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# High-Resolution Digitizer Accessories and Cables

## DMM Accessories and Cables

The NI 4060 DMM has built-in shrouded banana jacks to prevent exposure to potentially hazardous voltages on the test probes. The NI 4060 kits include the P-1 Probe Set: two 1 m test leads (red and black) with test probes.

The NI 4050 DMM kit includes the P4-BJ2 adapter cable, which connects to the NI 4050 on one end and terminates in shrouded banana jacks. The shroud over the banana plugs prevents exposure to potentially hazardous voltages on the test probes. The kit also includes the P-1 Probe Set. Additional probe sets are available.

All cables and accessories meet IEC 1010 safety requirements and permit direct probing of circuits and cables.

### P-1 Probe Set (see Figure 1)

Easy to use, versatile probe set with banana jack connectors .....761000-01

### P-2 Probe Set (see Figure 2)

Additional probes for use with the P-1 Probe set. Includes two alligator clips, two spade connectors, two spring hooks, and two 1-meter test leads .....184698-01

### P-3 Probe Set (see Figure 3)

Banana plug to bare wire for direct probing of circuits and cables. Each kit includes one red and one black wire.

1 m .....185692-01

### P4-BJ2 Cable (see Figure 4)

Cable adapter used to connect a PCMCIA DMM to standard banana plug leads. Polarized for easy connectivity. Length is 1 foot .....183146-01

### Trigger Cable

Auxiliary trigger cable for use with external multiplexers. The cable features two male BNC connectors on one end and a 9-pin DIN connector to connect to a DMM on the other end.

50 cm .....184931-0R5

### Current Shunt (see Figure 5)

Current shunt module used to measure up to 200 mA and 10 A. Connects directly into any standard DMM banana connector and features an easily accessible field replaceable fuse.

CSM-200mA (200 mA) .....777488-01

CSM-10A (10 A) .....777488-02

### Carrying Case

Nylon pouch for storing cables and accessories .....745531-01



Figure 1. P-1 Probe Set



Figure 2. P-2 Probe Set



Figure 3. P-3 Probe Set



Figure 4. P4-BJ2 Cable



Figure 5. Current Shunt

# High-Resolution Digitizer Accessories and Cables



Figure 6. PSH32-TC6 for use with NI 4350 for PCMCIA



Figure 7. CB-27T for use with NI 4350 for PCMCIA



Figure 8. TC-2190 for use with NI 4350 for USB and ISA and NI 4351 for PCI, PXI/CompactPCI

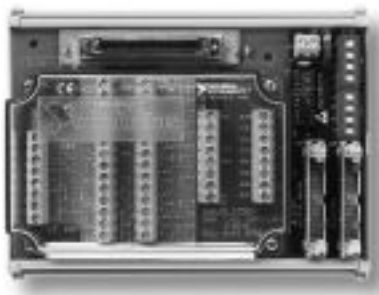


Figure 9. TBX-68T for use with NI 4350 for USB and ISA and NI 4351 for PCI, PXI/CompactPCI

## NI 4350 for PCMCIA PSH32-TC6 (see Figure 6)

Shielded cable with six thermocouple miniconnectors as well as detachable screw terminals for the four digital lines. The PSH32-TC6 features isothermal construction and provides a sensor for cold-junction compensation on channel 0 as well as autozeroing circuitry on channel 1.

1 m long, 7 cm wide. ....183111-01

## CB-27, CB-27T, PSH32-30F (see Figure 7)

The CB-27 is a general-purpose connector block with screw terminals for connecting up to eight unconditioned analog signals, excitation, and four digital lines. Specifically designed for temperature measurements, the CB-27T is similar in construction to the CB-27. It features six analog inputs, in addition to isothermal construction, a cold-junction sensor on channel 0, and autozeroing circuitry on channel 1. Use the PSH32-30F shielded, latching cable to connect your NI 4350 for PCMCIA to the CB-27 or CB-27T.

CB-27 .....777100-01  
 CB-27T .....777049-01  
 PSH32-30F cable (1 m) .....183965-01

## NI 4350 for USB and ISA, NI 4351 TC-2190 (see Figure 8)

Shielded, rack-mount adapter with 14 thermocouple miniconnectors and spring terminals for the four digital lines. The TC-2190 features isothermal construction, a cold-junction sensor on channel 0, and autozeroing circuitry on channel 1. Use the TC-2190 with the SH6868 shielded cable. ....777510-01

