Notes:

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Website: www.renuelectronics.com

Factory:
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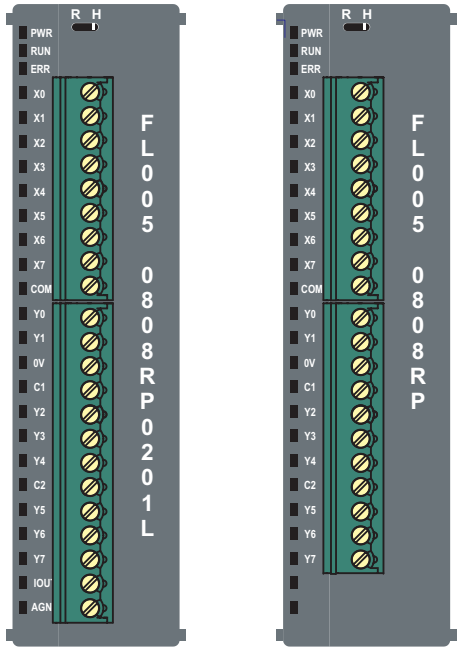
Quick Start Manual
Rev. No.: 1.00A
03/2015

Quick Start Manual for FL005 Series Models



FL005-0808RP0201L

- FL005 Series
- 8 Digital Inputs Bi-directional Type (Within which 4 are high speed)
- 8 Digital Outputs includes 6 relay type and 2 PNP transistor type
- 1 Analog Output channels: Current 4 - 20 mA (Max load 500 ohm)
- 2 Analog Input Channels: Voltage Input: 0 - 10 V, 0 - 5 V; Current Input: 0-20mA, 4-20mA

FL005-0808RP

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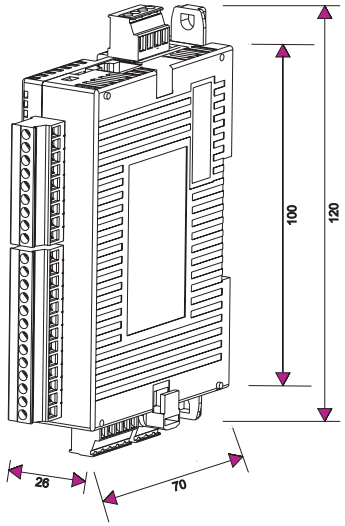
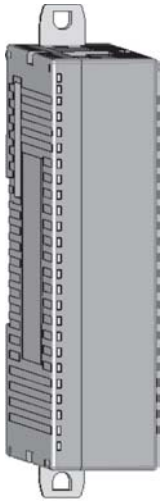
Panel mounting:
FL005 units are shipped with a DIN rail slider attached to the unit. User can use the DIN rail slider to mount the unit.

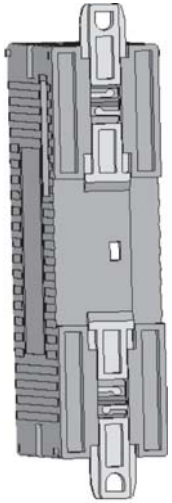


FL005 unit with DIN rail slider:

Front View:

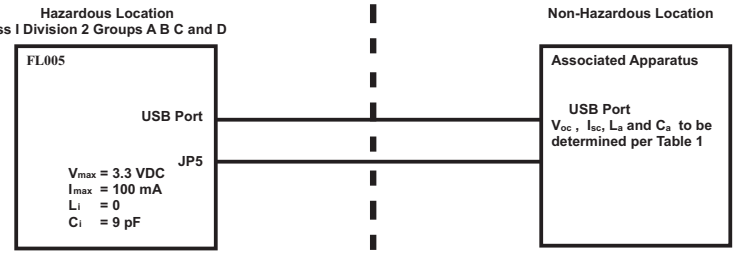


Rear View:



CONTROL DRAWING NO# CNTL/DWG/FL005/0 2 14 VER. NO.: 1.00

CONTROL DRAWING – FL SERIES



Capacitance and inductance of the field wiring from the nonincendive equipment to the associated apparatus shall be calculated and must be included in the system calculations as shown in Table 1.
Where the cable capacitance and inductance per foot are not known, the following values shall be used: Ccable = 60 pF/ft., Lcable = 0.2 µH/ft.

Wiring method must be in accordance with ANSI/NFPA70

TABLE 1:

Nonincendive. Equipment		Associated Apparatus
V max (or Ui)	≥	Voc or Vt (or Uo)
I max (or Ii)	≥	Isc or It (or Io)
Ci + Ccable	≤	Ca (or Co)
Li + Lcable	≤	La (or Lo)

This manual gives you a quick overview of the model and specifications. Read this manual thoroughly before installing and operating the unit.
This is only a Quick Start Manual. For detailed information on this product refer to 'FlexiLogics Manual'. You can download this manual free from the download section of our website. For a printed copy of this manual contact our nearest sales office.
For configuration details refer section 5.2.9 and 5.2.10 from user manual.
This document is based on information available at the time of it's publication and may not cover all the details or variations in hardware or software. Renu Electronics reserve the right to update information in this publication without prior notice.

