



Firmware Release Note
ComServer / Modbus Gateway
IE-CS-MBGW-2TX-1COM (Article No. 2682600000)

Attention: Before commissioning the device for the first time, we strongly recommend checking the installed firmware version and updating to the latest version, if a newer one is available for download from the Weidmüller website.

For information on bug fixes, implementation of new functions and other adjustments to previously released firmware versions, please read below release notes carefully.

Version 3.27

Release date: June 22, 2026

Feature enhancements / updates:

- Service Mode 'Modbus TCP Master to Serial Slave Gateway': Improvement of queuing of Modbus TCP requests when having multiple established TCP connections requiring data from RTU devices connected at the serial side. For this reason, the factory default value of Modbus parameter 'Request Pause' has been decreased from 20 msecs to 5 msecs (shortens the Gateways packet processing time).
- 'Modbus Traffic Monitor': Modbus timeout errors (no response from RTU device in time) and format errors of received RTU responses will be shown as new entries in the log list.
- 'System Event Log': Parallel to the 'Modbus Traffic Monitor', occurring Modbus timeout errors and responses with format error also will be logged in the 'System Event Log' for long term monitoring.

Note: These both Modbus related events always will be logged in the 'System Event Log', independent if the 'Modbus Traffic Monitor' is enabled or disabled.

Version 3.25

Release date: April 16, 2026

Feature enhancements / updates:

- Improvement of the load behaviour of the Modbus TCP protocol stack in terms of data communication control and buffering during fast Modbus TCP query cycles on serial RTU devices with slow baud rate.
Note: When running service mode "Modbus TCP Master to Serial Slave Gateway" with high-load Modbus TCP requests on slow serial devices it is highly recommended to keep/set parameter "Request Pause" at least to 20 msecs (factory default value). This can avoid response timeouts for those RTU devices which do not accept next request immediately after they have sent a response.
- General enhancement of the device operational stability.
 - Implementation of a system process and a diagnostic monitor which controls and restarts key processes like Serial-to-Ethernet daemon, Modbus protocol stack and HTTP server daemon if not working as expected.
 - Improvement of implemented software watchdog function regarding overall software control. Reboots the device automatically if the system stops operating and does not respond to the watchdog control task for any reason.
- Webpage Management → Backup & Restore: Implementation of new function to export/backup a system status/error log file. This file is intended to be checked by the Weidmüller support team in case of any operational problems.
- Implementation of new parameter "Send Modbus TCP Exceptions" for service mode "Modbus TCP Master to Serial Slave Gateway".
 - If enabled:
 - Passes exception responses received from serial RTU devices to Modbus TCP Requester (Master).
 - Sends exception code 0xB (Gateway Target Device Failed to Respond) to Modbus TCP Requester (Master) if the serial RTU device did not respond during the configured timeout (often indicating it is offline).

- If disabled (factory default setting):
 - Passes only exception responses received from serial RTU devices to Modbus TCP Requester (Master).
 - Does not generate and send any exception code to Modbus TCP Requester (Master) if the serial RTU device does not respond in time.
- Implementation of sub-function 08 (Retrieve serial number of slave device) of special Modbus Function Code 0x46.
- Support of Diagnostic Function Code 0x08 and associated sub-functions.

Bug Fixes:

- Syslog file size limited from 16 MB to maximum size 1 MB.
 - Syslog file size could increase strongly if for periodic Modbus communication the TCP connection was established and disconnected after each request. This caused creating each time 2 syslog messages "TCP link established..." and "TCP link canceled..." and could lead to > 100K log entries. As result a very big syslog file (larger several Megabytes) could have a negative functional impact (stops running operation mode, no Web interface access).

Note: This syslog limitation was already implemented since version V3.13 but removed in version V3.20 which could lead for firmware V3.20 to the above described "frozen" state.

Version 3.20

Release date: May 27, 2025

Bug Fixes:

- Service Modes "*Modbus TCP Master to Serial Slave Gateway*" and "*Modbus Serial Master to TCP Slave Gateway*": Real timeout behaviour regarding a missing slave response exceeded the configured slave response timeout.

Version 3.19

Release date: May 16, 2025

Feature enhancements / updates:

- Implementation of a watchdog function, which initiates a kernel reboot if any exception occurs leading to a functional stop of the device. The interruption time will be around 35 seconds if the device will be ready again.
- Hardening the queueing process for service mode "Modbus TCP Master to serial Slave Gateway" in terms of fast periodic Modbus TCP/RTU request/response cycles. If it happens, that a Modbus TCP Master occasionally but regularly sends already the next request before having received any response from the Gateway for the previous request (either the response from the RTU slave or a Gateway timeout response), then this could lead to a buffer overflow of the TCP/RTU conversion queue. The problem could occur if for the Modbus TCP Master the request interval time and the response timeout and for the Gateway the response timeout, were not configured correctly according to their dependencies.

Generally, the timing settings should be configured based on following conditions:

Modbus TCP Master request interval time > Modbus TCP Master response timeout > Modbus TCP/RTU Gateway response timeout > Typical response time of serial RTU slave.

