

## Firmware: Web-IO 4.0 Digital, 2xIn, 2xOut Model 57737

## **Current firmware**

Date	Changes and comments	Revision
December 8, 2023	<ul> <li>Actions - HTTP requests support preshared bearer tokens.</li> <li>Modbus-TCP - Accessibility for a parallel connection</li> <li>MQTT - Box-to-Box - Outputs from Web-IO A follow Input-Publish from Web-IO B</li> </ul>	1.69 ZIP download

## Older firmware

Date	Changes and comments	Revision
March 24, 2023	<ul> <li>TCP/IP stack - MTU up to max. 1500 possible</li> <li>OPC UA - Problems with Output Pulse Mode fixed</li> <li>Actions - Host name for HTTP requests in the head corrected</li> </ul>	1.66 on request
February 2, 2023	<ul> <li>Homepage - With showing without menu tree, login as User is also possible</li> <li>TLS/SSL - SNI support (Server Name Indication) activated</li> </ul>	1.65 on request
December 12, 2022	<ul> <li>IP stack - MTU settable</li> <li>IP stack - Improved processing of fragmented UDP packets</li> <li>System start - When boot error occurs update mode is activated for system restore</li> <li>MQTT - Publish is suppressed when <disable> is entered as payload</disable></li> <li>OPC UA - URI query corrected</li> </ul>	
October 28, 2022	<ul> <li>Actions - for HTTP-POST without payload a content length of 0 is entered in the header</li> <li>Actions - Parameter management corrected</li> <li>OPC UA - setting outputs by writing the CurrentOutputState-Nodes is possible</li> <li>OPC UA - Writing the input counters by writing the CurrentInputCounter-Nodes is possible</li> <li>OPC UA - Transfer of application URI corrected</li> <li>Input-Counter - problems with bi-directional counting fixed</li> <li>DHCP - Processing of the option flags expanded</li> <li>System start - Configuration initialization optimized</li> </ul> Note: If, in the existing configuration, multiple outputs are used in an action, this option must be reset following an update!	1.63 on request
August 31, 2022	<ul> <li>Actions - placeholders in the HTTP payload are supported</li> <li>Actions - up to 16 outputs on another Web-IO can be switched</li> <li>OPC UA - NodeID overview can be recalled</li> <li>OPC UA - your own NodeIDs can be loaded via list</li> <li>MQTT - QoS2 processing revised</li> <li>Modbus-TCP - diagnostics querying expanded</li> <li>System - Config Upload optimized and accelerated</li> </ul> Please use the newest included version of Wutility for the update.	1.60 on request
April 5, 2022	<ul> <li>Passwords - non-allowed characters are rejected</li> <li>Firmware update: Initiating via button in the interface possible</li> <li>Emergency access - missing login page added</li> <li>SNMP - MIBs and OIDs expanded</li> <li>OPC UA - Node-IDs can be modified via list upload</li> <li>Actions - switching of multiple outputs optimized</li> </ul> Please use the newest included version of Wutility for the update.	1.56 on request

Date	Changes and comments	Revision
January 11, 2022	<ul> <li>HTTPS - Chunked transfer revised</li> <li>SSL/TLS - Certificate upload now possible again</li> <li>DHCP - IP assignment with DHCP relays adapted</li> <li>Boot sector - Emergency access when firmware update is interrupted now revised</li> <li>Pulse Mode - Problems with internal supply fixed</li> </ul> Please use the newest included version of Wutility for the update.	1.54 on request
October 7, 2021	<ul> <li>Outputs - Pulse mode revised</li> <li>Inputs - Short pulse processing improved</li> <li>REST - Digest authentication corrected</li> <li>Homepage - Size of display tiles adjusted</li> <li>My Web Page - JavaScript optimized</li> </ul>	1.52 on request
August 2, 2021	<ul> <li>Actions - HTTP Request Basic Auth. revised</li> <li>Actions - HTTP Request Digest Auth. revised</li> <li>Actions - HTTP Request POST revised</li> <li>Boot Up - Denial of Service by UDP flood blocked</li> </ul>	1.51 on request
May 4, 2021	<ul> <li>OPC - OPC UA implemented</li> <li>TLS - Uploading your own certificates is possible</li> <li>Actions - REST token timeout adjusted</li> <li>Actions - REST compatibility improved</li> <li>Pulse Mode - Internal handling improved</li> </ul>	1.50 on request
August 12, 2020	<ul> <li>SSL/TLS - TLS stack expanded with Version 1.2</li> <li>Reverting to firmware revisions lower than V1.36 is no longer possible after this update!</li> <li>After the update a restart (simple reset) of the Web-IO is required</li> <li>To load this firmware, WuTility must be used in the newest version included!</li> </ul>	1.44 on request
July 2, 2020	<ul> <li>Socket-API - counterclear - set value corrected</li> <li>Web-API - counterclear - set value corrected</li> <li>Web-API - Cross Origin Request expanded</li> <li>Reverting to firmware revisions lower than V1.36 is no longer possible after this update!</li> <li>After the update a restart (simple reset) of the Web-IO is required</li> <li>To load this firmware, WuTility must be used in the newest version included!</li> </ul>	1.43 on request
June 22, 2020	<ul> <li>Actions - POST added to HTTP requests</li> <li>Actions: Token authentication possible with HTTP requests</li> </ul>	1.42 on request
May 25, 2020	Internal processing latencies reduced	1.41 on request
March 5, 2020	<ul> <li>Actions - Cold start as trigger possible again</li> <li>Actions - Warm start as trigger possible again</li> <li>SNMP - Indexing problem for actions corrected</li> <li>MQTT - SSL transmission and Client-ID introduced</li> </ul>	1.39 on request
January 7, 2020	<ul> <li>Actions - Digist authentication for HTTP(S) requests revised</li> <li>Inputs/Outputs - Filter and pulse settings adapted for new hardware drivers</li> </ul>	1.38 on request
December 12, 2019	<ul> <li>Downgrade block - JSON enable included</li> <li>MQTT - Last Will connection topic revised</li> <li>SNMP - private authentication revised</li> <li>Date/time - weekday calculation revised</li> <li>Homepage - Action tiles expanded</li> <li>Config Up/Down Load - processing accelerated (no more timeout)</li> </ul>	1.37 on request

