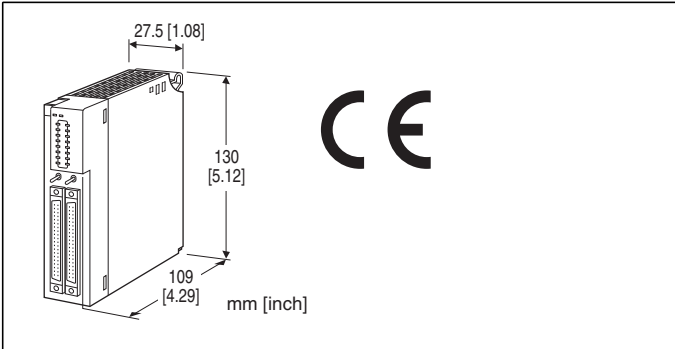


Remote I/O R3 Series

DISCRETE OUTPUT MODULE

(PNP transistor output, 64 points, shortcircuit protection)



MODEL: R3-DC64C[1][2]

ORDERING INFORMATION

- Code number: R3-DC64C[1][2]
- Specify a code from below for each of [1] and [2].
(e.g. R3-DC64CW/CE/Q)
- Specify the specification for option code /Q
(e.g. /C01)

NO. OF CHANNELS

64: 64

OUTPUT

C: PNP transistor

[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 M-System's 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)

Output: 40-pin connector (Fujitsu FCN-365P040-AU)

Internal power: Via the Installation Base (model: R3-BSx)

Isolation: Do11 thru Do18 to Do21 thru Do28 to Do31 thru Do38 to Do41 thru Do48 to Do51 thru Do58 to Do61 thru Do68 to Do71 thru Do78 to Do81 thru Do88 to internal bus or internal power

Output hold setting: Setting for communication error with side DIP SW

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.

Output status indicator: Red LED; turns on with the output ON.

Group selector: Switches the output status indicator
CN1:

A. 1 - 8: Do11 - Do18, 9 - 16: Do21 - Do28

B. 1 - 8: Do31 - Do38, 9 - 16: Do41 - Do48

CN2:

A. 1 - 8: Do51 - Do58, 9 - 16: Do61 - Do68

B. 1 - 8: Do71 - Do78, 9 - 16: Do81 - Do88

OUTPUT SPECIFICATIONS

Output: Open collector, 64 points

Isolation: Optical isolator

Rated load voltage

Nominal: 19.2 to 30 V DC

Absolute: 45 V DC

Rated load current: 0.25 A per point, 1.0 A per common

Voltage drop at ON: ≤ 2.0 V

Leakage current at OFF: ≤ 0.3 mA

(24 V DC load, all points OFF)

ON delay: ≤ 1.0 msec.

OFF delay: ≤ 3.5 msec.

Shortcircuit protection: Works for 0.7 A or more;

automatically resets after recovery

(When driving an inductive load, connect a diode in parallel with the load.)

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: 200 g (0.44 lb)

PERFORMANCE

Data allocation: 4

Current consumption: 160 mA

Insulation resistance: $\geq 100 \text{ M}\Omega$ with 500 V DC

Dielectric strength: 500 V AC @ 1 minute

(Do11 thru Do18 to Do21 thru Do28 to Do31 thru Do38 to Do41 thru Do48 to Do51 thru Do58 to Do61 thru Do68 to Do71 thru Do78 to Do81 thru Do88)

1500 V AC @ 1 minute (output 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

■ OUTPUT HOLD or OUTPUT OFF

In normal conditions, the module outputs the signal from the preferred bus A.

When an error is detected, the output is switched to the data from the bus B.

- **Output Hold**

If both are in error, the module holds the signal and stands by until one of the communications recovers.

