

## 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

**PALM-TOP SIZE COMPACT MODULE**

- 8 or 16 discrete signals, 4 analog inputs, 2 analog outputs
- Simple setting
- 1500 Vac isolation



Pro-face® Graphic Operator Interface

**FLEX NETWORK**



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 and analog I/O modules are also available.

These modules are designed to replace discontinued Pro-face® FLEX NETWORK slave modules (See the table below) with minimum differences in hardware.

Discrete I/O modules 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.

Analog modules are compatible with the GP-Pro EX screen editor Ver. 2.70 or later\*1.

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

For M-System product information and downloadable data sheets, visit M-System web site at: [www.m-system.co.jp](http://www.m-system.co.jp).

\*1. For versions between 2.60 and 2.70, please download a driver at [www.proface.co.jp](http://www.proface.co.jp).

### 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
DC voltage/current input, 4 points (isolated)	R7FN-SV4
DC voltage/current input, 4 points (high-speed response, non-isolated)	R7FN-SVF4
DC voltage output, 2 points (isolated)	R7FN-YV2
DC current output, 2 points (isolated)	R7FN-YS2
Thermocouple input, 4 points (isolated)	R7FN-TS4
RTD input, 4 points (isolated)	R7FN-RS4

Pro-face Discontinued Products	
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 / 8-point output, sink transistor	FN-XY08TS41
←← 8-point relay output	FN-Y08RL41
←← 4-point analog input	FN-AD04AH11
←← 2-point analog output	FN-DA02AH41

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

**I/O SPECIFICATIONS**

I/O type	Discrete input, PNP/NPN, 16 points
Model No.	<b>R7FN-DA16</b>
Common	Negative or positive common, per 16 points
Rated input voltage	24 Vdc ±10%

I/O type	Transistor output, 16 points
Model No.	<b>R7FN-DC16A / R7FN-DC16B</b>
Common	Negative (DC16A) or positive (DC16B) common, per 16 points
Rated load voltage	24 Vdc ±10%
Rated output current	0.25 A per point, 2.0 A per common

I/O type	Discrete input, 8 points / Transistor output, 8 points
Model No.	<b>R7FN-DAC16A / R7FN-DAC16B</b>
Common	Negative (DAC16A) or positive (DAC16B) common, per 16 points
Rated input/load voltage	24 Vdc ±10%
Rated output current	0.25 A per point, 2.0 A per common

I/O type	Relay output, 8 points
Model No.	<b>R7FN-DC8C</b>
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

I/O type	DC voltage/current input, 4 points (isolated)
Model No.	<b>R7FN-SV4</b>
Input range	±10V, ±5V, ±1V, ±0.5V, 0-10 V, 0-5 V, 1-5 V, 0-1 V, ±20 mA, 0-20 mA, 4-20 mA
Conversion rate /accuracy	10 ms / ±0.8%, 20 ms / ±0.4%, 40 ms / ±0.2%, 80 ms / ±0.1%

I/O type	DC voltage/current input, 4 points (non-isolated, high-speed response)
Model No.	<b>R7FN-SVF4</b> (No CE marking)
Input range	±10V, ±5V, ±1V, ±0.5V, 0-10 V, 0-5 V, 1-5 V, 0-1 V, ±20 mA, 0-20 mA, 4-20 mA
Conversion rate/accuracy	2 ms / ±0.1%

I/O type	DC voltage output, 2 points (isolated)
Model No.	<b>R7FN-YV2</b>
Output range	±10V, ±5V, ±1V, ±0.5V, 0-10 V, 0-5 V, 1-5 V, 0-1 V
Conversion accuracy	±0.1%

I/O type	DC current output, 2 points (isolated)
Model No.	<b>R7FN-YS2</b>
Output range	4-20 mA
Conversion accuracy	±0.1%

I/O type	Thermocouple input, 4 points (isolated)
Model No.	<b>R7FN-TS4</b>
Thermocouple	K E J T B R S C N U L P PR
Conversion accuracy	±1°C (±2°C for B R S C PR)

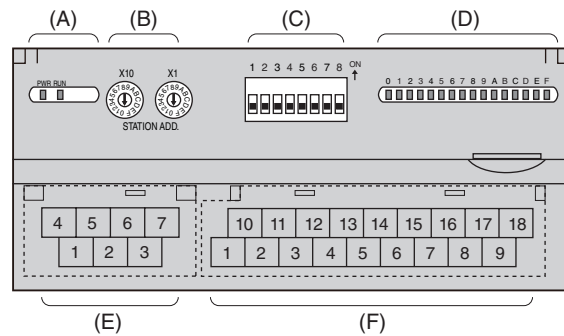
I/O type	RTD input, 4 points (isolated)
Model No.	<b>R7FN-RS4</b>
RTD	Pt 100, JPt 100, Pt 50, Ni 100, Cu 10 (25°C), Cu 50
Conversion accuracy	±1°C (±3°C for Cu 10)

**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)** EN 61010-1

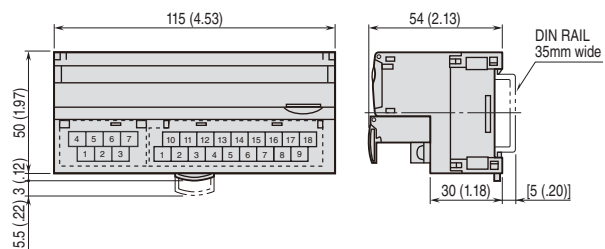
\*\*R7FN-DC8C only

**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

**EXTERNAL DIMENSIONS mm (inch)**



Your local representative: