

R-Loop - Personal protection at barrier systems (EN 12453 protection level D)

Device family: Radar scanners

Topic:

The FEIG radar scanner MWD SBP (R-Loop) can be used as an additional device for the protection of persons in accordance with EN 12453 protection level D on power-operated, automatic barriers in indoor and outdoor areas.

To comply with the Machinery Directive 2006/42/EC, a barrier system with force limitation in accordance with EN 12453, protection level C, is also required for the protection of persons.

Requirements for installation and configuration:

- The information regarding the radar scanner *MWD SBP (R-Loop)* and the barrier system in terms of position, size, angle, distances etc. must be entered realistically.
- The length of the barrier boom or the barrier width must not exceed 6 meters.
- The radar scanner *MWD SBP (R-Loop)* must be mounted at a maximum height of 70 cm above the road surface.
- The entire area below the barrier boom must be within the detection range/field of vision of the *MWD SBP radar scanner (R-Loop)*.
- The safety area must be below the entire barrier boom and cover an area of at least 20 cm in front of and behind the barrier boom.
- The radar scanner MWD SBP (R-Loop) must be installed within the safety area or directly next to it.
- No blanking area must be defined in the safety area area.
- The sensitivity must be set to at least level 3.
- The teach-in of the environment must take place when the barrier is open. There must be no object in the detection range/field of view of the *MWD SBP radar scanner (R-Loop)* during the teach-in of the environment.
- If the barrier boom is triggered by the movement of the barrier boom, the moved barrier boom must be taught-in using the separate “*Teach-in barrier boom*” function. The tolerance must be set to “*low*” here.
- The *radar scanner MWD SBP (R-Loop)* must be tested via the test input before every “dangerous drive (closing command)”.

Required settings for the security area:

- Vehicle detection must be set to ‘All’ (including persons).
- Object blanking when at standstill must be deactivated ‘Never’.
- The ‘Distance to sensor’ must be 0 cm.
- Output 1 of the safety area must be activated.

PLEASE NOTE:

If the radar scanner MWD SBP (R-Loop) is not tested via the test input before each dangerous drive, periodic tests at intervals not exceeding 6 months are prescribed in accordance with EN12453. This does not affect other mandatory tests and test intervals prescribed in other applicable directives or regulations, such as ASR A1.7.

PLEASE NOTE:

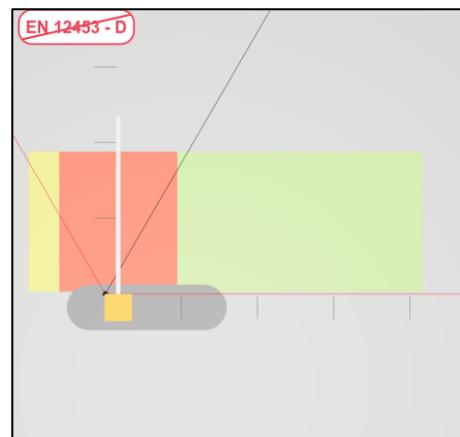
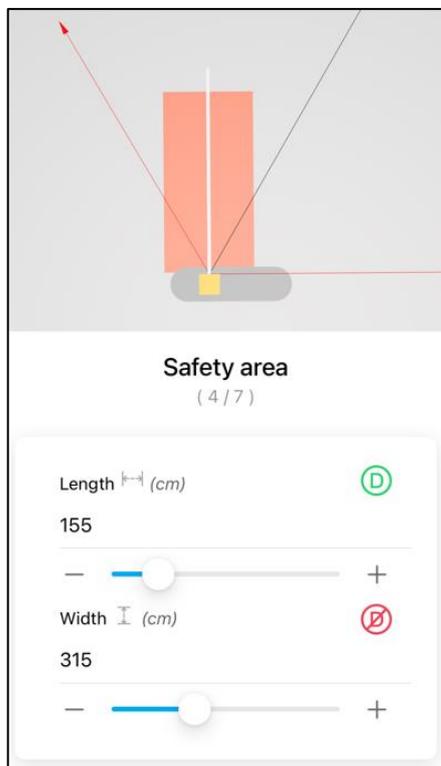
Use for personal protection, e.g. as a substitute for a photocell, may only be carried out in compliance with the above specifications. These apply to the safety area of the sensor and are independent of the possible opening area of the sensor, which is not used for safety purposes.

In the *Scanner Assistant* smartphone app, settings that comply with EN 12453 protection level D are marked with .  indicates a non-compliant setting.

You can get information on the setting for protection level D by tapping the  or  symbol.

If all settings required for protection level D have been selected in compliance with the standard, the app displays this with . If at least one of the settings does not comply with EN 12453,  is displayed.

Examples - Safety area too tight, barrier boom length exceeds the safety area



PLEASE NOTE:

*The FEIG radar scanner MWD SBP (R-Loop) is not a safety component in accordance with the Machinery Directive 2006/42/EC Annex V and **cannot be** used as the **only** safety device in accordance with EN 12453, **protection level E**. Personal protection is only guaranteed in combination with a power-limited barrier system in accordance with EN 12453, **protection level C** regarding the above-mentioned conditions.*