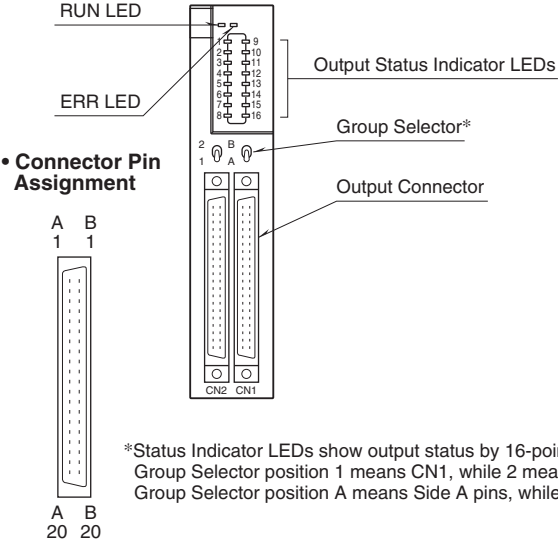
- **Output OFF**

If both are in error, the module outputs OFF signals and stands by until one of the communications recovers.

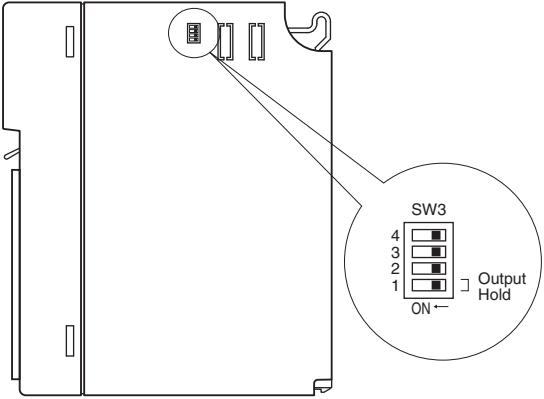
At the startup, it outputs OFF until the communication is established and normal data is received.

