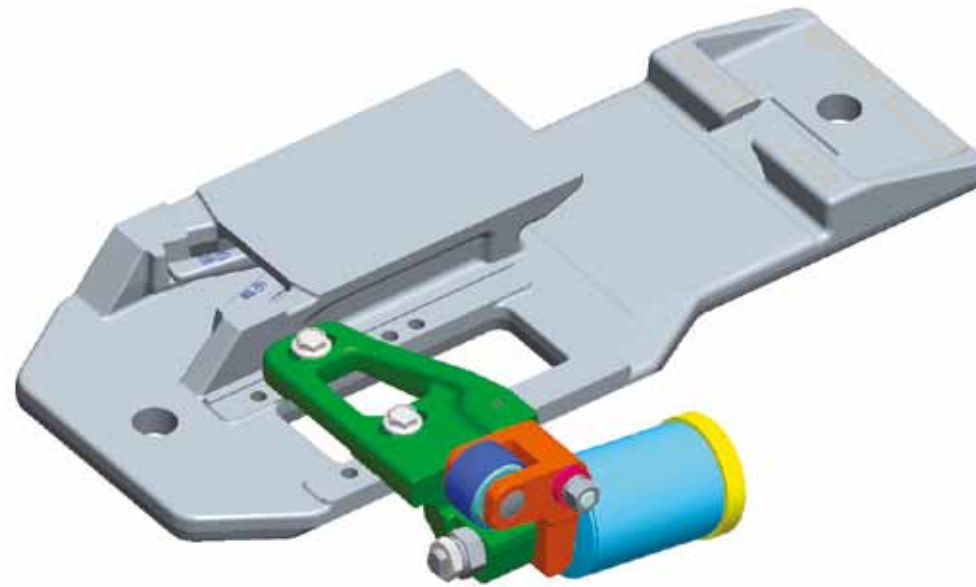


Components



for the
**Low-Maintenance Track
Schwihag LSR System**

Schvihag Spring Roller Device LSR

Introduction:

For switches in the closed condition, the switch rail is ideally located against the stock rail in the machined area of the switch assembly and against the distance block in the heel area. After lengthy operational use, i.e. after the closed switch rail has been exposed to wheel load in the heel area, the specified curve of the switch rail changes in the longitudinal/transverse rail direction. This change in shape causes the switch rail in the heel area to no longer seat correctly against the distance blocks when closed.

Under certain conditions, the high forces generated by the wheel as it traverses through the heel of the switch assembly moving the switch rail into the correct gauge position against the distance blocks can result in higher than normal wear on the slide baseplate sliding surface.

The LSR system is an extension of the roller assembly arrangement and can be fitted to the same baseplate and guideway as the standard roller assembly system, with the additional advantage of forcing the switch rail to gauge against the distance blocks towards the heel of the switch assembly.

The LSR system forces the closing switch rail by means of a roller, with a preset, defined spring force in the direction of the stock rail and onto the distance block.

Schvihag Spring Roller Device LSR

Structure:

The LSR consists of a retaining frame (1) which is located on the same guideway as the familiar roller assembly frame and positioned in the a similar manner on the roller baseplate (2).

The roller (5) with adjusting nut (6) is moved into the required position by an adjustable & encapsulated spiral spring (4) via a hinged frame (3) pivoted on an axis (7).

