azbil Specification

SystempaK (Digital/File Type) Integrator Module

Model J-SAZ 90

Introduction

The Integrator Module (J-SAZ90) converts an input signal to a pulse and continuously counts it in conjunction with the counter. In addition to the proportional integration of inputs linearly, the Integrator Module, which provides the input linearization function as a standard function, can serve alone as a square root extractor.

The input range, linearization, output pulse width and other such setting changes are easily done with the dedicated Loader Software, which operates on a general-purpose PC.

Specification

- Input signal: 1 to 5V DC or 4 to 20 mA DC
- Input impedance: 1 MΩ (voltage input), 250 Ω (current)
- Input linearization: 101 linearization points
- Square root extraction:
  Input linearization is used (dropout function available).
  Output circuit (Specifying of model): Triac (for driving the AC/DC electromagnetic counter) or open collector
- Maximum allowable load:
  Triac; 24V DC 250 mA
  Open collector; 30V DC 30 mA
- ON voltage:
  Triac; 2V or less
  Open collector; 0.4V or less
- ON current: 250 mA or less (Triac)
- Specified circuit voltage:
  200V DC, 130V AC or less (Triac)
- Maximum output frequency setting:
  Triac; 0.000278 HzFS to 5 HzFS
  Open collector; 0.000278 HzFS to 2 kHzFS
- Pulse width type:
  Selectable from 50% duty, fixed on-pulse, or fixed off-pulse. (Open collector output only)
- Pulse width time (ON time):
  Triac; Fixed at 100 msec
  Open collector; 50 μ sec to 1 sec (On the basis of 1 μ sec)
- Input low-level cut: Specifying of low cut value by %.
- Output low-level cut: Specifying of low cut frequency (7 digits).
- Accuracy: See the accuracy table:

Maximum output frequency setting	Output span width	Output accuracy % of output span
0.00278 HzFS to 1 kHzFS	When 50% or more of frequency set maximum output	±0.1%
	When 50% or less of ditto	±0.1%×("Full-scale set output frequency"/2) / ("Full-scale set output frequency" - "0% set output frequency")
1 kHzFS to 2 kHzFS	---	±0.2%×("Full-scale set output frequency"/2) / ("Full-scale set output frequency" - "0% set output frequency")

- Arithmetic period: 5 msec
- Input/output response:
  Minimum of 120 msec (0 to 90% response)
- Insulation resistance: 500V DC, 100 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: 200 mA or less (at 24V)
- Ambient temperature:
  Normal operating condition; 5 to 45℃
  Operation limit; 0 to 50℃
- Ambient humidity: 0 to 90%RH (No condensation allowed)
- Mounting: File
- Color of front mask: Black
- Weight: 250 g
- Operating influence:
  Supply voltage effect; ±0.1%FS/24V DC $^{+10}_{-15}$ %
  Temperature effect; ±0.15%FS/10℃
- Loader settings:
  Module ID; 16 one-byte characters, 8 two-byte kanji characters
  Input scaling setting; Zero span setting within input range (Setting of an input such as 0, 100% at each input)
  Linearization setting; 101 points
  Input filtering; Unavailable/available (Moving average)
  Output low-level cut; Without/with (Low-level cut frequency is variable; Specify it by frequency in 7 digits.)
  Pulse width type; Selectable from 50% duty, fixed on-pulse, or fixed off-pulse.
  (For open collector output)
  Pulse width time; When set to fixed on-pulse or fixed off-pulse type. (For open collector output)
  50 μ sec to 1 sec (1 μ sec resolution)
- Output zero span adjustment:
  Setting of any value within output range (0.00278 Hz to 2 kHz F.S.). Minimum span: 10 C/H

