Firmware change-log of new features and bug fixes of the u-remote modules:

Firmware updating Information:

An update of the firmware can be done via the embedded web server. A description of the firmware update can be found in the u-remote web server manual on the Weidmüller website: [www.weidmueller.com](http://www.weidmueller.com)

**UR20-1COM-232-485-422 (1315750000)**

Version 01.00.16  
Release date: July, 2019
- Increased size of RX buffer to 4kByte
- Fixed that the module could freeze when the force modus is used or after a software reset of the fieldbus coupler

Version 01.00.14  
Release date: October 04, 2018
- Fixed that RX Hardware buffer can be flushed now after a buffer overflow

Version 01.00.13  
Release date: July 2018
- Fixed that the status bit IX0.7 is set to “1” while the module is deactivated
- Bit for Function "DisableSend_TX_HWBUFFER" now working correctly

Version 01.00.11  
Release date: June 06, 2016
- First released version

**UR20-1COM-SAI-PRO (2007430000)**

Version 01.01.00  
Release date: March 2018
- Fixed behaviour of status LED after power cycle or low voltage for all hardware versions

Version 01.00.07  
Release date: December 2017
- Minor improvements

Version 01.00.06  
Release date: May 17, 2017
- New feature: Improved overcurrent detection for sub bus supply (works with HW-Version >01.05.00)
- Bug Fixes: parameter for substitute values is working now

Version 01.00.04  
Release date: October 04, 2016
- Bug Fixes: Improved start up behaviour while initialising sub bus modules.
- A firmware update is recommended!

Version 01.00.01  
Release date: June 06, 2016
- First released version

**UR20-2AI-SG-24-DIAG (1990070000)**

Version 01.00.06  
Release date: April, 2018
- Known issue: Calibration sheet cannot be downloaded when coupler firmware with release date July 2019 is used
- Offset can be changed independently for each entered value of the sensor sensitivity. A description of changes in the calibration process can be found in the UR20 manual (v13 or above).

Version 01.00.04  
Release date: December 2017
- Improved algorithm for calculation of user offset in combination with manual tare
- Added blocking of tare function when input data is out of range
- Version is removed from download section – upgrade to newest version is recommended!

Version 01.00.03  
Release date: October 04, 2016
- First released version

**UR20-3EM-230V-AC (2007420000)**

Version 01.00.47  
Release date: December 2017
- Fixed that value of Fundamental Reactive Power sometimes could be inaccurate

Version 01.00.46  
Release date: May 17, 2017
- New feature: adds Parameter “direction recognition” indicate 3 phase direction

Version 01.00.30  
Release date: October 04, 2016
- Bug Fixes: Improved diagnosis threshold values for voltage and current: Diagnostic LED threshold behaviour adjusted.

Version 01.00.28  
Release date: June 06, 2016
- First released version

**UR20-4AI-R-HS-16-DIAG (2001670000)**

Version 01.00.01  
Release date: June 06, 2016
- First released version
UR20-4AI-RTD-DIAG (1315700000)
UR20-4AI-TC-DIAG (1315710000)
Version 01.00.11 Release date: December 2017
• Fixed that deactivation of Limited Value Monitoring sometimes causes faulty behaviour.
Version 01.00.10 Release date: May 17, 2017
• Bug fix: Linearization curve for CU10 sensors >200°C corrected

UR20-4AI-RTD-HP-DIAG (2456540000)
Version 01.00.02 Release date: December 2017
• Fixed that deactivation of Limited Value Monitoring sometimes causes faulty behaviour.
Version 01.00.10 Release date: May 17, 2017
• First released version
• High precision RTD module
• Supports additional LG-Ni1000 sensor characteristic
• Supports additional PT100 from -200°C to +250°C

UR20-4AI-UI-12 (1394390000)
UR20-4AI-UI-16[-HD] (1315620000, 1506920000),
UR20-4AI-UI-16-DIAG[-HD] (1315690000, 1506910000),
UR20-8AI-I-16-DIAG[-HD] (1315650000, 1315720000)
UR20-8AI-I-PLC-INT (1315670000)

Version 01.02.00 Release date: August, 2019
• Bug fix: Fixed that module sometimes remains in fault state when (re-)booted at high temperature.

