

METRAHIT | ASi v3.0

AS Interface Addressing Device V 3.0

3-349-800-03
2/7.18

The addressing device offers the following functions for convenient initial start-up and diagnosis of an AS-i bus system:

- Read-out and setting of slave address
0 to 31 and/or 1A to 31A, 1B to 31B for all AS interface slaves
- Addresses which are already in use can be stored and blocked in order to avoid double addressing
- Voltage measurement on the AS interface line and measurement of operating current of an AS-i slave
- Testing of input and output data of digital and analog slaves in accordance with AS interface specification V3.0, including safety-related input slaves
- Configuration of parameters of a slave for test purposes and read-back of parameter echo
- Read-out of slave profile (IO, ID, ID2)
- Read-out and setting of ID1 code
- Read-out of the „Identifier“ and „Diagnosis“ data objects for CTT2 slaves
- Read-out of safety code sequences of safety-related input slaves (ASIsafe)
- Read and write of the cyclical input and output channels of CTT2 slaves
- Storage of complete system configurations (profiles of all slaves) as an addressing aid



General

The METRAHITASi v3.0 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 3.0 including extended addressing mode.

Features

Connection

The METRAHITASi v3.0 is connected to the slaves via cables with an M12 connector (90°) to jack plug or directly to AS-i bus with a special cable.

Display

The high-contrast liquid crystal display (LCD) with primary and sub-displays keeps the user informed about various conditions.

Primary display (8 characters):

- menu function, current data, error conditions

Sub-display (5 characters):

- status displays
- 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 ASi supply voltage
- Error detection with comments
- Display of periphery errors

Memory Functions

- Storage and copying of 4 system profiles

Applicable Regulations and Standards

IEC 61010-1 EN 61010-1 VDE 0411-1	Safety requirements for electrical equipment for measurement, control and laboratory use – General requirements
DIN EN 61326 VDE 0843 Part 20	Electrical equipment for measurement, control and laboratory use – EMC requirements
EN 60529 VDE 0470 Part 1	Test instruments and test procedures – Protection provided by enclosures (IP code)

METRAHIT | ASi v3.0

AS Interface Addressing Device V 3.0

Technical Data

Function ASI V=

	Measuring Range	Measuring Accuracy
Voltage	2 ... 35 V	±(3.5% rdg.+ 2 d)
Current (for slaves)	0 ... 0.15 A	±(5% rdg. + 2 d)

Input impedance during voltage measurement: approx. 300 k Ω

Key rdg. = reading, D = digit

Power Supply

Power is supplied by 4 x 1.5 V type AA batteries, IEC LR6 (NEDA15). We recommend high-quality alkaline-manganese batteries for energy-intensive applications. Alternatively, equivalent rechargeable batteries can be used (preferably NiMH).

Automatic shutdown ensues approximately 5 minutes after the last key operation (or approx. 1 minute during active data exchange) in order to extend battery service life.

Electromagnetic Compatibility (EMC)

Interference Emission EN 61326-1:2013 class B

Interference Immunity EN 61326-1:2013

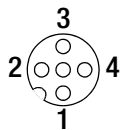
Ambient Conditions

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

Mechanical Design

Dimensions	84 mm x 195 mm x 35 mm
Weight	approx. 450 g with batteries
Protection	IP 40

M12 Terminal Assignment



Pin 1	ASI+
Pin 3	ASI–
Pin 2, 4, 5	not in use

Standard Equipment

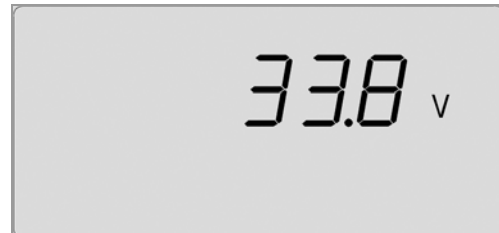
- 1 ASI Addressing and Diagnosis Device
- 1 GH18 protective rubber cover and carrying strap
- 1 M12 connection cable to jack plug (Z236A)
- 1 Set of batteries
- 1 Short-form operating instructions
- Detailed operating instructions for download on the Internet at: www.gossenmetrawatt.com/English/products/metrahit-asi-v30.htm

Order Information

Description	Type	Article Number
ASI addressing and diagnosis device Standard equipment see above	METRAHITASI v3.0	M235J
Hard case for 1 METRAHit and accessories	HC20	Z113A
M12 male connection cable to addressing socket (jack plug) for METRAHIT ASi 3.0, length approx. 1.5 m	KS36A	Z236A
ASI module base with jack	Z231G	Z231G

