

# 5B Module Selection Guide

## for the DBK & WBK Signal Conditioning Options



5B modules allow you to employ IOtech PC-based data acquisition systems in applications with a diverse range of signal conditioning requirements. These applications include LVDT, potentiometer, isolated current loop inputs,  $\pm 10$  mV to  $\pm 40$ V

inputs, linearized RTD, thermocouple, frequency-to-voltage inputs, and all popular strain gage configurations. The following is a listing of the 5B modules available for IOtech products.

Analog Voltage-Input Modules, (4-Hz BW)		
IOtech Part #	Input Range	Output Range
SC-5B30-01	$\pm 10$ mV	$\pm 5$ V
SC-5B30-02	$\pm 50$ mV	$\pm 5$ V
SC-5B30-03	$\pm 100$ mV	$\pm 5$ V
SC-5B30-04	$\pm 10$ mV	0 to +5V
SC-5B30-05	$\pm 50$ mV	0 to +5V
SC-5B30-06	$\pm 100$ mV	0 to +5V
SC-5B31-01	$\pm 1$ V	$\pm 5$ V
SC-5B31-02	$\pm 5$ V	$\pm 5$ V
SC-5B31-03	$\pm 10$ V	$\pm 5$ V
SC-5B31-04	$\pm 1$ V	0 to +5V
SC-5B31-05	$\pm 5$ V	0 to +5V
SC-5B31-06	$\pm 10$ V	0 to +5V
SC-5B31-07	$\pm 20$ V	$\pm 5$ V
SC-5B31-08	$\pm 20$ V	0 to +5V
SC-5B31-09	$\pm 40$ V	$\pm 5$ V
SC-5B31-10	$\pm 40$ V	0 to +5V

Isolated True RMS Input Modules		
IOtech Part #	Input (RMS)	Output (DC)
SC-5B33-01	0 to +100 mV	0 to +5V
SC-5B33-02	0 to +1V	0 to +5V
SC-5B33-03	0 to +10V	0 to +5V
SC-5B33-04	0 to +150V	0 to +5V
SC-5B33-05	0 to +300V	0 to +5V
SC-5B33-06	0 to +1A	0 to +5V
SC-5B33-07	0 to +5A	0 to +5V

Linearized 2- or 3-Wire RTD Input Modules, (0 to +5V Output, 4-Hz )		
IOtech Part #	Type	Input Range
SC-5B34-01	100 Ohm Pt	-100 °C to +100 °C
SC-5B34-02	100 Ohm Pt	0 °C to +100 °C
SC-5B34-03	100 Ohm Pt	0 °C to +200 °C
SC-5B34-04	100 Ohm Pt	0 °C to +600 °C
SC-5B34-C-01	10 Ohm Cu at 0 °C	0 °C to +120 °C
SC-5B34-C-02	10 Ohm Cu at 25 °C	0 °C to +120 °C
SC-5B34-C-03	10 Ohm Cu at 0 °C	0 °C to +160 °C
SC-5B34-N-01	120 Ohm Ni	0 °C to +300 °C

Strain Gage Input Modules, ( $\pm 5$ V Output, 4-Hz, 10 kHz BW)			
IOtech Part #	Input Range	Excitation	
<b>10 kHz BW</b>			
SC-5B38-01	$\pm 10$ mV full (3 mV/V) 100 to 10k Ohm	3.333V	
SC-5B38-02	$\pm 30$ mV full (3 mV/V) 300 to 10k Ohm	10.000V	
SC-5B38-03	$\pm 10$ mV half (3 mV/V) 100 to 10k Ohm	3.333V	
SC-5B38-04	$\pm 30$ mV half (3 mV/V) 300 to 10k Ohm	10.000V	
SC-5B38-05	$\pm 20$ mV full (2 mV/V) 300 to 10k Ohm	10.000V	
SC-5B38-06	$\pm 33.3$ mV full (10 mV/V) 100 to 10k Ohm	3.333V	
SC-5B38-07	$\pm 100$ mV full (10 mV/V) 300 to 10k Ohm	10.000V	
<b>4-Hz BW</b>			
SC-5B38-31	$\pm 10$ mV full (3 mV/V) 100 to 10k Ohm	3.333V	
SC-5B38-32	$\pm 30$ mV full (3 mV/V) 300 to 10k Ohm	10.000V	
SC-5B38-33	$\pm 10$ mV half (3 mV/V) 100 to 10k Ohm	3.333V	
SC-5B38-34	$\pm 30$ mV half (3 mV/V) 300 to 10k Ohm	10.000V	
SC-5B38-35	$\pm 20$ mV full (2 mV/V) 300 to 10k Ohm	10.000V	
SC-5B38-36	$\pm 33.3$ mV full (10 mV/V) 100 to 10k Ohm	3.333V	
SC-5B38-37	$\pm 100$ mV full (10 mV/V) 300 to 10k Ohm	10.000V	

