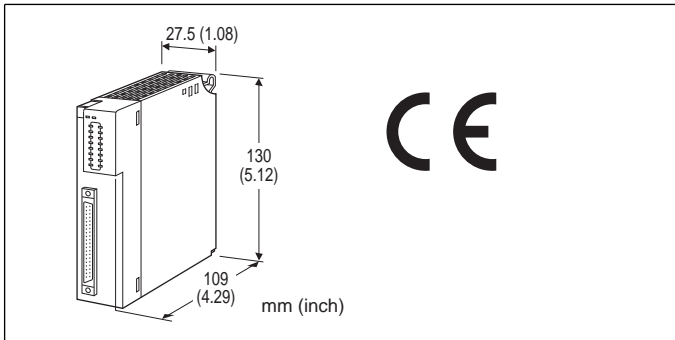


Remote I/O R3 Series

TOTALIZED PULSE INPUT MODULE

(Pi 16 points)



MODEL: R3Y-PA16[1][2]

ORDERING INFORMATION

- Code number: R3Y-PA16[1][2]
- Specify a code from below for [1], [2]
(e.g. R3Y-PA16W/A/CE)

NO. OF CHANNELS

16: 16

[1] COMMUNICATION MODE

S: Single
W: Dual

[2] OPTIONS (multiple selections)

Excitation

Blank: Internal (negative common)
/A: External (24 V DC, negative common)

STANDARDS & APPROVALS

blank: Without CE
/CE: CE marking

GENERAL SPECIFICATIONS

Connection

Internal bus: Via the Installation Base (model: R3-BSx)
Input: 40-pin connector (Fujitsu Model FCN-365P040-AU)
Power supply: Via the base (model: R3-BSx)

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 excitation abnormality;

Green in normal operating conditions.

Input status indicator: Red LED; turns on with the inputs supplied.

Count reset: Via DIP switches on the side

INPUT SPECIFICATIONS

Number of input: 16 points

Input resistance: 6 k Ω

Common: Negative commons, all points

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: 1 - 10000 ('0' at reset)

Max. pulse range selectable from 1 to 65535 using the R3CON PC Configurator Software. Refer to the R3CON Users Manual for detailed information.

Count at overflow: Reset and restart at '1.'

■ R3-PA16x (internal excitation)

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

ON current: \geq 1.5 mA (\leq 1.5 k Ω)

OFF current: \leq 0.75 mA (\geq 18 k Ω)

■ R3-PA16x/A (external excitation)

Sensing voltage: 24 V DC

ON current: \geq 1.5 mA (\leq 12 k Ω)

OFF current: \leq 0.75 mA (\geq 36 k Ω)

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 lbs)

PERFORMANCE

Data allocation: 16

Current consumption:

R3Y-PA16x: 100 mA

R3Y-PA16x/A: 80 mA

Insulation resistance: \geq 100 M Ω 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)

STANDARDS & APPROVALS

CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007



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).
- 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. The RUN LED starts blinking at the same time.
- 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.

■ REMOTE COUNT RESET INPUT

With the Count Reset Input SW (DIP SW3-3) turned ON, the Pi 16 pulse input can be used to remotely reset the count values.

SW3-3 = OFF: Pi 16 is used as a pulse input.

SW3-3 = ON: Pi 16 is used to reset the count values for the Pi 1 through Pi 15. One pulse supplied at the Pi 16 will be recognized as a reset signal.