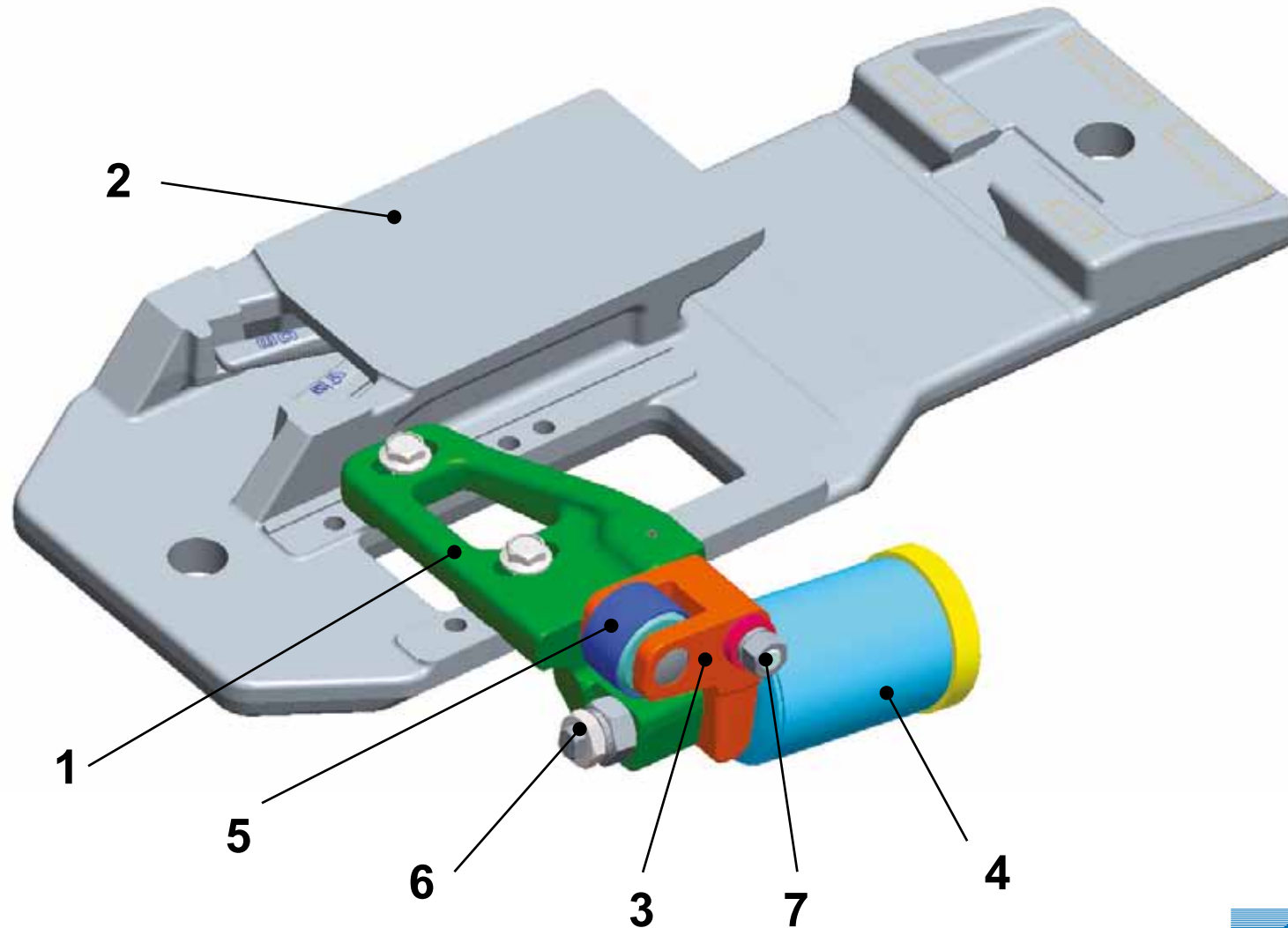
Function:

In the open position of the switch, the roller (5) pushes the switch upwards due to the action of the spring force. In the closed position the switch is forced against the distance block by the action of the spring force.

