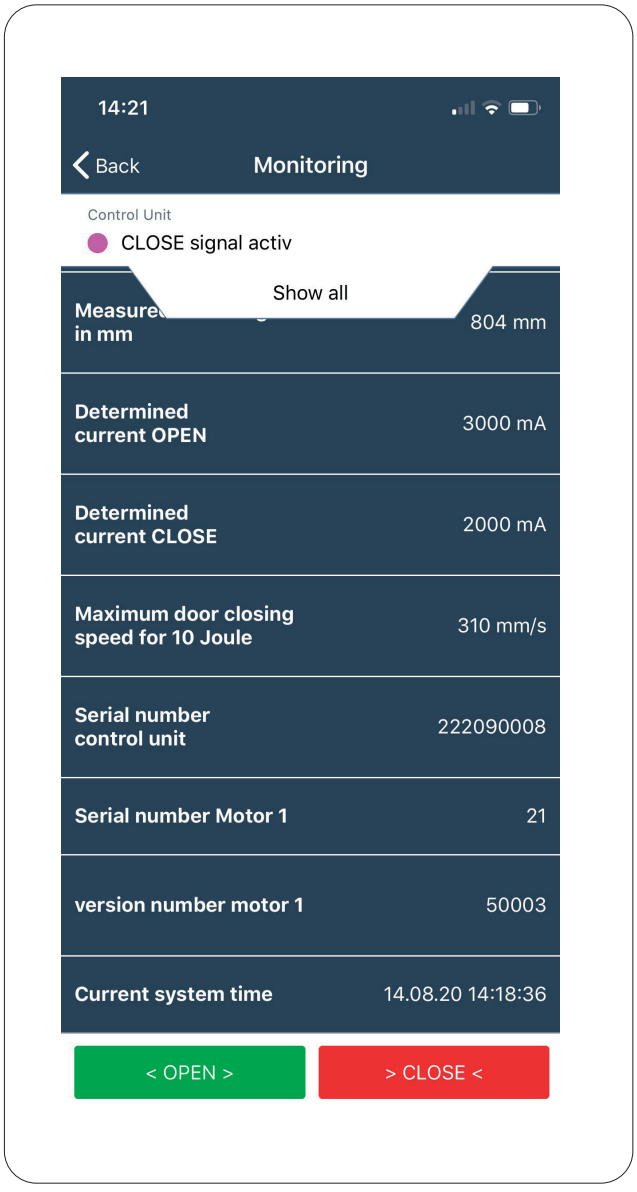
The digitalization of elevator doors goes on

After three years, the digitalization of lift doors is entering its third phase.

While in the beginning it was the many new possibilities offered by the product MiDrive, in the second phase the focus was on the service technician. With remote support via chat, automatic speech recognition etc. a new digital tool of cooperation was created. With the new Generation 3 MiDrive, MEILLER is processing the knowledge of the past two years. The intelligence of the MiDrive system creates the basis for considerably extending the user functions once again. The Remote Support Tool is being further expanded and now offers additional video and audio recordings in remote chat. The intelligence of the system extends the functionality of the app to a diagnostic tool.

All these functions are available to users of earlier generations of MiDrive door control units as free updates.



