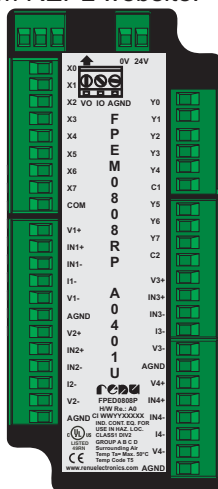


**Models:**  
**FPEM-0808RP-A0401U**  
**FlexiPanels FP3 series expansion models**

**INSTRUCTION SHEET**

Thank you for purchasing FlexiPanels series analog expansion model FPEM-0808RP-A0401U. Please read the instruction sheet and thoroughly familiarize yourself with the functions and characteristics of the products before use.

For more information, please refer user manual which will be available in FlexiSoft software help and/or you can download from REPL website.



**Specifications:**

Power Supply	24 VDC +/-15%, 12V and 3.3V from base
Voltage Rating:	
Power Rating:	Input/ Channel: 5mA, 24VDC
Output/ Channel:	250mA @ 24VDC and 2A @ 230 VAC
Approvals:	CE, UL
Digital Inputs:	8 Inputs Bi-directional Type (Within which 2 pairs are high speed)
Input Design:	According to EN 61131-2 Type 1
Min. ON Voltage	15 VDC
Max. ON Voltage	30 VDC
Min.OFF Voltage	-3VDC
Max. OFF Voltage	5 VDC
Nominal input voltage	24 VDC
Nominal input current	5mA typical
Isolation	Optically isolated from internal

Input Impedance  
 Turn OFF time  
 Turn ON time

High Speed Inputs:  
 No. of HS inputs:  
 Max. i/p frequency:  
 Max. i/p count:

Digital Outputs:

Min. ON o/p Voltage:  
 Max. ON o/p Voltage:  
 Min. OFF o/p Voltage:  
 Max. OFF o/p Voltage:  
 Nominal Output voltage:  
 Nominal o/p current  
 Isolation

Short Circuit protection  
 Nominal load

High Speed Outputs:  
 No. Of HS outputs:  
 Max. O/p frequency:  
 Frequency step:  
 PWM duty cycle:  
 Duty cycle step:

Analog Inputs:  
 Voltage Input:  
 Current Input:  
 mV Input:  
 RTD Input:

Thermocouple input:

Resolution:  
 Accuracy:

Analog Outputs:  
 Current output:  
 Voltage Output:  
 Resolution:  
 Accuracy:

circuit., High isolation  
 voltage(BV= 3.7KV)  
 3k Ohm  
 10msec  
 10msec

2 pairs, X0-X1, X2-X3  
 200kHz  
 42949672965

2 PNP type transistor outputs  
 (2 PWM o/p) and  
 6 Relay outputs  
 22VDC  
 30VDC  
 0.2VDC  
 1VDC  
 30VDC  
 300mA Typ./channel  
 Optically isolated from internal  
 circuit., High isolation voltage  
 (BV = 3.7 KV)  
 Yes  
 96ohms/6W (resistive) @  
 24VDC 6VA (inductive, unity  
 power factor)

2, Y0 and Y1  
 200kHz  
 1Hz  
 0 to100%  
 1%

4 Universal Input Channels  
 0 - 10 V, 0 - 5 V;  
 0-20mA, 4-20mA  
 0 - 50mV, 0 - 100mV  
 α1 PT100: -200 - 850°C  
 α2 PT100: -100 - 457°C  
 PT1000: -200 - 850°C  
 J type -210-1200°C  
 K type -200-1373°C  
 16-bit  
 0.2% of full scale@ 25°C

1 Output channel  
 4 - 20mA, 0 - 20mA  
 0 - 10V, 0 - 5V  
 12-bit  
 0.2% of full scale@ 25°C

General:

