Firmware history

## Release Notes AM1000



## **GMC INSTRUMENTS**

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Version	Change log
V3.20 - 11613 (2025/09/04)	Security upgrades  Improvements for RED directive (EN 18031-1) and IEC TS 63383:2022 compliance  https and RBAC activated by default  Enforced password change on first device startup  SSH access disabled  Fixes  For devices with option PME: x-axis of mean values displayed with UNIX timestamp  Setting time via local display
V3.19 – 11284 (2025/06/02)	New features  Certificate store for the management of security certificates  Security upgrades  OpenSSH update (CVE-2025-26466, CVE-2025-26465)  nginx update (CVE-2024-7347-1, CVE-2024-7347-2)  Fixes  CSV generator  missing headers  no intervals shorter than one day possible  possible stop of periodic CSV generation  Creation of user-defined limit values may fail
V3.18 – 11142 (2024/12/20)	Fixes  • Analog outputs did not work if inverse characteristic was used  • Analog outputs may have short drops
V3.16 – 10900 (2024/07/23)	For devices using the pulse outputs: After an update to this firmware version, the configuration of the pulse outputs is void and must be done again.  New features
	<ul> <li>Pulse outputs can be set to any pulse rate.</li> <li>Security upgrades</li> <li>Nginx from 1.21.1 to 1.25.3</li> <li>Fixes</li> <li>SFTP configuration menu was present even for device versions without data logger</li> <li>Time scaling of waveform display could be wrong</li> <li>Option PME: Possible wrong units in CSV export of PME data</li> <li>CSV data export for 7 days: File was stored in the folder of the first day of the interval rather than the day of the end of the interval, in addition the time range of the file was not visible within the file name and could overwrite daily files with the same content.</li> </ul>

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Version	Change log
V3.13 – 10464 (2024/02/08)	New features Status of time synchronization directly visible via status bar on the device website Limit values can now be set also to negative values, e.g. for monitoring power quantities for both import and export Option PME: Configurable radio channel map Security upgrades OpenSSH from 8.7p1 to 8.9p1 Host Key Algorithms SSH-RSA and SSH-DSS no longer supported by default, but may be activated if required for SFTP communication  Fixes Unreliable meter logger data download via WEB interface if larger time ranges are read Configuration menu for temperature input settings did not work properly In units of digital input meters the time factor (h) was missing Option PME: Automatic adjustment of radio transmission power did not work Option PME: Current IN calculated if measuring in a 4-wire network using 3-phase modules Option PME: Improved battery load level estimation
V3.10 – 9665 (2023/08/30)	<ul> <li>New features</li> <li>Support for option PME central unit</li> <li>Fixes</li> <li>For devices with data logger for periodic data: The list of CSV files created via data export scheduler could no longer be displayed via device website when too may files were stored in the device. The storage of the files and the export capability to SFTP servers were not affected.</li> <li>For devices without data logger the SFTP configuration menu is displayed, although no data is available for export via SFTP</li> <li>Possible settings values for limits were restricted to a maximum of 100'000'000, now changed to 10'000'000'000.</li> </ul>
V3.06 – 9366 (2023/02/23)	Fixes      Setting of meter contents did not work properly     Reset of meter contents in case of overflow     Backward compatibility to older hardware versions of the device
V3.05 - 9108 (2022/11/23)	<ul> <li>Security upgrades</li> <li>Nginx from 1.16.0 to 1.21.1</li> <li>OpenSSH from 8.2p1 to 8.7p1</li> <li>Fixes</li> <li>Improved error reporting for SFTP communication test function</li> <li>SFTP server export not possible if file names containing UTF8 characters</li> <li>Wrong maximum values for THD_U</li> <li>Setting parameter for homopolar voltage measurement not available</li> <li>Wrong time stamps in CSV export of waveform display data</li> <li>Delayed entries to alarm and event list</li> <li>New Audit log entry when pending SFTP file exports complete</li> <li>Reset of min/max values via Modbus coils did not work</li> <li>Activation of whitelist blocks Modbus/TCP communication</li> <li>Missing data in meter logger if 1 min. interval is used</li> </ul>

