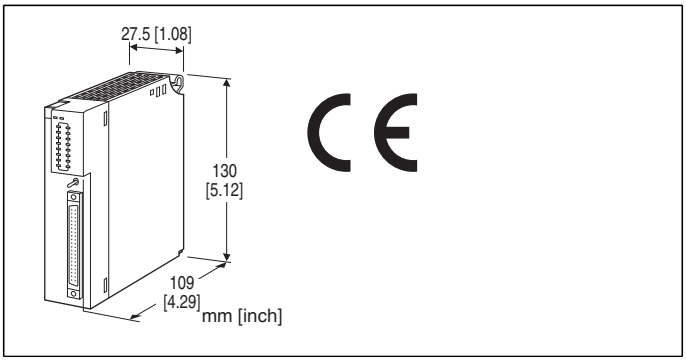
Remote I/O R3 Series

BCD CODE INPUT MODULE

(7-digit BCD)



MODEL: R3–BA32A[1][2]

ORDERING INFORMATION

• Code number: R3-BA32A[1][2]
Specify a code from below for each of [1] and [2].
(e.g. R3-BA32AW/CE/Q)
• Specify the specification for option code /Q
(e.g. /C01)

NO. OF CHANNELS

32: BCD code, 7 digits (4 channels/digit)

EXCITATION SUPPLY

A: External excitation, 24 V DC

[1] COMMUNICATION MODE

S: Single
W: Dual

[2] OPTIONS (multiple selections)

Standards & Approvals
blank: Without CE
/CE: CE marking
Other Options
blank: none
/Q: Option other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to our web site.)
/C01: Silicone coating
/C02: Polyurethane coating
/C03: Rubber coating

RELATED PRODUCTS

• Connector terminal block (model: CNT)
• Special cable with 40-pin connector (model: FCN)

GENERAL SPECIFICATIONS

Connection
Internal bus: Via the Installation Base (model: R3-BSx)
Input: 40-pin connector (OTAX N365P040AU
Fujitsu FCN-365P040-AU...discontinued))
Internal power: Via the Installation Base (model: R3-BSx)
Isolation: Di 11 thru 28 to Di 31 thru 48 to Di 51 thru 68 to Di 71 thru 88 to internal bus or internal power
Strobe signal control: Selectable with the side DIP switch.
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: Green LED turns on in normal operating conditions.
Input status indicator: Red LED; turns on with the input ON.
Group selector: Switches the input status indicator
A. 1 - 8: Di11 - Di28
9 - 16: Di31 - Di48
B. 1 - 8: Di51 - Di68
9 - 16: Di71 - Di88
Read rate: 5 / 10 / 50 / 100 msec. selectable with DIP SW

INPUT SPECIFICATIONS

Number of digits: 7 with strobe signal, 8 without it
Data: 2 words
Data description example
Input data: 1 2 3 4 (4 high digits) 5 6 7 8 (4 low digits)
Address 1: 5678 (4 low digits)
Address 2: 1234 (4 high digits)
Input signal: 24 V DC, 32 points (4 points/digit)
Input resistance: 6 kΩ
Isolation: Optical isolator
Common: 4 positive/negative commons, per 8 points
Contact detecting: 24 V DC ±10 %, approx. 4 mA
ON current/resistance: ≥ 2 mA, ≤ 2 kΩ
OFF current/resistance: ≤ 1 mA, ≥ 18 kΩ

INSTALLATION

Operating temperature: -10 to +55°C (14 to 131°F)
Operating humidity: 30 to 90 %RH (non-condensing)
Atmosphere: No corrosive gas or heavy dust
Mounting: Installation Base (model: R3-BSx)
Weight: 150 g (0.33 lb)

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PERFORMANCE

Data allocation: 4
Current consumption: 90 mA
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength:
500 V AC @ 1 minute
(Di 11 thru 28 to Di 31 thru 48 to Di 51 thru 68 to Di 71 thru 88)
2000 V AC @ 1 minute
(Input to internal bus or internal power)
2000 V AC @ 1 minute (power input to FG; isolated on the power supply module)

STANDARDS & APPROVALS

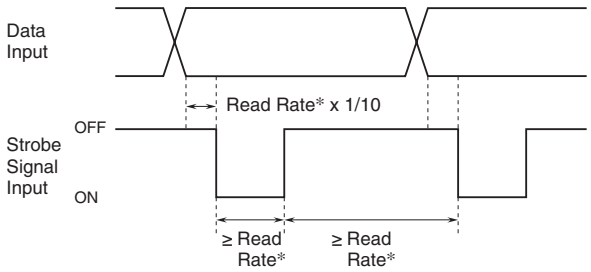
EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive

FUNCTIONS

■ STROBE SIGNAL CONTROL

Controls the timing of reading data. Data is read in when the strobe signal is ON. No data read while it is OFF, even if there is a status change.

