

METRAHit® 1 ASI

Addressing and Diagnosis Device

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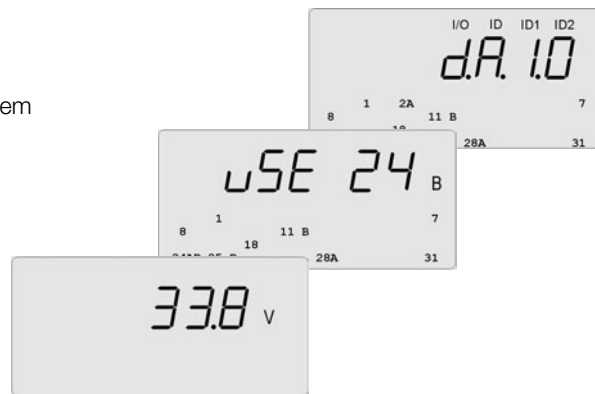
- Read out slave addresses 0 through 31, and A and B, simultaneously at easy-to-read display without scrolling
- Read out slave IO and ID codes (including expanded ID codes 1 and 2)
- Standard and extended addressing modes in accordance with AS-i version 2.1
- Program ID code 1
- Slave functions test
- Recognition of all devices within the system
- Diagnosis functions
- Memory functions
- PC gateway function



QUALITY MANAGEMENT SYSTEM



DQS certified per
DIN EN ISO 9001 Reg No. 1262



General

The METRAHit® 1 ASI is an easy-to-operate addressing and diagnosis device for active AS-i modules and intelligent sensors and actuators in accordance with AS-i version 2.1 including extended addressing mode.

Features

Connection

The METRAHit® 1 ASI is connected to the slaves via banana plugs and cables with an M12 connector or with jack plugs.

Display

The high-contrast LCD with primary and sub-displays keeps the user informed concerning various conditions.

Primary Display (6 characters):

- Menu function, current data, error conditions

Sub-Display (4 lines):

- All assigned slave addresses (0 ... 31, A, B) within the system
- Selection overview for slave addressing and diagnosis

Two display modes are possible:

Slave data can be displayed in direct mode, or in S7 mode.

Diagnosis Functions

- Recognition of reversed polarity and overload
- Measurement of AS-i supply voltage
- Error recognition including comments
- Display of periphery errors

Memory Functions

- Storage of already addressed slaves to memory in order to prevent addressing the same slave twice
- Storage and copying of system profiles

Data Transmission

The METRAHit® 1 ASI is provided with an infrared interface as standard equipment. The interface allows for the establishment of communications between the addressing device and a PC.

ASi-access Software and ASi.doc-win (accessory)

If the BD232 adapter is used (accessory), ASi-access allows for convenient programming, report generating and data management at the PC. System parameters which have been programmed with, or read into the METRAHit® 1 ASI, are downloaded to the PC for archiving and documentation. Files which have been downloaded to the archive or created and revised at the PC can be uploaded to the METRAHit® 1 ASI as well, allowing for re-configuration of the AS-i system.

ASi.doc-win allows for efficient documentation of system data stored to device memory.

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Applicable Regulations and Standards

IEC 61010-1/EN 61010-1/ VDE 0411-1	Safety requirements for electrical equipment for measurement, control and laboratory use
EN 60529 VDE 0470 Part 1	Test instruments and test procedures Protection provided by enclosures (IP code)
EN 61326-1	Electromagnetic compatibility (EMC) Generic standard for interference emission Class B
EN 61326/A1	Electromagnetic compatibility (EMC) Generic standard for interference immunity

Technical Data

	Meas. Range	Meas. Accuracy
Voltage	2 ... 35 V	±(3.5% of rdg. + 2 d)
Current (for slaves)	0 ... 0.1 A	±(5% of rdg. + 2 d)

Input impedance during voltage measurement: approx. 300 kΩ

Key: rdg. = reading, d = digit(s)

Power Supply

Supply power is provided by 4 batteries in compliance with IEC LR6 (NEDA15), which have a service life which is sufficient for assigning at least 2500 device addresses.

