WBK15™

Multifunction Isolated Signal Conditioning Module

Compatibility: ✔ WaveBook

Features

- **Accepts any combination of up to eight 5B isolated input signal conditioning modules**
- **Attaches to the WaveBook data acquisition systems**
- **Offers plug-in screw terminal blocks for convenient connection of 5B modules**
- **Features built-in cold junction sensing for thermocouple calibration**
- **Features rugged all-metal construction for portable applications**
- **Includes a built-in power supply, operable from 10 to 30 VDC**

The WBK15™ eight-channel multifunction isolated signal conditioning module allows IOtech's WaveBook™ data acquisition systems to accommodate any combination of up to eight optional 5B input signal conditioning modules. Each user-installable signal conditioning module offers 1500V isolation from the system and from other channels. The WBK15 is available with a wide variety of modules that accommodate an array of signals—from low-level thermocouple signals to strain gage signals.

The WBK15 accommodates up to eight 5B signal conditioning modules

*5B modules selected from a choice of types are placed into the WBK15 module*

A single cable connects the WBK15's output to the WaveBook analog input connector. One WaveBook can support up to eight WBK15 units, providing a total of 72 isolated analog input channels. The WaveBook scans the WBK15's channels at the same 1 µs/channel rate that it scans all WBK series analog expansion and signal conditioning cards, allowing it to measure all channels of a fully configured 72-channel system in 72 µs.

Powering the WBK15. The WBK15 can obtain its input power from a number of sources: an included AC adapter, an optional DBK30A rechargeable battery/excitation module, or directly from a 12 VDC source, such as an automobile battery. The WBK15 has a built-in DC/DC converter capable of powering a full complement of 5B modules—even when every channel is fully outfitted with strain gage modules with bridge excitation.

WBK15 Isolated Signal Conditioning Module Block Diagram

Channel 1 (typ of 8)

PC Data Acquisition Hardware
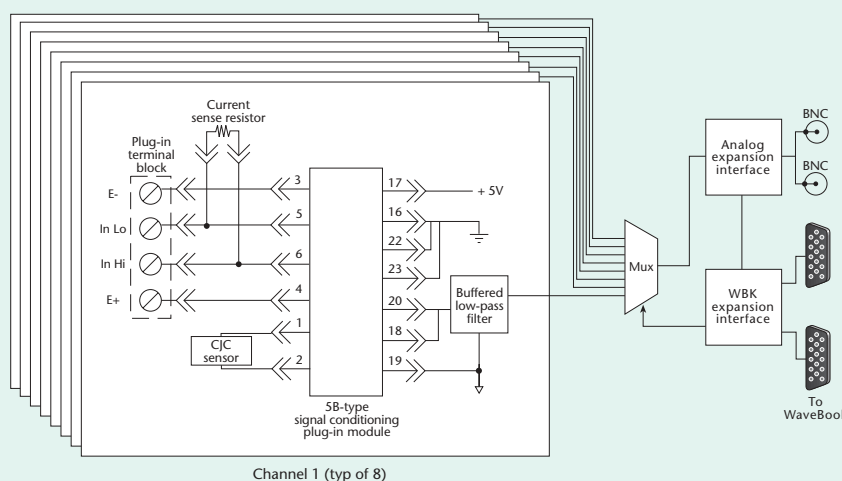
WBK15™
Specifications & Ordering Information

Configurability. The WBK15 offers exceptionally wide-ranging configurability. For instance, it permits you to individually select the type of signal attached to every channel. Also, there is no limit to the type and combination of signals that can be attached to the WBK15.

Signal Connections. Plug-in screw-terminal blocks provide a convenient way of connecting analog signals to the WBK15. Each block contains four terminals per channel, providing access to both the 5B modules' input and excitation-output features.

Specifications

Connector: 2 BNC connectors, mate with expansion signal input on the WaveBook; two 15-pin connectors, mate with expansion signal control on the WaveBook

Module Capacity: Eight 5B modules (optional)

Input Connections: Removable 4-terminal plugs

Power Requirements: 10 to 30 VDC or 120 VAC with included adapter

    With 8 thermocouple-type modules:
      0.20A @ 15 VDC

    With 8 strain gage-type modules:
      0.75A @ 15 VDC

Cold-Junction Sensor: Standard per channel

Shunt-Resistor Socket: One per channel for current loop inputs

Isolation

    Signal Inputs to System: 1500 VDC
      (600 VDC for CE compliance)

    Input Channel-to-Channel: 1500 VDC
      (600 VDC for CE compliance)

Dimensions: 285 mm W x 221 mm D x 36 mm H (11" x 8.5" x 1.375")

Weight: 1.8 kg (4 lbs) with no modules installed

Vibration: MIL STD 810, category 1

Ordering Information

Description	Part No.
8-channel multi-purpose signal conditioning module	WBK15

Accessories & Cables

Rack mount kit	RackDBK2
5-pin male DIN to 5-pin male DIN provides convenient connection between WaveBook power input connectors and DBK30A (also used to daisy-chain input power to expansion modules)	CA-115
5-pin DIN to automobile cigarette lighter power cable	CA-116

For complete information on accessories and cables, visit
www.iotech.com/acc

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