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V2.05 – 8160 (2022/03/02)	Once installed, it is not possible to return to an older firmware version
	<ul> <li>Fixes</li> <li>In rare cases an Ethernet interface connection could not be established after a factory reset or device restart</li> <li>Password length for SFTP server access was limited to 12 characters</li> <li>Configuration parameter for maximum load current (for scaling of TDD values) not available via menu</li> <li>RCM channels and temperature sensor types could not be activated via on-site display</li> </ul>
V2.04 - 7857 (2021/12/07)	This is a crucial update for the long-term stability improvement of the device. Once installed, it is not possible to return to an older version of the firmware.
	<ul> <li>New features</li> <li>Support for Unicode characters (UTF8) in all user-defined event and description texts. These texts are used in event lists and as part of the CSV file names.</li> <li>Fixes</li> <li>Wrong storage path for local storage of CSV data files. Files stored in the wrong directory will be transferred to the correct folder.</li> <li>Crash of WEB-GUI when displaying mains signaling events</li> <li>U<sub>NE</sub> could not be displayed in event samples visualization</li> <li>Fault current module configuration not protected via RBAC</li> <li>Via local display input values in analog output configuration had to be entered in basic units rather than the displayed unit</li> <li>Event state in status bar was not reset if event duration was longer than 3 minutes</li> <li>Devices with RCM get stuck after a certain period of time</li> <li>Texts for "Device location" and "Test point" could not be configured</li> <li>I<sub>2</sub> is not displayed in RMS<sub>1/2</sub> displays of the disturbance recorder</li> </ul>
V2.03 – 7001 (2021/06/11)	<ul> <li>New features</li> <li>EasyUpdater: Software for firmware updates</li> <li>Selectable decimal separator for CSV export for easy import into Excel</li> <li>Fixes</li> <li>Factory reset</li> <li>States of optional temperature and fault-current channels not selectable as input in monitoring functions or as source for digital output states</li> <li>Possibly wrong display values of fault-current module if channel 1 is not used</li> <li>Wrong scaling of instantaneous values of user defined mean-values when displayed on local GUI or webpage</li> </ul>
V2.02 – 6518 (2021/03/08)	Fixes  • Factory reset not complete  • Date selection not always displayed in mean-values logger display

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V2.01 – 6308 (2021/02/01)	New features  • Support for IPv6 communication  Fixes  • Non-working screensaver  • Configuration file could not be uploaded via web-interface  • Defining new tasks in the export scheduler not possible  • Possibility to set improper alarm limits for fault-current module via local GUI
V2.00 - 6177 (2020/12/14)	<ul> <li>New features</li> <li>Security: Role-Based Access Control (RBAC) as replacement for the Simple Password Protection. Individual access rights may be assigned to up to 8 users with own login credentials. No plain-text transmission of login information, increase of the latency period in case of repeated login attempts, software access only via access keys etc.</li> <li>Security: Audit log as replacement for the operator list. Logging of all activities relevant to safety.</li> <li>Security: Support for Syslog protocol for transferring all audit log entries to a central grid monitoring server</li> <li>New features when analyzing events via webpage: Zoom and value display</li> <li>Data export scheduler for pushing CSV or PQDIF files periodically or event-driven to an SFTP server. The same files may be stored locally in the device as well.</li> <li>Language support Turkish, Czech and Spanish</li> <li>Device handbook available via webpage</li> </ul>
V1.24 – 5261 (2020/03/19)	New features  Language support Ukrainian  Language support Russian
	Requirements  • At least updater v2.0 is required for firmware update
V1.23 – 4973 (2019/11/18)	Fixes  • After device restart energy meter contents may be smaller than the values before the restart  Requirements  • At least updater v2.0 is required for firmware update
V1.22 – 4884 (2019/09/06)	New features  Encrypted communication via HTTPS using either a provided self-signed or customer certificate  Client whitelist: User may define a list of up to 10 clients allowed to access the device. If activated, all other clients will be blocked  Simulation of digital and analog outputs without changing the device configuration  Enhanced SD card state information (percent of usage, failure state)  Requirements  At least updater v2.0 is required for firmware update

