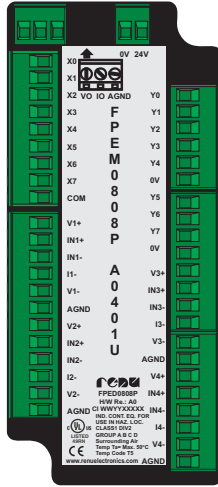


Models:
FPEM-0808P-A0401U
FlexiPanels FP3 series expansion models

INSTRUCTION SHEET

Thank you for purchasing FlexiPanels series analog expansion model FPEM-0808P-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
Voltage Rating: 24 VDC +/-15%, 12V and 3.3V from base

Power Rating: Input/ Channel: 5mA, 24VDC
Output/ Channel: 250mA @ 24VDC

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

High Speed Inputs:
No. of HS inputs: 2 pairs, X0-X1, X2-X3
Max. i/p frequency: 200kHz
Max. i/p count: 42949672965

Digital Outputs: 8 PNP type transistor outputs (2 PWM o/p)

Min. ON o/p Voltage: 22VDC
Max. ON o/p Voltage: 30VDC
Min. OFF o/p Voltage: 0.2VDC
Max. OFF o/p Voltage: 1VDC
Nominal Output voltage: 30VDC
Nominal o/p current 300mA Typ./channel
Isolation Optically isolated from internal circuit., High isolation voltage (BV = 3.7 KV)

Short Circuit protection Yes
Nominal load 96ohms/6W (resistive) @ 24VDC 6VA (inductive, unity power factor)

High Speed Outputs:
No. Of HS outputs: 2, Y0 and Y1
Max. O/p frequency: 200kHz
Frequency step: 1Hz
PWM duty cycle: 0 to 100%
Duty cycle step: 1%

Analog Inputs: 4 Universal Input Channels
Voltage Input: 0 - 10 V, 0 - 5 V;
Current Input: 0-20mA, 4-20mA
mV Input: 0 - 50mV, 0 - 100mV
RTD Input: α1 PT100: -200 - 850°C
 α2 PT100: -100 - 457°C
 PT1000: -200 - 850°C
 J type -210-1200°C
 K type -200-1373°C

Thermocouple input:

Resolution: 16-bit
Accuracy: 0.2% of full scale@ 25°C

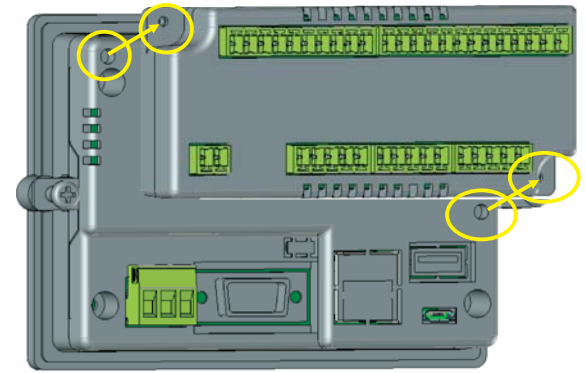
Analog Outputs: 1 Output channel
Current output: 4 - 20mA, 0 - 20mA
Voltage Output: 0 - 10V, 0 - 5V
Resolution: 12-bit
Accuracy: 0.2% of full scale@ 25°C

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)

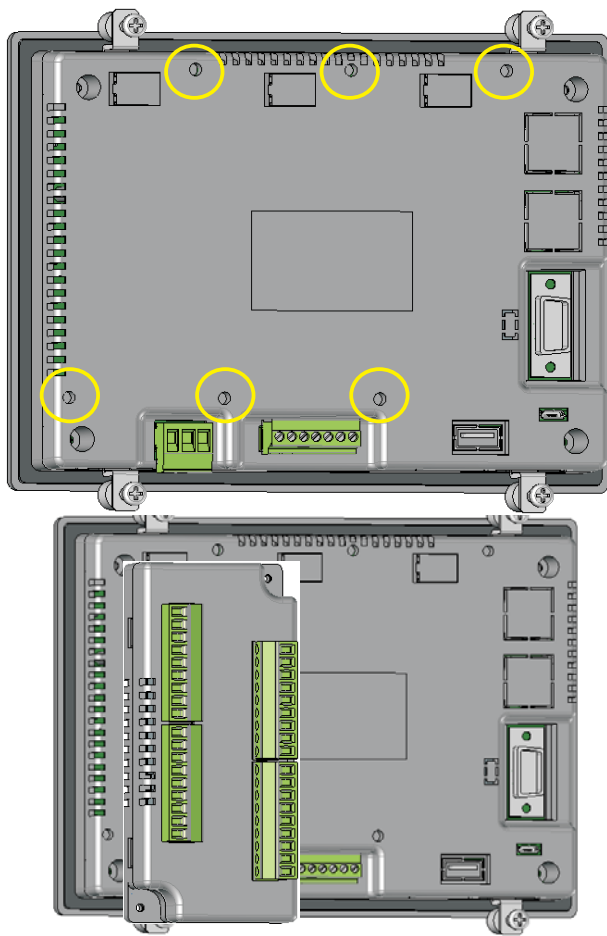
****Operating temperature: For UL 0 to 50 °C**

->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.