Display Examples

Display of measured AS-i voltage at the bus

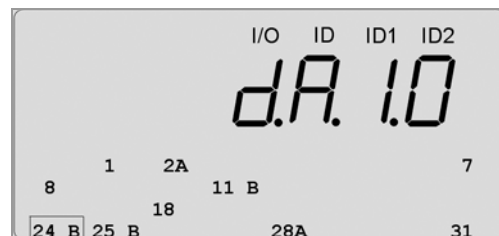


Read-out and setting of a slave address (where 0A → 4B)



☐ located address blinks

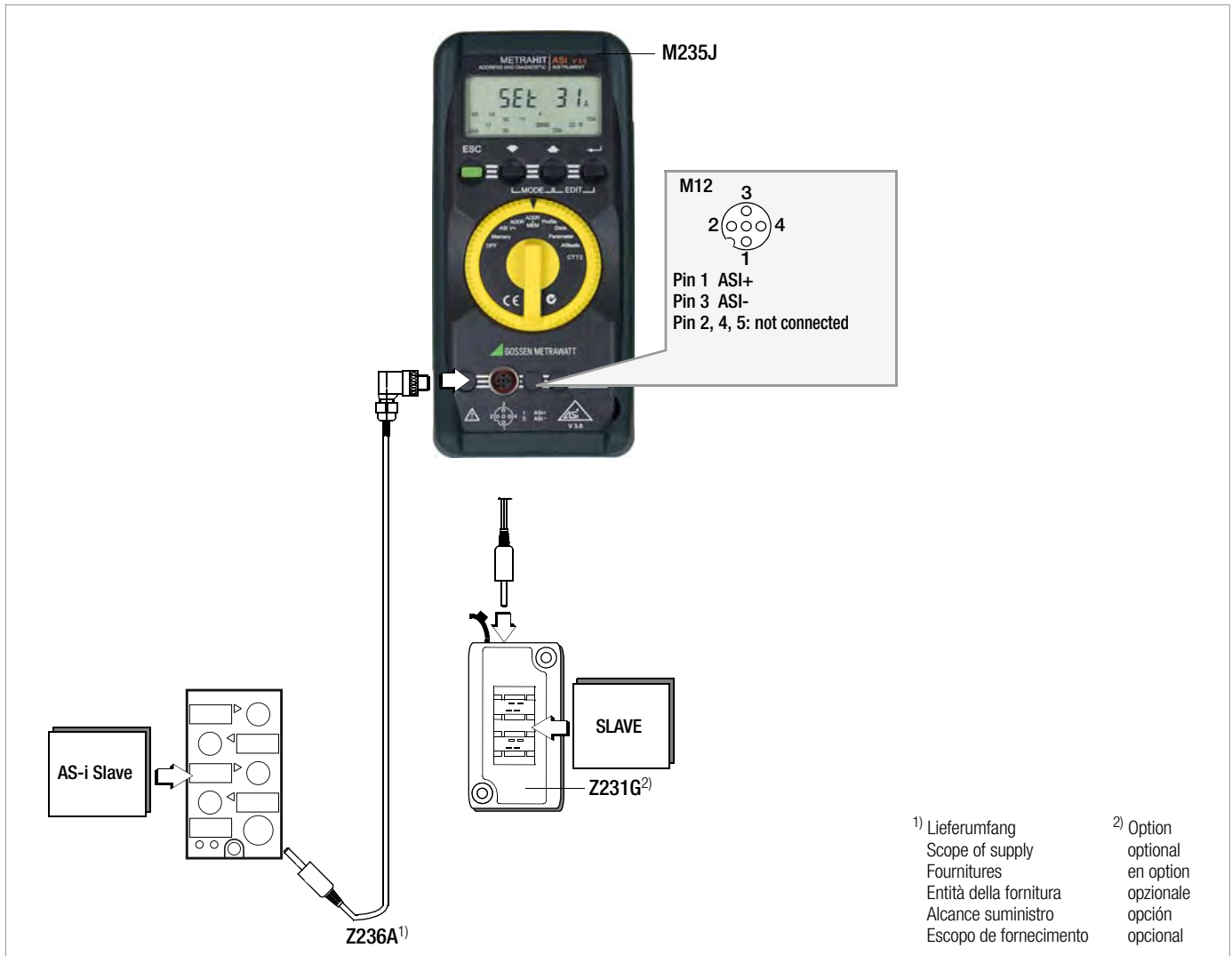
Read-out of a slave profile



METRAHIT | ASi v3.0

