

Changes / New features

from
firmware version V 2.27 / V3.27 as of **05.06.2018**
to
firmware version V 2.34 / V 3.34 as of **22.07.2024**

product description / type : REG-D™ / PAN-D / REG-DA

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Changes on the document:

13.01.2023, CSc Addition of troubleshooting on the panel password
25.07.2024, MSI RBAC actualized, Logbook features and ParErr Fix added

New features, changes and REG-L command reference:

1. RBAC (Role Based Access Control)

Implementation of RBAC support in REG-D(A). RBAC can be used in conjunction with an IT-secure SCADA interface card (e.g. REG-PED^{SV}, REG-PE🔒 TK28-6, REG-P🔒 TK28-4).

The roles are managed exclusively by the SCADA card. This also handles the authentication of the user (exception: PanelUser).

In RBAC, two PanelUser roles for the REG-D(A) and PAN-D are available on request in addition to the global roles (logon via SCADA card). The master PanelUser 1 is assigned the role "Panel-User 1" and the PanelUsers 2..5 are assigned the role "Panel-User 2-5". With these PanelUsers it is possible to log on directly to the REG-D(A) or PAN-D using a PIN. The PIN for the PanelUser can be changed on the device or from the SCADA cards web interface.

RBAC, lock representation when display is locked:
Lock symbol unfilled --> RBAC_RightID_Disp_Off is active.
Lock symbol filled --> all locks (e.g. after RBAC timeout) are active

In addition to the lock symbol when the display is locked, the RBAC status is indicated by a symbol in front of the time in the first line of the REG-D(A).

Refer to the manual for details.

PAN-D:

RBAC, now text-based padlock display.

Single line --> display locked

Double line --> device locked

In connection with RBAC, two additional ELAN domains have been implemented in addition to the standard ELAN domain. I.e. logically separated networks can now be established with the ELAN. Only devices that are in the same domain can communicate with each other.

In addition, the ELAN can also be switched off completely.

2. MODBUS via COM3-Schnittstelle

The COM3 now supports MODBUS in addition to the A.Eberle-specific protocol for ANA and BIN-D. I.e. it is possible to choose between MODBUS or A.Eberle specific. Mixed operation is not possible! MODBUS via COM-3 can now also be used in RS-485 (2-wire) operation (for the time being only with version 3.29 or newer). To achieve this a special hardware setup is necessary.

3. Other

- The measuring channel assignment has been extended by two channels. The following parameters are now included:
 - RegMIMAP 1 = 0 U1N
 - RegMIMAP 2 = 0 U2N
 - RegMIMAP 3 = 0 IN
 - RegMIMAP 4 = 0 PHI
 - RegMIMAP 5 = 0 I2N
 - RegMIMAP 6 = 0 FREQ
 - RegMIMAP 7 = 0 PHI2
 - RegMIMAP 8 = 0 FRE2

- Extension of the setpoints. Now it is possible to set the number of available setpoints in the range 1 to 4. Furthermore, the setting range (upper and lower value) can be specified for each of the setpoints. In addition, a base setpoint is available for each setpoint, which is adopted to the active setpoint due to an event (e.g. activation of the setpoint) (default value). In this way, for example, a defined initial state can be established when the setpoint is switched over. The setup menu for the setpoints has also been revised/extended for parameterization. The menu is called up from SETUP-1, F3. Now the following seven sub-menus are available:
 - 1/7 Setpoint
 - 2/7 Select setpoint
 - 3/7 Setpoint base
 - 4/7 Setpoint lower value
 - 5/7 Setpoint upper value
 - 6/7 Setpoint base mode
 - 7/7 Setpoint numberIf feature PQCTRL is used, four setpoints are always available as before.

- REG-D(A) supports COM-5 interface (only with version 3.xx)

- Feature Sysctrl 3 (Bit 1) extended for exclusive use of digital measured values (Sampled Values) via CLI data structure. When activated, the VT/CT configuration menu is no longer available in the REG-D(A). The corresponding parameters are transferred from the REG-PED^{SV}. Furthermore, there is no more switch back to the physical measuring inputs in case of a timeout.