Version 01.01.00 Release date: July, 2019
• Changed the value range for the FORCE mode of the webserver, now low-level values for the range of underloading can be set
• Fixed that the channel error LED stays off when lower or upper limits are exceeded
• Reduced the crosstalk between the input channels
• Removed toggling diagnosis between “Overload” and “Upper limit value exceeded”, when an input channel is overloaded
• Adjusted behaviour of module diagnostics:
  - Module diagnostics are always active (in case of an error the module status LED will be red)
  - In case of an error the channel error LED will always be red on modules which are supporting single channel diagnostic, independent of the configuration for the diagnostic

Version 01.00.36 Release date: May 17, 2017
• New feature: Additional low pass implemented

Version 01.00.34 Release date: October 04, 2016
• New feature: Adaptation of the switching thresholds according to Namur Recommendation NE43
  “Standardization of the Signal Level for the Failure Information of Digital Transmitters”
  High limits: +5%
  Low limits: -10% for non zero unipolar range
  Limits for bipolar range: +/-10%

<table>
<thead>
<tr>
<th>Measurement range</th>
<th>Low limits</th>
<th>High limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20mA</td>
<td>n.a.</td>
<td>&gt; 21mA</td>
</tr>
<tr>
<td>4 to 20mA</td>
<td>&lt; 3.6mA</td>
<td>&gt; 21mA</td>
</tr>
<tr>
<td>0 to 10V</td>
<td>n.a.</td>
<td>&gt; 10.5V</td>
</tr>
<tr>
<td>2 to 10V</td>
<td>&lt; 1.8V</td>
<td>&gt; 10.5V</td>
</tr>
<tr>
<td>+/-10V</td>
<td>&lt; -10.5V</td>
<td>&gt; 10.5V</td>
</tr>
<tr>
<td>0 to 5V</td>
<td>n.a.</td>
<td>&gt; 5.25V</td>
</tr>
<tr>
<td>1 to 5V</td>
<td>&lt; 0.9V</td>
<td>&gt; 5.25V</td>
</tr>
<tr>
<td>+/-5V</td>
<td>&lt; -5.25V</td>
<td>&gt; 5.25V</td>
</tr>
</tbody>
</table>

Version 01.00.33 Release date: June 06, 2016
• First released version

UR20-4AI-UI-DIF-16-DIAG (1993880000)
Version 01.04.00 Release date: September 2019
• Bug fix: Fixed that module sometimes remains in fault state when (re-)booted at high temperature.

Version 01.03.05 Release date: December 2017
• Fixed that Module Status LED turns red on an error event on a channel with deactivated diagnostics

Version 01.03.03 Release date: May 17, 2017
• First released version
UR20-4AI-UI-DIF-32-DIAG (2544660000)
Version 01.01.00 Release date: September 2019
• Bug fix: Fixed that module sometimes remains in fault state when (re-)booted at high temperature.

Version 01.00.04 Release date: December 2017
• First released version

UR20-4AO-UI-16[-HD] (1315680000, 1510690000),
UR20-4AO-UI-16-DIAG[-HD] (1315730000, 1506930000),
UR20-4AO-UI-16-M[-DIAG] (2453880000, 2453870000)
Version 01.02.00 Release date: May 17, 2017
• Added ‘M’-version - universal analogue output module with Marine certification

Version 01.01.07 Release date: June 06, 2016
• First released version

UR20-4COM-IO-LINK (1315740000)
Version 01.03.00 Release date: July, 2019
• Support for IO-Link devices with slow response behaviour (> 1 sec)
• Support for all fieldbus couplers of the u-remote product family
• A new version (1.2.0) of the u-remote IO-Link configurator is available, which now also enables an online connection via the fieldbus coupler to the IO-Link Master module and their connected IO-Link devices.