■ REMOTE COUNT RESET OPERATION

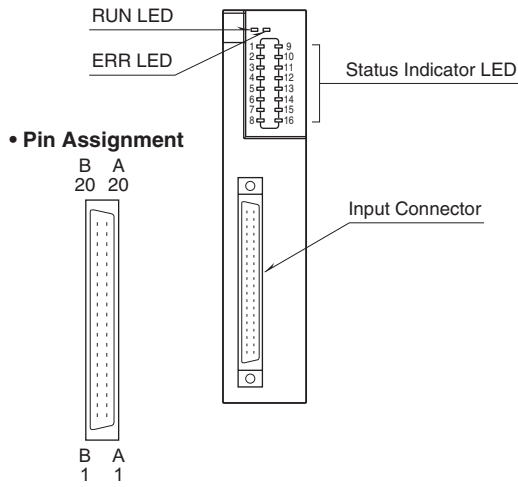
- 1) ERR LED turns on (red color) when the reset signal is received.
- 2) In 1 second, the module starts resetting its counter. When the resetting is complete, the LED light turns to green.
- 3) After 1 second, ERR LED turns back to the state before the reset signal has been received.

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

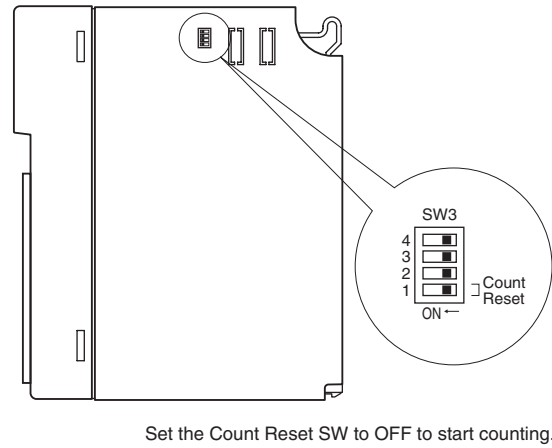


EXTERNAL VIEW

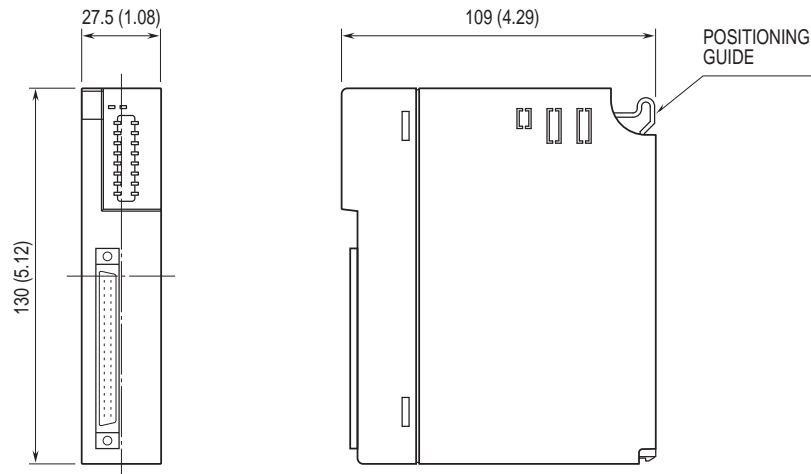
■ FRONT VIEW



■ SIDE VIEW

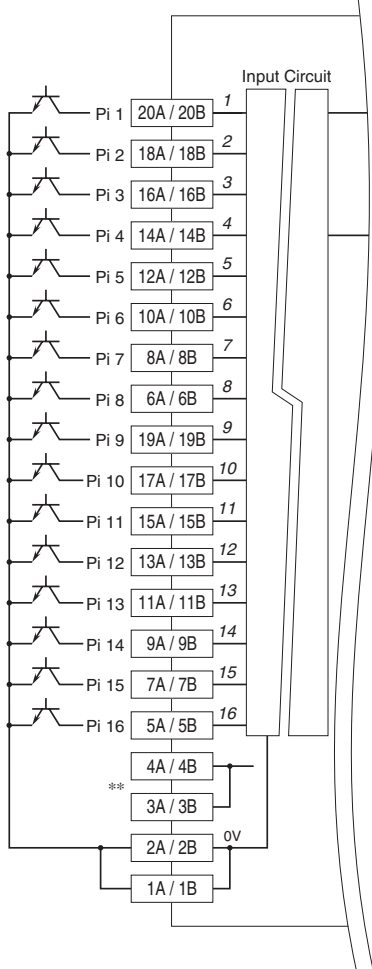


DIMENSIONS unit: mm (inch)

