

# ET-7000/PET-7000 Version History

*Last update: 2024-02-20*

This document provides a quick historical reference to firmware version, release dates, features, and improvements. Select your module from the list below to see the release notes for it.

<a href="#">ET-7002/PET-7002</a>	
<a href="#">ET-7005/PET-7005</a>	
<a href="#">ET-7015/PET-7015</a>	
<a href="#">ET-7016/PET-7016</a>	
<a href="#">ET-7017/PET-7017</a>	
<a href="#">ET-7017-10/PET-7017-10</a>	
<a href="#">ET-7018Z/PET-7018Z</a>	
<a href="#">ET-7019Z/PET-7019Z</a>	
<a href="#">ET-7026/PET-7026</a>	
<a href="#">ET-7028/PET-7028</a>	
<a href="#">ET-7042/PET-7042</a>	
<a href="#">ET-7044/PET-7044</a>	
<a href="#">ET-7050/PET-7050</a>	
<a href="#">ET-7051/PET-7051</a>	
<a href="#">ET-7052/PET-7052</a>	
<a href="#">ET-7053/PET-7053</a>	
<a href="#">ET-7060/PET-7060</a>	
<a href="#">ET-7065/PET-7065</a>	
<a href="#">ET-7066/PET-7066</a>	
<a href="#">ET-7067/PET-7067</a>	
<a href="#">ET-7083/PET-7083</a>	

# ET-7002/PET-7002

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
3.0.0	2018-05-25		Ethernet 1.2.9 Web Server 2.01.x Modbus 1.7.4
	<b>Update:</b> <ul style="list-style-type: none"> <li>• Use HTML5 features to build the web user interface, which does not require Adobe Flash Player.</li> <li>• Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds.</li> </ul>		
2.0.0	2014-04-24	MiniOS7 2.2.15	CPU 5.2.5 Ethernet 1.2.8 Web Server 1.2.8 Modbus 1.7.2
	<b>New and improved features:</b> <ul style="list-style-type: none"> <li>• Added support for new Flash chip</li> <li>• The Modbus TCP port can be specified individually for WAN and LAN</li> <li>• Improve the web interface for setting up the Pair-Connection</li> <li>• Verify the new IP address has been changed</li> <li>• With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used</li> <li>• Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>• The same firmware for both ET-7000 and PET-7000 modules</li> </ul>		

# ET-7005/PET-7005

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.	
3.1.1	2023-09-27	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.10.4 Modbus L1.0.4	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li> <li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li> <li>A factory reset can be performed when network connection is available on module in INIT mode.</li> <li>When enabling the pair-connection, the digital outputs can be configured to have a predefined state on communication failure.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li> <li>Modbus UDP port number can be changed and differs from 502.</li> </ul> <b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that caused the configuration of Steinhart-Hart coefficients to fail when using the web user interface.</li> </ul>	
3.0.0	2020-09-04	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.01.1 Modbus 1.7.4	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Enable a keep-alive mechanism for the Modbus communication for the detection of active connections between a Modbus client and the module. This mechanism prevents idle connections from consuming TCP server resources.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web user interface, which does not require Adobe Flash Player.</li> <li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds.</li> </ul> <b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that module does not send DHCP request to renew its DHCP lease time before lease time had expired.</li> </ul>	
2.0.0	2014-04-24	MiniOS7 2.2.15	CPU 5.2.5 Web Server 1.2.8 Ethernet 1.2.8 Modbus 1.7.2	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>The same firmware for both ET-7000 and PET-7000 modules</li> </ul>	
1.0.1	2012-02-21	MiniOS7 2.2.10		
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Verify the new IP address has been changed</li> <li>With the DHCP enabled, the hostname (option 12) can be specified with the "Module Information" setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used</li> <li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li> <li>Broadcasts an ARP request on the local network at 30-second intervals</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Specify coefficients as a user-defined type (type 0x70)</li> </ul>	

	<b>Fixed:</b>
	<ul style="list-style-type: none"><li>Web HMI does not work properly when using either the Mozilla Firefox or SeaMonkey browser</li></ul>

# ET-7015/PET-7015

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
3.1.0	2021-06-11		Ethernet 1.29 Web Server 2.03.x Modbus 1.7.4
	<b>Update:</b> <ul style="list-style-type: none"> <li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li> </ul> <b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that may have caused RTD calibration to fail.</li> </ul>		
3.0.0	2018-09-03		Ethernet 1.29 Web Server 2.01.x Modbus 1.7.4
	<b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web user interface, which does not require Adobe Flash Player.</li> </ul> <b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that module does not send DHCP request to renew its DHCP lease time before lease time had expired.</li> </ul>		
2.0.0	2014-04-24	MiniOS7 2.2.15	CPU 5.2.5 Ethernet 1.2.8 Web Server 1.2.8 Modbus 1.7.2
	<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>The same firmware for both ET-7000 and PET-7000 modules</li> </ul>		
1.1.2	2013-10-24	MiniOS7 2.2.10	
	<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Verify the new IP address has been changed</li> <li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used</li> <li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li> <li>Broadcasts an ARP request on the local network at 30-second intervals</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> </ul> <b>Fixed:</b> <ul style="list-style-type: none"> <li>Fixed the issue that the offset value cannot be set up correctly.</li> </ul>		

