## Remote I/O R80 Series

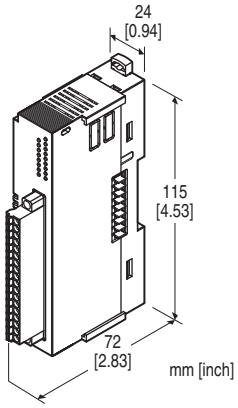
## DISCRETE INPUT MODULE, 16 points

(tension clamp terminal block)

**Functions & Features**

• 16 channels for discrete input, compact size remote I/O module

• 18 pins tension clamp connector




## MODEL: R80DAT16A2[1]

## ORDERING INFORMATION

• Code number: R80DAT16A2[1]

Specify a code from below for [1].
(e.g. R80DAT16A2/Q)

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

## [1] OPTIONS

**blank**: none

**/Q**: With options (specify the specification)

## SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to our web site.)

**/C01**: Silicone coating

**/C02**: Polyurethane coating

## RELATED PRODUCTS

• PC configurator software (model: R80CFG)
Downloadable at our web site.
For connecting to PC, use commercially available Mini-B type USB cable. (provided by user)

## GENERAL SPECIFICATIONS

**Connection**

**Input**: Separable tension clamp terminal

**Internal bus, internal power, excitation power supply**: Connected to internal bus connector

**Isolation**: Input or exc. supply to internal bus or internal power

**Module address**: With DIP switch

**Terminating resistor**: Built-in (DIP Switch, default: disable)

**Status indicator**: Bi-color (red/green) LED; Refer to the instruction manual.

**Discrete input status indicators**: Green LED; Refer to the instruction manual.

## INPUT SPECIFICATIONS

**Module type**: Discrete input, 16 points

**Common**: Positive common (NPN)

**Number of input**: 16 points

**Maximum inputs applicable at once**: No limit (at 24 V DC)

**Rated input voltage**: 24 V DC ±10 %; ripple 5 %p-p max.

**ON voltage / current**: ≥ 15 V DC (input – 24 V) / ≥ 2.3 mA

**OFF voltage / current**: ≤ 5 V DC (input – 24 V) / ≤ 1 mA

**Input current**: ≤ 4.5 mA per point at 24 V DC

**Input resistance**: Approx. 5.7 kΩ

**ON delay**: ≤ 0.2 msec.

**OFF delay**: ≤ 0.5 msec.

**Read rate**: 100 µsec., 400 µsec., 800 µsec., 4 msec., 8 msec., 16 msec., 40 msec. (Configurable with PC configurator) (Factory setting: 100 µsec. )

## INSTALLATION

**Max. current consumption**: 125 mA

**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**: DIN rail

**Weight**: 110 g (0.24 lb)

## PERFORMANCE

**Power output (input connector)**: Rated current 3 A DC (rated current 3 A for internal fuse (slow blow fuse $i^2t$ ($A^2$sec.) max. 5.04)

**Insulation resistance**: ≥ 100 MΩ with 500 V DC

**Dielectric strength**: 1500 V AC @ 1 minute
(input or exc. supply to internal bus or internal power to ground)



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## STANDARDS & APPROVALS

EU conformity:

EMC Directive

EMI EN 61000-6-4

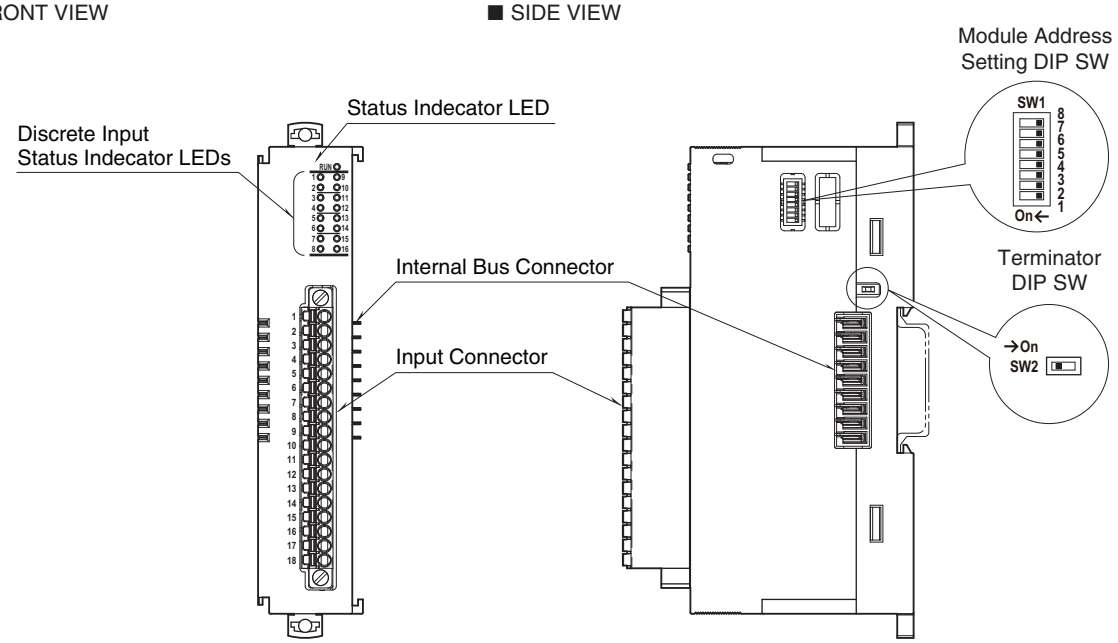
EMS EN 61000-6-2

RoHS Directive

## EXTERNAL VIEW

■ FRONT VIEW

■ SIDE VIEW



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## WIRING

• INPUT CONNECTOR

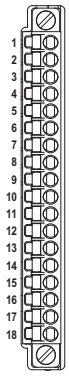
**Unit side connector:** MC1,5/18-GF-3,5 (Phoenix Contact)

**Cable side connector**: FMC1,5/18-STF-3,5 (Phoenix Contact) (included in the package)

**Applicable wire size**: 0.2 − 1.5 $mm^2$; stripped length 10 mm

**Recommended solderless terminal**

- AI0,25−10YE 0.25 $mm^2$ (Phoenix Contact)
- AI0,34−10TQ 0.34 $mm^2$ (Phoenix Contact)
- AI0,5−10WH 0.5 $mm^2$ (Phoenix Contact)
- AI0,75−10GY 0.75 $mm^2$ (Phoenix Contact)
- A1−10 1.0 $mm^2$ (Phoenix Contact)
- A1,5−10 1.5 $mm^2$ (Phoenix Contact)




| PIN. NO. | ID | FUNCTION |
|---|---|---|
| 1 | Di1 | Input 1 |
| 2 | Di2 | Input 2 |
| 3 | Di3 | Input 3 |
| 4 | Di4 | Input 4 |
| 5 | Di5 | Input 5 |
| 6 | Di6 | Input 6 |
| 7 | Di7 | Input 7 |
| 8 | Di8 | Input 8 |
| 9 | Di9 | Input 9 |
| 10 | Di10 | Input 10 |
| 11 | Di11 | Input 11 |
| 12 | Di12 | Input 12 |
| 13 | Di13 | Input 13 |
| 14 | Di14 | Input 14 |
| 15 | Di15 | Input 15 |
| 16 | Di16 | Input 16 |
| 17 | 0V | Exc. supply 0V |
| 18 | 24V | Exc. supply 24V |

## OPERATING MODE SETTING

• Module address setting

(*) Factory setting

Note) Be sure to set unused SW 1-5 thtough 1-8 to OFF.

**Module address**: Selectable between 0 and 15, with DIP switch 1-1 to 4.

| MODULE ADDRESS | SW1 | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 0(*) | OFF | OFF | OFF | OFF |
| 1 | ON | OFF | OFF | OFF |
| 2 | OFF | ON | OFF | OFF |
| 3 | ON | ON | OFF | OFF |
| 4 | OFF | OFF | ON | OFF |
| 5 | ON | OFF | ON | OFF |
| 6 | OFF | ON | ON | OFF |
| 7 | ON | ON | ON | OFF |
| 8 | OFF | OFF | OFF | ON |
| 9 | ON | OFF | OFF | ON |
| 10 | OFF | ON | OFF | ON |
| 11 | ON | ON | OFF | ON |
| 12 | OFF | OFF | ON | ON |
| 13 | ON | OFF | ON | ON |
| 14 | OFF | ON | ON | ON |
| 15 | ON | ON | ON | ON |

● **Terminator DIP SW**

| TERMINATOR SW | SW2 |
|---|---|
| Without (*) | OFF |
| With | ON |



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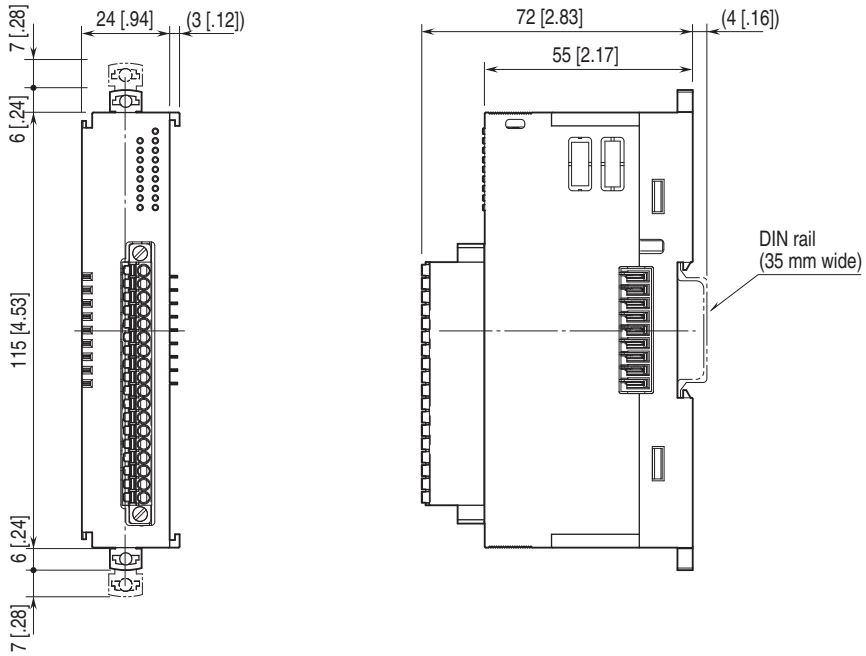
## EXTERNAL DIMENSIONS unit: mm [inch]