Linearized 4-Wire RTD Input Modules, (0 to +5V Output, 4-Hz BW)		
IOtech Part #	Type	Input Range
SC-5B35-01	100 Ohm Pt	-100 °C to +100 °C
SC-5B35-02	100 Ohm Pt	0 °C to +100 °C
SC-5B35-03	100 Ohm Pt	0 °C to +200 °C
SC-5B35-04	100 Ohm Pt	0 °C to +600 °C
SC-5B35-05	100 Ohm Pt	-100 °C to +200 °C
SC-5B35-C-01	10 Ohm Cu at 0 °C	0 °C to +120 °C
SC-5B35-C-02	10 Ohm Cu at 25 °C	0 °C to +120 °C
SC-5B35-C-03	10 Ohm Cu at 0 °C	0 °C to +160 °C
SC-5B35-N-01	120 Ohm Ni	0 °C to +300 °C

Potentiometer-Input Modules, (4-Hz BW)		
IOtech Part #	Input Range	Output Range
SC-5B36-01	0 to 100 Ohm	0 to +5V
SC-5B36-02	0 to 500 Ohm	0 to +5V
SC-5B36-03	0 to 1k Ohm	0 to +5V
SC-5B36-04	0 to 10k Ohm	0 to +5V

2-Wire Transmitter Interface Modules, (4-Hz, 100-Hz, 1 kHz BW)		
IOtech Part #	Input Range	Output Range
<b>4-Hz BW</b>		
SC-5B32-01	4 to 20 mA	0 to +5V
SC-5B32-02	0 to 20 mA	0 to +5V
<b>100-Hz BW</b>		
SC-5B42-01	4 to 20 mA	+1 to +5V

Analog Voltage-Input Modules, (10 kHz BW)		
IOtech Part #	Input Range	Output Range
SC-5B40-01	$\pm 10$ mV	$\pm 5$ V
SC-5B40-02	$\pm 50$ mV	$\pm 5$ V
SC-5B40-03	$\pm 100$ mV	$\pm 5$ V
SC-5B40-04	$\pm 10$ mV	0 to +5V
SC-5B40-05	$\pm 50$ mV	0 to +5V
SC-5B40-06	$\pm 100$ mV	0 to +5V
SC-5B41-01	$\pm 1$ V	$\pm 5$ V
SC-5B41-02	$\pm 5$ V	$\pm 5$ V
SC-5B41-03	$\pm 10$ V	$\pm 5$ V
SC-5B41-04	$\pm 1$ V	0 to +5V
SC-5B41-05	$\pm 5$ V	0 to +5V
SC-5B41-06	$\pm 10$ V	0 to +5V
SC-5B41-07	$\pm 20$ V	$\pm 5$ V
SC-5B41-08	$\pm 20$ V	0 to +5V
SC-5B41-09	$\pm 40$ V	$\pm 5$ V
SC-5B41-10	$\pm 40$ V	0 to +5V

Displacement Transducer Input Modules, DC-LVDT Transducer, (1 kHz BW)		
IOtech Part #	Input Range	Output Range
SC-5B43-01	$\pm 1$ V	$\pm 5$ V
SC-5B43-02	$\pm 2$ V	$\pm 5$ V
SC-5B43-03	$\pm 3$ V	$\pm 5$ V
SC-5B43-04	$\pm 4$ V	$\pm 5$ V
SC-5B43-05	$\pm 5$ V	$\pm 5$ V
SC-5B43-06	$\pm 6$ V	$\pm 5$ V
SC-5B43-07	$\pm 7$ V	$\pm 5$ V
SC-5B43-08	$\pm 8$ V	$\pm 5$ V
SC-5B43-09	$\pm 9$ V	$\pm 5$ V
SC-5B43-10	$\pm 10$ V	$\pm 5$ V

Frequency-Input Modules, (TTL or zero crossing input)		
IOtech Part #	Input Range	Output Range
SC-5B45-01	0 to 500 Hz	0 to +5V
SC-5B45-02	0 to 1 kHz	0 to +5V
SC-5B45-03	0 to 3 kHz	0 to +5V
SC-5B45-04	0 to 5 kHz	0 to +5V
SC-5B45-05	0 to 10 kHz	0 to +5V
SC-5B45-06	0 to 25 kHz	0 to +5V
SC-5B45-07	0 to 50 kHz	0 to +5V
SC-5B45-08	0 to 100 kHz	0 to +5V

Linearized Thermocouple-Input Modules, (0 to +5V Output, 4-Hz BW)		
IOtech Part #	Type	Input Range
SC-5B47-J-01	J	0 °C to +760 °C
SC-5B47-J-02	J	-100 °C to +300 °C
SC-5B47-J-03	J	0 °C to +500 °C
SC-5B47-K-04	K	0 °C to +1000 °C
SC-5B47-K-05	K	0 °C to +500 °C
SC-5B47-T-06	T	-100 °C to +400 °C
SC-5B47-T-07	T	0 °C to +200 °C
SC-5B47-E-08	E	0 °C to +1000 °C
SC-5B47-R-09	R	+500 °C to +1750 °C
SC-5B47-S-10	S	+500 °C to +1750 °C
SC-5B47-B-11	B	+500 °C to +1800 °C
SC-5B47-J-12	J	-100 °C to +760 °C
SC-5B47-K-13	K	-100 °C to +1350 °C
SC-5B47-K-14	K	0 °C to +1200 °C
SC-5B47-N-15	N	-100 °C to +1300 °C

Note: 5B modules must be purchased separately. All sales are final with no right of return.