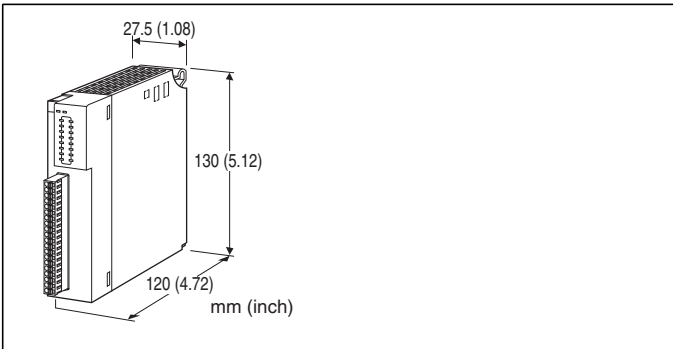


## Remote I/O R3 Series

### TOTALIZED PULSE INPUT MODULE

(Pi 8 points, 32 Bits)



### MODEL: R3S-PA8[1]

#### ORDERING INFORMATION

- Code number: R3S-PA8[1]
- Specify a code from below for [1].  
(e.g. R3S-PA8W)

#### NO. OF CHANNELS

8: 8

#### [1] COMMUNICATION MODE

S: Single  
W: Dual

#### RELATED PRODUCTS

- Interface module (model: R3-NC1, -NC3, -NE1, -NM1, -NDx, -NFL1, -NF1)
- Count reset by host PC/PLC is able with the above mentioned interface modules of firmware version V2.00 or later, except R3-NF1. Notice that Count reset by host PC/PLC via R3-NF1 or interface module of previous versions of firmware is unable.

#### GENERAL SPECIFICATIONS

##### Connection

**Internal bus:** Via the Installation Base (model: R3-BSx)  
**Input:** Separable tension clamp terminal  
**Power supply:** Via the Installation Base (model: R3-BSx)  
**Applicable wire size:** 0.2 to 1.25 mm<sup>2</sup>, stripped length 10 mm  
**Isolation:** Input to internal power  
**RUN indicator:** Bi-color (red/green) LED;  
 Red when the bus A operates normally;  
 Green when the bus B operates normally;

Amber when both buses operate normally.

**ERR indicator:** Bi-color (red/green) LED;

Red with the input abnormality;

Green in normal operating conditions.

**Input status indicator:** Red LED;

**1 to 8:** Turns on with the inputs supplied.

**9 to 15:** Void

**16:** Turns on with the reset input supplied.

**Count reset:** Via DIP switch on the side or one pulse to reset input

#### INPUT SPECIFICATIONS

**Number of input:** 9 (8 points + Count reset)

**Input resistance:** 6 k $\Omega$

**Common:** Negative commons, all points; 11 terminals

**Maximum frequency:** 100 Hz

(ON/OFF time  $\geq$  5 msec.)

This unit is designed to be able to accept a frequency up to 100 Hz, however, 'chattering' contact must be avoided for accurate measuring of such high frequency. Use mercury relays or similar ones that do not cause any chattering.

**Totalized pulse range:** 0 - 9999999

**Count at overflow:** Reset and restart at '0.' (Max. pulse range selectable from 10000 to 2147483647 using the R3CON PC Configurator Software. '0' or '1' from which restart counting at overflow is pre-settable. Refer to the R3CON Users Manual for detailed information.)

##### INTERNAL EXCITATION

**Sensing voltage:** 13 V DC (max. 24 V with no load)

**ON current:**  $\geq$  1.5 mA ( $\leq$  1.5 k $\Omega$ )

**OFF current:**  $\leq$  0.75 mA ( $\geq$  18 k $\Omega$ )

#### INSTALLATION

**Operating temperature:** -10 to +55 $^{\circ}$ C (14 to 131 $^{\circ}$ F)

**Operating humidity:** 30 to 90 %RH (non-condensing)

**Atmosphere:** No corrosive gas or heavy dust

**Mounting:** Installation Base (model: R3-BSx)

**Weight:** 200 g (0.44 lb)

#### PERFORMANCE

**Data allocation:** 16

**Current consumption:** 70 mA

**Insulation resistance:**  $\geq$  100 M $\Omega$  with 500 V DC

**Dielectric strength:** 2000 V AC @ 1 minute

(input to internal power)

2000 V AC @ 1 minute (power input to FG; isolated on the power supply module)



## FUNCTIONS

### ■ MANUAL COUNT RESET

- 1) Remove Network Module or its cables and interrupt communication with other devices.
- 2) Turn ON the Count Reset SW (DIP SW3-1) on R3-PA8 module.
- 3) Return the module to the base and turn the power supply on.
- 4) ERR LED turns on and the module starts resetting its counter. When the resetting is complete, the LED light turns to green. DO NOT remove the power while the red light is on.
- 5) After the green LED is confirmed, turn the power supply off.
- 6) Turn OFF the Count Reset SW (DIP SW3-1).
- 7) Return the Network module onto the base and turn the power supply on.