Technical Support
For Technical support please contact factory along with the unit serial number and revision number written on the address sticker of the unit. Also provide information of the PLC if used in application. Usually, including your application also provides a lot of help. If possible e-mail the application to us.

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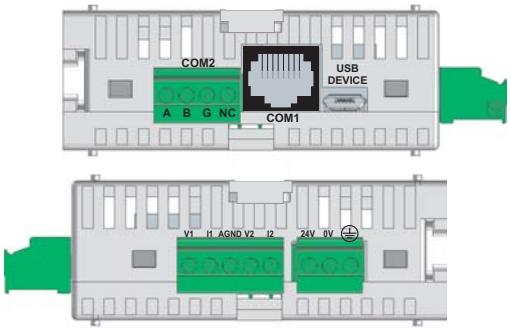

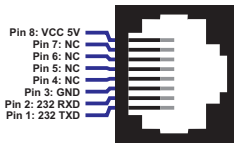

Specifications:

Power Supply:	24VDC, 900mA (+20%; -15%)
Standards:	CE, UL (Class 1, Div 2)
Memory:	Total Program Memory: 292 KB
User Data:	
Input Registers:	400 Words / 6400 pts. (Max.*)
Output Registers:	400 Words / 6400 pts. (Max.*)
Data Registers:	4096 words
Retentive Registers:	1400 words (EEPROM)
System Registers:	256 words
Timer Registers:	256 words
Counter Register:	256 words
Timer Devices:	256 points
System Devices:	100 points
Counter Devices:	256 points
Config. Register:	1600 Words / 25600 pts. (Max.*)

General

Operating Temp.:	0 to 55 deg.C.
Storage Tempe.:	-20 to 85 deg.C.
Operating Humidity:	10% to 90% (Non condensing)
Vibration Tests:	As per IEC60068-2-6
Shock Test:	As per IEC60068-2-27

Communication Ports

COM1 Port:	COM1 (RJ45 Type): RS232 (5VDC, 200mA Power Source) [For upload / download / communication / monitoring]
COM2 (Open terminals):	2-wire RS485 for communication
USB Device	1 for upload / download / monitoring.

24V DC Digital Inputs:

Number of Inputs:	8 Inputs Bi-directional Type (Within which 4 are high speed channels)
Input Design:	According to EN 61131-2 Type 1
High Speed Inputs:	2
High Speed Channels:	X0, X1, X2, X3

24V DC Digital Outputs Relay and PNP Transistor type:
Number of Outputs: 8 includes 6 relay type and 2 PNP transistor type

*Analog Inputs:	2 I/P Channels [Voltage I/P: 0-10V, 0-5V; Current I/P: 0-20mA, 4-20mA]
*Analog outputs:	1 Output channels [Current 4 - 20 mA (Max load 500 ohm)]

These analog specifications are applicable to FL005-0808RP0201L model only.

Note: If the input wiring runs through an area subject to high electro-magnetic interference, please use the Digital Filter Instruction on the field inputs.

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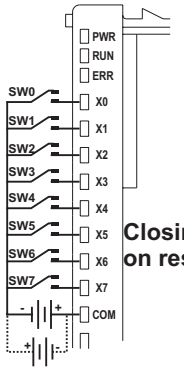
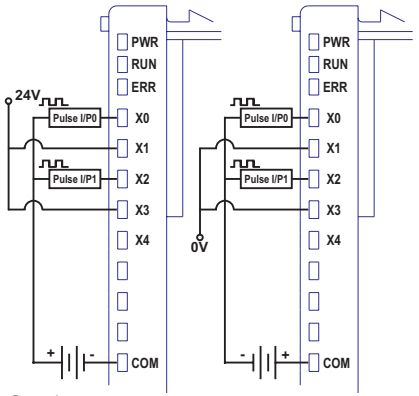
Wiring Diagram:
1. Digital Inputs:



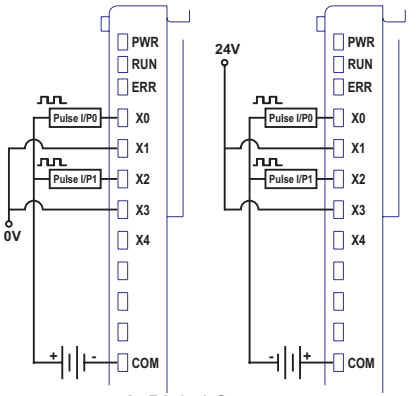
Closing SWx will turn on respective inputs