Rechargeable batteries can be used as well (accessory: rechargeable battery pack 1AS-i including charger, article number Z206B).

Automatic shutdown ensues approximately one minute after the last key operation in order to extend battery service life.

Electromagnetic Compatibility (EMC)

Interference Emission EN 61326-1 Class B

Interference Immunity EN 61326/A1

Ambient Conditions

Operating Temperature Range	0 °C ... +50 °C
Storage Temperature Range	-20 °C ... +75 °C (without batteries)
Relative Humidity	max. 75%, no condensation allowed
Elevation	to 2000 m
Deployment	indoors only

Mechanical Design

Protection	housing: IP 50, jack sockets: IP 20
Dimensions	84 mm x 195 mm x 35 mm
Weight	approx. 450 gr. with batteries

Data Interface

Data Transmission	optical transmission by means of infrared light through the housing
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Standard Equipment

- 1 METRAHit® 1 ASI
- 1 GH18 protective rubber cover and carrying strap
- 1 KS31A connector cable set (banana plug to jack plug)
- 1 Module base with addressing socket
- 1 Set of batteries
- 1 Operating instructions

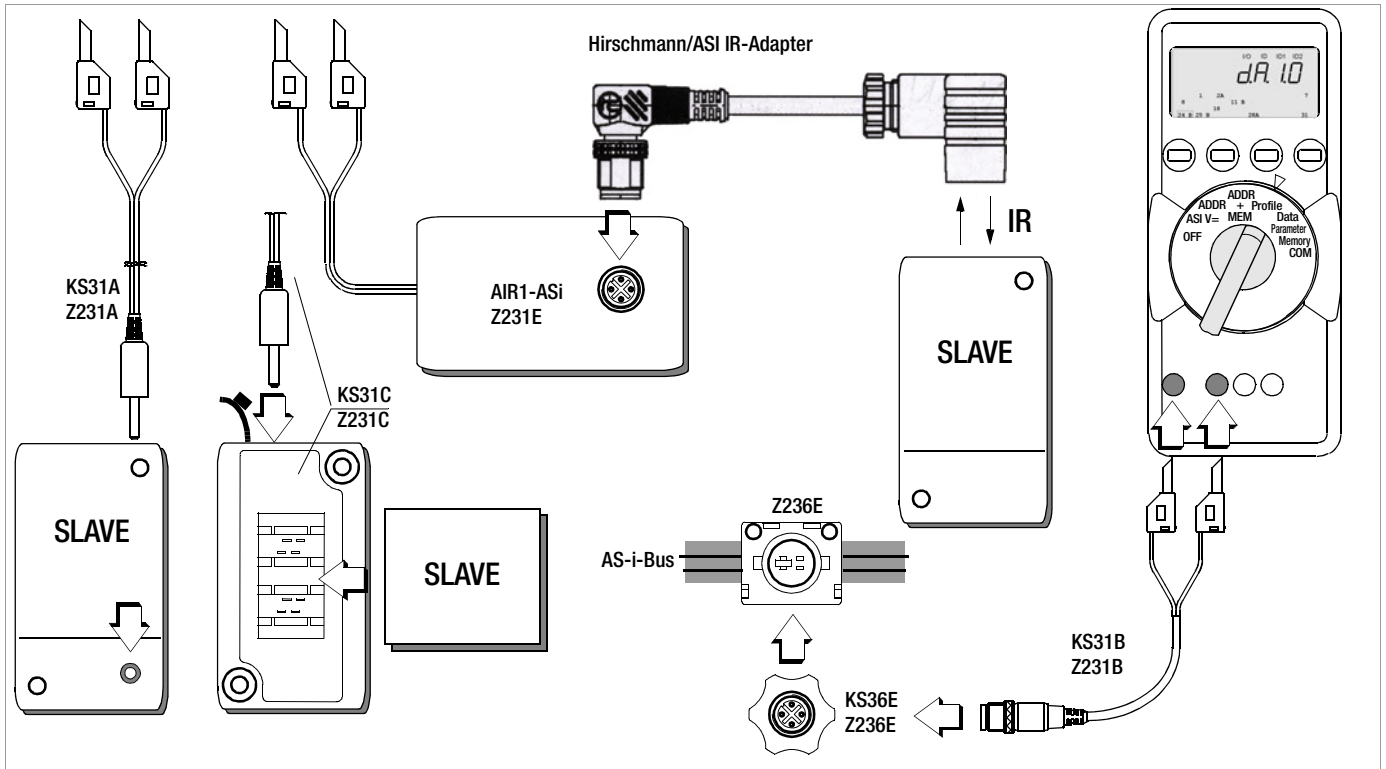
Order Information

Description	Type	Article Number
AS-i addressing and diagnosis device	METRAHit® 1 ASI	M235A
AS-i addressing and diagnosis device with batteries, GH18, KS31C, BD232 and AS-i-doc documentation software in HC30 case	Set 1AS-i	M235C
Rechargeable battery pack (4 ea. NiMH, 1600 mAh) and charger	Akku-Set 1AS-i	Z206B
Connector cable set (banana plug to jack plug)	KS31A	Z231A
Connector cable set (banana plug to M12)	KS31B	Z231B ¹⁾
Connector cable set (banana plug to jack plug) and module base with addressing socket	KS31C	Z231C
IR connector adapter (banana plug to M12 for Hirschmann/ASI IR adapter)	KS31E	Z231E
1 ea. AS-i ribbon cable pick-off with M12 connector	KS36E	Z236E ¹⁾