Note: Count Reset SW must be turned OFF after this procedure because the module does not start counting with ON state.

Even when the count overflow set value is 1, the counter is reset to 0.

### ■ REMOTE COUNT RESET INPUT

With the Count Reset Input SW (DIP SW3-3) turned ON, the count reset signal value becomes effective.

SW3-3 = OFF: unused

SW3-3 = ON: reset signal.

One pulse supplied at the Count reset input terminal will be recognized as a reset signal.

### ■ REMOTE COUNT RESET OPERATION

- 1) ERR LED turns on (red color) when the reset signal is received.
- 2) In 1 second, the module starts resetting its counter. When the resetting is complete, the LED light turns to green.
- 3) After 1 second, ERR LED turns back to the state before the reset signal has been received.

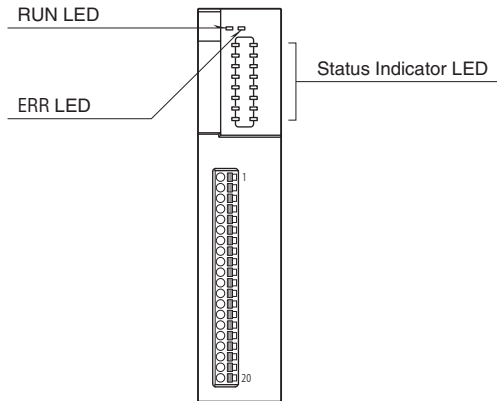
Note: Reset signals received while the module is processing (1) through (3) are ignored.

Even when the count overflow set value is 1, the counter is reset to 0.

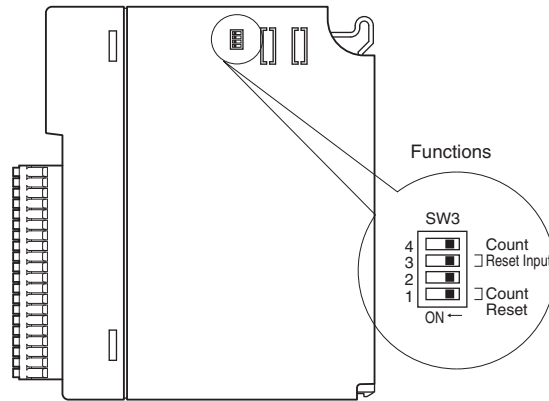


## EXTERNAL VIEW

### FRONT VIEW



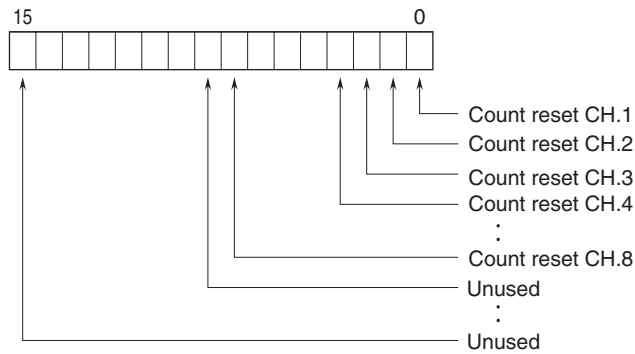
### SIDE VIEW



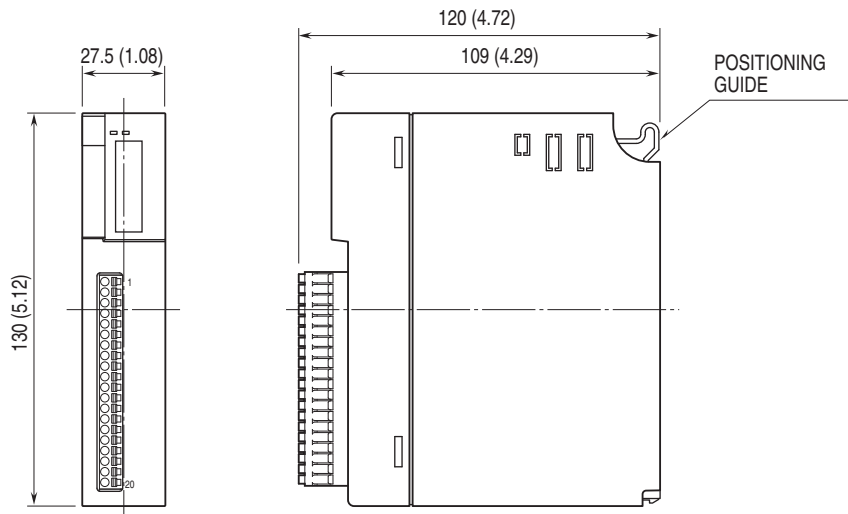
Set the Count Reset SW to OFF to start counting.

