



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, ± 10 mV to ± 40 V

inputs, linearized RTD, thermocouple, frequency-to-voltage inputs, and all popular strain gage configurations. The following is a complete 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 | ± 10 mV | ± 5 V |
| SC-5B30-02 | ± 50 mV | ± 5 V |
| SC-5B30-03 | ± 100 mV | ± 5 V |
| SC-5B30-04 | ± 10 mV | 0 to +5V |
| SC-5B30-05 | ± 50 mV | 0 to +5V |
| SC-5B30-06 | ± 100 mV | 0 to +5V |
| SC-5B31-01 | ± 1 V | ± 5 V |
| SC-5B31-02 | ± 5 V | ± 5 V |
| SC-5B31-03 | ± 10 V | ± 5 V |
| SC-5B31-04 | ± 1 V | 0 to +5V |
| SC-5B31-05 | ± 5 V | 0 to +5V |
| SC-5B31-06 | ± 10 V | 0 to +5V |
| SC-5B31-07 | ± 20 V | ± 5 V |
| SC-5B31-08 | ± 20 V | 0 to +5V |
| SC-5B31-09 | ± 40 V | ± 5 V |
| SC-5B31-10 | ± 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, (± 5 V Output, 4-Hz, 10-kHz BW)

| IOtech Part # | Input Range | Excitation |
|------------------|---|------------|
| 10-kHz BW | | |
| SC-5B38-01 | ± 10 mV full (3 mV/V) 100 to 10K Ohm | 3.333V |
| SC-5B38-02 | ± 30 mV full (3 mV/V) 300 to 10K Ohm | 10.000V |
| SC-5B38-03 | ± 10 mV half (3 mV/V) 100 to 10K Ohm | 3.333V |
| SC-5B38-04 | ± 30 mV half (3 mV/V) 300 to 10K Ohm | 10.000V |
| SC-5B38-05 | ± 20 mV full (2 mV/V) 300 to 10K Ohm | 10.000V |
| SC-5B38-06 | ± 33.3 mV full (10 mV/V) 100 to 10K Ohm | 3.333V |
| SC-5B38-07 | ± 100 mV full (10 mV/V) 300 to 10K Ohm | 10.000V |
| 4-Hz BW | | |
| SC-5B38-31 | ± 10 mV full (3 mV/V) 100 to 10K Ohm | 3.333V |
| SC-5B38-32 | ± 30 mV full (3 mV/V) 300 to 10K Ohm | 10.000V |
| SC-5B38-33 | ± 10 mV half (3 mV/V) 100 to 10K Ohm | 3.333V |
| SC-5B38-34 | ± 30 mV half (3 mV/V) 300 to 10K Ohm | 10.000V |
| SC-5B38-35 | ± 20 mV full (2 mV/V) 300 to 10K Ohm | 10.000V |
| SC-5B38-36 | ± 33.3 mV full (10 mV/V) 100 to 10K Ohm | 3.333V |
| SC-5B38-37 | ± 100 mV full (10 mV/V) 300 to 10K Ohm | 10.000V |
| 1-kHz BW | | |
| SC-5B392-11 | 4 to 20 mA | 0 to 5V |
| SC-5B392-12 | 4 to 20 mA | ± 5 V |

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 |
|------------------|-------------|--------------|
| 4-Hz BW | | |
| SC-5B32-01 | 4 to 20 mA | 0 to +5V |
| SC-5B32-02 | 0 to 20 mA | 0 to +5V |
| 100-Hz BW | | |
| 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 | ± 10 mV | ± 5 V |
| SC-5B40-02 | ± 50 mV | ± 5 V |
| SC-5B40-03 | ± 100 mV | ± 5 V |
| SC-5B40-04 | ± 10 mV | 0 to +5V |
| SC-5B40-05 | ± 50 mV | 0 to +5V |
| SC-5B40-06 | ± 100 mV | 0 to +5V |
| SC-5B41-01 | ± 1 V | ± 5 V |
| SC-5B41-02 | ± 5 V | ± 5 V |
| SC-5B41-03 | ± 10 V | ± 5 V |
| SC-5B41-04 | ± 1 V | 0 to +5V |
| SC-5B41-05 | ± 5 V | 0 to +5V |
| SC-5B41-06 | ± 10 V | 0 to +5V |
| SC-5B41-07 | ± 20 V | ± 5 V |
| SC-5B41-08 | ± 20 V | 0 to +5V |
| SC-5B41-09 | ± 40 V | ± 5 V |
| SC-5B41-10 | ± 40 V | 0 to +5V |

Displacement Transducer Input Modules, DC-LVDT Transducer, (1-kHz BW)

| IOtech Part # | Input Range | Output Range |
|---------------|-------------|--------------|
| SC-5B43-01 | ± 1 V | ± 5 V |
| SC-5B43-02 | ± 2 V | ± 5 V |
| SC-5B43-03 | ± 3 V | ± 5 V |
| SC-5B43-04 | ± 4 V | ± 5 V |
| SC-5B43-05 | ± 5 V | ± 5 V |
| SC-5B43-06 | ± 6 V | ± 5 V |
| SC-5B43-07 | ± 7 V | ± 5 V |
| SC-5B43-08 | ± 8 V | ± 5 V |
| SC-5B43-09 | ± 9 V | ± 5 V |
| SC-5B43-10 | ± 10 V | ± 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 are not returnable.