

## TM2DMM24DRF

discrete I/O module M238 - 16 inputs 24 V DC - 8  
output relay - terminal block



### Main

|                             |                               |
|-----------------------------|-------------------------------|
| Range of product            | Modicon M238 logic controller |
| Product or component type   | Discrete I/O module           |
| Discrete input number       | 16                            |
| Discrete input voltage      | 24 V                          |
| Discrete input voltage type | DC                            |
| Discrete output number      | 8                             |
| Discrete output type        | Relay                         |

### Complementary

|  |  |
|--|--|
| Range compatibility                                | Advantys OTB<br>Twido  |
| Input voltage limits                               | 20.4...28.8 V  |
| Discrete input logic                               | Sink or source   |
| Discrete input current                             | 7 mA   |
| Input impedance                                    | 3.4 kOhm   |
| Discrete output function                           | 1 NO   |
| Current per channel                                | 2 A  |
| Current per output common                          | 7 A  |
| Number of common point                             | 1 for input<br>2 for output  |
| Contact resistance                                 | <= 45 mOhm   |
| Response time                                      | <= 10 ms from state 0 to state 1 output<br><= 5 ms from state 1 to state 0 output<br>4 ms at state 0 input<br>4 ms at state 1 input  |
| Minimum switching current                          | 0.1 mA 0.1 V DC  |
| Isolation between channels                         | None   |
| Isolation between channels and internal logic      | 2300 V for 1 minute (output)<br>500 V for 1 minute (input)   |
| Isolation between input channel and output channel | 1500 V for 1 minute  |
| Isolation between output channels group            | 1500 V for 1 minute  |
| Mechanical durability                              | 20000000 cycles  |
| Electrical durability                              | 100000 cycles 0.5 A AC-15 240 V AC cos phi = 0.35 inductive<br>100000 cycles 1 A AC-15 240 V AC cos phi = 0.7 inductive<br>100000 cycles 1 A DC-13 24 V DC inductive (L/R = 7 ms)<br>100000 cycles 2 A 240 V AC resistive<br>100000 cycles 2 A 30 V DC resistive |
| Current consumption                                | 45 mA 24 V DC at state 1 for all input/output<br>65 mA 5 V DC at state 1 for all input/output  |
| Local signalling                                   | 1 display block  |
| Electrical connection                              | 1 spring terminal block  |
| Mounting support                                   | 35 mm symmetrical DIN rail   |
| Product weight                                     | 0.14 kg  |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## Environment

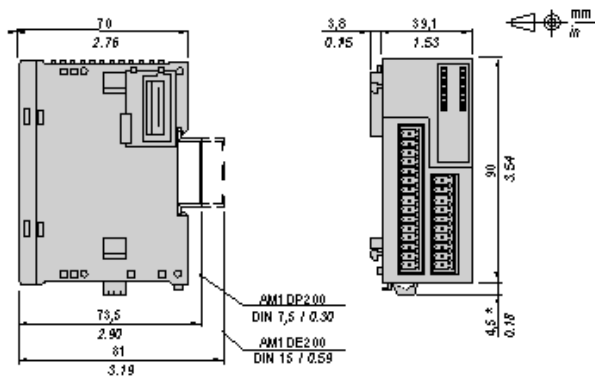
|        |         |
|--------|---------|
| depth  | 70 mm   |
| height | 90 mm   |
| width  | 42.9 mm |

## Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS (date code: YYWW)           | Compliant - since 1039 - Schneider Electric declaration of conformity |
| REACH                            | Reference not containing SVHC above the threshold                     |
| Product environmental profile    | Available   |
| Product end of life instructions | Available   |

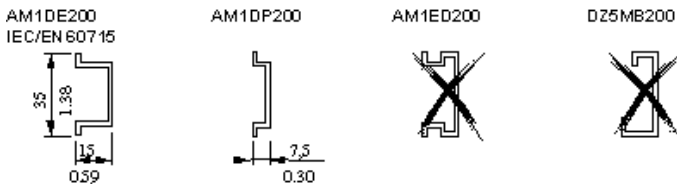
## Digital Mixed I/O Module (24-channel)

### Dimensions



NOTE: \* 8.5 mm (0.33 in) when the clamp is pulled out.

## DIN Rail Mounting

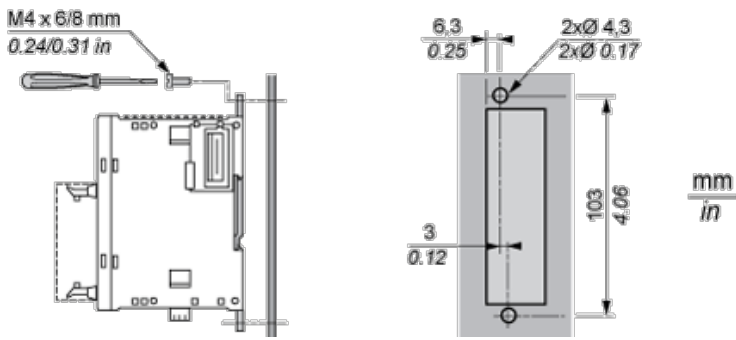


| Rail depth        | Catalogue part number |
|-------------------|-----------------------|
| 15 mm (0.59 in.)  | AM1DE200              |
| 7,5 mm (0.30 in.) | AM1DP200              |

NOTE: Do not use AM1ED200 and DZ5MB200

## Module Mounting on a Panel Surface

### Mounting Hole Layout



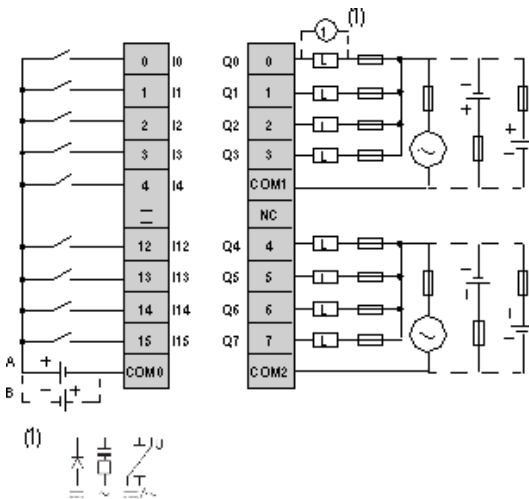
## Wiring Requirements

### Cable Types and Wire Sizes for Removable Screw Terminal Block

| 9<br>0.35<br>mm<br>in. |            |            |            |            |             |             |     |
|------------------------|------------|------------|------------|------------|-------------|-------------|-----|
| mm <sup>2</sup>        | 0,14...1,5 | 0,25...0,5 | 0,25...1,5 | 0,14...0,5 | 0,14...0,75 | 0,25...0,34 | 0,5 |
| AWG                    | 26...16    | 24...20    | 24...16    | 26...20    | 26...18     | 24...22     | 20  |

## Digital Mixed I/O Module (24-channel)

### Wiring Diagram



- A Sink wiring (positive logic)
  - B Source wiring (negative logic)
- Fuse value for the load: 2 A  
 Fuse value for the power supply: 7 A