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Version	Change log
V1.21 – 4544 (2019/03/15)	New features  • Support for optional temperature input module  Requirements  • At least updater v2.0 is required for firmware update
V1.20 - 4386 (2019/02/28)	New features  Support for optional PROFINET IO interface  Network status display in status bar Signalling of measuring range overflow situations Whitelist for Ethernet interface for blocking unauthorized clients  Fixes Improvements in CSV file export
	<ul><li>Requirements</li><li>At least updater v2.0 is required for firmware update</li></ul>
V1.19 – 4213 (2019/02/06)	Release due to changes in common AM series firmware, no impact on AM1000, update not required.  Requirements  • At least updater v2.0 is required for firmware update
V1.18 – 3864 (2018/11/16)	Fixes              Measurements with bad quality (such as overload) could have been stored as minimum or maximum value              Requirements             At least updater v2.0 is required for firmware update
V1.17 – 3280 (2018/08/12)	New features  • Support for optional IEC61850 communication  Requirements  • At least updater v2.0 is required for firmware update
V1.16 – 3224 (2018/07/26)	New features  Language support Vietnamese  Fixes  In case of aborting the configuration of fault current channels some parameters were still saved by mistake  The local display could freeze when disconnecting the Ethernet interface connector Requirements
	At least updater v2.0 is required for firmware update

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Version	Change log
V1.15 – 3171 (2018/06/28)	New features  Support for new 2-channel fault current module: - Alarm and pre-warning thresholds - Response and dropout delays - Alarming via digital outputs and relays - Alarming or breakage activates the summary alarm - In case of alarm violation: Entry into alarm list - In case of pre-warning violation: Entry into event list - Measurements available via WEB-interface, Modbus RTU/TCP, local display and analog outputs  Language support Polish  Fixes  New color sequence of phases in graphical displays: red - yellow - blue Demo mode for product presentations fixed  Summary alarm state no longer influenced by reset of associated output  Requirements  At least updater v2.0 is required for firmware update
V1.14 – 2958 (2018/05/07)	<ul> <li>New features</li> <li>Phase sequence display for voltages and currents</li> <li>In the visualization of user mean-values and meters now the base quantity is directly visible</li> <li>New service menu: Device reboot</li> <li>New service menu: Communication tests (Ping, DNS, NTP)</li> <li>Support for time synchronization via GPS</li> <li>Unused U/I quantities in waveform and event displays are faded out</li> <li>Language support Chinese</li> <li>Fixes</li> <li>Operating hours of the device": Possible 47 years offset issue solved</li> <li>For mean-values modifications a device reboot was required</li> <li>Overwriting of security settings when loading configuration file even if not selected</li> <li>Requirements</li> <li>At least updater v2.0 is required for firmware update</li> </ul>
V1.13 – 2378 (2017/11/17)	New features  • Support for module "4 digital inputs" active / passive  Fixes  • Removing a backdoor security gap  • Wrong unit in disturbance logger when used in medium voltage applications  • Partly hang-up on webpage when closing popup window with answer "No" or "x"  • CSV export of large logger data sets  • Disturbance logger: Event detection in 3 phase 3 wire applications  Requirements  • Updater v2.0 is required for firmware update

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Version	Change log
V1.12 – 2194 (2017/09/21)	Fixes  • Stability of data logger functionality  • Improvement of device startup behavior  • Event text input issue when using special symbols  • Summary alarm state may remain active when removing monitoring functions from the status evaluation  • Endless hourglass symbol on empty event lists  • Minor bug fixes  Requirements  • Updater v2.0 is required for firmware update
V1.11 – 1795 (2017/05/12)	New features
V1.10 - 1509 (2017/02/08)	Fixes     improvement of SD-card handling
V1.09 – 1473 (2017/02/03)	New features  • disturbance recorder  Fixes  • measurement hangs under certain conditions
V1.08 – 1440 (2017/01/27)	Fixes     proper function of monitoring function logic     menu control (wrong menus according to system type)
V1.07 – 1394 (2017/01/16)	New features  • waveform plot  Fixes  • changed file system type of sd-card for more stability (no longer windows compatible)  • stability of GUI (hangs after some time)  • stability of logger
V1.06 - 1156 (2016/10/10)	Fixes  • limited number of Modbus connections
V1.05 – 1018 (2016/08/29)	New features  • periodical data logger  Fixes  • use correct level of suppression for small values
V1.04 - 875 (2016/06/30)	New features  - clock adjustment in local time

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Version	Change log
V1.03 – 807 (2016/05/30)	Fixes     stability of GUI     startup behavior (freeze)     faster startup
V1.02 – 595 (2016/01/13)	New features      configuration of Modbus TCP port possible  Fixes     configuration of analog outputs     firmware updater: timeout during fw upload     screensaver behavior
V1.01 – 552 (2015/11/30)	New features  Firmware update via web GUI  time zone handling  Fixes  web GUI (browser compatibility)  improvement of system configuration menus
V1.00 – 522 (2015/11/17)	Initial release

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