■ STROBE SIGNAL TIMING CHART



*Read rate is selectable with SW3.

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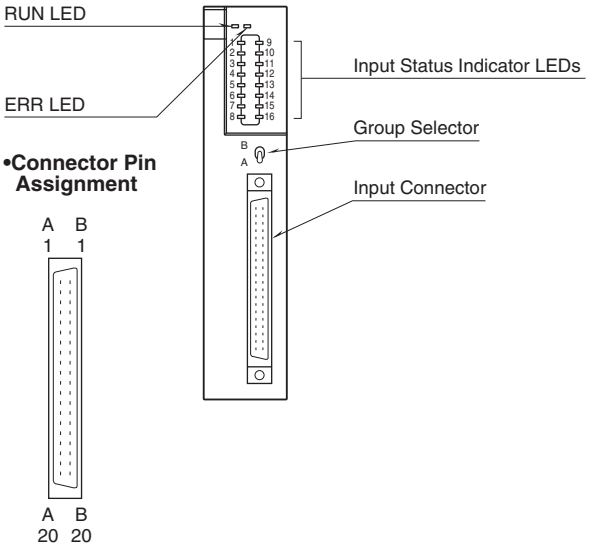
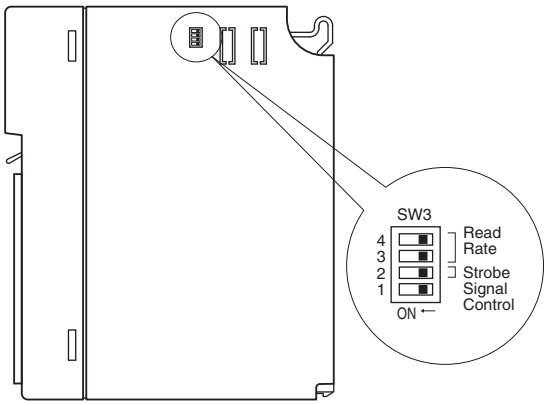
EXTERNAL VIEW

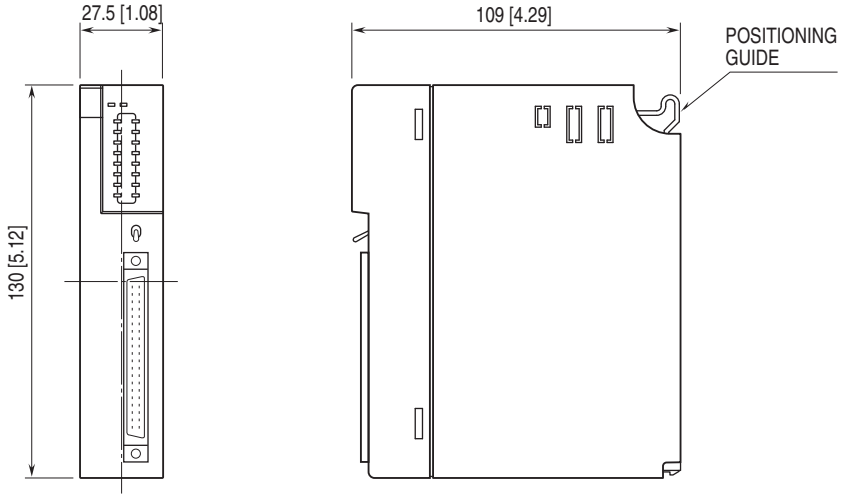
■**FRONT VIEW**



■**SIDE VIEW**



EXTERNAL DIMENSIONS unit: mm [inch]