# ET-7016/PET-7016

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
3.1.1	2023-09-11	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.10.4 Modbus L1.0.4
<b>New and improved features:</b> <ul style="list-style-type: none"> <li>User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li> <li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li> <li>A factory reset can be performed when network connection is available on module in INIT mode.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Modbus UDP port number can be changed and differs from 502.</li> </ul>			
3.1.0	2022-03-30	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.10.3 Modbus L1.0.3
<b>New and improved features:</b> <ul style="list-style-type: none"> <li>When enabling the pair-connection, the digital outputs can be configured to have a predefined state on communication failure.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web user interface, which does not require Adobe Flash Player.</li> <li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds.</li> <li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li> </ul> <b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that module does not send DHCP request to renew its DHCP lease time before lease time had expired.</li> </ul>			
2.0.0	2014-04-24	MiniOS7 2.2.15	CPU 5.2.5 Ethernet 1.2.8 Web Server 1.2.8 Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>The same firmware for both ET-7000 and PET-7000 modules</li> </ul>			
1.0.2	2013-12-13	MiniOS7 2.2.10	
<b>New and improved features:</b> <ul style="list-style-type: none"> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Provide compensation for inaccuracy resulting from floating point computations when setting up the excitation voltage</li> </ul>			
1.0.1	2013-10-10	MiniOS7 2.2.10	
<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Verify the new IP address has been changed</li> <li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used</li> <li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000/PET-7000 can be accessed by the remote web browser in the Internet</li> </ul> <b>Fixed:</b> <ul style="list-style-type: none"> <li>Fixed the issue that the Half-Bridge, Quarter-Bridge and Full-Bridge cannot be set up correctly</li> </ul>			

# ET-7017/PET-7017

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
3.1.1	2023-09-12	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.10.4 Modbus L1.0.4
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li> <li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li> <li>A factory reset can be performed when network connection is available on module in INIT mode.</li> <li>Enable a keep-alive mechanism for the Modbus communication for the detection of active connections between a Modbus client and the module. This mechanism prevents idle connections from consuming TCP server resources.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Modbus UDP port number can be changed and differs from 502.</li> </ul>
3.1.0	2022-12-08	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.10.3 Modbus L1.0.3
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>When enabling the pair-connection, the digital outputs can be configured to have a predefined state on communication failure.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li> </ul> <b>Fixed:</b> <ul style="list-style-type: none"> <li>Fixed an issue where digital output may not be output properly after receiving a write command.</li> </ul>
3.0.0	2019-01-24		Ethernet 1.29 Web Server 2.01.x Modbus 1.7.4
			<b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web user interface, which does not require Adobe Flash Player.</li> <li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds.</li> </ul> <b>Fixed:</b> <ul style="list-style-type: none"> <li>Fixed issue that module does not send DHCP request to renew its DHCP lease time before lease time had expired.</li> </ul>
2.0.0	2014-04-24	MiniOS7 2.2.15	CPU 5.2.5 Ethernet 1.2.8 Web Server 1.2.8 Modbus 1.7.2
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>The same firmware for both ET-7000 and PET-7000 modules</li> </ul>
1.1.5	2012-09-04	MiniOS7 2.2.10	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Improve the method for detecting the connection status between the ET-7000/PET-7000 and the interactive modules in order to avoid being disconnected from the network</li> <li>Verify the new IP address has been changed</li> <li>With the DHCP enabled, the hostname (option 12) can be specified with the "Module Information" setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used</li> <li>Connection lifetime</li> </ul> <p>Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</p>

	<ul style="list-style-type: none"> <li>Broadcasts an ARP request on the local network at 30-second intervals</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Removed the option of setting up the “Router Public IP”</li> </ul>		
1.1.1	2011-03-21	MiniOS7 2.2.10	
	<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Connection lifetime Once a connection has been established, it will be closed after 3 minutes of inactivity</li> <li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000/PET-7000 can be accessed by the remote web browser in the Internet</li> <li>Added option to change the Modbus TCP port</li> <li>Broadcasts an ARP request on the local network at 3-minute intervals</li> <li>Web HMI will automatically reconnect to ET-7000/PET-7000 after disconnect</li> </ul> <b>Fixed:</b> <ul style="list-style-type: none"> <li>Web HMI does not work properly when using either the Mozilla Firefox or SeaMonkey browser</li> <li>An “Invalid IP Address” error message may be displayed in the “Network Settings” configuration page when running the Mozilla Firefox and SeaMonkey browsers</li> <li>Failed to retrieve the account and password when the account/password length is exactly equal to 8 characters</li> </ul>		



# ET-7017-10/PET-7017-10

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
3.0.0	2018-08-14		Ethernet 1.29 Web Server 2.01.x Modbus 1.7.4
			<b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web user interface, which does not require Adobe Flash Player.</li> </ul> <b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that module does not send DHCP request to renew its DHCP lease time before lease time had expired.</li> </ul>
2.0.0	2014-04-24	MiniOS7 2.2.15	CPU 5.2.5 TCP/IP 1.2.8 Web Server 1.2.8 Modbus 1.7.2
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>The same firmware for both ET-7000 and PET-7000 modules</li> </ul>
1.1.1	2011-03-21	MiniOS7 2.2.10	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Connection lifetime Once a connection has been established, it will be closed after 3 minutes of inactivity</li> <li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000/PET-7000 can be accessed by the remote web browser in the Internet</li> <li>Added options to change the Modbus TCP port</li> <li>Broadcasts an ARP request on the local network at 3-minute intervals</li> <li>Web HMI will automatically reconnect to ET-7000/PET-7000 after disconnect</li> </ul> <b>Fixed:</b> <ul style="list-style-type: none"> <li>Web HMI does not work properly when using either the Mozilla Firefox or SeaMonkey browser</li> <li>An "Invalid IP Address" error message may be displayed in the "Network Settings" configuration page when running the Mozilla Firefox and SeaMonkey browsers</li> <li>Failed to retrieve the account and password when the account/password length is exactly equal to 8 characters</li> <li>Failed to set up the analog input type in the single-ended mode</li> </ul>

