

General Specifications

Model SIND (Style R) Integrator

YEW SERIES 80

GS 01B04M01-02E

■ GENERAL

The SIND Integrator is a voltage-to-pulse converter that converts 1 to 5 V DC inputs to corresponding pulse frequency output. It can be used with a YS80 series SICD counter to totalize flow quantity.

Two integrating modes are available: proportional integration that directly totalizes the input, and square root integration that totalizes square-root values. The JHT200 Handy Terminal¹ is used for setting Alarm Unit parameters. On the SIND model with display setter (SIND-□04), input indication (engineering unit) and alarm settings can be set on the front panel.

- *1:
- The BT200 BRAIN Terminal of YOKOGAWA Electric Corporation can also be connected.
 - The adapter for modular jack (E9786WH) is required for connecting the JHT200 Handy Terminal to the Alarm Unit.



Setter	Setting (→, ↑, SET, △) switches	4
	Setting enable switch	1
	Integrating ratio and low input cutoff can be set.	

■ STANDARD SPECIFICATIONS

Input Signals

Input: 1 to 5 V DC
 Number of inputs: 1
 Input resistance: 1 MΩ

Output signal

Output: Transistor contact or SICD counter drive pulse (24 V DC)
 Number of outputs: 2
 Load current:
 Transistor contact 30 V DC, 150 mA or less
 SICD counter drive pulse 24 V DC, 150 mA or less
 Integration mode: Proportional or square root
 Integrating ratio range: 1 to 10000 pph
 Pulse ON Time: 30 ms and 60 ms²

- *2: Number of outputs becomes 1 as two outputs are shared.
- Low input cutoff:
 In proportional integration mode: Input cutoff level set to 0 to 10% of input signal.
 In square-root integration mode: Input cutoff level set to 0.3 to 10% of input signal.
- BRAIN Communication Function:
 Parameters are set and functions specified by the JHT200 Handy Terminal¹.
- Indication Setting Function (SIND-□04):
 Digital indicator 5-digit 7-segment LED (1 row)
 Indication range: -19999 to +32000 (decimal point selectable)
 At input value indication LED indicator is out.
 LED indicators (PPH, LCT: green)
 At integrating ratio (PPH) indication: Lit
 At low cutoff level indication (LCT): Lit

■ MOUNTING AND APPEARANCE

Mounting: Rack mounting
 Wiring
 Signal Wiring: ISO M4 size (4 mm) screws on terminal block
 Power and Ground Wiring
 100 V version: JIS C 8303 two-pin plug with earthing contact
 200 V version: CEE 7 VII (CENELEC standard) plug
 Cable Length: 300 mm
 External Dimensions (depth behind panel):
 180 (H) x 48 (W) x 300 (D) (mm)
 Weight: 1.7 kg (including rack and case)

■ STANDARD PERFORMANCE

Accuracy: ±0.5% of span
 Maximum Power Consumption

Integrating ratio	Power Supply		
	24 V DC	100 V AC	220 V AC
1000 pph	100mA	7.3VA	10.2VA
10000 pph	190mA	10.8VA	13.7VA

Insulation Resistance
 Between I/O terminals and Ground: 100 MΩ/500 V DC
 Between Power and Ground: 100 MΩ/500 V DC
 Dielectric Strength
 Between I/O terminals and Ground:
 500 V AC for 1 minute
 Between Power and Ground:
 1000 V AC for 1 minute (100 V version)
 1500 V AC for 1 minute (220 V version)

NORMAL OPERATING CONDITIONS

Ambient Temperature: 0 to 50°C
 Ambient Humidity: 5 to 90%RH (non-condensing)
 Power Supply: AC/DC both usage
 100 V version: DC drive 20 to 130 V, no polarity
 AC drive 80 to 138 V, 47 to 63 Hz
 220 V version: DC drive 120 to 340 V, no polarity
 (/A2ER) AC drive 138 to 264 V, 47 to 63 Hz

OPTIONS

/A2ER: 220V version with power supply plug
 /NHR: Without case
 /TB: With power supply terminal (for 100V version)

ACCESSORIES

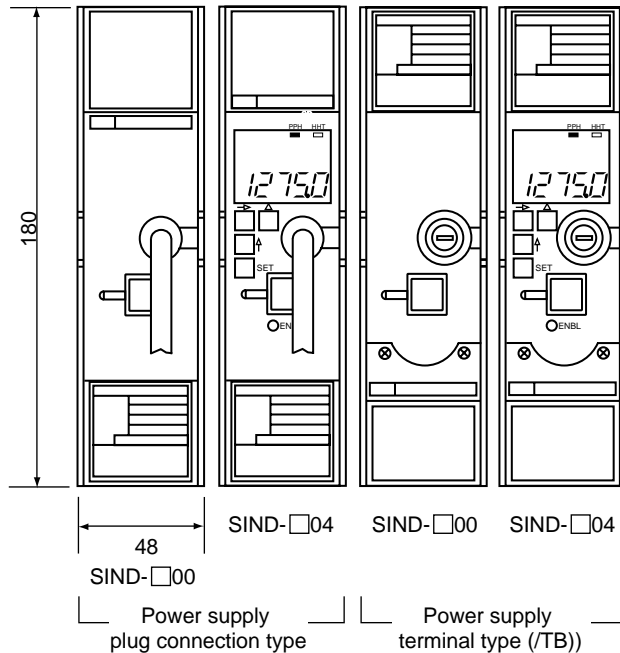
Fuse (1A): 1, Alarm label: 1 sheet,
 Integrating ratio label: 1 sheet

MODEL & SUFFIX CODES

Model	Suffix Codes	Description
SIND	-----	Integrator
Output	-1 -----	Not provided (proportional output)
	-2 -----	Provided (square-root output)*1
Indication setter	00 -----	Not provided
	04 -----	Provided
Style Code	*R -----	Style R
Option	/A2ER	220V version power supply plug
	/NHR	Without case
	/TB	With power supply terminal (for 100V version)

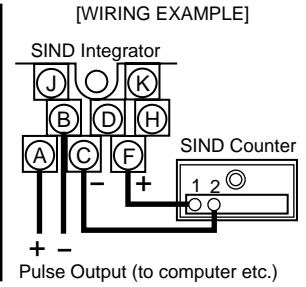
*1: When square-root output is specified, SIND is shipped as a square-root integrating mode. This mode is changeable to proportional output type by JHT200 Handy Terminal.

EXTERNAL DIMENSIONS



TERMINAL CONNECTIONS

Terminal Designation	Description
1	+ Input
2	- Input (1 to 5 V DC)
3	
4	
5	
6	
7	
8	



Terminal Designation	Description	
	SICD Counter Drive Pulse	Transistor Contact
A	- SICD drive pulse-1 (*1, 3, 4)	+ Transistor contact-1 (*2, 3, 4)
B		COM
C	- SICD drive pulse-2 (*1, 3, 4)	+ Transistor contact-2 (*2, 3, 4)
D		
F	+ Pulse Output (to computer etc.)	
H		
J		
K		

- *1: Pulse signals can also be used to drive an electromagnetic counter of rating 24 V DC, 150 mA or less.
- *2: Transistor contact output can be used to provide a pulse output signal to a computer or used to drive another counter when combined with an external power supply.
- *3: When terminals A and C are shorted, a pulse signal with ON time of 60 ms is generated across between terminals A-C and F, and terminals A-C and B.
- *4: When a counter other than SICD is used, connect a surge voltage protective diode in parallel with the counter coil.

ORDERING INSTRUCTIONS

1. Model and suffix codes and option codes, if necessary