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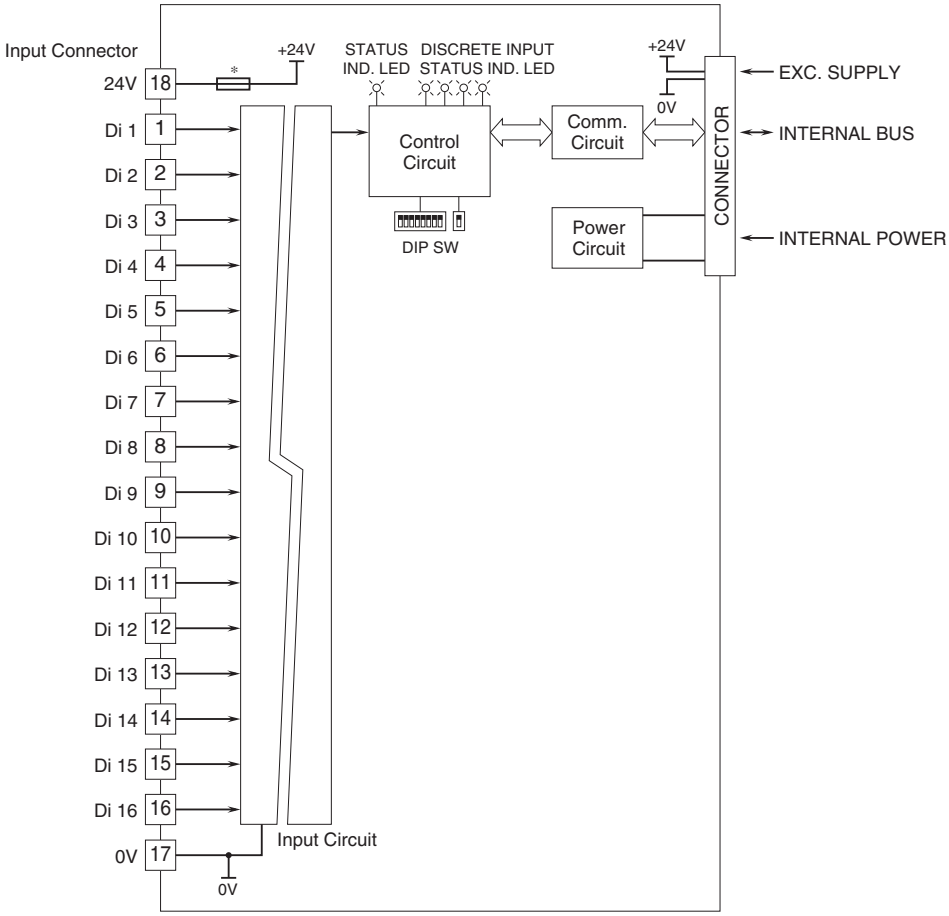
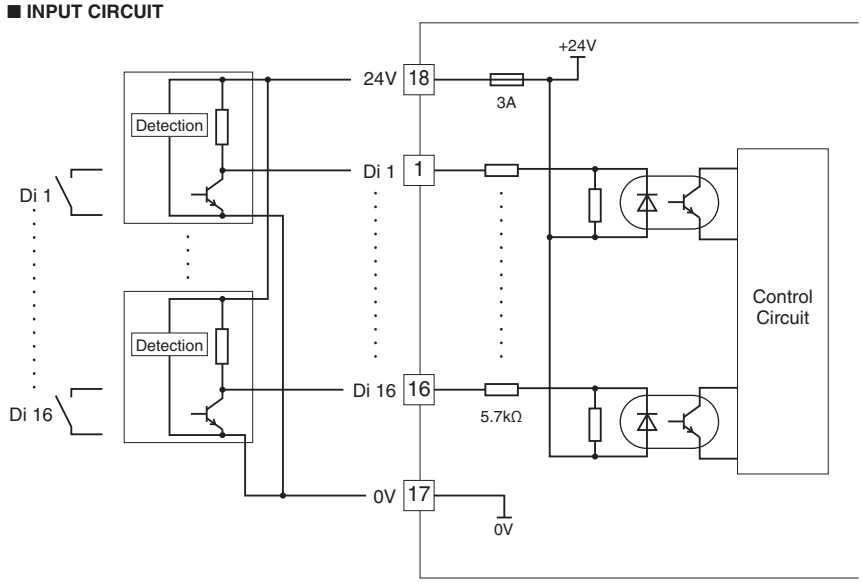
## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM




* The fuse is not replaceable.

■ **INPUT CIRCUIT**




⚠ Specifications are subject to change without notice.



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