# ET-7018Z/PET-7018Z

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
3.0.0	2018-09-03		Ethernet 1.29 Web Server 2.01.x Modbus 1.7.4
			<b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web user interface, which does not require Adobe Flash Player.</li> <li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds.</li> </ul> <b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that module does not send DHCP request to renew its DHCP lease time before lease time had expired.</li> </ul>
2.0.0	2014-04-24	MiniOS7 2.2.15	CPU TCP/IP 1.2.8 Web Server 1.2.8 Modbus 1.7.2
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>The same firmware for both ET-7000 and PET-7000 modules</li> <li>Removed the option of setting up the "Router Public IP"</li> </ul>
1.1.1	2011-09-07	MiniOS7 2.2.10	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Connection lifetime Once a connection has been established, it will be closed after 3 minutes of inactivity</li> <li>Added options to change the Modbus TCP port</li> <li>Broadcasts an ARP request on the local network at 3-minute intervals</li> <li>Web HMI will automatically reconnect to ET-7000/PET-7000 after disconnect</li> </ul> <b>Fixed:</b> <ul style="list-style-type: none"> <li>Web HMI does not work properly when using either the Mozilla Firefox or SeaMonkey browser</li> <li>An "Invalid IP Address" error message may be displayed in the "Network Settings" configuration page when running the Mozilla Firefox and SeaMonkey browsers</li> <li>Failed to retrieve the account and password when the account/password length is exactly equal to 8 characters</li> <li>The web pages may fail to properly load all content if the LAN speed is 10Mbps</li> <li>Fixed issues regarding the Pair-Connection               <ol style="list-style-type: none"> <li>Communication may fail when receiving an illegal response from remote input device</li> <li>Cannot reconnect to remote input device after disconnect</li> <li>Modbus address of remote input device does not accept more than 10255</li> </ol> </li> </ul>
1.1.0	2010-07-01	MiniOS7 2.2.10	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added options to specify the IP address and TCP port This method enables the web HMI of ET-7000/PET-7000 can be accessed by the remote web browser in the Internet</li> <li>Broadcasts an ARP request on the local network at 5-minute intervals</li> <li>Web HMI will automatically reconnect to ET-7000/PET-7000 after disconnect</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Enable the alarm function to operate correctly when the input signal is configured as thermocouple input</li> </ul> <b>Fixed:</b> <ul style="list-style-type: none"> <li>Host WDT does not work if the WDT timeout was set to 33 seconds or more</li> </ul>

1.0.3	2009-09-16	MiniOS7 2.2.10	
	<b>Fixed:</b> <ul style="list-style-type: none"><li>Fixed the issue that the module may fail to read actual temperature from the CJC sensor</li></ul>		

# ET-7019Z/PET-7019Z

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
2.0.0	2014-04-24	MiniOS7 2.2.15	CPU 5.2.5      Ethernet 1.2.8 Web Server 1.2.8      Modbus 1.7.2
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>The same firmware for both ET-7000 and PET-7000 modules</li> </ul>
1.1.2	2014-02-20	MiniOS7 2.2.10	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Verify the new IP address has been changed</li> <li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used</li> <li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity (With the version 1.0.0, the connection was closed after 180 seconds)</li> <li>Broadcasts an ARP request to the gateway at 30-second intervals (With the version 1.0.0, the ARP requests were broadcasted at 180-second intervals)</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> </ul> <b>Fixed:</b> <ul style="list-style-type: none"> <li>Fixed the issue that the Open Wire Detection does not correspond to the actual setting after setting it up via the web interface</li> </ul>
1.0.0	2011-09-05	MiniOS7 2.2.10	
			First Release

# ET-7026/PET-7026

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
3.1.1	2023-10-12	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.10.4 Modbus L1.0.4
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li> <li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li> <li>A factory reset can be performed when network connection is available on module in INIT mode.</li> <li>Enable a keep-alive mechanism for the Modbus communication for the detection of active connections between a Modbus client and the module. This mechanism prevents idle connections from consuming TCP server resources.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li> <li>Modbus UDP port number can be changed and differs from 502.</li> </ul>
3.0.1	2021-04-13	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.01.x Modbus 1.7.4
			<b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that module does not send DHCP request to renew its DHCP lease time before lease time had expired.</li> <li>Fixed issue that caused the alarm limit configurations to fail when using the web user interface.</li> </ul>
3.0.0	2018-05-25	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.01.x Modbus 1.7.4
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>When enabling the pair-connection, the digital outputs can be configured to have a predefined state on communication failure.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web user interface, which does not require Adobe Flash Player.</li> <li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds.</li> </ul>
2.0.0	2014-04-24	MiniOS7 2.2.15	CPU 5.2.5 Ethernet 1.2.8 Web Server 1.2.8 Modbus 1.7.2
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>The same firmware for both ET-7000 and PET-7000 modules</li> </ul>
1.1.4	2012-08-24	MiniOS7 2.2.10	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Improve the method for detecting the connection status between the ET-7000/PET-7000 and the interactive modules in order to avoid being disconnected from the network.</li> </ul>
1.1.3	2012-03-26	MiniOS7 2.2.10	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Verify the new IP address has been changed</li> <li>With the DHCP enabled, the hostname (option 12) can be specified with the "Module Information" setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used</li> <li>Connection lifetime</li> </ul> Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity

	<ul style="list-style-type: none"> <li>Broadcasts an ARP request on the local network at 30-second intervals</li> </ul> <p><b>Update:</b></p> <ul style="list-style-type: none"> <li>Removed the option of setting up the “Router Public IP”</li> </ul> <p><b>Fixed:</b></p> <ul style="list-style-type: none"> <li>Web HMI does not work properly when using either the Mozilla Firefox or SeaMonkey browser</li> <li>The counter value will stay the same upon reboot if the module is reset by either WDT or reset command</li> <li>When the module accepted the first Modbus query (Function code 06/16) after changing the type of analog output channels, the analog outputs may output a different current/voltage than user would expect</li> </ul>	
1.0.6	2010-02-02	MiniOS7 2.2.10
	<p><b>New and improved features:</b></p> <ul style="list-style-type: none"> <li>Added support for AI-to-AO Pair-Connection</li> </ul> <p><b>Fixed:</b></p> <ul style="list-style-type: none"> <li>Fixed the issue that the Web HMI page failed to convert AO value from hex to floating value when AO channels was set to current type</li> </ul>	
1.0.4	2009-12-14	MiniOS7 2.2.10
	<p><b>New and improved features:</b></p> <ul style="list-style-type: none"> <li>Added support for Modbus UDP protocol</li> <li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000/PET-7000 can be accessed by the remote web browser in the Internet</li> </ul> <p><b>Fixed:</b></p> <ul style="list-style-type: none"> <li>Fixed issues regarding the Pair-Connection               <ol style="list-style-type: none"> <li>Communication may fail when receiving an illegal response from remote input device</li> <li>Cannot reconnect to remote input device after disconnect</li> <li>Modbus address of remote input device does not accept more than 10255</li> </ol> </li> </ul>	
1.0.3	2009-10-05	MiniOS7 2.2.10
	<p><b>New and improved features:</b></p> <ul style="list-style-type: none"> <li>Added support for 32-bit counter</li> <li>The latch status of specified DI channel can be cleared individually</li> </ul>	

# ET-7028/PET-7028

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
3.1.1	2023-11-01	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.10.4    Modbus L1.0.4
			<p><b>New and improved features:</b></p> <ul style="list-style-type: none"> <li>• Configuration Import and Export User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li> <li>• The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li> <li>• A factory reset can be performed when network connection is available on module in INIT mode.</li> <li>• Enable a keep-alive mechanism for the Modbus communication for the detection of active connections between a Modbus client and the module. This mechanism prevents idle connections from consuming TCP server resources.</li> </ul> <p><b>Update:</b></p> <ul style="list-style-type: none"> <li>• There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li> <li>• Modbus UDP port number can be changed and differs from 502.</li> </ul>
3.0.0	2021-04-13	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.01.1    Modbus 1.7.4
			<p><b>New and improved features:</b></p> <ul style="list-style-type: none"> <li>• When enabling the pair-connection, the digital and analog outputs can be configured to have a predefined state on communication failure.</li> </ul> <p><b>Update:</b></p> <ul style="list-style-type: none"> <li>• Use HTML5 features to build the web user interface, which does not require Adobe Flash Player.</li> <li>• Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds.</li> </ul> <p><b>Fixed:</b></p> <ul style="list-style-type: none"> <li>• Fixed issue that module does not send DHCP request to renew its DHCP lease time before lease time had expired.</li> </ul>

# ET-7042/PET-7042

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.	
3.1.1	2023-10-17	MiniOS7 2.04.000	Ethernet 1.29 Web Server 2.10.4 Modbus L1.0.4	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Configuration Import and Export User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li> <li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li> </ul>	
3.1.0	2023-04-10	MiniOS7 2.02.016	Ethernet 1.29 Web Server 2.10.3 Modbus L1.0.3	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>A factory reset can be performed when network connection is available on module in INIT mode.</li> <li>When enabling the pair-connection, the digital outputs can be configured to have a predefined state on communication failure.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li> <li>Modbus UDP port number can be changed and differs from 502.</li> </ul> <b>Fixed:</b> <ul style="list-style-type: none"> <li>Fixed issue that caused Modbus request failing when module has a slave ID from 128 to 255.</li> </ul>	
3.0.0	2017-04-26	MiniOS7 2.02.016	CPU 5.2.5 Ethernet 1.3.0 Web Server 2.1.1 Modbus 1.7.2	
			<b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web interface, which does not require Adobe Flash Player</li> <li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds</li> </ul>	
2.0.0	2014-04-24	MiniOS7 2.02.015	CPU 5.2.5 Ethernet 1.2.8 Web Server 1.2.8 Modbus 1.7.2	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul>	
1.3.1	2012-07-24	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Improve the method for detecting the connection status between the ET-7000 and the interactive modules in order to avoid being disconnected from the network</li> </ul>	
1.3.0	2012-03-27	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Verify the new IP address has been changed</li> <li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used.</li> <li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li> </ul>	
1.2.1	2010-04-28	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for Modbus UDP protocol</li> <li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000 can be accessed by the remote web browser in</li> </ul>	



the Internet

- Added an option to change the Modbus ID
- Broadcasts an ARP request on the local network at 5-minute intervals
- Web HMI will automatically reconnect to ET-7000 after disconnect

**Update:**

- Communication of Web HMI is based on Adobe Flash Player  
This content requires the Adobe Flash Player and a browser with Javascript enabled

**Fixed:**

- Fixed issues regarding the Pair-Connection
  1. Communication may fail when receiving an illegal response from remote input device
  2. Cannot reconnect to remote input device after disconnect
  3. Modbus address of remote input device does not accept more than 10255
- Host WDT does not work if the WDT timeout was set to 33 seconds or more
- "More Information URL" field does not accept more than 12 characters