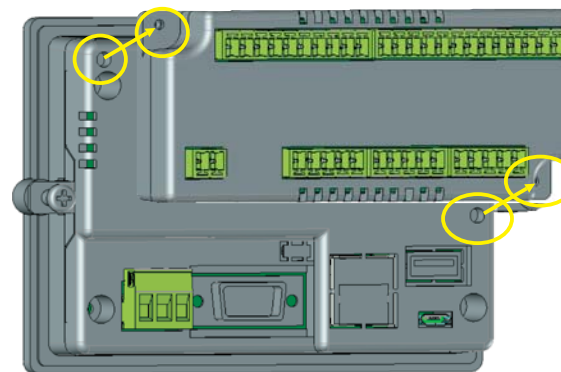
Operating Temperature: \*\*0 to 60°C.  
 Storage Temperature: -20 to 85°C.  
 Operating Humidity: 10% to 90% (Non condensing)  
 Mechanical Dimension: 48mm x 108mm x 41mm  
 (W x H x D)

**\*\*Operating temperature: For UL 0 to 50 °C**

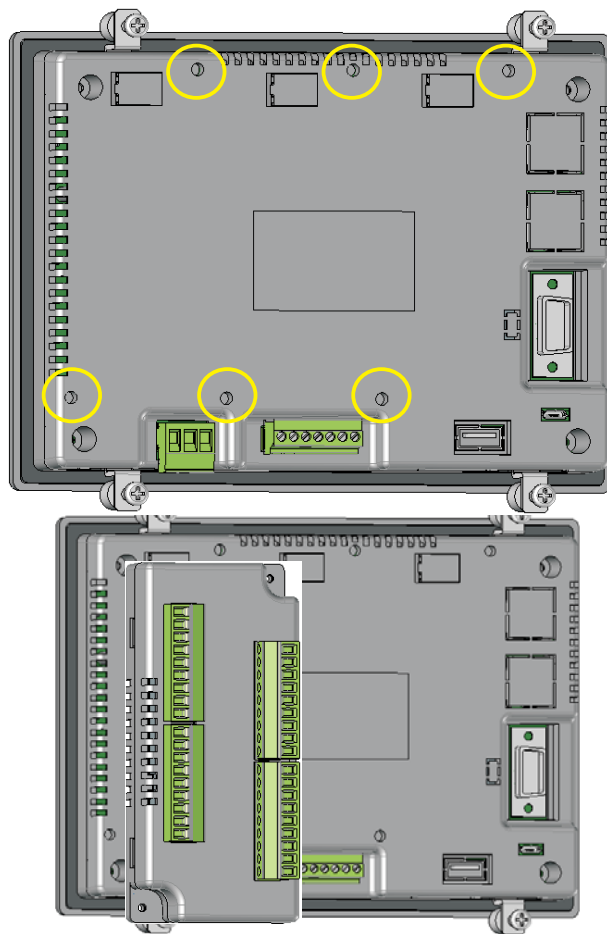
->This equipment is suitable for use in Class I, Division 2, Groups A, B, C and D or non-hazardous locations only.  
 ->WARNING – EXPLOSION HAZARD – Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.  
 ->WARNING – EXPLOSION HAZARD - Substitution of components may impair suitability for Class I, Division 2.  
 ->WARNING - CAUTION, Battery May Explode If Mistreated. Do Not Recharge, Disassemble Or Dispose Of In Fire.  
 ->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.  
 ->A recommendation for the user to periodically inspect the sealed devices used, for any degradation of properties and replace if degradation is found.

**Mounting Details:**

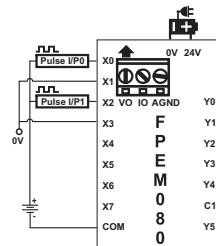
Mounting with base models:  
 With the expansions, while unpacking the unit, user will find 2 screws already attached with base bottom case. Fix the expansion with the HMI as shown below with these screws. Expansion connector will also be fixed with the expansion female connector given on base HMI.  
 Apply torque 0.1Nm while fixing with base unit.  
 Mounting with FP3043TN-E and FP3043T-E models:



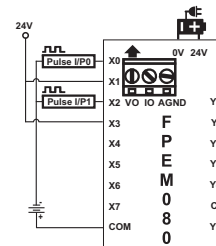
For 7" and 10.2" HMI models, the procedure of mounting expansions is same. Only instead of horizontal mounting, expansions will mount in vertical directions. Hence accordingly these base are having facility to add 3 and 5 expansions at a time respectively. Example is shown here.