## TBX-68T (see Figure 9)

68-pin, DIN-rail mountable terminal block. It provides screw-terminals for 14 unconditioned temperature, voltage, or resistance signals as well as for the excitation and eight digital lines. It features isothermal design, a transparent plastic cover that minimizes thermal gradients across the terminal block, a sensor for cold-junction compensation on channel 0, and autozeroing circuitry on channel 1. With its onboard electronic circuitry, it can increase your sinking and sourcing capabilities to 64 mA and 15 mA respectively. The TBX-68T also has 26-pin latched connectors to which you can connect digital signal conditioning accessories such as the SSR-8, ER-8, and the SC-2060 Series (Figure 11). Use the TBX-68T with the SH6868 shielded cable. ....777232-01

## TBX-68

General-purpose terminal block. You can connect up to 16 unconditioned analog signals as well as excitation and digital signals. Use the TBX-68 with the SH6868 shielded cable. ....777141-01

# High-Resolution Digitizer Accessories and Cables

## SH6868 Shielded Cable

Shielded 68-pin cable terminated with two 68-pin 0.050 series D-type connectors. Cable is used to connect an NI 4350 for USB and ISA or an NI 4351 Series to 68-pin accessories such as the TC-2190, TBX-68T, TBX-68, and CB-68T.

1 m .....	182419-01
2 m .....	182419-02
5 m .....	182419-05
10 m .....	182419-10

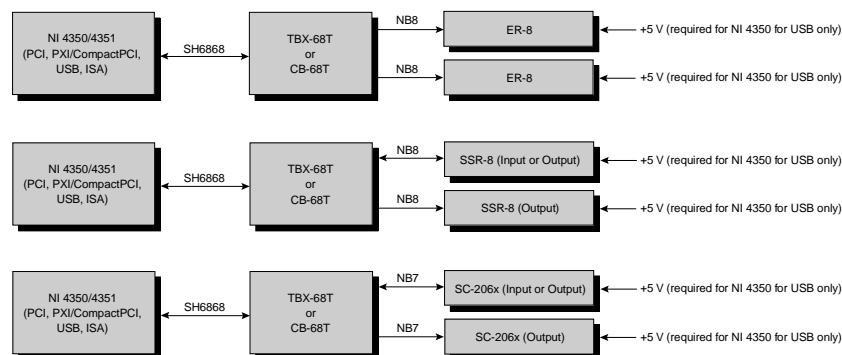


Figure 10. CB-68T, shown inside CA-1000 enclosure, is used with NI 4350 for USB and ISA or NI 4351 for PCI and PXI/CompactPCI.

## CB-68T (see Figure 10)

68-pin terminal block for mounting inside the CA-1000 enclosure. The CB-68T provides screw terminals for 14 unconditioned temperature, voltage, or resistance signals as well as for excitation and digital lines. It features isothermal design to minimize thermal gradients across the terminal block, a sensor for cold-junction compensation on channel 0, and autozeroing circuitry on channel 1. You can use the screw terminals to connect to the different kinds of panelettes, such as BNC, SMB, banana jack, thermocouple plugs, and 9-pin D-Sub connectors, on the front panel of the CA-1000 (See page 341 for a complete listing of connectivity options with the CA-1000). With its onboard electronic circuitry, it can increase your sinking and sourcing capabilities to 64 mA and 15 mA, respectively. The CB-68T also has two 26-pin connectors to which you can connect digital signal conditioning accessories such as the SSR-8, ER-8, and the SC-2060 Series. With two 26-pin connectors, you can simultaneously connect a digital input accessory (such as the SSR-8 with input modules) and a digital output accessory (such as the ER-8 or SSR-8 with output modules). Thus, you can use the eight NI 435x digital I/O lines as inputs or outputs.

CB-68T .....777926-01



\* There are eight DIO lines available. In case two digital signal conditioning accessories are used at the same time, a digital input signal conditioning accessory will also drive the equivalent line on the digital output signal conditioning accessory. Do not use two digital input accessories at the same time.

Figure 11. Examples of Digital Accessory Connection\*

Measurement Type	NI 4350/4351 Platform for	Accessory
Thermocouple Only	PCMCIA	PSH32-TC6 miniconnector cable
	USB, ISA, PCI, PXI/CompactPCI	TC-2190 and SH6868 cable
Voltage, Resistance, Chromatography Only	PCMCIA	CB-27 and PSH32-30F cable
	USB, ISA, PCI, PXI/CompactPCI	TBX-68 and SH6868 cable
Temperature, Voltage, Resistance, Chromatography	PCMCIA	CB-27T and PSH32-30F cable
	USB, ISA, PCI, PXI/CompactPCI	TBX-68T and SH6868 cable
		CB-68T with CA 1000 and SH6868 cable

Table 2. NI 435x Accessory Selection Table



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