Date	Changes and comments	Revision
December 2, 2019	<ul> <li>SNMP - Time compensation for SNMPv3 corrected</li> <li>Pulse mode - Dependencies when resetting adjusted</li> <li>REST - Greater tolerance for upper/lower case in HTTP header fields</li> </ul>	1.36 on request
	Actions - Clear message for counter monitoring added	
	<ul> <li>Actions - Number of possible actions increased to 30</li> <li>Actions - For HTTP(S) requests W&amp;T placeholders are accepted</li> </ul>	
	Actions - For HTTP(S) requests greater tolerance for upper/lower case in HTTP	
	<ul><li>header fields</li><li>User page - Problems in representing W&amp;T tags fixed</li></ul>	
	Memory management - used address space expanded	
August 1, 2019	SNMP - Support of downward compatible OIDs improved	1.35
	<ul> <li>SNMP - Support up to SNMPv3</li> <li>Configuration_Upload - Timeout behavior optimized</li> </ul>	on request
	Version query expanded	
	MQTT - Ping timeout corrected	
	Device registration at W&T possible	
April 10, 2019	Configuration upload - port verification improved	1.33
	Socket Api - settime command introduced     HTTP Api - settime command introduced	on request
	Date/time - internal clock calibration optimized	
January 21,	internal interrupt processing optimized	1.32
2019		on request
November 16,	Web-API - Cross origin request can be configured	1.31
2018	Rest - Cross original request can be configured	on request
October 22,	MQTT - uniform W&T standard topics introduced	1.29
2018		on request
September 20, 2018	<ul> <li>Actions - Triggering by setting counter to zero optimized</li> <li>Actions - <cr> tag for line skip introduced</cr></li> </ul>	1.27 on request
2010		· · ·
June 28, 2018	Box-to-Box - Signal detection at start optimized     SNMP - download link for MIB corrected	1.24 on request
June 4, 2018	<ul> <li>SNMP - OIDs from preceding model are accepted</li> <li>BINARY Client - Server Addr. also configurable as name</li> </ul>	1.23 on request
	Configuration - internal plausibility check	
March 15, 2018	Actions - Use of host names instead of IP revised	1.22
	Actions - Sending of SNMP trap texts corrected	on request
	Upload of large configuration files improved	
January 26,	MQTT - Last Will added	1.21
2018	<ul> <li>Network buffer processing optimized</li> <li>Actions - TCP message now also permitted on localhost</li> </ul>	on request
	Outputs - Resetting for pulse revised	
September 20,	MQTT Publish: QoS can be set	1.20
2017	MQTT Publish: Retain can be set	on request
	SNMP: UDP ports can be set     Outputs: Inverting revised	
	Homepage: HTTP(S) communication optimized	
	Firmware update: internal processes optimized	
July 20, 2017	Restart behavior when changing the IP parameters corrected	1.18
	<ul> <li>IO processing after restart revised</li> <li>Pulse mode: Behavior after saving corrected</li> </ul>	on request
	<ul> <li>Pulse mode: Benavior after saving corrected</li> <li>HTTPS/TLS: Processing of large data blocks optimized</li> </ul>	
	Accuracy of the internal clock improved	
June 28, 2017	MQTT: ClientID output corrected	1.17
	MQTT: No publish without message text	on request

Date	Changes and comments	Revision
June 8, 2017	Display of network interruptions on Home	1.16
	<ul> <li>Actions: Output of HTTPS requests added</li> </ul>	on request
	<ul> <li>Actions: Logic in IO combinations revised</li> </ul>	
	<ul> <li>Client specifications for MSL/MTU size taken into account</li> </ul>	
	SSL network buffer management optimized	
May 11, 2017	Website callup optimized	1.15
	Parameter transfer revised	on request
	Pulse mode: Reset behavior corrected	
March 20, 2017	Network buffer processing accelerated	1.14
	SSL handling revised	on request
	Start-timeout for unused sockets	
February 3, 2017	Menu guidance and operation revised	1.13
	current SNMP-MIB added	on request
	SNMP - OID tree adjusted	
January 18, 2017	Menu guidance and operation revised	1.12
	<ul> <li>Password protection for Box-to-Box improved</li> </ul>	on request
	XML format for REST adapted to standard	011104000
	Configuration and administration of the actions improved	
October 6, 2016	Firmware for pre-production version	1.10
		on request



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