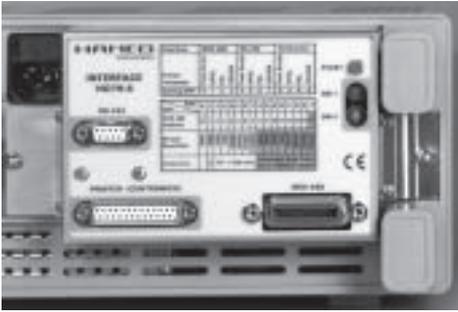


Multifunction Interface HO79-6



Designed for HAMEG Analog/Digital Oscilloscopes with Serial Interface

The HO79-6 interface enables the user to transfer data from the oscilloscope to peripheral devices for documentation purposes. For programming ease SCPI commands are used. Additionally the attached oscilloscope can be remotely controlled via the HO79-6 in its digital as well as in its analog operating mode.

HO79-6 supports:

GPIB (IEEE-488) – RS-232 – Parallel (Centronics)

The HO79-6 processes commands (according to the SCPI standard) that will be received via the GPIB or the RS-232 port. In its stand alone mode the HO79-6 is able to transmit data to an attached device after pressing the START button, for example to print a graphic document.

The following formats are supported for all ports:

PostScript - HPGL - PCL - EPSON

GPIB (IEEE-488) - bi-directional -

In this mode the adapter can be configured as normal **BUS** or as **TALK ONLY DEVICE**.

The HO79-6 accepts commands from any GPIB controller and executes them. In this case the HO79-6 has to be configured as **BUS DEVICE**.

In its **TALK-ONLY** configuration the HO79-6 acts:

1. as transmitting device for listen only instruments (for example: HPGL plotters)
2. as automatic controller when the oscilloscope is being operated in SINGLE mode. In case of a trigger event the oscilloscope digitizes the signal(s). Then the HO79-6 transfers the data as configured and resets the oscilloscope again.

RS-232C - bi-directional -

This port is used to transfer data and commands from/to the serial interface of a PC. The HO79-6 supports transfer rates from 1200 to 38400 Baud.

Parallel - unidirectional -

This port is used for printers with a Centronics type cable.

Attachment to the oscilloscope

When the HO79-6 is fastened to the back panel of the oscilloscope the connections for the data transfer as well as for the power supply will be built up automatically.

Scope Tester HZ60-3



The HZ60-3 is currently the world's only reasonably priced instrument for accurate and reliable testing of the most important characteristics of oscilloscopes and probes. In view of the fact that many oscilloscopes actually have poor signal transfer characteristics, this tester is an indispensable piece of equipment. In addition, such an instrument is an absolute must for RF adjustment of high frequency probes or for matching probes to the oscilloscope input.

For all tests, the HZ60-3 generates precise square wave signals at 7 crystal controlled frequencies with a rise time of approx. 1ns. This permits precise measurements of the horizontal deflection coefficients of oscilloscopes. The amplitude accuracy is better than **1%**, and can be recalibrated at any time

using any DMM. To prevent power line interference, the Scope Tester is powered by 4 AA type batteries, which are **automatically switched off** after three minutes.

7 crystal controlled frequencies, **1-10-100Hz, 1-10-100kHz** and **1MHz**.

Rise time: typical <1ns.

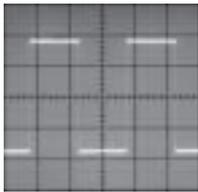
3 output voltages: DC calibration voltage, 25mV_{pp} at 50Ω termination, 0.25V_{pp} and 2.5V_{pp} o.c.

Battery operated with 4x1.5V (AA) incl. 3 min. economizing circuit

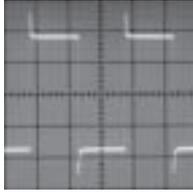
Dimensions: 125x80x42mm.

Accessories supplied

Operating instructions, 50Ω-cable, 50Ω through termination



precise 1MHz signal from tester HZ60



1MHz signal with improperly adjusted probe

Component Tester HZ65



The Component Tester HZ65 permits non destructive testing of semiconductors, resistors, capacitors, and inductors, either individually or in circuit. The resulting display on the scope screen will show the characteristic voltage/current diagram of the component under test, enabling its functionality to be interpreted. Two 3-point sockets are provided for testing transistors, permitting selection of any two contacts. Components with larger diameter leads and ICs are connected using two test leads. The test voltage and current are limited, so that no components can be damaged.

It is possible to rapidly locate faults in complex circuits by comparing test patterns of a known good circuit and the circuit under test. Before starting the test, all circuits must be disconnected from power to prevent passage

of current through any components. It is also very important to disconnect common ground, because any additional connections between components and the tester may cause incorrect pattern display. Connects to all Oscilloscopes

Test voltage: approx. 8.2V_{rms}

Test currents: max. 3.7-37-320mA_{rms}

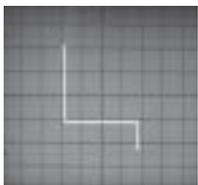
Power supply: 115V and 230V ±10%

Power consumption: max. 4 Watt.

Dimensions: 125x80x42mm.

Accessories supplied

Operating instructions, 2 test leads (red and black)



Transistor junction base / emitter



parallel connection diode/resistor