- System Event Log: Messages related to establishing / canceling of TCP connections now show both source and destination port of the TCP connection to a remote device.
- Modbus Traffic Monitor: Time stamps of logged entries now show the complete device "System time" including microsecond resolution (e.g. 2025-05-15 01:52:52.125). Before, only the time values have been displayed.
- Modbus Traffic Monitor: Button "Download" added to save logged data as file.

Bug Fixes:

- System Event Log: Log messages have shown a wrong time stamp based on the initial time at device start (2020-01-01 01:00:00) instead of using the system time (either manually configured or updated via SNTP server).
- After disabling of "System Event Log" the event log still has been filled with some event messages.

- If “Remote Syslog” has been configured and activated, then - after disabling “Remote Syslog” function again – the task still was sending system event logs to the remote “Syslog Server” though it has been disabled.
- Time settings via “SNTP Client” function: Time stamp of status message for time synchronization has shown a wrong value for “Month” (One month behind the month in device system time).
- Adaption of Modbus function 5 / 0x05 (Write Single Coil) which did not work properly in previous firmware versions.

Version 3.14

Release date: July 07, 2023

Bug Fixes:

- Modbus function code 17 / 0x11 (Report Slave ID, only used for serial Modbus RTU/ASCII) did not work properly. This problem occurred since version 3.10.

Version 3.13

Release date: June 23, 2023

Feature enhancements / updates:

- Syslog messages "TCP link established..." and "TCP link canceled..." now will be created for other service modes Virtual COM-Port and TCP Server/Client (previously only shown for Modbus service modes).
- HTTP-based Web interface access automatically will be redirected to HTTPS if HTTP access is disabled.

Bug Fixes:

- Adaption of Modbus functions 15 / 0x0F (Write Multiple Coils) and 16 / 0x10 (Write Multiple Registers) which did not work properly in previous firmware versions.
- Service mode ‘Modbus Serial master to TCP Slave mode’: Fix of possible communication impact by a timeout or interrupted TCP slave connection to other working TCP slave connections.
- Syslog file size limited from 16 MB to maximum size 1 MB.

Syslog file size could increase strongly if for periodic Modbus communication the TCP connection was established and disconnected after each request. This caused creating each time 2 syslog messages "TCP link established..." and "TCP link canceled..." and could lead to > 100K log entries. As result a very big syslog file (larger several Megabytes) could have a negative functional impact (stop of running operation mode, no Web interface access).

Version 3.11

Release date: July 27, 2022

Feature enhancements / updates:

- Declaration for used Open Source Software added (GNU General Public License). New menu “GPL License” added.

Version 3.10

Release date: May 13, 2022

Feature enhancements / updates:

- Support of Modbus function code 43 (0x2B) (MEI Type 14 / 0x0E): Read Device Identification
- Service mode “Modbus TCP Master to Serial Slave Gateway”:

- Parameter “Retries after Timeout” has been removed. Reason: The failure management (repeating the request) in case of getting no response from a RTU/ASCII slave has to be managed by the Modbus TCP Master.

Bug Fixes:

- Hardening of TCP communication stability related to Modbus TCP Master applications that continuously initiate a new TCP connection to the Modbus Gateway if the request to the serial slave fails. The Gateway did not close timely a TCP socket terminated by the Modbus TCP Master after a request failure which could lead to a TCP connection overflow.

Version 3.07

Release date: March 22, 2022

Feature enhancements / updates:

- Support of Modbus function code 17 (0x11): Report Slave ID (Serial Line only)
- Support of Modbus function code 23 (0x17): Read/Write Multiple registers
- Service mode “Modbus TCP Master to Serial Slave Gateway”:
 - Parameter “Alive Check” added for of TCP Server connection control.
 - New range of setting for parameter “Inactivity Timeout” (0 ~ 3600 seconds). If set to 0 (Factory default setting) the ComServer / Modbus Gateway never will terminate the TCP connection, except it will be terminated if Alive Check is activated and the check has failed.
- Optimization of data appearance of Modbus Traffic Monitor.

Bug Fixes:

- Modbus communication problem fixed when using a RS485 4-wire connection.
- Service mode “Modbus TCP Master to Serial Slave Gateway”:
 - Parameter “Max Retries” (Range 0 ~ 10) could not be set to 0. Note: “Max Retries” now renamed to “Retries after Timeout”.
- Event log messages could not be cleared in Monitoring/Diagnostics → System Event Log

Version 3.04

Release date: December 15, 2021

Feature enhancements / updates:

- Support of software tool “ComServer / Modbus Gateway Utility” for device search and installing a virtual COM-Port driver for mode “Virtual COM”.

Bug Fixes:

- Optimization of Web interface design.
- Fix of wrong display of parameter System Name (Bug showed model name).
- Blocked graphic elements in HTML help pages now will be displayed.

Version 3.02h

Release date: August 30, 2021

- This is the initial firmware version!
- **Important Note:** No support of software tool “ComServer / Modbus Gateway Utility”.