Monitoring and status information of the door and MiDrive

New functions for the service technician and installer

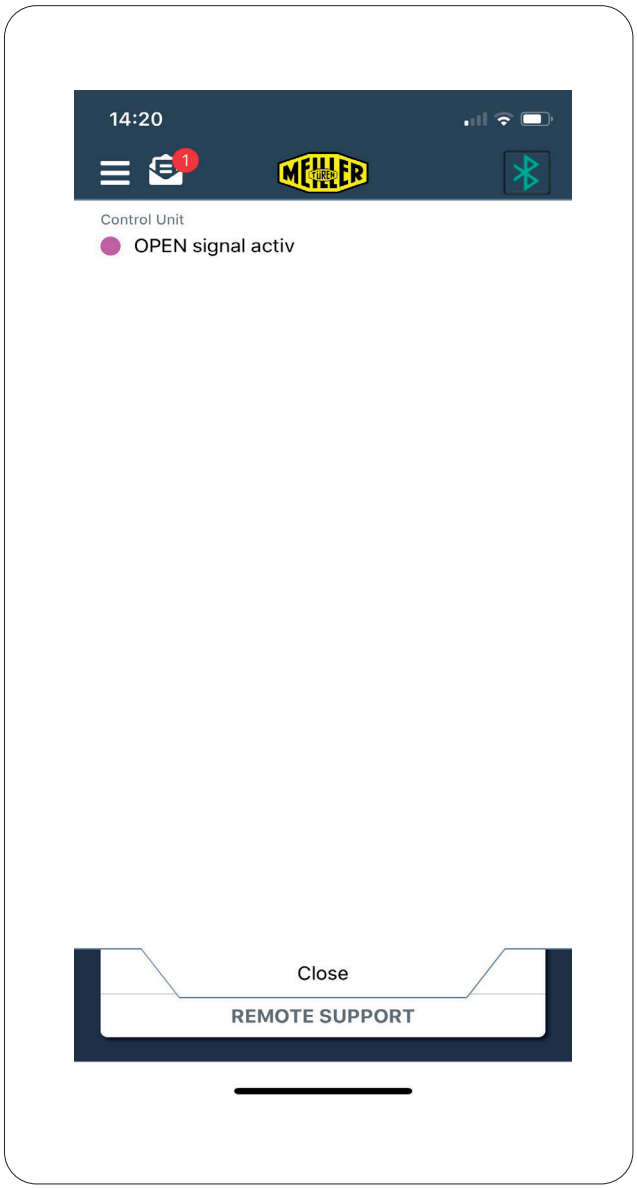
- If a **light curtain** is connected, MiDrive automatically configures the connections during the learning trip and reports to the lift controller via CAN whether all beams are OK or whether there is a fault in the light curtain. Modern light grids register the failure of a light beam, blank it and continue to function. The MiDrive controller automatically detects this functional property and configures itself accordingly. These light grids have an additional fault or error message line that is active if the light grid is no longer 100% ready for use. The MiDrive door control passes on this error or fault information directly to the lift control via CANbus and automatically adjusts itself in conformity with the standard (door closing only at slow speed).
- If the **door skate** is pulled open with force, it no longer remains open in this position - as was previously usual. As long as the door signal is present, the motor will now always try to return to the original position. For this purpose, the message „*Door manipulated*“ is still always displayed. If the door skate was closed, this position is now kept active. The motor dynamically counteracts all forces that would cause the position to be lost. The power consumption is reduced to a minimum to hold the door skate.
- In case of problems caused by **mechanical issues**, door drives usually go into trouble or expect a signal change to start a new drive attempt. In such cases, the MiDrive system will automatically try again and again in 2 seconds rhythm to execute the pending command. Only a motor overtemperature or another door command now leads to an interruption of the movement.
- If the **emergency unlocking** signal drops out during the digitally supported emergency unlocking because the emergency unlocking triangle key has been removed too early, the process of the emergency unlocking is aborted and thus a jamming of the door is prevented.
- Existing **door settings** can be restored with the app after an update. The Meiller app always creates a backup and asks after the update whether the previous door settings should be restored.
- New **travel** profiles have been stored by MEILLER under door specifications. Even without a QR code, the door drive can be adjusted to the situation on site. The app now offers a tutorial with simple questions for „generating“ a QR code.
- **Sense opening**: MEILLER has adopted the CAN standard for slow door opening, i.e. pushing to function/sense opening. This means that even an active FingerGuard sensor, which is limited in its function, can be carefully overridden or pushed over.
- **Active holding of a door position**: An input can be used to specify that the MiDrive is to actively hold any position, i.e. with the set end position current OPEN. A closing weight can then no longer pull the door closed. If enough force is applied, the door can still be moved and then returns to its original position. In the case of a firefighters lift, the doors are moved by „dead man‘s control“ in the event of fire. As the closing weight usually closes the doors after the firefighter has left the lift, this function allows the door to stop so that he can quickly return to the lift if necessary. (For your information: this behaviour does not comply with the standard. Some fire brigades have decided against the standard and

The commissioning of MiDrive has been enhanced by a wizard. This allows the most common configurations to be easily set for optimum door travel.

wanted the behaviour described above. Of course, the MiDrive can also be used in conformity with the standard).