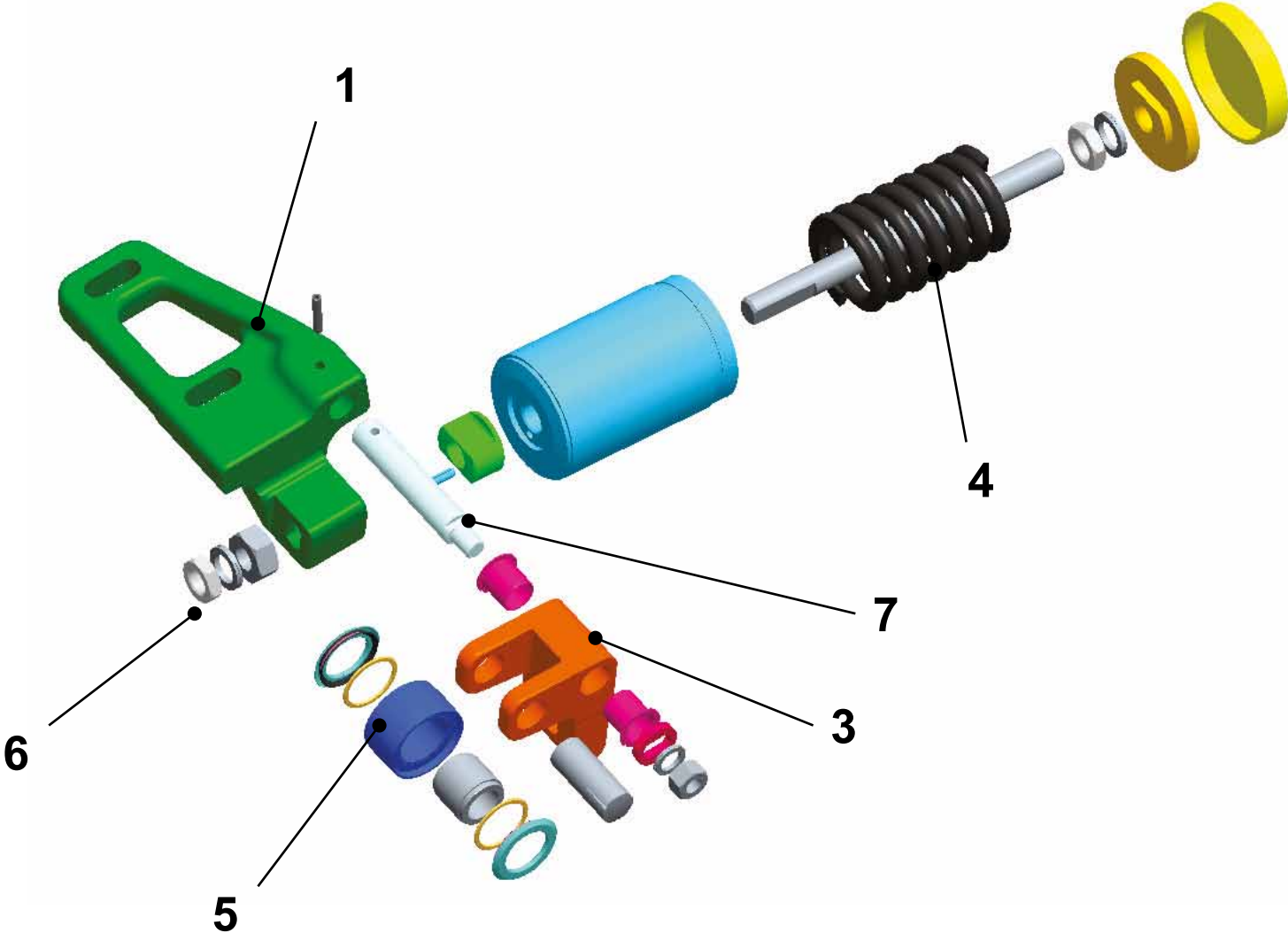
Installed position:

In the heel area of the switch assembly.

