

# **FLEX NETWORK I/O Module R7FN Series**

- Remote I/O modules for Pro-face® FLEX NETWORK
- Slave to Pro-face® Graphic Operator Interface:

GP3000 Series GLC2000 Series LT Series Type B / B+ / C

- 8 or 16 discrete signals
- Simple setting
- 1500 Vac isolation



# PALM-TOP SIZE COMPACT MODULE



Pro-face® Graphic Operator Interface

R7FN R7FN

M-System's R7FN Series Remote I/O modules directly interface with Pro-face® Graphic Operator Interface via FLEX NETWORK.

Palm-top size compact modules can handle sixteen discrete signals. Eight-point relay output module is also available.

These modules are designed to replace discontinued Pro-face® FLEX NETWORK slave modules (See the table below) with minimum differences in hardware. Furthermore, they can be identified with the discontinued model numbers by the Graphic Operator Interface master, thus simplifying software programming even when you have added the R7FN modules to an existing system.

1500 Vac isolation is maintained between I/O, network and power input.

Analog I/O modules will be also available in the future. For updated information, please contact M-System sales/customer support at info@m-system.co.jp.

For M-System product information and downloadable data sheets, visit On-Line Signal Conditioners Data Library at: http://www.m-system.co.jp/mssenglish/index.htm.

#### MODEL SELECTIONS

| M-System R7FN Series  |             |
|---|-------------|
| FUNCTION  | MODEL       |
| Discrete input, PNP/NPN, 16 points                              | R7FN-DA16   |
| NPN transistor output, 16 points                                | R7FN-DC16A  |
| PNP transistor output, 16 points                                | R7FN-DC16B  |
| Discrete input, PNP, 8 points / NPN transistor output, 8 points | R7FN-DAC16A |
| Discrete input, NPN, 8 points / PNP transistor output, 8 points | R7FN-DAC16B |
| Relay contact output, 8 points                                  | R7FN-DC8C   |

| <b>Pro-face Discontinued Products</b>                                |             |
|--|-------------|
| FUNCTION   | MODEL       |
| 16-point input, sink/source type                                     | FN-X16TS41  |
| 16-point output, sink transistor                                     | FN-Y16SK41  |
| 16-point output, source transistor                                   | FN-Y16SC41  |
| 8-point input, sink/source type /<br>8-point output, sink transistor | FN-XY08TS41 |
| 8-point relay output   | FN-Y08RL41  |

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#### **FLEX NETWORK I/O Module R7FN Series**

# I/O SPECIFICATIONS

| I/O type<br>Model No. | Discrete input, PNP/NPN, 16 points R7FN-DA16 |
|-----------------------|--|
| Common                | Negative or positive common, per 16 points   |
| Rated input voltage   | 24 Vdc ±10%                                  |
| Isolation             | Input to FLEX NETWORK to power to FG         |

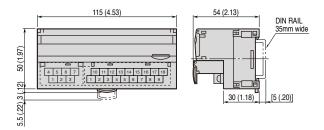
| I/O type             | NPN transistor output, 16 points      |
|----------------------|---------------------------------------|
| Model No.            | R7FN-DC16A                            |
| Common               | Negative common, per 16 points        |
| Rated load voltage   | 24 Vdc ±10%                           |
| Rated output current | 0.25 A per point, 2.0 A per common    |
| Isolation            | Output to FLEX NETWORK to power to FG |

| I/O type             | PNP transistor output, 16 points      |
|----------------------|---------------------------------------|
| Model No.            | R7FN-DC16B                            |
| Common               | Positive common, per 16 points        |
| Rated load voltage   | 24 Vdc ±10%                           |
| Rated output current | 0.25 A per point, 2.0 A per common    |
| Isolation            | Output to FLEX NETWORK to power to FG |

| Discrete input, PNP, 8 points /    |
|------------------------------------|
| NPN transistor output, 8 points    |
| R7FN-DAC16A                        |
| Negative common, per 16 points     |
| 24 Vdc ±10%                        |
|                                    |
| 0.25 A per point, 2.0 A per common |
| I/O to FLEX NETWORK to power to FG |
|                                    |

| I/O type             | Discrete input, NPN, 8 points /    |
|----------------------|------------------------------------|
|                      | PNP transistor output, 8 points    |
| Model No.            | R7FN-DAC16B                        |
| Common               | Positive common, per 16 points     |
| Rated input/load     | 24 Vdc ±10%                        |
| voltage              |                                    |
| Rated output current | 0.25 A per point, 2.0 A per common |
| Isolation            | I/O to FLEX NETWORK to power to FG |

## EXTERNAL DIMENSIONS mm (inch)

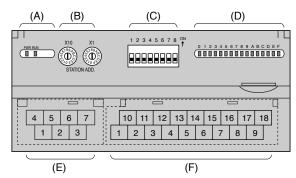


| I/O type<br>Model No.   | Relay output, 8 points R7FN-DC8C           |
|-------------------------|--|
| Common                  | 1 common per 4 points (4 terminals)        |
| Rated load              | 250 Vac @1 A (cosφ=1)*                     |
|                         | 30 Vdc @1 A (resistive load)               |
|                         | *For CE conformity: Limited to the use for |
|                         | Measurement Category I, or to 125 Vac for  |
|                         | Measurement Category II                    |
| Relay drive power input | 24 Vdc ±10%, minimum 60 mA                 |
| Isolation               | Output to FLEX NETWORK to power to FG      |

## COMMON SPECIFICATIONS

| Power input           | 24 Vdc ±10%                              |
|-----------------------|--|
| Dielectric strength   | 1500 Vac @1 minute between isolated      |
|                       | circuits                                 |
| Insulation resistance | ≥100 MΩ with 500 Vdc                     |
| Operating temperature | -10 to +55°C (14 to 131°F)               |
| Mounting              | DIN rail (35 mm wide)                    |
| Connection            | M3 screw terminals (nickel-plated steel) |
| Network cable         | Pro-face                                 |
|                       | FN-CABLE2010-31-MS (10 meters)           |
|                       | FN-CABLE2050-31-MS (50 meters)           |
|                       | FN-CABLE2200-31-MS (200 meters)          |
| CE conformity         | EMC Directive (2004/108/EC)              |
|                       | EN 61000-6-4 (EMI)                       |
|                       | EN 61000-6-2 (EMS)                       |
|                       | Low Voltage Directive (2006/95/EC)**     |
| **R7FN-DC8C only      | EN 61010-1                               |

## FRONT VIEW



- (A) Status Indicator LED(B) Station Address Setting Rotary SW(C) Operating Mode Setting DIP SW (SW1)
- (D) Discrete I/O Status Indicator LED
- (E) Network, Power Supply Terminals
- (F) I/O Terminals

| ) | Your local representative: | ( |
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