# ET-7044/PET-7044

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.	
3.0.0	2017-04-26	MiniOS7 2.02.016	CPU 5.2.5	Ethernet 1.3.0
			Web Server 2.1.1	Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added a software low-pass filter to the digital input counter. The low-pass filter can be either disabled or programmable.</li><li>I/O pair-connection can be enabled and configured to allow local digital inputs to be mapped to remote digital outputs over Ethernet</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>Use HTML5 features to build the web interface, which does not require Adobe Flash Player</li><li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds</li></ul>				
2.0.0	2014-04-24	MiniOS7 2.02.015	CPU 5.2.5	Ethernet 1.2.8
			Web Server 1.2.8	Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for new Flash chip</li><li>The Modbus TCP port can be specified individually for WAN and LAN</li><li>Improve the web interface for setting up the Pair-Connection</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>The same firmware for both ET-7000 and PET-7000 modules</li></ul>				
1.3.1	2012-07-24	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Improve the method for detecting the connection status between the ET-7000/PET-7000 and the interactive modules in order to avoid being disconnected from the network</li></ul>	
1.3.0	2012-03-27	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Verify the new IP address has been changed</li><li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used.</li><li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li></ul>	
1.2.1	2010-04-28	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for Modbus UDP protocol</li><li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000/PET-7000 can be accessed by the remote web browser in the Internet</li><li>Added an option to change the Modbus ID</li><li>Added an option to inverse the value of DI counter</li><li>Broadcasts an ARP request on the local network at 5-minute intervals</li><li>Web HMI will automatically reconnect to ET-7000/PET-7000 after disconnect</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>Communication of Web HMI is based on Adobe Flash Player This content requires the Adobe Flash Player and a browser with Javascript enabled</li></ul> <b>Fixed:</b> <ul style="list-style-type: none"><li>Fixed issues regarding the Pair-Connection<ol style="list-style-type: none"><li>Communication may fail when receiving an illegal response from remote input device</li><li>Cannot reconnect to remote input device after disconnect</li><li>Modbus address of remote input device does not accept more than 10255</li></ol></li></ul>	

- |  |   |
|--|---|
|  | <ul style="list-style-type: none"><li>• The preset value will be reset to 0 before clearing the DI counter value</li><li>• Host WDT does not work if the WDT timeout was set to 33 seconds or more</li><li>• “More Information URL” field does not accept more than 12 characters</li></ul> |
|--|---|

# ET-7050/PET-7050

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.	
3.0.0	2017-04-26	MiniOS7 2.02.016	CPU 5.2.5	Ethernet 1.3.0
			Web Server 2.1.1	Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added a software low-pass filter to the digital input counter. The low-pass filter can be either disabled or programmable.</li><li>I/O pair-connection can be enabled and configured to allow local digital inputs to be mapped to remote digital outputs over Ethernet</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>Use HTML5 features to build the web interface, which does not require Adobe Flash Player</li><li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds</li></ul>				
2.0.0	2014-04-24	MiniOS7 2.02.015	CPU 5.2.5	Ethernet 1.2.8
			Web Server 1.2.8	Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for new Flash chip</li><li>The Modbus TCP port can be specified individually for WAN and LAN</li><li>Improve the web interface for setting up the Pair-Connection</li></ul>				
1.3.1	2012-07-24	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Improve the method for detecting the connection status between the ET-7000 and the interactive modules in order to avoid being disconnected from the network</li></ul>	
1.3.0	2012-03-27	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Verify the new IP address has been changed</li><li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used.</li><li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li></ul>	
1.2.1	2010-04-28	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for Modbus UDP protocol</li><li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000 can be accessed by the remote web browser in the Internet</li><li>Added an option to change the Modbus ID</li><li>Added an option to inverse the value of DI counter</li><li>Broadcasts an ARP request on the local network at 5-minute intervals</li><li>Web HMI will automatically reconnect to ET-7000 after disconnect</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>Communication of Web HMI is based on Adobe Flash Player This content requires the Adobe Flash Player and a browser with Javascript enabled</li></ul> <b>Fixed:</b> <ul style="list-style-type: none"><li>Fixed issues regarding the Pair-Connection<ol style="list-style-type: none"><li>Communication may fail when receiving an illegal response from remote input device</li><li>Cannot reconnect to remote input device after disconnect</li><li>Modbus address of remote input device does not accept more than 10255</li></ol></li><li>The preset value will be reset to 0 before clearing the DI counter value</li><li>Host WDT does not work if the WDT timeout was set to 33 seconds or more</li><li>“More Information URL” field does not accept more than 12 characters</li></ul>	

# ET-7051/PET-7051

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.	
3.1.1	2023-11-03	MiniOS7 2.03.004	CPU 5.2.5	Ethernet 1.29
			Web Server 2.10.4	Modbus L1.0.4
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Configuration Import and Export User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li><li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li><li>A factory reset can be performed when network connection is available on module in INIT mode.</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li><li>Modbus UDP port number can be changed and differs from 502.</li></ul> <b>Fixed:</b> <ul style="list-style-type: none"><li>Fixed issue that caused Modbus request failing when module has a slave ID from 128 to 255.</li></ul>	
3.0.0	2017-04-26	MiniOS7 2.02.016	CPU 5.2.5	Ethernet 1.3.0
			Web Server 2.1.1	Modbus 1.7.2
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added a software low-pass filter to the digital input counter. The low-pass filter can be either disabled or programmable.</li><li>I/O pair-connection can be enabled and configured to allow local digital inputs to be mapped to remote digital outputs over Ethernet</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>Use HTML5 features to build the web interface, which does not require Adobe Flash Player</li></ul>	
2.0.0	2014-04-24	MiniOS7 2.02.015	CPU 5.2.5	Ethernet 1.2.8
			Web Server 1.2.8	Modbus 1.7.2
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for new Flash chip</li><li>The Modbus TCP port can be specified individually for WAN and LAN</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>The same firmware for both ET-7000 and PET-7000 modules</li></ul>	
1.3.1	2012-07-24	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Improve the method for detecting the connection status between the ET-7000/PET-7000 and the interactive modules in order to avoid being disconnected from the network</li></ul>	
1.3.0	2012-03-27	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Verify the new IP address has been changed</li><li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used.</li><li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li></ul>	
1.2.1	2010-04-28	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for Modbus UDP protocol</li><li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000/PET-7000 can be accessed by the remote web</li></ul>	

browser in the Internet

- Added an option to change the Modbus ID
- Added an option to inverse the value of DI counter
- Broadcasts an ARP request on the local network at 5-minute intervals
- Web HMI will automatically reconnect to ET-7000/PET-7000 after disconnect

**Update:**

- Communication of Web HMI is based on Adobe Flash Player  
This content requires the Adobe Flash Player and a browser with Javascript enabled