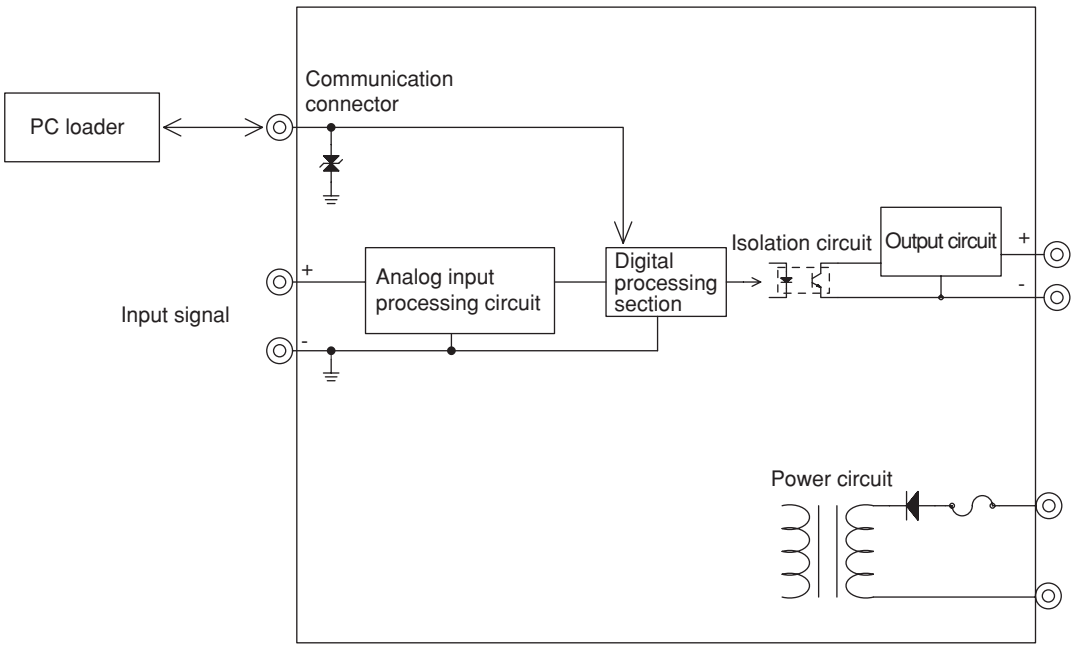
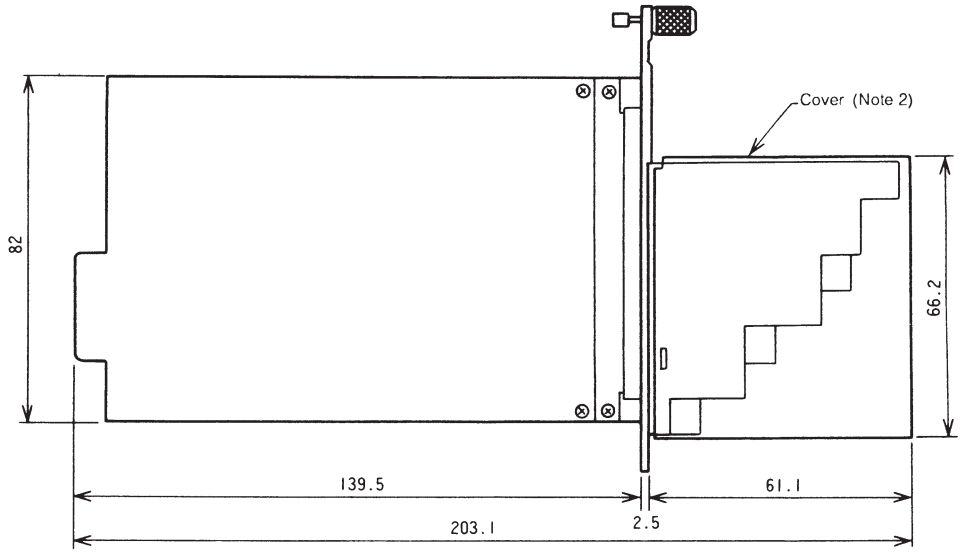


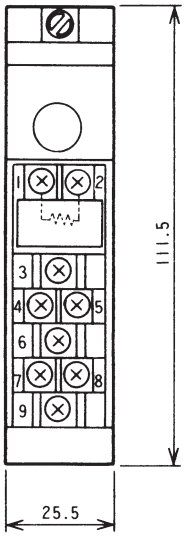
Figure 1. Functional block diagram of integrator module

Model Number Table

Basic model number		Selections		Additions	Description
		I	II	I	
J-SAZ90					Integrator Module
	X				No varnish coated
	C				Varnish coated
		-1			Input: 1 to 5V DC
		-2			Input: 4 to 20 mA DC
			1		Output: Non-contact output
			2		Output: Open collector
				-0	Without test report
				-1	With test report

Example: J-SAZ90X-12-0





No.	Description
1 (Note 1)	——
2 (Note 1)	Input (–)
3	Input (+)
4	Output
5	COM
6	——
7	——
8	——
9	GND

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 2. Dimensions and wiring diagram

When ordering, please specify:

1) Tag number

2) Maximum output frequency* [Set to 0 to 1 Hz by default]

The following are also set by default:

a) Input linearization setting: Linear

b) Output low cut: Unavailable

c) Pulse width type: 50% duty

* Use the quick list below when specifying the range. Ranges other than those below are also accepted.

Code No.	Range
01	0 to 0.0278Hz (0 to 100C/H)
02	0 to 0.2778Hz (0 to 1000C/H)
03	0 to 1Hz
04	0 to 10Hz
05	0 to 100Hz
06	0 to 1kHz
07	0 to 5kHz

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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