Version 01.02.00 Release date: July, 2018
• Module is now compatible with EtherCat coupler (firmware from the coupler also must be updated
• Additional configurator tool is available for PROFINET, PROFIBUS & EtherCAT UR20 coupler
• Diagnosis “Parameter fault” is now shown in the webserver and Status LED of the module
• Variable process data length (Input/Output) function added

Version 01.00.03 Release date: May 17, 2017
• First released version
• Only compatible with: PROFIBUS-DP coupler FW-Version >=01.03.00
  PROFINET coupler FW-Version >=01.03.00

UR20-4DI-4DO-PN-FSOE (1529780000)
Version 01.00.06 Release date: June 06, 2016
• First released version

UR20-4DI-4DO-PN-FSOE-V2 (2464580000)
Version 01.00.05 Release date: April, 2018
• Improved output response time < 10ms

Version 01.00.04 Release date: May 17, 2017
• First released version

UR20-4DI-4DO-PN-FSPS (1335060000)
Version 01.00.02 Release date: June 06, 2016
• First released version

UR20-4DI-4DO-PN-FSPS-V2 (2464570000)
Version 01.00.05 Release date: April, 2018
• Improved output response time < 10ms

Version 01.00.01 Release date: May 17, 2017
• First released version

UR20-8DI-PN-FSOE (1529800000)
Version 01.00.06 Release date: June 06, 2016
• First released version

UR20-8DI-PN-FSOE-V2 (2464600000)
Version 01.00.04 Release date: May 17, 2017
• First released version

UR20-8DI-PN-FSPS (1335070000)
Version 01.00.06 Release date: June 06, 2016
• First released version
UR20-8DI-PN-FSPS-V2 (2464590000)
Version 01.00.01 Release date: May 17, 2017
• First released version

UR20-PF-O-1DI-SIL (1335030000)
UR20-PF-O-2DI-SIL (1335050000),
UR20-PF-O-2DI-DELAY-SIL (1335040000)
Version 01.13.00 Release date: June 06, 2016
• First released version

UR20-1SM-50W-6DI2DO-P (2489830000)
Version 02.00.00 Release date: March 2020

- Bug fix: Fixed that end stops no longer work during reference run.
- New feature: After switching on the module, the following errors occur: The motor LEDs light up red and if
diagnosis are activated (module and coupler) an undervoltage error diagnosis is triggered. The bit for the
output stage must not be enabled Bit 9.7 and the move Bit 9.1 must not be set. A change from 0 to 1 Bit
9.6 acknowledges the error. Known issue from Version 01.00.04. is solved.
- New feature: If the "Move Bit" 9.1 is reset during a traversing movement, the motor stops immediately.
  Attention: Step loss is possible.
- The function modulo axis is implemented
- Changed that the parameter "traversing range" is now only valid for the modulo axis.
- Linear acceleration and optimal acceleration are implemented in process data

Version 01.00.04 Release date: December 03, 2018
• Known issue:
  Non-simultaneous power cycling of external power supply and u-remote system supply while a motor is
rotating could lead to unwanted motor movement:
  • A power cycle at the external power supply while the u-remote system supply remains causes the
motor to stop and restart after external power supply is restored. The motor will continue moving
to the target position of the last move command before the power interruption.
  • A power interruption of the u-remote system supply while the external power supply remains
causes the motor to continue to rotate to the target position of the last move command.

![Flowchart]

• Workaround:
The application program of the connected controller (PLC) should check the status of the process data bit
"State power supply" (IX9.7). If the "State power supply" bit is “false” (0) the program should reset both the
bit “Moving” (QX9.1) and the bit “Enable motor driver” (QX9.7) to “false” (0).
(please see UR20 Stepper motor module manual)
• This behaviour is planned to be fixed with the next firmware update.