**Fixed:**

- The preset value will be reset to 0 before clearing the DI counter value
- "More Information URL" field does not accept more than 12 characters

# ET-7052/PET-7052

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.	
3.0.0	2017-04-26	MiniOS7 2.02.016	CPU 5.2.5	Ethernet 1.3.0
			Web Server 2.1.1	Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added a software low-pass filter to the digital input counter. The low-pass filter can be either disabled or programmable.</li><li>I/O pair-connection can be enabled and configured to allow local digital inputs to be mapped to remote digital outputs over Ethernet</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>Use HTML5 features to build the web interface, which does not require Adobe Flash Player</li><li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds</li></ul>				
2.0.0	2014-04-24	MiniOS7 2.02.015	CPU 5.2.5	Ethernet 1.2.8
			Web Server 1.2.8	Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for new Flash chip</li><li>The Modbus TCP port can be specified individually for WAN and LAN</li><li>Improve the web interface for setting up the Pair-Connection</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>The same firmware for both ET-7000 and PET-7000 modules</li></ul>				
1.3.1	2012-07-24	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Improve the method for detecting the connection status between the ET-7000/PET-7000 and the interactive modules in order to avoid being disconnected from the network</li></ul>	
1.3.0	2012-03-27	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Verify the new IP address has been changed</li><li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used.</li><li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li></ul>	
1.2.1	2010-04-28	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for Modbus UDP protocol</li><li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000/PET-7000 can be accessed by the remote web browser in the Internet</li><li>Added an option to change the Modbus ID</li><li>Added an option to inverse the value of DI counter</li><li>Broadcasts an ARP request on the local network at 5-minute intervals</li><li>Web HMI will automatically reconnect to ET-7000/PET-7000 after disconnect</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>Communication of Web HMI is based on Adobe Flash Player This content requires the Adobe Flash Player and a browser with Javascript enabled</li></ul> <b>Fixed:</b> <ul style="list-style-type: none"><li>Fixed issues regarding the Pair-Connection<ol style="list-style-type: none"><li>Communication may fail when receiving an illegal response from remote input device</li><li>Cannot reconnect to remote input device after disconnect</li><li>Modbus address of remote input device does not accept more than 10255</li></ol></li></ul>	

- |  |   |
|--|---|
|  | <ul style="list-style-type: none"><li>• The preset value will be reset to 0 before clearing the DI counter value</li><li>• Host WDT does not work if the WDT timeout was set to 33 seconds or more</li><li>• “More Information URL” field does not accept more than 12 characters</li></ul> |
|--|---|



# ET-7053/PET-7053

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.	
3.1.1	2023-11-03	MiniOS7 2.03.004	CPU 5.2.5	Ethernet 1.29
			Web Server 2.10.4	Modbus L1.0.4
	<b>New and improved features:</b> <ul style="list-style-type: none"><li>Configuration Import and Export User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li><li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li><li>A factory reset can be performed when network connection is available on module in INIT mode.</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li><li>Modbus UDP port number can be changed and differs from 502.</li></ul> <b>Fixed:</b> <ul style="list-style-type: none"><li>Fixed issue that caused Modbus request failing when module has a slave ID from 128 to 255.</li></ul>			
3.0.0	2017-04-26	MiniOS7 2.02.016	CPU 5.2.5	Ethernet 1.3.0
			Web Server 2.1.1	Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added a software low-pass filter to the digital input counter. The low-pass filter can be either disabled or programmable.</li><li>I/O pair-connection can be enabled and configured to allow local digital inputs to be mapped to remote digital outputs over Ethernet</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>Use HTML5 features to build the web interface, which does not require Adobe Flash Player</li></ul>				
2.0.0	2014-04-24	MiniOS7 2.02.015	CPU 5.2.5	Ethernet 1.2.8
			Web Server 1.2.8	Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for new Flash chip</li><li>The Modbus TCP port can be specified individually for WAN and LAN</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>The same firmware for both ET-7000 and PET-7000 modules</li></ul>				
1.3.1	2012-07-24	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Improve the method for detecting the connection status between the ET-7000/PET-7000 and the interactive modules in order to avoid being disconnected from the network</li></ul>	
1.3.0	2012-03-27	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Verify the new IP address has been changed</li><li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used.</li><li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li></ul>	
1.2.1	2010-04-28	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for Modbus UDP protocol</li><li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000/PET-7000 can be accessed by the remote web</li></ul>	

browser in the Internet

- Added an option to change the Modbus ID
- Added an option to inverse the value of DI counter
- Broadcasts an ARP request on the local network at 5-minute intervals
- Web HMI will automatically reconnect to ET-7000/PET-7000 after disconnect

**Update:**

- Communication of Web HMI is based on Adobe Flash Player  
This content requires the Adobe Flash Player and a browser with Javascript enabled

**Fixed:**

- The preset value will be reset to 0 before clearing the DI counter value
- "More Information URL" field does not accept more than 12 characters

# ET-7060/PET-7060

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
3.1.1	2023-09-14	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.10.4    Modbus L1.0.4
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li> <li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li> <li>A factory reset can be performed when network connection is available on module in INIT mode.</li> <li>When enabling the pair-connection, the digital outputs can be configured to have a predefined state on communication failure.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li> <li>Modbus UDP port number can be changed and differs from 502.</li> </ul> <b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that caused Modbus request failing when module has a slave ID from 128 to 255.</li> </ul>
3.0.0	2017-04-26	MiniOS7 2.02.016	CPU 5.2.5    Ethernet 1.3.0 Web Server 2.1.1    Modbus 1.7.2
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added a software low-pass filter to the digital input counter. The low-pass filter can be either disabled or programmable.</li> <li>I/O pair-connection can be enabled and configured to allow local digital inputs to be mapped to remote digital outputs over Ethernet</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web interface, which does not require Adobe Flash Player</li> <li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds</li> </ul>
2.0.0	2014-04-24	MiniOS7 2.02.015	CPU 5.2.5    Ethernet 1.2.8 Web Server 1.2.8    Modbus 1.7.2
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>The same firmware for both ET-7000 and PET-7000 modules</li> </ul>
1.3.1	2012-07-24	MiniOS7 2.02.010	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Improve the method for detecting the connection status between the ET-7000/PET-7000 and the interactive modules in order to avoid being disconnected from the network</li> </ul>
1.3.0	2012-03-27	MiniOS7 2.02.010	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Verify the new IP address has been changed</li> <li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used.</li> <li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li> </ul>
1.2.1	2010-04-28	MiniOS7 2.02.010	
			<b>New and improved features:</b>