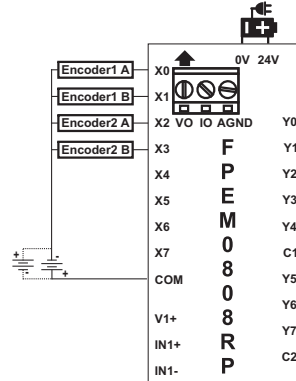
HSC Single phase down counter



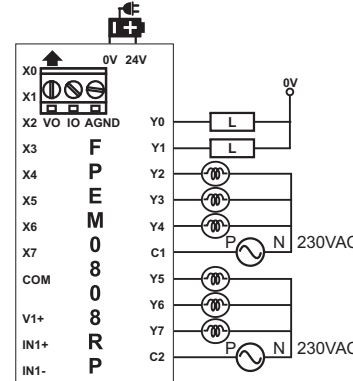
HSC Single phase down counter



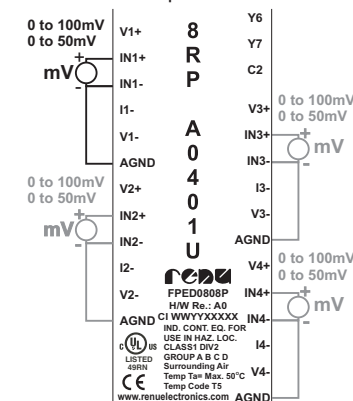
Quadrature:



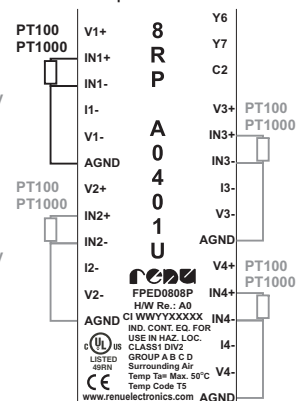
Digital output:



Analog millivolt Inputs and thermocouple:



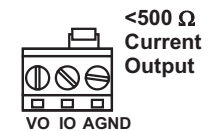
RTD Inputs:



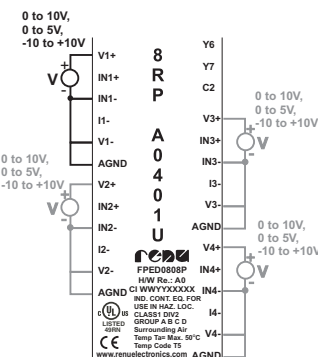
Analog Outputs: Voltage



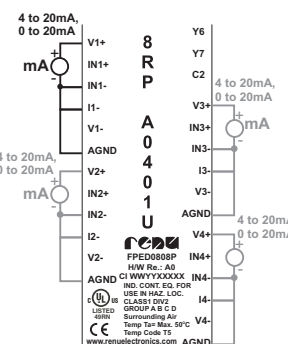
Current:



Analog Inputs: Voltage

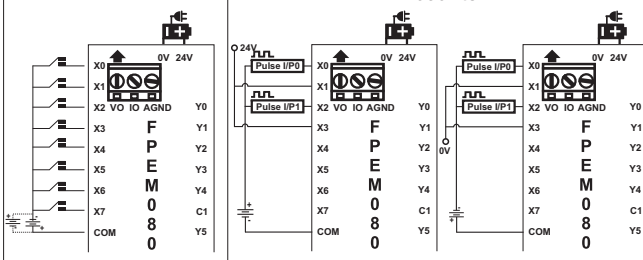


Current:



Wiring Diagram: Digital Inputs:

HSC Single phase up counter



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 application used. Usually, including your application also provides a lot of help. If possible e-mail the application to factory.

MANUAL REVISIONS:

Rev. No.	Date	Description
1.00	31/01/17	First Draft