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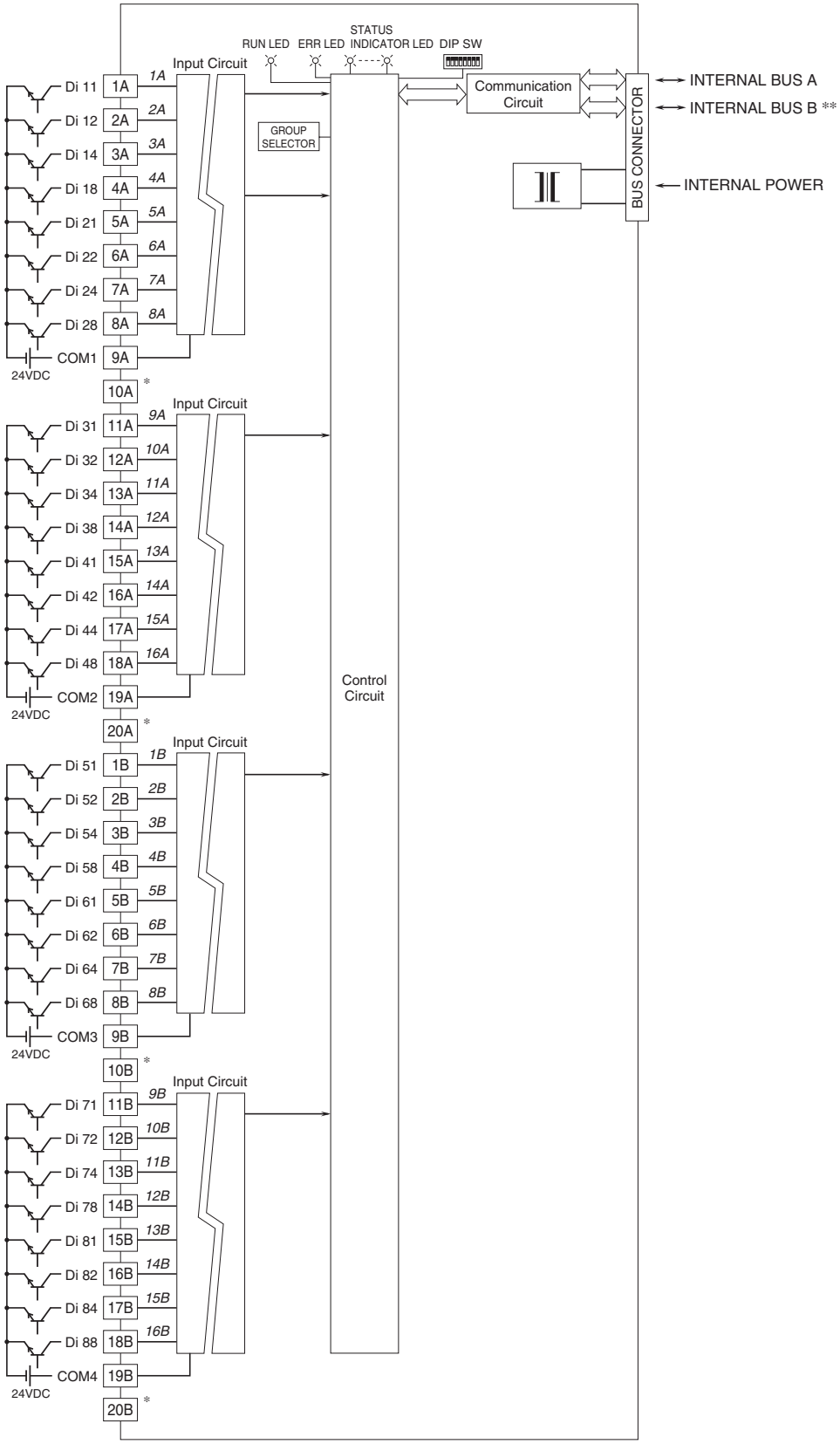
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Numbers in italic indicate LED No.s assigned to the front panel LEDs.
Two groups A or B selected with the front switch.
* Do not use pins 10A, 20A, 10B, 20B.
** For dual redundant communication.

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INPUT CONNECTOR (40-pin)

PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
1A	Di 11	1B	Di 51
2A	Di 12 ($\times 10^0$)	2B	Di 52 ($\times 10^4$)
3A	Di 14	3B	Di 54
4A	Di 18	4B	Di 58
5A	Di 21	5B	Di 61
6A	Di 22 ($\times 10^1$)	6B	Di 62 ($\times 10^5$)
7A	Di 24	7B	Di 64
8A	Di 28	8B	Di 68
9A	COM1	9B	COM3
10A	No Connection	10B	No Connection
11A	Di 31	11B	Di 71
12A	Di 32 ($\times 10^2$)	12B	Di 72 ($\times 10^6$)
13A	Di 34	13B	Di 74
14A	Di 38	14B	Di 78
15A	Di 41	15B	Di 81
16A	Di 42 ($\times 10^3$)	16B	Di 82 ($\times 10^7$)
17A	Di 44	17B	Di 84
18A	Di 48	18B	Di 88 / Strobe
19A	COM2	19B	COM4
20A	No Connection	20B	No Connection

⚠ Specifications are subject to change without notice.

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