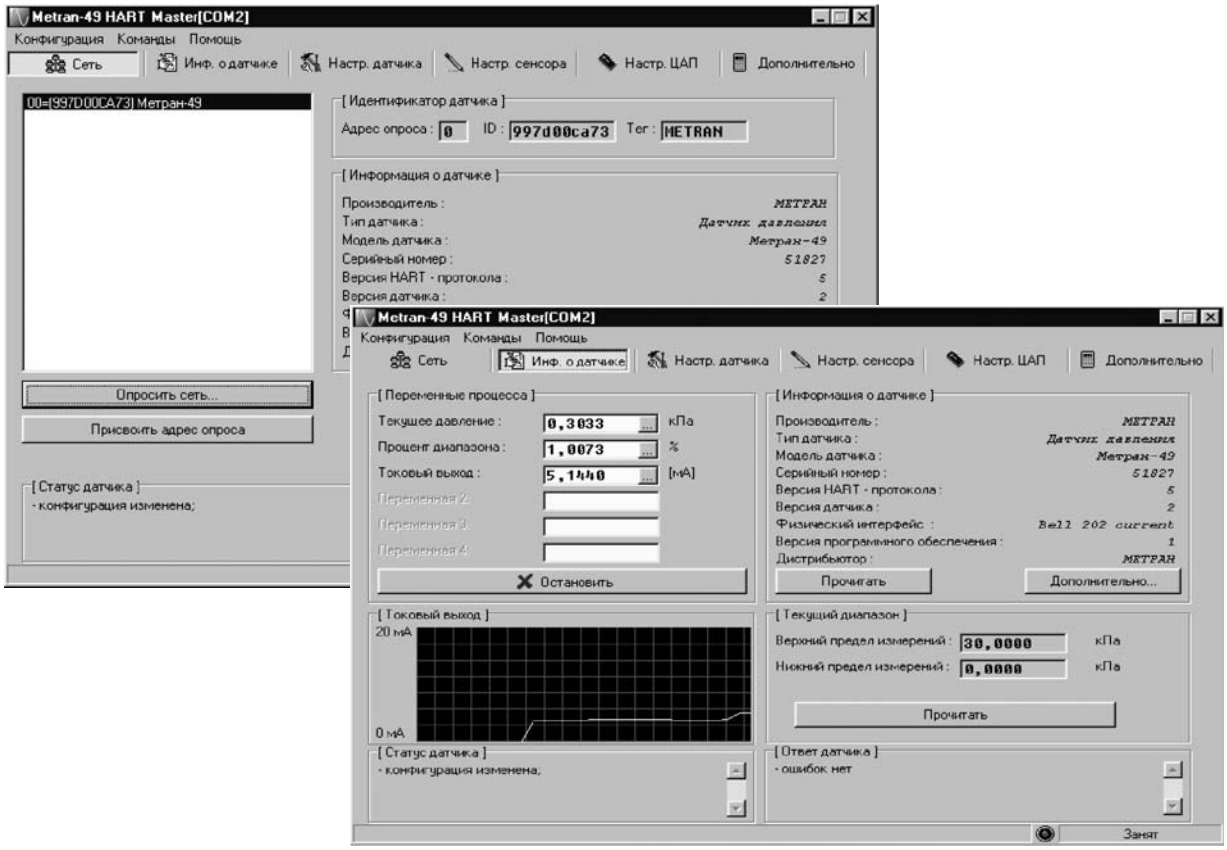
H-Master Software



H-Master Software is designed for setting Metran-100, 3051S/T, 3051S Smart Pressure Transmitters, Metran-280, 248 Smart Temperature Transmitters, Metran-300PR Flowmeters and other HART devices. The program has user-friendly interface.

H-Master performs:

- Readout of process variables;
- Readout of information about HART device and sensor;
- Device test;
- HART device setup;
- Sensor setup (Metran-100, Metran-280, 248, Metran-300PR, 3051S/T, 3051S, Metran-350-R);
- DAC trim;
- Parameters archiving.

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Minimum hardware requirements:
- 486 processor, 8 MB RAM;
- CD-ROM;
- VGA 640x480 video adapter, 16 colors;
- free COM-port;
- 1MB free space on HD.

Software: OS Microsoft Windows 95/Windows 98/ Windows NT.

A user works with HART device in main program window.

Having selected a proper device from the list of HART devices, the user starts working with the device.

When the **program reads the information** about HART device and sensor, the user will receive the following information on:

Process Variables:
- Current parameter value;
- Percent of measurement range;
- Output signal, mA;
- Upper and lower range limits;

Device:
- Manufacturer;
- Transmitter type;
- Serial number;
- HART protocol version, etc.;

Sensor:
- Model;
- Date of manufacture;
- Oxygen version;
- Reference accuracy code;
- Application type;
- Climatic type, etc.

Program operation: "HART Device Setup" allows the user to set up the following parameters:
- Measurement unit;
- Output signal;
- Transfer function type;
- Output signal damping time;
- User's parameters (tag, date, assembly number, etc.);
- And to perform transmitter diagnostics (ROM on ADC board, EEPROM of microprocessor or sensor, etc.).

Program operation: "Sensor Setup", with the help of reference pressure controllers, provides the user with capability of:
- Zero trim;
- Calibration of measurement limits;
- Sensor information readout (serial number, sensor URL, LRL, etc.).

Program operation: "DAC Trim" allows the user to:
- Calibrate transmitter analog output;
- Testing of analog output.

Program option: "**Additionally**" records and archives measurement process data. Data are recorded in two modes: mode of analog signal measurement (when only one device is being polled), or multipoint mode (when several devices connected to one line are being polled alternatively). When polling data in both modes it is possible to enter set points: max and min permitted process variables. Event archive size: 32760 results for each transmitter. Minimum time period between measurements is 1s. Results are recorded into text file with separating chars (*.csv-file), that can be processed later by Microsoft Excel program.

H-Master software allows the user to learn the main functions of the program in DEMO mode without connecting the real device. In this mode the real operation with Metran-280 temperature transmitter will be emulated.

H-Master works with arbitrary HART device in standard range of HART protocol commands.

Detailed H-Master operation description is given in the Operation Manual. The program is delivered on CD. RS232/HART modem connected to PC COM-port is required to provide operation of the program with a transmitter. For wiring diagram of HART device, HART modem and PC refer to Sections HART-modem and Metran-681.

Delivery set

- Program Distribution CD	1 unit
- Operation Manual	1 copy