2. HSC Inputs:

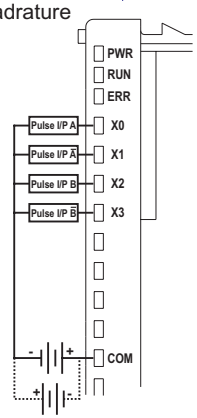
Single Phase up counter



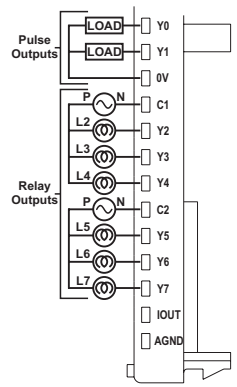
Single Phase down counter



Quadrature



3. Digital Outputs:



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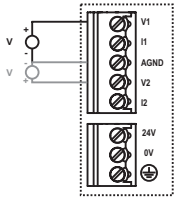
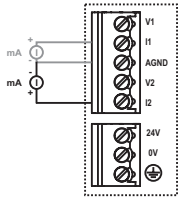
4. Analog Inputs:

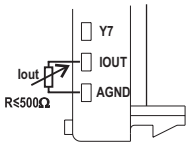
Voltage



Current



5. Analog Outputs:



Wiring details point 4 and 5 are applicable to FL005-0808RP0201L model only.

WARNING:

This equipment is suitable for use in Class I, Division 2, Groups A, B, C and D or non-hazardous locations only.

WARNING – EXPLOSION HAZARD – Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.

WARNING – EXPLOSION HAZARD - Substitution of components may impair suitability for Class I, Division 2.

WARNING - CAUTION, Battery May Explode If Mistreated. Do Not Recharge, Disassemble Or Dispose Of In Fire.

WARNING - Replace Battery With type CR1225FH-LF, manufactured by Renata SA, only. Use of Another Battery May Present A Risk Of Fire Or Explosion. See Owner's Manual For Safety Instructions"

The list of materials used in the construction of these devices with name of sealed device - generic name of the material and the supplier's name and type designation.

It is recommended that the user periodically inspect the sealed devices used, for any degradation of properties and replace the device if any degradation is found.

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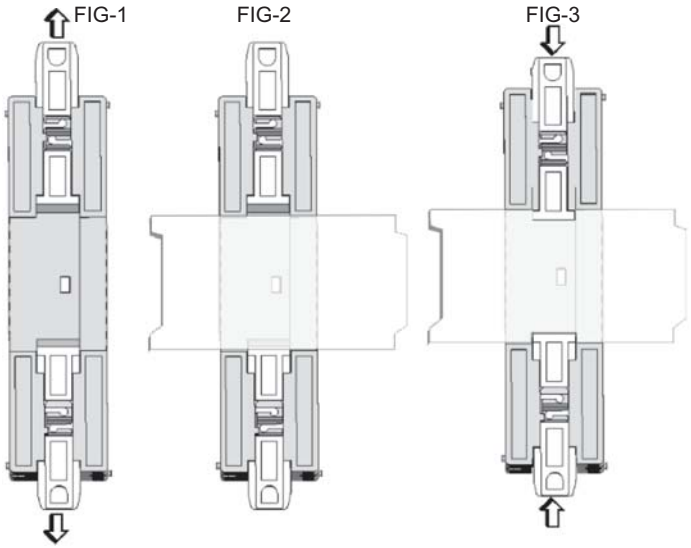
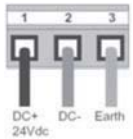


FIG-1 Pull up the sliders provided with the unit towards outward direction.
FIG-2 Rest the unit on the DIN rail plate
FIG-3 Pull down the slider again so that unit can fix up with the DIN rail plate.

Grounding:



The optimum method for grounding electronic equipment is to ground it separately from other high-power systems, and to ground more than one unit of electronic equipment with a single-point ground. The grounding marked terminal (see below) is provided on the unit.

Note: Do not use a ground that has an unstable impedance, such as painted screws, or ground subject to vibration.

System Components:
- FL005 unit with removable counter part# connectors
- Power Supply Connector
- Installation Kit: White Sliders (2 Nos attached with the unit).
- *FlexiSoft Software Installer CD

**FlexiSoft: Please check the latest version each time.*
Note: User should order programming cable separately.

Port Details
COM1: RJ45 Pin description of communication port is as follows.
COM2: Removable terminal (4 pin): 2 Wire RS485
USB Device:
1. USB Device, compliant with USB 2.0 specification, self powered device.
2. Connector used: Standard USB Type B Female connector.

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