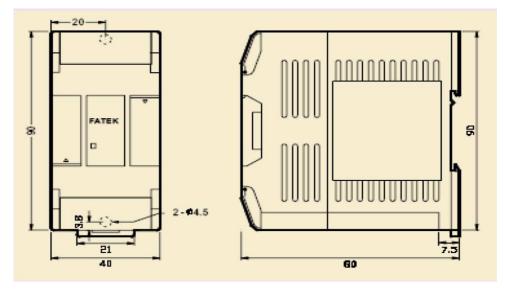
# FBs-2LCHR – 2 Channel 18-bit Load Cell Input Module

#### Rev\_1

#### *Introduction*

FBs-2LCHR is one of the analog input modules of FATEK FBs series PLC. It provides 2 channels of load cell input for weight measurement. The raw conversion result is represented by a signed 18 bit integer value. In order to filter out the field noise imposed on the signal, it also provides the average of sample input function.

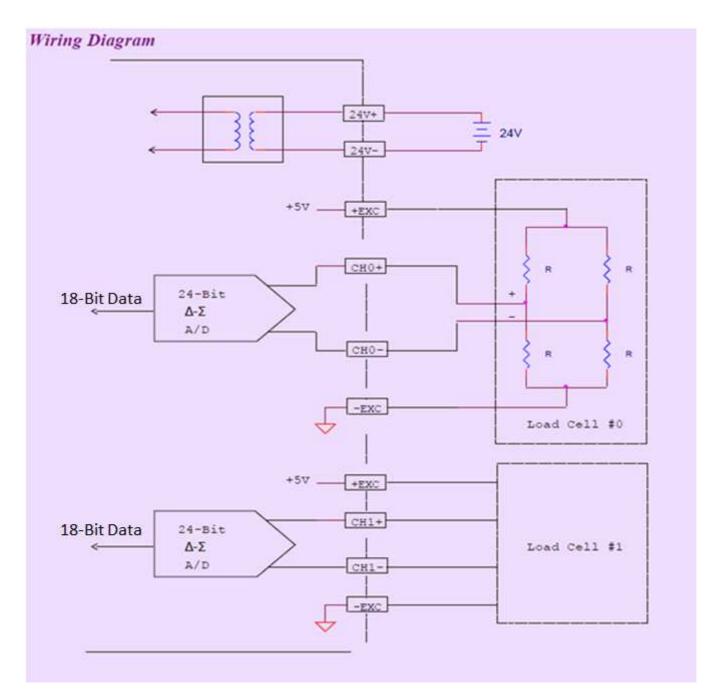
### Dimension



## **Specifications**

Total Channels	2 CH						
A/D Converter Utilized	24-bit $\Delta - \Sigma ADC$						
Resolution	Up to 18 bit (include signed bit) @ 5Hz Conversion Rate						
I/O Points Occupied	4 IR (Input Register) and 8DO						
<b>Conversion Rate</b>	5 /10/25/30 Hz						
Non-linearity	0.01%F.S. (@25℃)						
Zero Drift	0.2uV/°C						
Gain Drift	10ppm/°C						
Excitation Voltage	5V with $100 \Omega$ driving capability						
Sensitivity	2mV/V, 5mV/V, 10mV/V, 20mV/V						
Software Filter	Moving Average						
Average Samples	1~8 configurable						
Isolation	Transformer (power) and photo-couple (signal)						
Indicator(s)	5V PWR LED						
Supply Power	24V-15%/+20%, 2VA						
Internal Power Consumption	5V, 100mA						

Operating Temperature	0 ~ 60 °C
Storage Temperature	-20 ~ 80 °C
Dimensions	40(W)x90(H)x80(D) mm



The raw conversion result is represented by a 18-bit signed value. After setting the full range engineering value and perform the zero and full scale calibration procedure, the system will automatically convert the raw conversion reading value into engineering weight value for user application.

# PLC Control (The figure is for temporary use to explain the details)

Utilization		TimerA	Counter Is	ntemupt Setup 0	utput S	ietup Ir	put Setup	Temp. Config	notexu	Al Configuration	LC Configura	tion S	3SSI Confi	11
X0 Undefinition   X1 Undefinition   X2 Undefinition   X3 Undefinition   X3 Undefinition   X4 Undefinition   X5 Undefinition   X6 Undefinition   X6 Undefinition   X7 Undefinition   X8 Undefinition   X10 Undefinition   X11 Undefinition   X12 Undefinition   X13 Undefinition   X14 Undefinition   Y10 Undefinition   Y11 Undefinition   Y12 Undefinition   Y13 Undefinition   Y13 Undefinition   Y14 Undefinition   Y15 Undefinition	Function Undefined Undefined Undefined Undefined Undefined Undefined Undefined Undefined Undefined Undefined Undefined Undefined Undefined	Load I Statin Statin Statin III: II2:	Timer/Counter Interrupt Setup Output S Load Cell Configuration Starting register of configuration table: Starting register of reading/controlling register: Starting register of working register. IR Address Reading Address Modu #1: R3840 R0;R16 FBs-		etup Input Setup 1 [R5000 [R0 [D0 de Name Span Ch0 -2LCHR [0=10mV(2m)		(R5000*R5004) (R0*R31) (D0*D8) Span Ch1 Scan Rate: Times of Av						I Corti ( ) exage:	
	Undefined Undefined Undefined Undefined Undefined Undefined Undefined Undefined	#3 #4 #5 #6 #7 #8				V Ok	] <b>x</b> Carc	u l						

Before FBs-2LCHR module can be working, the configuration of the module should be set by the Winproladder software tool. The picture shown at above is the I/O configuration page for "LC module" setup.

**Starting register of configuration table:** Please input the starting register number of a block register that allocated for load cell module configuration in this field. The size of configuration table depends on the total installed load cell modules. The actual number of register allocated for configuration can be seen following the field entry, in this case it takes 5 registers for configuration.

**Starting register of reading/control registers:** Please input the starting register number of a block register that were allocated for receiving the measurement value and control parameters for load cell.

**Starting register of working registers:** Please input the starting register number of a block register that were allocated for internal process.

**Span Ch0:** The sensitivity of incorporated load cell or measurement range for channel 0. There are 2mV/V, 5mV/V, 10mV/V and 20mV/V can be set. The corresponding measurement range are  $0\sim10mV$ ,  $0\sim25mV$ ,  $0\sim50mV$  and  $0\sim100mV$ .

**Span Ch1:** The sensitivity of incorporated load cell or measurement range for channel 1. There are 2mV/V, 5mV/V, 10mV/V and 20mV/V can be set. The corresponding measurement range are  $0\sim10mV$ ,  $0\sim25mV$ ,  $0\sim50mV$  and  $0\sim100mV$ .

Scan Rate: Conversion rate. 5 / 10 / 25 / 30 Hz

**Times of Average:** There are No, 2 times, 4 times and 8 times average can be set. The processing capability of load cell module for one PLC is 16 in total. Please refer the user's manual for more detail explanation.