Bidirectional interface adapter	BD232	GTZ 3242 100 R0001
Documentation software for ASI bus	ASi.doc-win	Z710Q
Documentation and administration software for ASI bus	ASi-Access	Z710J
ASI bus documentation and administration set including ASi Access, BD232 and RS232 cable	ASi-Pack 1	Z231D
Hard case	HC20	Z113A

¹⁾ in preparation

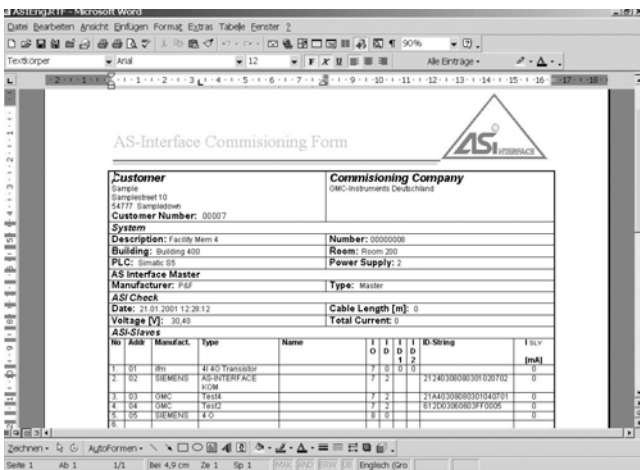
METRAHit® 1 ASI Addressing and Diagnosis Device

Accessory Adapters and Cable Sets



Accessory Software for METRAHit® 1 ASI and METRAtest 36ASi AS-i Bus Testers

ASi.doc-win – Report Generating with WinWord



ASi.doc-win reads in data from the AS-i bus tester and displays the system configuration in a WinWord form which can be added to and printed out.

ASi-Access – Systems Management

- Systems planning, testing and documentation with Access (unlicensed runtime version or PC installed version)
- Supports Microsoft Office WinWord and Access
- Intercompany AS interface catalog with Internet hyperlinks
- Upload test data to the PC and download planned systems to the tester
- Documentation with WinWord

ASi-Access manages systems configurations, reads in data from the AS-i bus tester and displays systems configurations in a WinWord form which can be added to and printed out.

Functions:

- Assignment of systems to customers
- Systems planning with the help of an integrated master-slave catalog with hyperlinks to appropriate manufacturer websites
- Read-out of slave addresses and profiles to the AS-i bus tester for on-site addressing
- Read-in of systems configurations from the AS-i bus tester
- Systems testing without interconnected master

If the user has installed the full version of Access to his PC and uses this instead of the integrated runtime version, all of the tools provided by Access are placed at his disposal for the creation of individualized queries.

