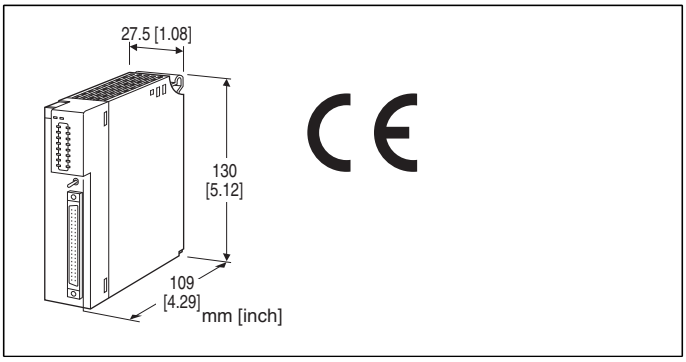
Remote I/O R3 Series

DISCRETE OUTPUT MODULE

(Do 32 points; open collector)



MODEL: R3-DC32A[1][2]

ORDERING INFORMATION

• Code number: R3-DC32A[1][2]

Specify a code from below for each of [1] and [2].
(e.g. R3-DC32AW/CE/Q)

• Specify the specification for option code /Q
(e.g. /C01)

NO. OF CHANNELS

32: 32

OUTPUT

A: Open collector

[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 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
A. 1 - 8: Do11 - Do18
9 - 16: Do21 - Do28
B. 1 - 8: Do31 - Do38
9 - 16: Do41 - Do48

OUTPUT SPECIFICATIONS

Output: Open collector, 32 points
Isolation: Optical isolator
Common: All 4 points (8 terminals)
Common current: Max. 1 A per common
External excitation: 24 V DC ±10 %, approx. 0.04 A
Rated load voltage: 24 V DC ±10 %
Maximum load current: 0.1 A per point
Maximum rush current: 0.5 A for max. 10 msec.
Maximum leak current at OFF: 0.1 mA
Maximum voltage drop at ON: 0.1 V DC typical; 1.2 V DC max.
(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: 150 g (0.33 lb)

PERFORMANCE

Data allocation: 4
Current consumption: 150 mA
Response time: ≤ 2 msec.
Insulation resistance: ≥ 100 MΩ 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)
2000 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

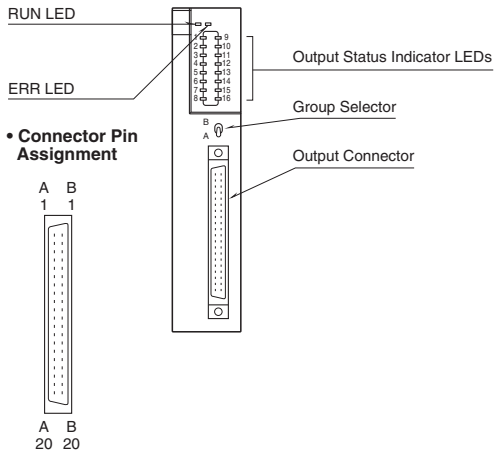
■OUTPUT HOLD or OUTPUT OFF
In normal conditions, the module outputs the signal from the preferred bus A.
When an error is detected, the output is switched to the data from the bus B.

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

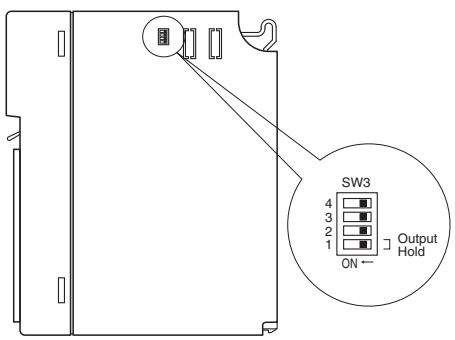
• **Output OFF**
If both are in error, the module outputs OFF signals and stands by until one of the communications recovers.
At the startup, it outputs OFF until the communication is established and normal data is received.