EXTERNAL VIEW

■ FRONT VIEW

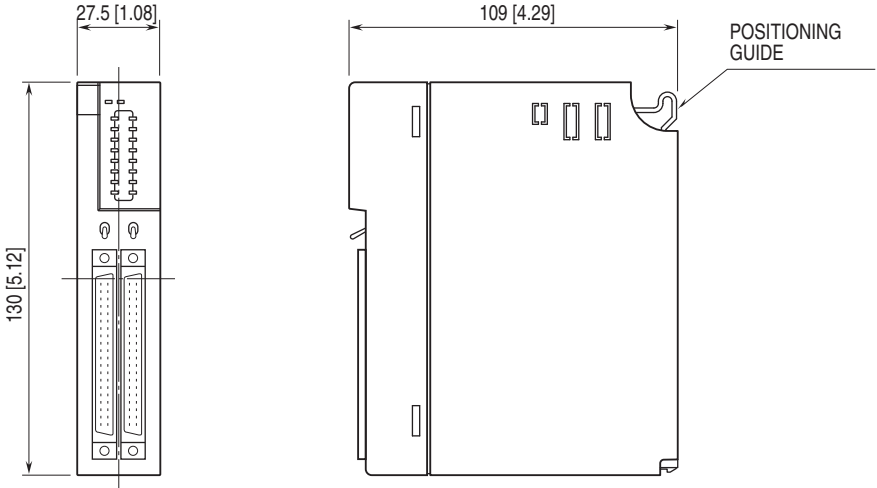


■ SIDE VIEW

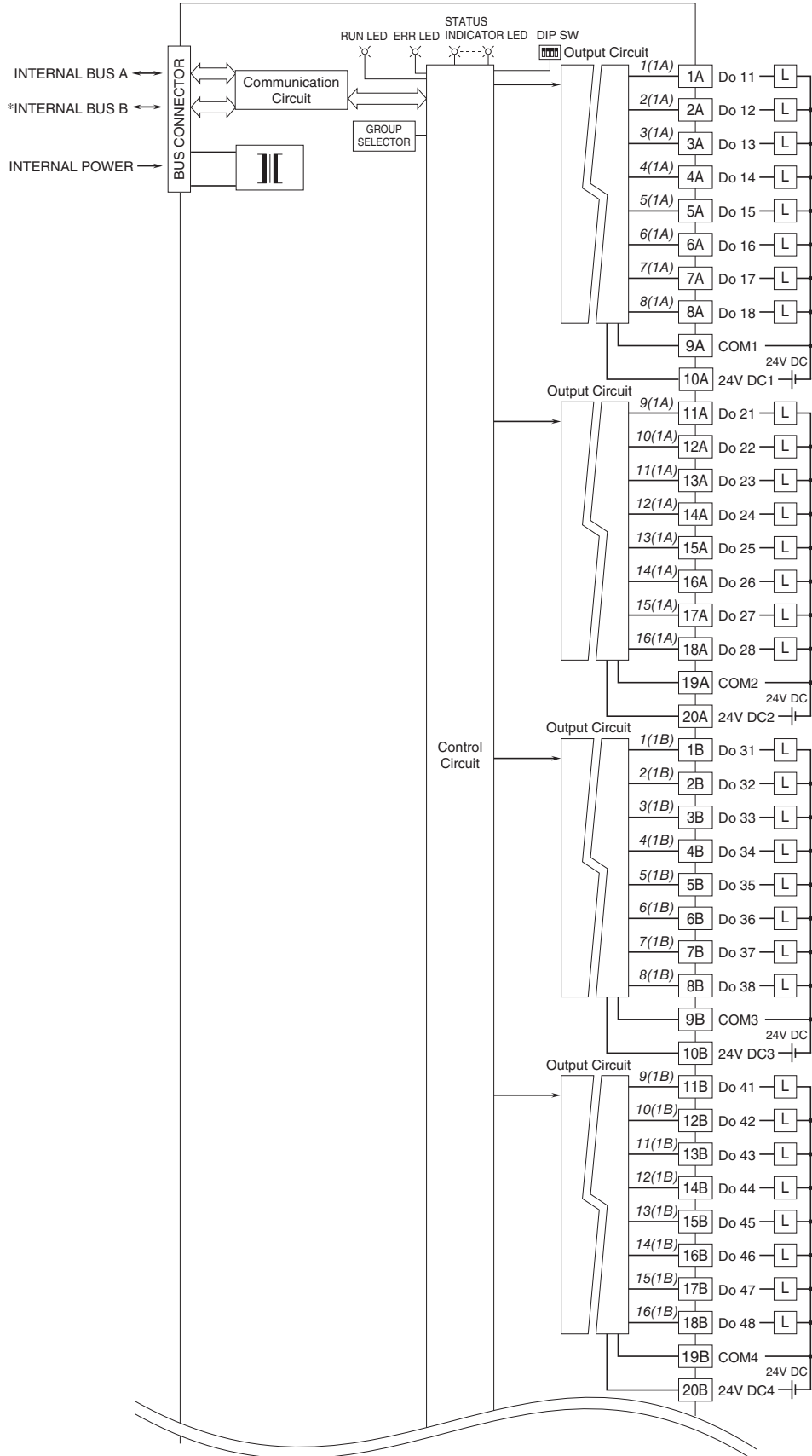


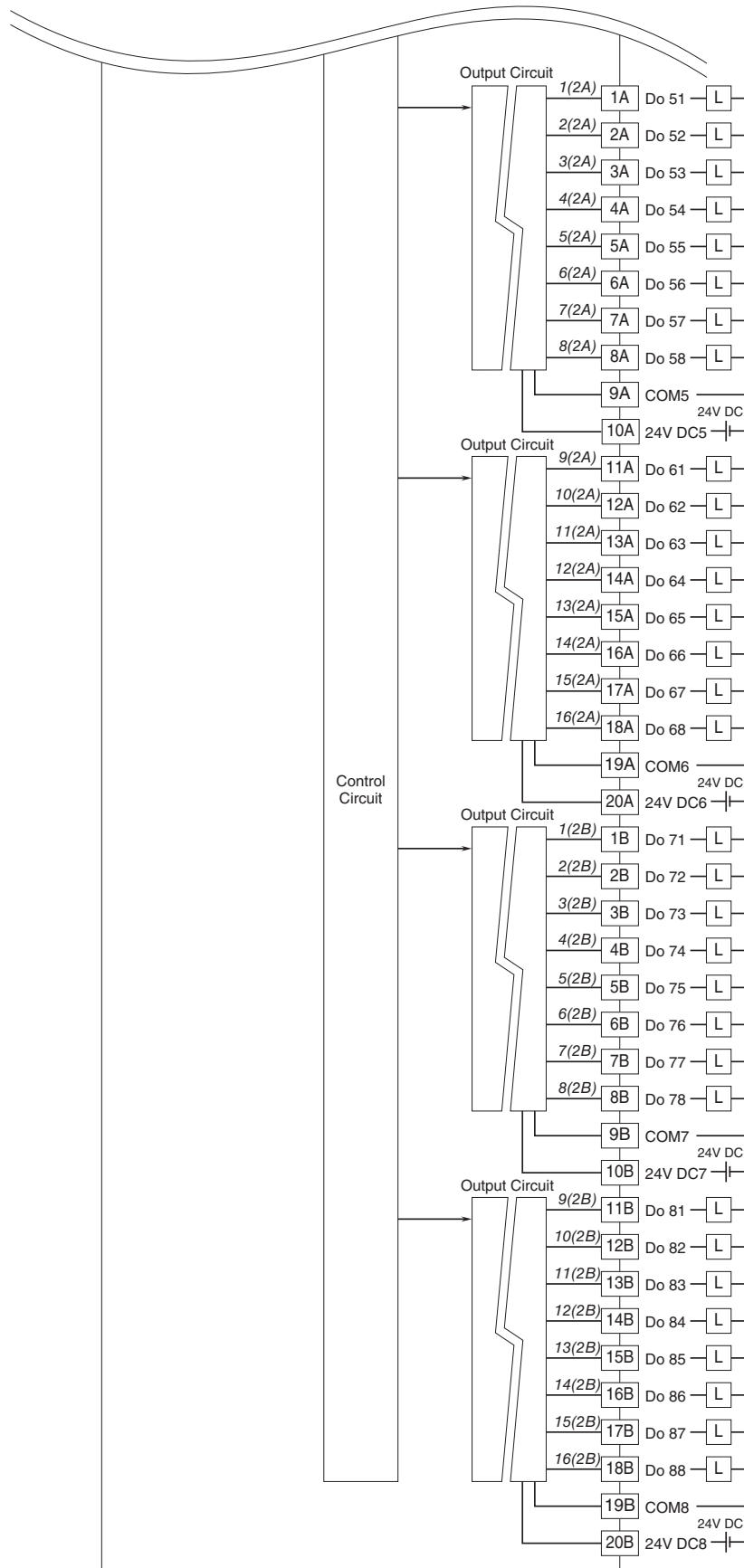
*Status Indicator LEDs show output status by 16-point group specified with Group Selector.
Group Selector position 1 means CN1, while 2 means CN2.
Group Selector position A means Side A pins, while B means Side B pins.

EXTERNAL DIMENSIONS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM





Numbers in italic indicate LED No.s assigned to the front panel LEDs.
 Indicator groups 1A, 1B, 2A or 2B selected with the front switches.
 *For dual redundant communication.

OUTPUT CONNECTOR (40-pin)

■ CN1

PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
1A	Do 11	1B	Do 31
2A	Do 12	2B	Do 32
3A	Do 13	3B	Do 33
4A	Do 14	4B	Do 34
5A	Do 15	5B	Do 35
6A	Do 16	6B	Do 36
7A	Do 17	7B	Do 37
8A	Do 18	8B	Do 38
9A	COM1	9B	COM3
10A	24V DC1	10B	24V DC3
11A	Do 21	11B	Do 41
12A	Do 22	12B	Do 42
13A	Do 23	13B	Do 43
14A	Do 24	14B	Do 44
15A	Do 25	15B	Do 45
16A	Do 26	16B	Do 46
17A	Do 27	17B	Do 47
18A	Do 28	18B	Do 48
19A	COM2	19B	COM4
20A	24V DC2	20B	24V DC4

■ CN2

PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
1A	Do 51	1B	Do 71
2A	Do 52	2B	Do 72
3A	Do 53	3B	Do 73
4A	Do 54	4B	Do 74
5A	Do 55	5B	Do 75
6A	Do 56	6B	Do 76
7A	Do 57	7B	Do 77
8A	Do 58	8B	Do 78
9A	COM5	9B	COM7
10A	24V DC5	10B	24V DC7
11A	Do 61	11B	Do 81
12A	Do 62	12B	Do 82
13A	Do 63	13B	Do 83
14A	Do 64	14B	Do 84
15A	Do 65	15B	Do 85
16A	Do 66	16B	Do 86
17A	Do 67	17B	Do 87
18A	Do 68	18B	Do 88
19A	COM6	19B	COM8
20A	24V DC6	20B	24V DC8



Specifications are subject to change without notice.