- Added support for Modbus UDP protocol
- Added options to specify the IP address and TCP port  
This method enables the web HMI of internal ET-7000/PET-7000 can be accessed by the remote web browser in the Internet
- Added an option to change the Modbus ID
- Added an option to inverse the value of DI counter
- Broadcasts an ARP request on the local network at 5-minute intervals
- Web HMI will automatically reconnect to ET-7000/PET-7000 after disconnect

**Update:**

- Communication of Web HMI is based on Adobe Flash Player  
This content requires the Adobe Flash Player and a browser with Javascript enabled

**Fixed:**

- Fixed issues regarding the Pair-Connection
  1. Communication may fail when receiving an illegal response from remote input device
  2. Cannot reconnect to remote input device after disconnect
  3. Modbus address of remote input device does not accept more than 10255
- The preset value will be reset to 0 before clearing the DI counter value
- Host WDT does not work if the WDT timeout was set to 33 seconds or more
- "More Information URL" field does not accept more than 12 characters

# ET-7065/PET-7065

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.	
3.1.1	2023-09-14	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.10.4 Modbus L1.0.4	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li> <li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li> <li>A factory reset can be performed when network connection is available on module in INIT mode.</li> <li>When enabling the pair-connection, the digital outputs can be configured to have a predefined state on communication failure.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li> <li>Modbus UDP port number can be changed and differs from 502.</li> </ul> <b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that caused Modbus request failing when module has a slave ID from 128 to 255.</li> </ul>	
3.0.0	2017-04-26	MiniOS7 2.02.016	CPU 5.2.5 Ethernet 1.3.0 Web Server 2.1.1 Modbus 1.7.2	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added a software low-pass filter to the digital input counter. The low-pass filter can be either disabled or programmable.</li> <li>I/O pair-connection can be enabled and configured to allow local digital inputs to be mapped to remote digital outputs over Ethernet</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web interface, which does not require Adobe Flash Player</li> <li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds</li> </ul>	
2.0.0	2014-04-24	MiniOS7 2.02.015	CPU 5.2.5 Ethernet 1.2.8 Web Server 1.2.8 Modbus 1.7.2	
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul>	
1.3.1	2012-07-24	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Improve the method for detecting the connection status between the ET-7000 and the interactive modules in order to avoid being disconnected from the network</li> </ul>	
1.3.0	2012-03-27	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Verify the new IP address has been changed</li> <li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used.</li> <li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li> </ul>	
1.2.1	2010-04-28	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for Modbus UDP protocol</li> <li>Added options to specify the IP address and TCP port</li> </ul>	

This method enables the web HMI of internal ET-7000 can be accessed by the remote web browser in the Internet

- Added an option to change the Modbus ID
- Added an option to inverse the value of DI counter
- Broadcasts an ARP request on the local network at 5-minute intervals
- Web HMI will automatically reconnect to ET-7000 after disconnect

**Update:**

- Communication of Web HMI is based on Adobe Flash Player  
This content requires the Adobe Flash Player and a browser with Javascript enabled

**Fixed:**

- Fixed issues regarding the Pair-Connection
  1. Communication may fail when receiving an illegal response from remote input device
  2. Cannot reconnect to remote input device after disconnect
  3. Modbus address of remote input device does not accept more than 10255
- The preset value will be reset to 0 before clearing the DI counter value
- Host WDT does not work if the WDT timeout was set to 33 seconds or more
- "More Information URL" field does not accept more than 12 characters

# ET-7066/PET-7066

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.
3.1.1	2023-10-17	MiniOS7 2.03.004	Ethernet 1.29 Web Server 2.10.4 Modbus L1.0.4
<b>New and improved features:</b> <ul style="list-style-type: none"> <li>User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li> <li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li> <li>A factory reset can be performed when network connection is available on module in INIT mode.</li> <li>When enabling the pair-connection, the digital outputs can be configured to have a predefined state on communication failure.</li> </ul> <b>Update:</b> <ul style="list-style-type: none"> <li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li> <li>Modbus UDP port number can be changed and differs from 502.</li> </ul> <b>Fixed issues:</b> <ul style="list-style-type: none"> <li>Fixed issue that caused Modbus request failing when module has a slave ID from 128 to 255.</li> </ul>			
3.0.0	2017-04-26	MiniOS7 2.02.016	CPU 5.2.5 Ethernet 1.3.0 Web Server 2.1.1 Modbus 1.7.2
<b>Update:</b> <ul style="list-style-type: none"> <li>Use HTML5 features to build the web user interface, which does not require Adobe Flash Player</li> <li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds</li> </ul>			
2.0.0	2014-04-24	MiniOS7 2.02.015	CPU 5.2.5 Ethernet 1.2.8 Web Server 1.2.8 Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for new Flash chip</li> <li>The Modbus TCP port can be specified individually for WAN and LAN</li> <li>Improve the web interface for setting up the Pair-Connection</li> </ul>			
1.3.1	2012-07-24	MiniOS7 2.02.010	
<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Improve the method for detecting the connection status between the ET-7000 and the interactive modules in order to avoid being disconnected from the network</li> </ul>			
1.3.0	2012-03-27	MiniOS7 2.02.010	
<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Verify the new IP address has been changed</li> <li>With the DHCP enabled, the hostname (option 12) can be specified with the "Module Information" setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used.</li> <li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li> </ul>			
1.2.1	2010-04-28	MiniOS7 2.02.010	
<b>New and improved features:</b> <ul style="list-style-type: none"> <li>Added support for Modbus UDP protocol</li> <li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000 can be accessed by the remote web browser in the Internet</li> <li>Added an option to change the Modbus ID</li> <li>Broadcasts an ARP request on the local network at 5-minute intervals</li> <li>Web HMI will automatically reconnect to ET-7000 after disconnect</li> </ul>			