EXTERNAL VIEW

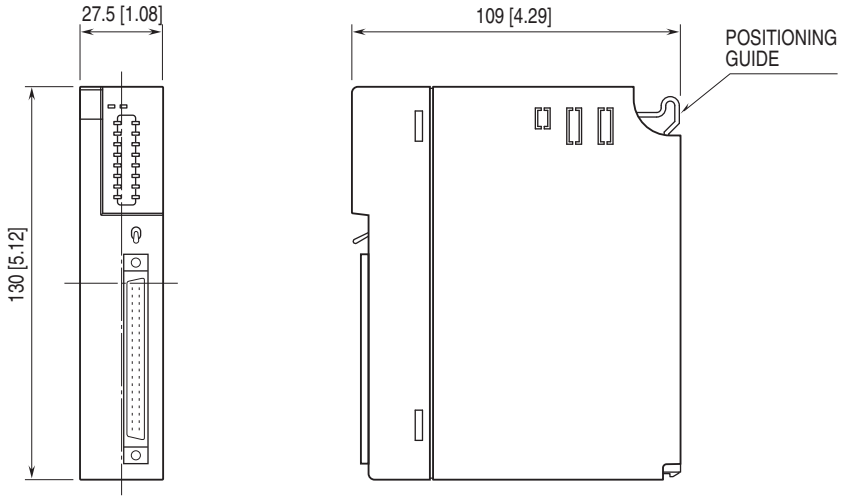
■ **FRONT VIEW**



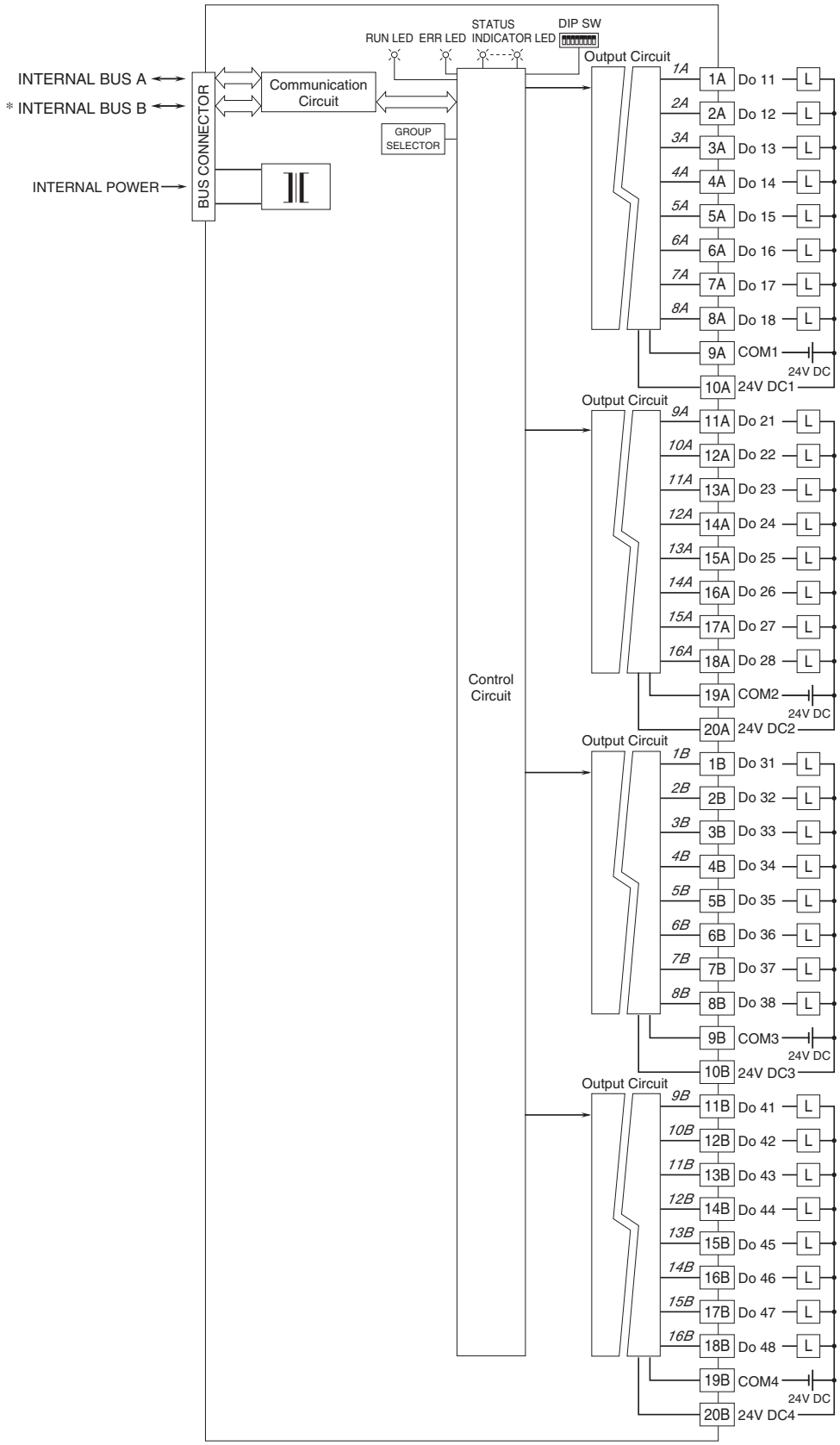
■ **SIDE VIEW**



EXTERNAL DIMENSIONS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Numbers in italic indicate LED No.s assigned to the front panel LEDs.
Two groups selected A or B with the front switch.
* For dual redundant communication.

OUTPUT CONNECTOR (40-pin)

PIN NO.	ASSIGN-MENT	PIN NO.	ASSIGN-MENT
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



Specifications are subject to change without notice.