Schvihag Spring Roller Device LSR



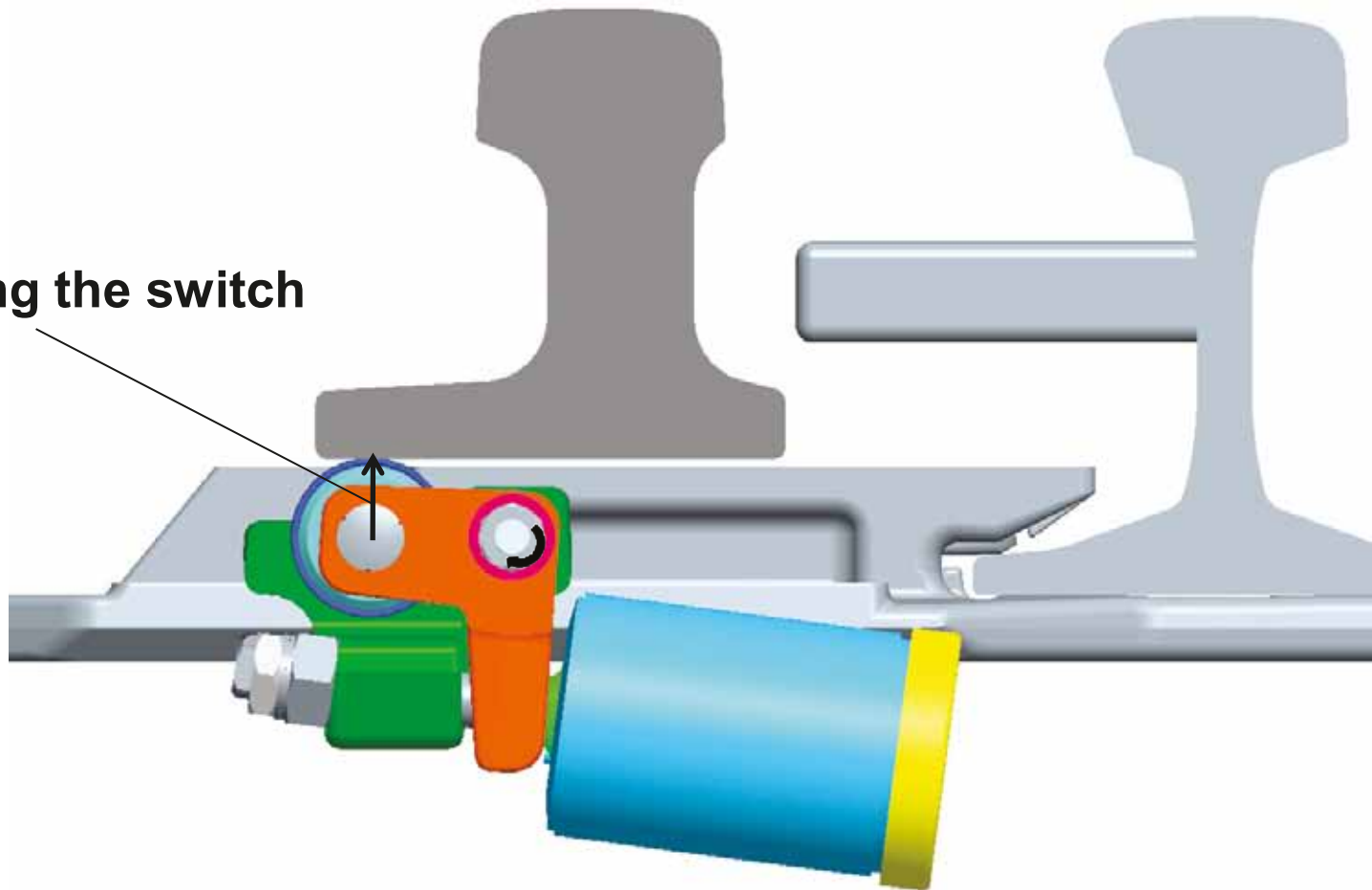
Schwihaag Spring Roller Device LSR



Schwihaag Spring Roller Device LSR

Open position of the switch

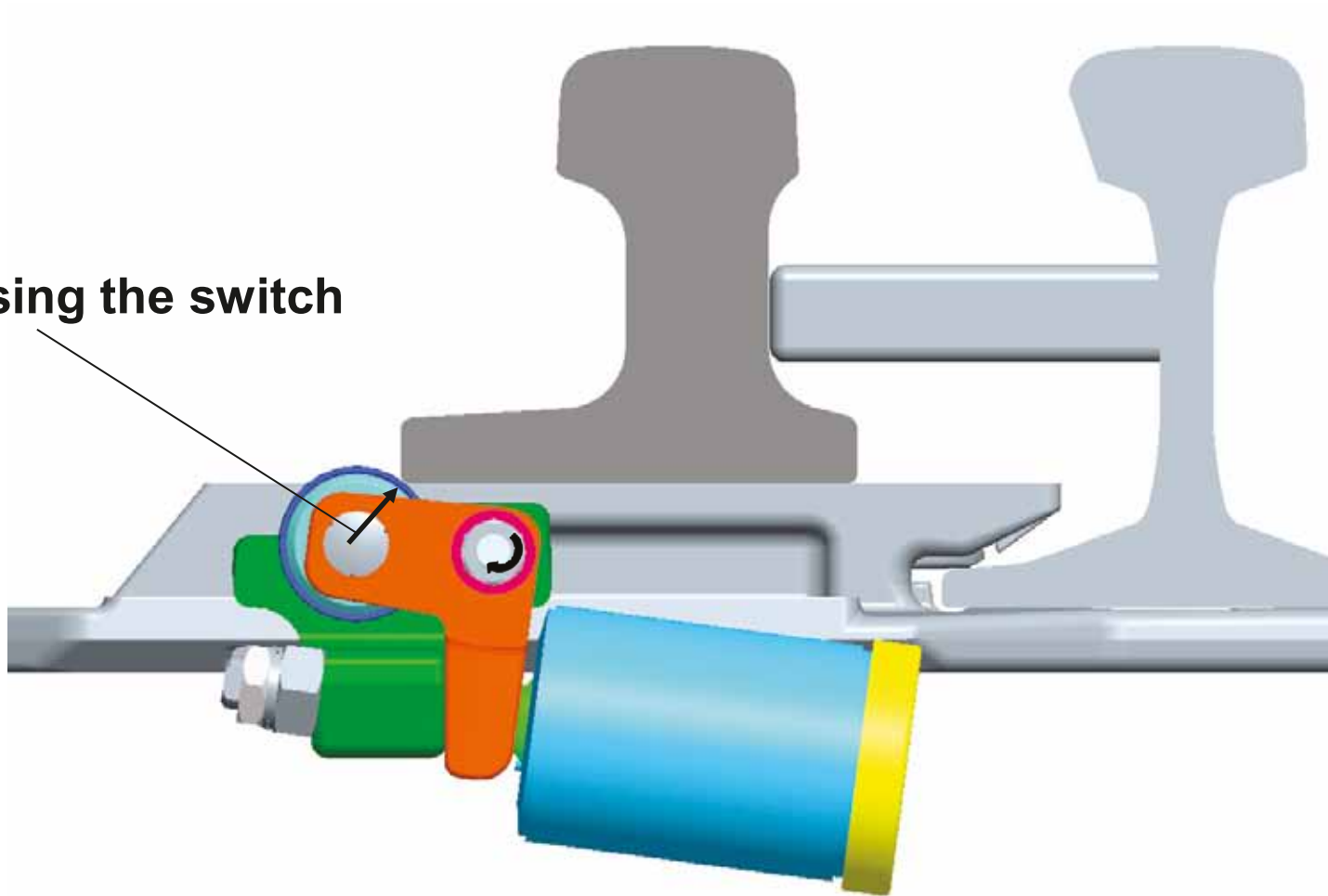