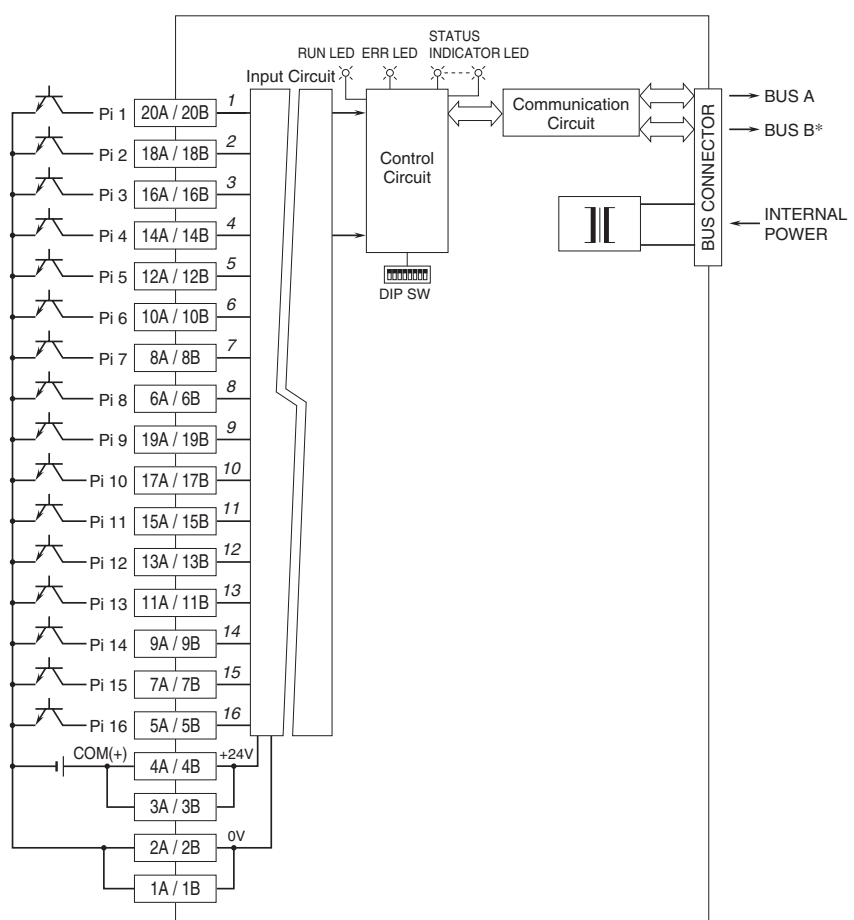


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

INTERNAL POWER



EXTERNAL EXCITATION (OPTION /A)



Numbers in italic indicate LED No.s assigned to the front panel LEDs.

* DO NOT use the pin No. 4A/4B and 3A/3B.

**For dual redundant communication.

INPUT CONNECTOR (40-pin)

PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
1A	0V	1B	0V
2A	0V	2B	0V
3A	+24V	3B	+24V
4A	+24V	4B	+24V
5A	Pi 16	5B	Pi 16
6A	Pi 8	6B	Pi 8
7A	Pi 15	7B	Pi 15
8A	Pi 7	8B	Pi 7
9A	Pi 14	9B	Pi 14
10A	Pi 6	10B	Pi 6
11A	Pi 13	11B	Pi 13
12A	Pi 5	12B	Pi 5
13A	Pi 12	13B	Pi 12
14A	Pi 4	14B	Pi 4
15A	Pi 11	15B	Pi 11
16A	Pi 3	16B	Pi 3
17A	Pi 10	17B	Pi 10
18A	Pi 2	18B	Pi 2
19A	Pi 9	19B	Pi 9
20A	Pi 1	20B	Pi 1





Specifications are subject to change without notice.



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