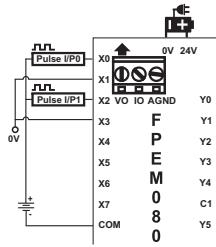
Mounting Details:
Mounting with base models:
 With the expansions, while unpacking the unit, user will find 2 screws already attached with base bottom case. Fix the expansion with the HMI as shown below with these screws. Expansion connector will also be fixed with the expansion female connector given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



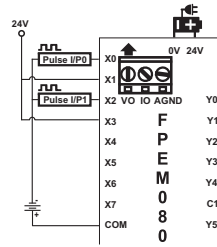
For 7" and 10.2" HMI models, the procedure of mounting expansions is same. Only instead of horizontal mounting, expansions will mount in vertical directions. Hence accordingly these base are having facility to add 3 and 5 expansions at a time respectively. Example is shown here.



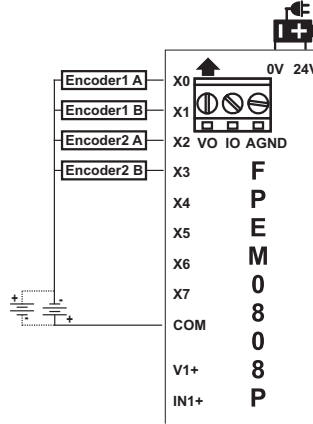
HSC Single phase down counter



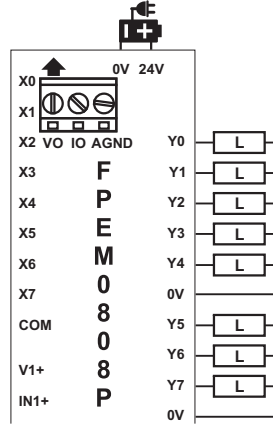
HSC Single phase down counter



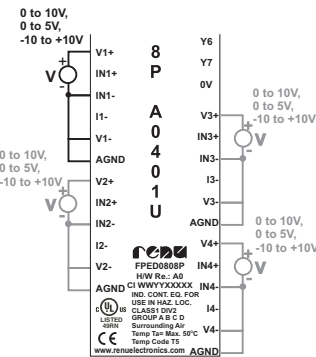
Quadrature:



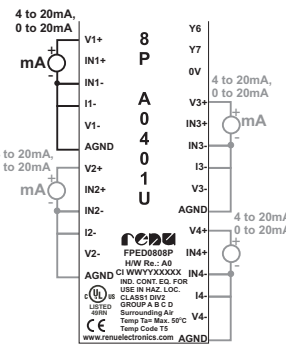
Digital output:



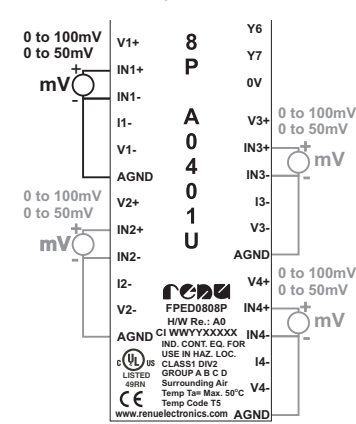
Analog Inputs: Voltage



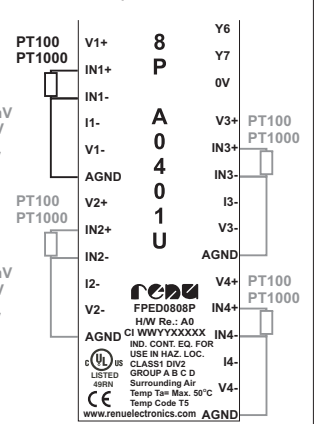
Current:



Analog millivolt Inputs and thermocouple:



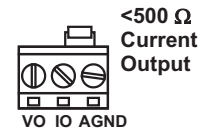
RTD Inputs:



Analog Outputs: Voltage

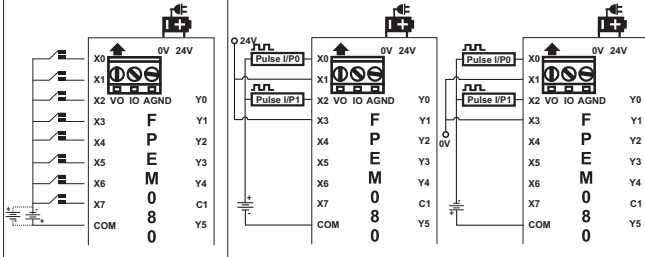


Current:



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