Lifting the switch



Schwihaag Spring Roller Device LSR

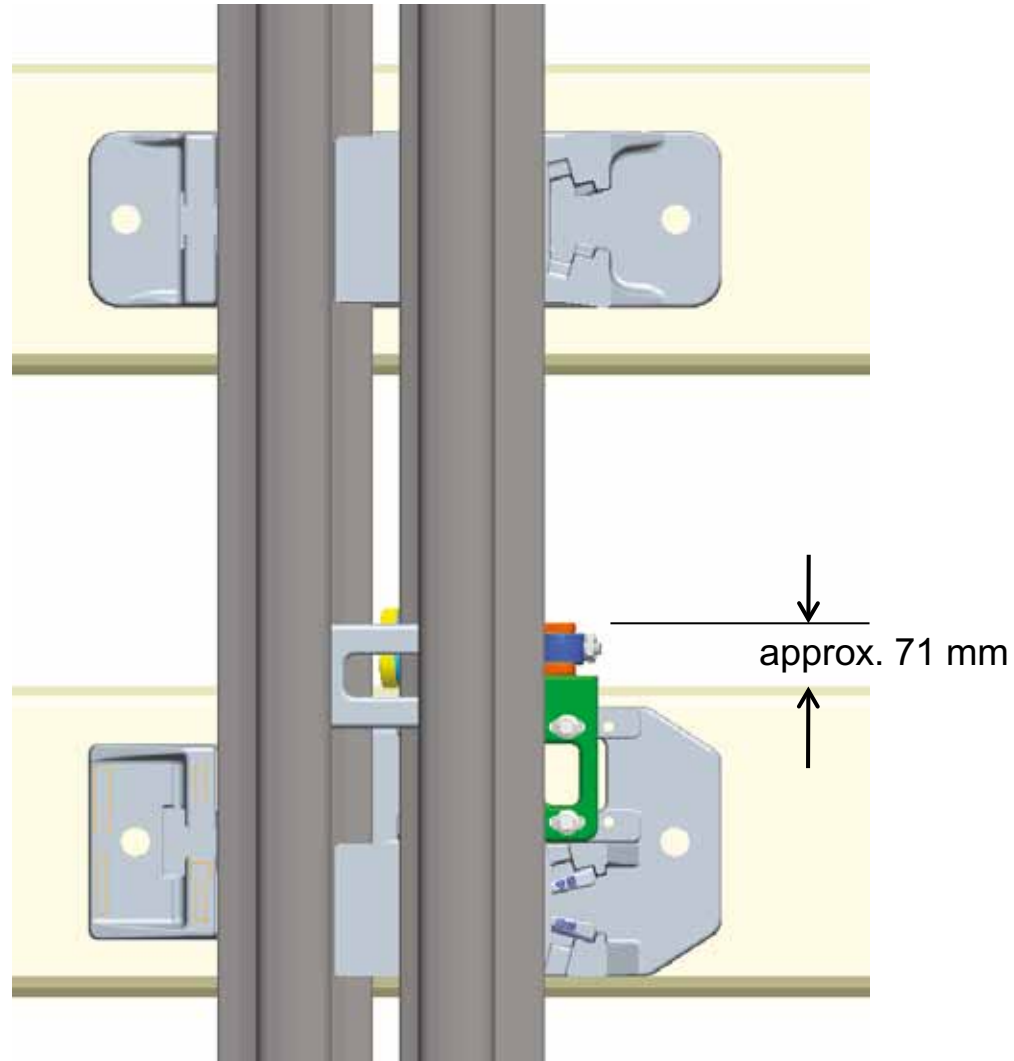
Closed position of the switch

Pressing the switch



Schwihag Spring Roller Device LSR

Installed position in the heel area of a closed switch rail assembly



Schvihag Spring Roller Device LSR

Continuous test:



Load change: 1 mln. load changes (700.000 until now)

Schwihaag Spring Roller Device LSR

Probational installation at *Deutsche Bahn* in Neuss

