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Accessories and Complete Lab Bench Instruments

We now offer complete Lab Bench IR Measuring Sets based on Vigo detectors. These consist of:

- The detector itself
- Mounted on a heat sink with stalk support with
- Appropriate preamp typically integrated within the heat sink and
- External power supply for the preamp and/or
- TE-cooler power supply/controller (if detector is TE-cooled) mounted in same external housing with preamp power supply plus
- Interconnecting cable at no additional cost

The system is powered by 110VAC (24VDC or 230VAC optional). The amplified output of the detector is presented on a BNC connector for oscilloscope display or further processing.

The photo at left shows the heat sink with a TE-cooled detector mounted. The dimensions of the heat sink are 74 mm diameter and the length is 90 mm from front of detector shield to output connector mounting surface. Allow 10 mm more for 9-pin "D" power/control and BNC output connectors. A ¼-20 thread accepts the stalk.

The external controller/power units measure 210 x 150 x 52 mm max. An interconnecting cable is supplied.

- Available detectors: ALL p/ns
- Heat Sink with mounting stalk and weighted base: p/n DR-1B
- Power supply with TE-cooler controller for +/-1C stability: p/n STCC-01
- Power supply with TE-cooler controller for +/-0.1C stability: p/n CTCC-03
- Power supply for preamp only without cooler controller: p/n PPS
- Preamps available packaged INSIDE the Heat Sink: any VPAC or VPDC series unit from the table on the following page.

To order: specify (1) detector model and active area, (2) Heat Sink DR-1B, (3) if TE-cooled, specify either STCC-01 (+/-1C) or CTCC-03 (+/-0.1C) controller, and input power if other than 110VAC; if uncooled specify PPS power supply, and input power if other than 110VAC, (4) specify one preamp from the table following. The measuring set will be delivered with actual measured data for the detector and preamp at the operating temperature achieved by the system.

A note on operating temperature: the STCC and CTCC controllers are factory set to maintain a stable detector temperature of about 230K as long as the ambient temperature experienced by the heart sink is at or below 25C. If your ambient may be higher, you can specify this at time of order in which case the detector will be stabilized at the corresponding higher operating point (constant delta-T) with respect to your maximum ambient.

The available preamps are as follows:

VPAC series	VPAC-01	VPAC-03	VPAC-1	VPAC-5	VPAC-10	VPAC-20	VPAC-50	VPAC-100	VPAC-250
Bandwidth: 10 Hz to	100 kHz	300 kHz	1 MHz	5 MHz	10 MHz	1 kHz to 20 MHz	1 kHz to 50 MHz	1 kHz to 100 MHz	10 kH to 250 MHz
Trans-impedance	100K	100K	100K	24K	10K	5K	4K	2K	5K
Max output voltage	14	14	10	4	4	4	3	3	1
Input noise current [pA/Hz$^{1/2}$]	$I_n = 1200/R_d$ where R_d is detector resistance in Ω			$I_n = 3000/R_d$ where R_d is detector resistance in Ω			$I_n = 2000/R_d$ where R_d is detector resistance in Ω		$I_n = 3000/R_d$ where R_d is resistance in Ω
Output impedance	50 ohms								
VPDC-series	VPDC-01	VPDC-03	VPDC-1	VPDC-5	VPDC-10	VPDC-20	VPDC-50	VPDC-100	VPDC-250
Bandwidth DC to	100 kHz	300 kHz	1 MHz	5 MHz	10 MHz	20 MHz	50 MHz	100 MHz	250 MHz

Prices are as follows:
Detector: see separate price list
DR-1B and DR-10B heat sink and base with detector mounted and tested on it: $250 (DR-10B is used when internal preamp bandwidth is 50 MHz or greater)
STCC-01 (+/-1C) power supply/controller: $400
CTCC-03 (+/-0.1C) power supply/controller: $700
PPS power supply (if detector not TE-cooled): $195
Any VPDC- or VPAC-series preamp integrated within DR-1B heat sink: $795.
These prices are valid worldwide.

Terms: Above prices are in US$ and are Ex-Works (EXW) Brookline MA USA. We accept credit cards (Visa, MasterCard, American Express) and we ship on net 30 day payment terms to customers whose credit we approve.

Other options: for external preamps, for preamps with lower noise figures (detector noise limited performance) and wider bandwidths (to 500 MHz), see our separate data sheet with description of stand alone units from a US manufacturer.

More information: request our 33 page brochure titled "Vigo Laboratory IR Measuring Sets", available by mail or by email in .pdf format (900kB).