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System Requirements

Report Generating with ASI.doc-win

- Hardware PC processor, 80486 or higher
 8 MB RAM
 1 available serial port
 20 MB available hard disk memory
- Software MS Windows 95, 98, Me, NT 4.0 or 2000
 MS Word 6.0, 7.0, 97 or 2000

Systems Management with ASI-Access

- Hardware Pentium processor, 166 MHz or higher
 64 MB RAM
 1 available serial port
 40 MB available hard disk memory if Access is
 already installed, 200 MB if Access 2000 runtime
 will be installed
- Software Same as for report generating

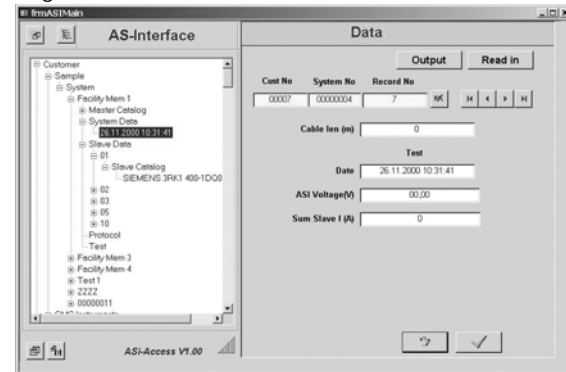
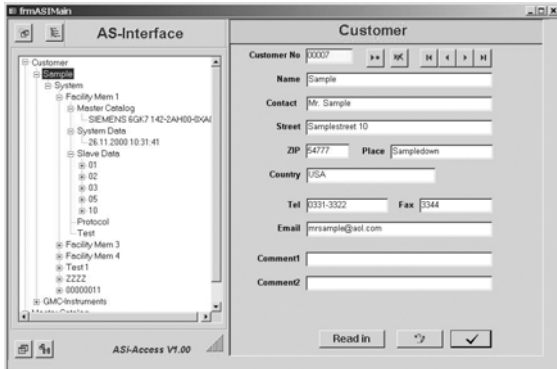
Manufacturers' Internet websites can be accessed directly by clicking the hyperlinks:



Systems data are transmitted to, or read in from the AS-i bus tester. Slave current is summated for testing. Cable length segments can be entered for each slave for testing purposes as well. Overall length is calculated.

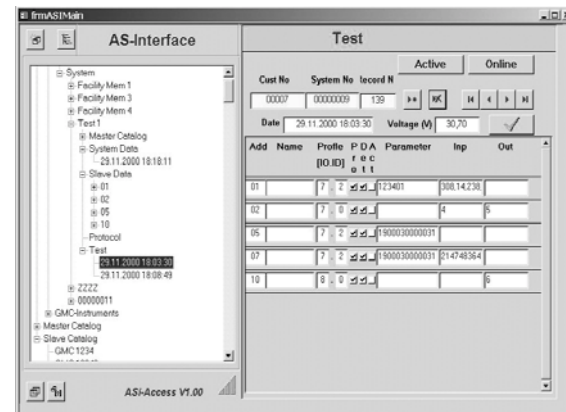
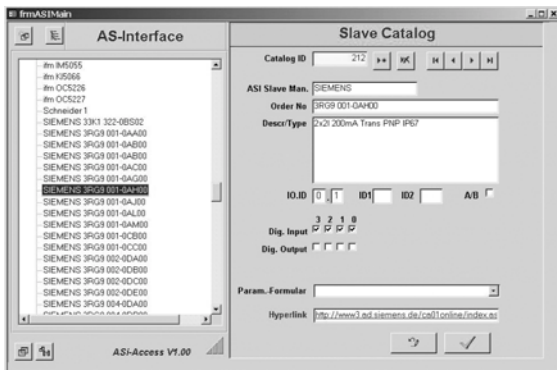
Program Examples for ASI-Access

The ASI-Access Explorer guides you through the database:



Initial start-up: Systems can be started up without an AS-i master by using the AS-i bus tester as a gateway.

The integrated catalog contains hyperlinks to appropriate Internet websites:



Master data and test results can also be printed as WinWord reports.