**Update:**

- Communication of Web HMI is based on Adobe Flash Player  
This content requires the Adobe Flash Player and a browser with Javascript enabled

**Fixed issues:**

- Fixed issues regarding the Pair-Connection
  1. Communication may fail when receiving an illegal response from remote input device
  2. Cannot reconnect to remote input device after disconnect
  3. Modbus address of remote input device does not accept more than 10255
- Host WDT does not work if the WDT timeout was set to 33 seconds or more
- "More Information URL" field does not accept more than 12 characters



# ET-7067/PET-7067

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.	
3.1.1	2023-10-17	MiniOS7 2.03.004	Ethernet 1.29	
			Web Server 2.10.4	Modbus L1.0.4
<b>New and improved features:</b> <ul style="list-style-type: none"><li>User can export all module settings into a file and import full or partial configuration across compatible modules of the same models.</li><li>The broadcast messages are supported with Modbus UDP. A response message will be returned upon receiving and finishing a broadcast request.</li><li>A factory reset can be performed when network connection is available on module in INIT mode.</li><li>When enabling the pair-connection, the digital outputs can be configured to have a predefined state on communication failure.</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>There is no default username and password when logging in to the web user interface for the first time, it is necessary to create a new admin account.</li><li>Modbus UDP port number can be changed and differs from 502.</li></ul> <b>Fixed issues:</b> <ul style="list-style-type: none"><li>Fixed issue that caused Modbus request failing when module has a slave ID from 128 to 255.</li></ul>				
3.0.0	2017-04-26	MiniOS7 2.02.016	CPU 5.2.5	Ethernet 1.3.0
			Web Server 2.1.1	Modbus 1.7.2
<b>Update:</b> <ul style="list-style-type: none"><li>Use HTML5 features to build the web user interface, which does not require Adobe Flash Player</li><li>Change the unit of timeout of the Host Watchdog timer from second to 0.1 seconds</li></ul>				
2.0.0	2014-04-24	MiniOS7 2.02.015	CPU 5.2.5	Ethernet 1.2.8
			Web Server 1.2.8	Modbus 1.7.2
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for new Flash chip</li><li>The Modbus TCP port can be specified individually for WAN and LAN</li><li>Improve the web interface for setting up the Pair-Connection</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>The same firmware for both ET-7000 and PET-7000 modules</li></ul>				
1.3.1	2012-07-24	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Improve the method for detecting the connection status between the ET-7000/PET-7000 and the interactive modules in order to avoid being disconnected from the network</li></ul>	
1.3.0	2012-03-27	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Verify the new IP address has been changed</li><li>With the DHCP enabled, the hostname (option 12) can be specified with the “Module Information” setting. If the setting is not given, the default (icpdas_xx:xx:xx) will be used.</li><li>Connection lifetime Once a Modbus TCP connection has been established, it will be closed after 90 seconds of inactivity</li></ul>	
1.2.1	2010-04-28	MiniOS7 2.02.010		
			<b>New and improved features:</b> <ul style="list-style-type: none"><li>Added support for Modbus UDP protocol</li><li>Added options to specify the IP address and TCP port This method enables the web HMI of internal ET-7000/PET-7000 can be accessed by the remote web browser in the Internet</li><li>Added an option to change the Modbus ID</li></ul>	

- Broadcasts an ARP request on the local network at 5-minute intervals
- Web HMI will automatically reconnect to ET-7000/PET-7000 after disconnect

**Update:**

- Communication of Web HMI is based on Adobe Flash Player  
This content requires the Adobe Flash Player and a browser with Javascript enabled

**Fixed issues:**

- Fixed issues regarding the Pair-Connection
  1. Communication may fail when receiving an illegal response from remote input device
  2. Cannot reconnect to remote input device after disconnect
  3. Modbus address of remote input device does not accept more than 10255
- Host WDT does not work if the WDT timeout was set to 33 seconds or more
- "More Information URL" field does not accept more than 12 characters

# ET-7083/PET-7083

Version number	Release date	MiniOS7 Signifies which version of MiniOS7 the firmware is running on.	Function library Signifies which version of function library the firmware is using.	
3.0.1	2020-02-19	MiniOS7 2.02.016	CPU 5.2.5	Ethernet 1.3.0
			Web Server 2.01.x	Modbus 1.7.4
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Index trigger mode setting can be configured to clear the counter automatically if the z index signal of the encoder is detected.</li></ul>				
3.0.0	2019-03-29	MiniOS7 2.02.016	CPU 5.2.5	Ethernet 1.3.0
			Web Server 2.01.x	Modbus 1.7.4
<b>New and improved features:</b> <ul style="list-style-type: none"><li>Support for low-pass filter. This filter can be configured to filter out high-frequency noise from input signals.</li></ul> <b>Update:</b> <ul style="list-style-type: none"><li>Use HTML5 features to build the web user interface, which does not require Adobe Flash Player</li></ul> <b>Fixed issues:</b> <ul style="list-style-type: none"><li>Fixed issue that module does not send DHCP request to renew its DHCP lease time before lease time had expired.</li></ul>				