New standards in communication

• Door signals via CANopen, 24V input and via the MiDrive app are now displayed as a **push message** via the app. This enables the fitter to see all current status and fault messages. In order to make CANopen Lift more tangible and easier to understand for the fitter, the MiDrive control unit displays the CAN commands and status messages in the app. MEILLER MiDrive currently has considerably more functions in CANopen and reacts to more commands that other door control units simply ignore today. The lift installer understands where the message comes from (blue for 24V signals, magenta for CANopen signals) and why the door drive now has this status. If error and status messages were previously only displayed in the monitoring, such information now appears actively as push messages in the service technician's app. It is therefore unlikely that such messages will be overlooked.

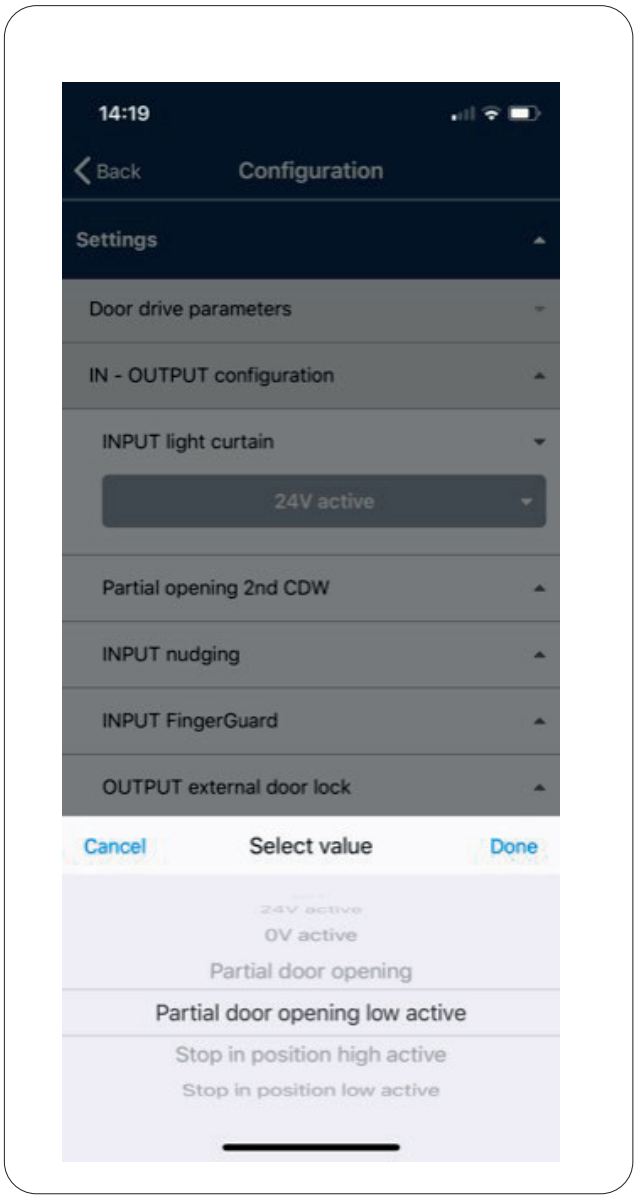


Display of the door signals as push messages. The coloured marking shows the roots of the command. Status and error messages are displayed in the same way

• **Virtual terminal for CANopen** Lift enables access to MiDrive from the lift controller. Wherever there is access to the lift controller, there is also access to the MiDrive door control unit. The setting tools of the controller manufacturers become setting tools for the door controller.

• **Measured values** - even customer-specific ones - are additionally provided via CANbus without wiring sensors and can be read out. Since MiDrive technology is based on 32 bits, the measured values offered also correspond to the current standard (generally used units of measurement).

The latest generation of MiDrive technology shows in an impressive way how intelligent systems make commissioning, maintenance and inspection more efficient and lead to better results. It also demonstrates how individual components can contribute to improving the overall performance of an elevator when they are integrated into the overall system.



Wide range of functions and special functions can be set via the app in a detailed way.