AS Interface Addressing Device V 3.0

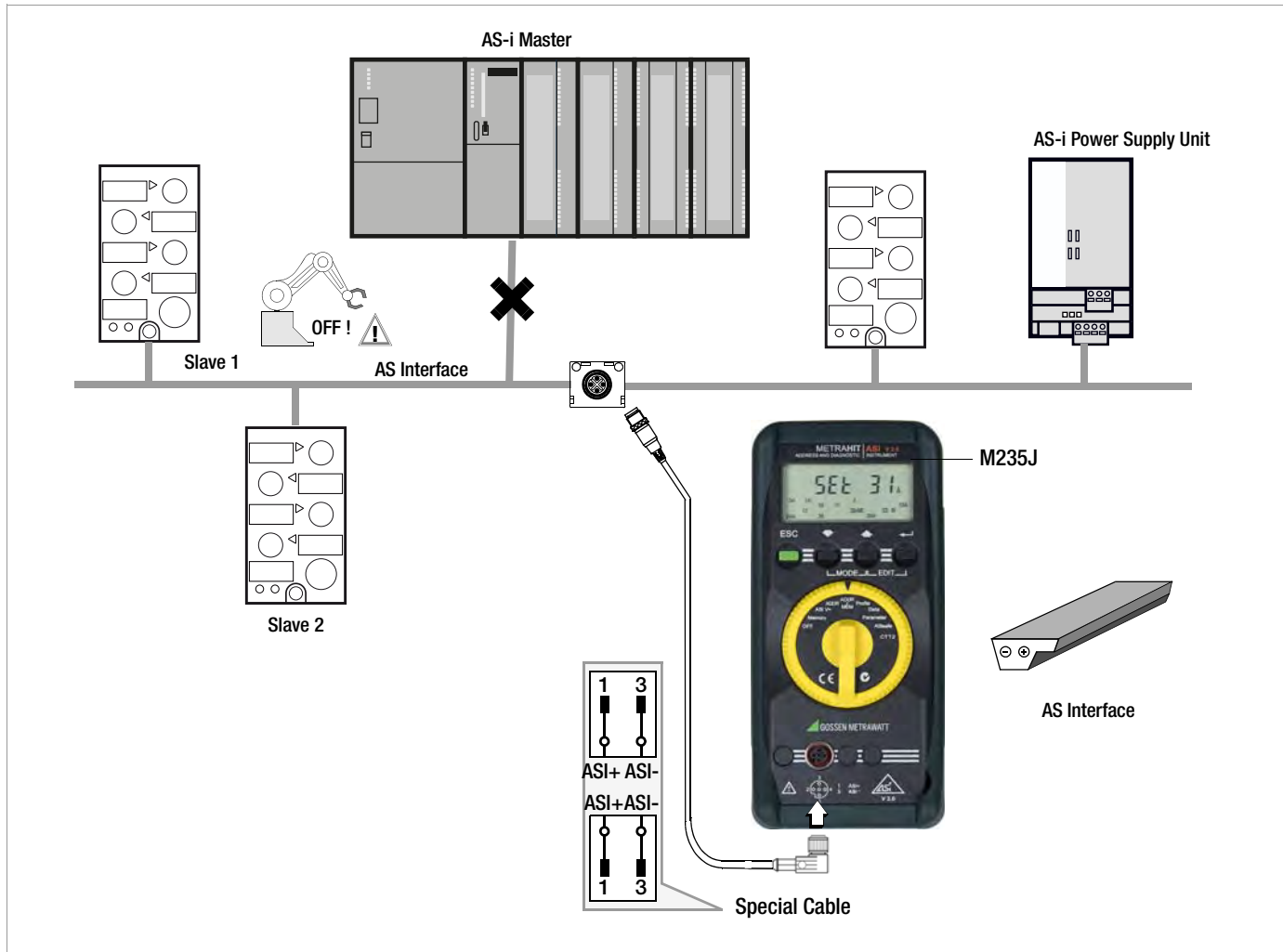
Application, Addressing of ASi Slave



METRAHIT | ASi v3.0

AS Interface Addressing Device V 3.0

Application, Connection of AS-i System



Edited in Germany • Subject to change without notice • A pdf version is available on the Internet