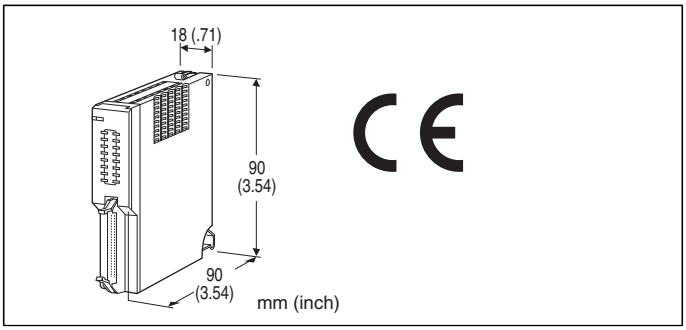
Remote I/O R5 Series

DISCRETE INPUT MODULE

(Di 16 points)



MODEL: R5-DA16[1][2]

ORDERING INFORMATION

• Code number: R5-DA16[1][2]
Specify a code from below for each [1] and [2].
(e.g. R5-DA16W/A/Q)
• Specify the specification for option code /Q
(e.g. /C01)

NO. OF CHANNELS

16: 16 points

[1] COMMUNICATION MODE

S: Single
W: Dual

[2] OPTIONS (multiple selections)

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

• Cable (model: MCN20)
(in combination with Relay I/O output block, Omron Model: G7TC-ID16 or G7TC-IA16)

RELATED PRODUCTS

•Cable with connectors (OMRON)
250 mm (model: G79-O25C)
500 mm (model: G79-O50C)
•Connector/terminal block converter (OMRON)
model: XW2D-20G6

GENERAL SPECIFICATIONS

Connection
Internal bus: Via the Installation Base (model: R5-BS)
Input: 20-pin connector
OMRON model: XG4A-2034
Internal power: Via the base (model: R5-BS)
Isolation: Input to internal bus or 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.
Input status indicator: Red LED; turns on with the inputs ON.

INPUT SPECIFICATIONS

■ Internal Excitation
Input: Dry contact, 16 points
Common: All negatives
Contact detecting: 5 V DC
ON voltage, current: ≥ 3 V, ≥ 1 mA
OFF voltage, current: ≤ 1 V, ≤ 0.5 mA
■ External Excitation
Input: 24 V DC, 16 points (input resistance 6 kΩ)
Common: All positives
Contact detecting: 24 V DC ±10 %
ON voltage, current: ≥ 15 V, ≥ 2.5 mA
OFF voltage, current: ≤ 6 V, ≤ 1 mA

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: R5-BS)
Weight: 100 g (3.53 oz)

PERFORMANCE

Data allocation: 1
Response time: ≤ 0.1 sec.
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 1500 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

