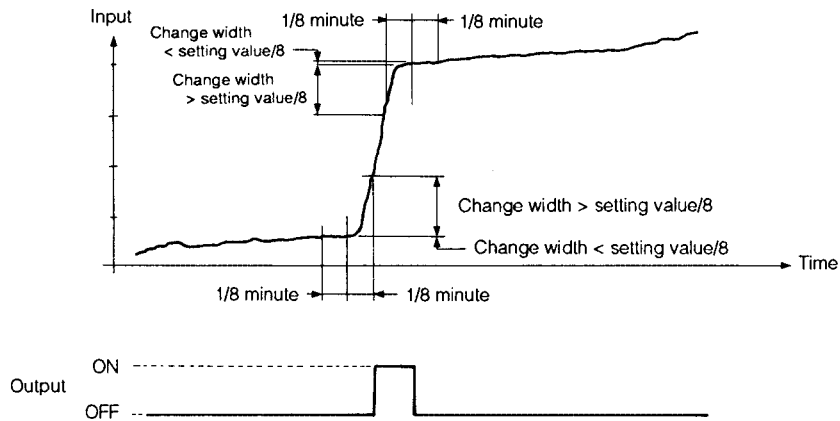
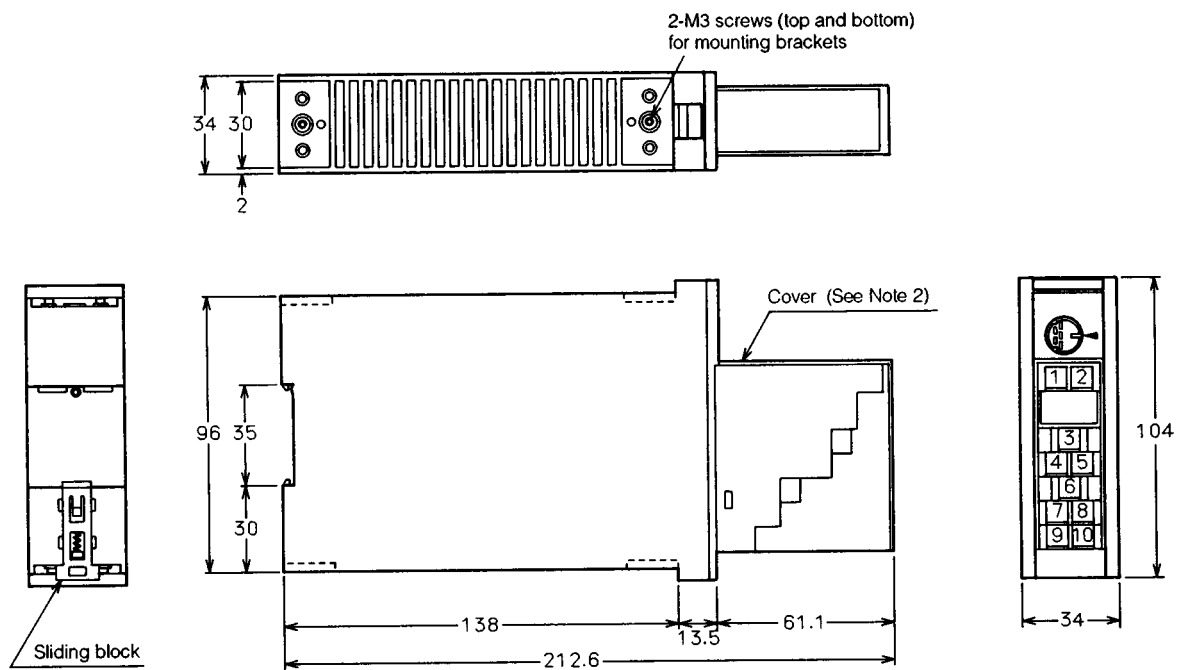


Figure 2. Operation of rate of change monitor

Model Number Table

Basic model number	Selections		Description
	I	II	
J-SSP 80			Monitor Switch Module
	- 1		Input 1 to 5V DC
	- 2		Input 4 to 20mA DC
		X	w/o selection



No.	Description
1 (Note 1)	—
2 (Note 1)	Input (-)
3	Input (+)
4	Output 1
5	Output 1
6	Output 2
7	Output 2
8	24V (PS +)
9	GND
10	0V (PS -)

- Note 1) 250Ω resistor is added for current input.
 2) Operate the module with a cover.
 3) Terminal screws: M3.5
 4) Use the pressured terminals with insulation sheath.

Figure 3. Dimensions and wiring diagram

Ordering Information

When ordering, please specify:

- 1) Tag number
- 2) Monitor function
 - PV monitor
 - Rate of change monitor
- 3) Setting data
 - PV monitor; #1 Hi/Lo/Non,
#2 Hi/Lo/Non
SP1, SP2
 - Rate of change monitor;
SP1+, SP1-
SP2+, SP2-
- 4) Output contact types for SP1 and SP2 (normal operation);
 - Standard: Open (N.O), de-energized
 - A: Close (N.C), de-energized
 - B: Close (N.C), energized
 - C: Open (N.O), energized

Specifications are subject to change without notice.

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