## BIT ALLOCATION OF THE FIRST WORD FROM HOST PC/PLC

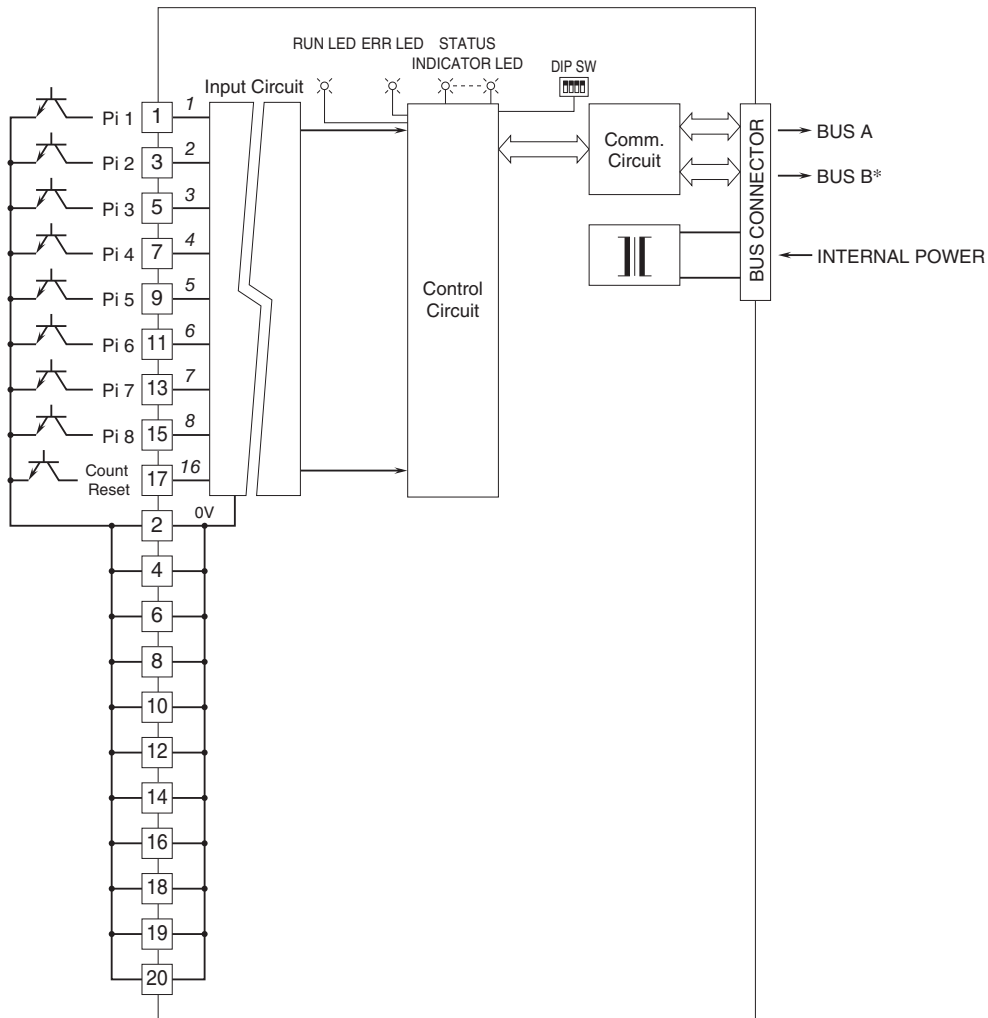
The bits indicating the channels to reset counter are allocated in the first word from host PC/PLC. When these bits are changed from 0 to 1, the counter is reset. When it is confirmed that the counter is reset, return to 0. Notice that if the bit remains at 1, the next reset will not work.



## DIMENSIONS unit: mm (inch)



**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



Numbers in italic indicate LED No.s assigned to the front panel LEDs.  
 \*For dual redundant communication.

**INPUT CONNECTOR**

PIN No.	FUNCTION
1	Pi 1
2	COM
3	Pi 2
4	COM
5	Pi 3
6	COM
7	Pi 4
8	COM
9	Pi 5
10	COM
11	Pi 6
12	COM
13	Pi 7
14	COM
15	Pi 8
16	COM
17	RESET
18	COM
19	COM
20	COM





Specifications are subject to change without notice.