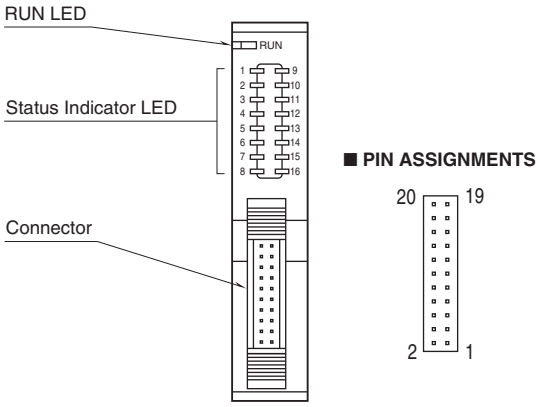
EMI EN 61000-6-4

EMS EN 61000-6-2

RoHS Directive

EN 50581

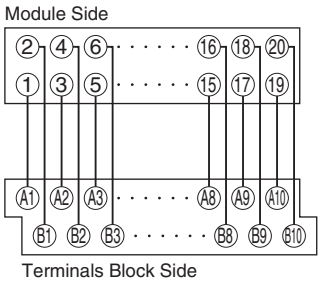
EXTERNAL VIEW



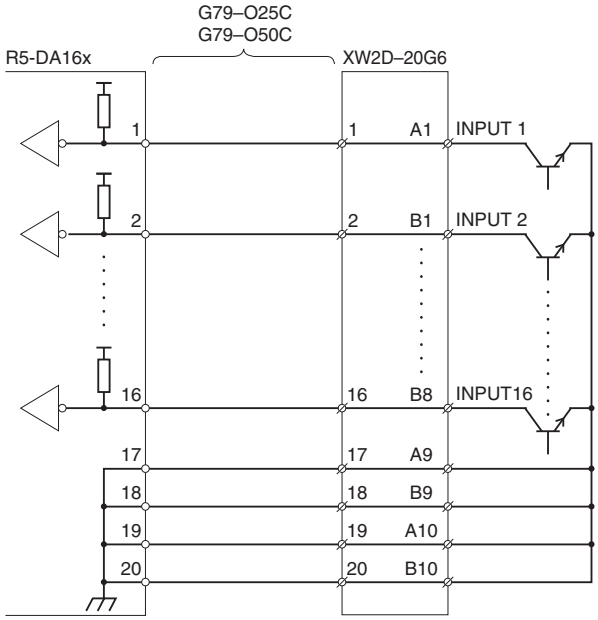
■ PIN ASSIGNMENTS

CONNECTOR PIN ASSIGNMENT

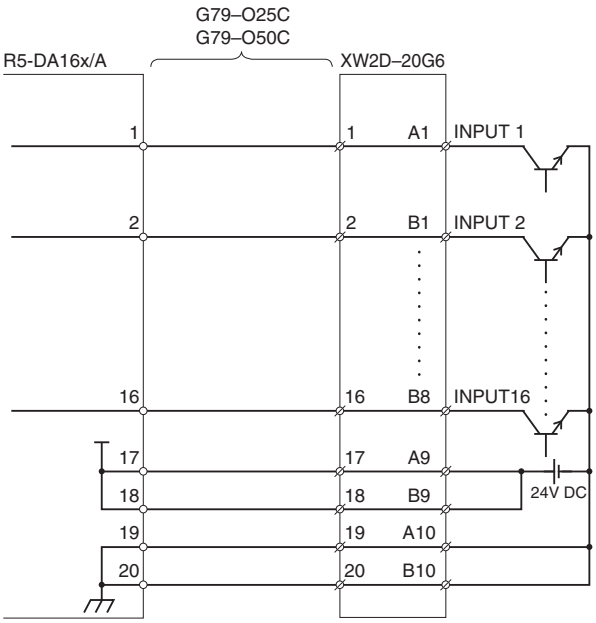
Pin assigments



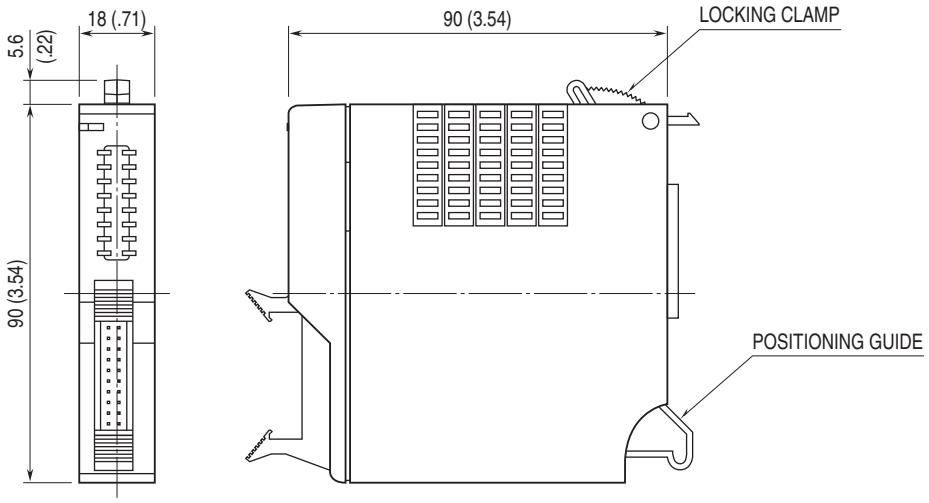
■ **R5-DA16x**



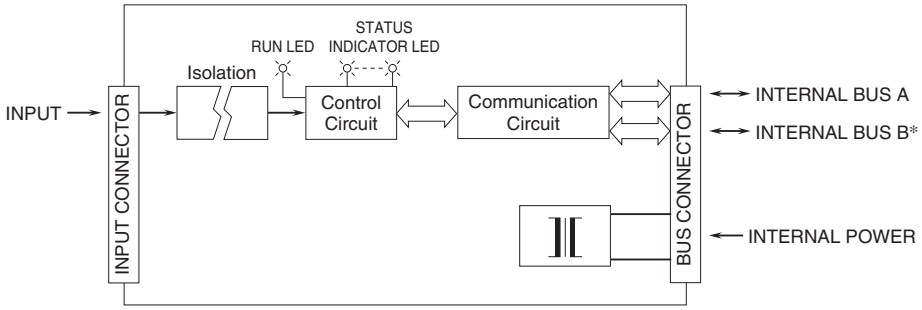
■ **R5-DA16x/A**



EXTERNAL DIMENSIONS unit: mm (inch)

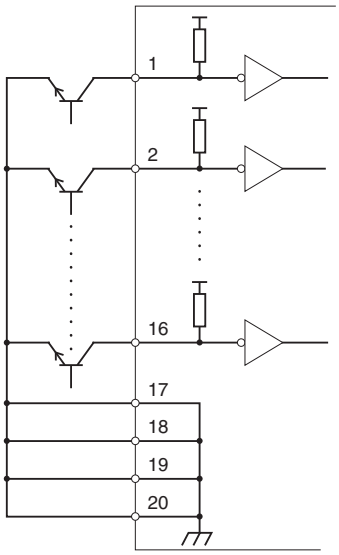


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

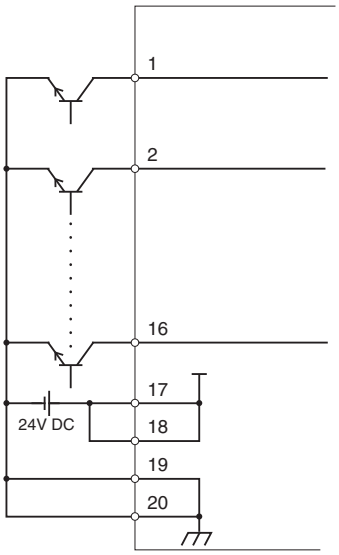


*For dual redundant communication.

■ **R5-DA16x**



■ **R5-DA16x/A**



INPUT CONNECTOR

■ **R5-DA16x (internal excitation)**

PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
1	ch. 1	11	ch. 11
2	ch. 2	12	ch. 12
3	ch. 3	13	ch. 13
4	ch. 4	14	ch. 14
5	ch. 5	15	ch. 15
6	ch. 6	16	ch. 16
7	ch. 7	17	COM
8	ch. 8	18	COM
9	ch. 9	19	COM
10	ch. 10	20	COM

■ **R5-DA16x/A (external excitation)**

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

⚠ Specifications are subject to change without notice.