- Extension CLI data structure to use the data structure for feeding sampled values from the REG-PED^{SV} into the REG-D(A). If no valid sampled values are available, "-.-" is displayed in the controller basic display as well as in the transducer screen instead of a measured value.

- Bugfix COT bit 2: The COT bit 2 was not reset when the setpoint index was changed in the panel, which leads to the local change of the setpoint index (setpoint 1 -> 2) being reported as remote control when using a SCADA configuration with Cause of Transmission. Now ok.

- In the TM module until now the "TC in operation" was only used by the REG-D(A). Thus the "TC in operation" info transmitted by the PAN-D was not considered. This had a negative effect on the OLTC operating time. Now the "TC in operation" signal from the PAN-D is also taken into account.

- Implementation of a menu for displaying and switching the SIM and TEST mode of IEC 61850. For the purpose of local activation of the SIM and TEST mode, the SCADA menu has been extended by the item "SCADA Test".
This function is only available in cooperation with a corresponding IEC 61850 configuration on the SCADA interface card (e.g. REG-PED^{SV}).
- Extension of the PAN-D logbook by the events <<U3 and >> U4.
- Adaptations to the evaluation of the UDM (UserDefinedMenu) file (only for version 3.xx).
- Bugfix when reading the instantaneous values via the REG-L commands REGUMN 1+2, the measured values were swapped when using the feature "3winding special". Now fixed.
- Parameter "Scaling factor ULL to ULE" now also active for PAN-D.
- On devices without feature S2 (firmware 2.29) the login was not displayed before the F5 key when the screen was locked, even if a login as PanelUser would be possible. Now ok.
- New UDM event <UDM_T15M>; This can be used to execute the desired functions every quarter of an hour.
- Bug fixing when accessing the non-existing registers KFactor 33..64. Previously, writing to these variables could cause "corruption" of other parameters under certain circumstances. This is now fixed. The behavior affects devices with FW 1.xx/2.xx.
- Failed login attempts to the panel of the device are now recorded in the logbook with the text "PanelLoginFailed-X". The corresponding PanelUser 1 to 5 is displayed at the X position.
- Bug fixing for relay functions 101..164 (On-01..64). These did not work since FW version x.29 from 1.11.2018. Now ok again.
- Bug fixing at the language setting. Previously, the Dutch setting was incorrectly mapped to German. The error only occurs when the language setting is changed via software (e.g. WinREG). Now fixed.
- Bugfix for the parameters resistance and reactance in the LDC current program. Up to now the old value range -30 to 30 Ω was valid for the setting via software. Now the new value range -100 to 100 Ω applies. The setting in the menu was already correct before.
- With the measured value correction for current and voltage, no limitation to the value range -20 to 20% was carried out in the menu before. Now ok.
- Error correction with the recorder function S2 (only with version 3.xx). Here it could come with the recording of certain measured variables to a stack overflow connected with a restart of the device.
- Troubleshooting when querying/entering the panel password. Entering the panel password leads to a system restart (watchdog reset). Ok again.
- During a programmatic setpoint shift via the REG-L command 'RegSWSHift = <shift>', flickering occurred on the display. The cause was a double value assignment to 'ReglerXz'. Now fixed.
- The tolerance band can now be limited to 0.01 % instead of the previous 0.1 %
- Es werden nun auch die Alarmgrenzen für O2 und N2 ausgewertet. Analog-, Relais- und LED-Funktionen entsprechend ergänzt zusätzlich REG-DM Die Werte für O2 und N2 werden über den neuen RPS9 exportiert.
- New logbook entries: Examples: "k:MM12<5" "k:M" "k:1+>-"
 - ESC
 - ESCESC
 - ENTER
 - AUTO
 - MANU
 - L/R (nur bei REG-D)
 - LOCAL (nur bei REG-DA)
 - REMOTE (nur bei REG-DA)
 - ACK
 - X
 - CLEAR
 - 1 (F1)
 - 2 (F2)
 - 3 (F3)
 - 4 (F4)
 - 5 (F5)
 - M (MENU)
 - < (LEFT)
 - > (RIGHT)

- + (UP)
- - (DOWN)
- Failed Login

- dl*sin(phi) parallel operation ParErr issue fixed:
 - Using parallel mode with 4 or more devices
 - 3rd device detects ParErr not correct (Wrong Tap Position considered)