



## PIONEERING: 25 Years in the Rail Transport Sector

Custom solutions for rail transport have been tried and tested for decades. They meet special application requirements in terms of impermeability, vibration resistance and protection, even at high speeds.

The service life of rail vehicles calls for particularly high-quality and durable products that ensure a consistently secure connection – in the interior, exterior and in all applications of the rail transport.













## Noticeably Unnoticeable.

Thanks to the flush-mounted design, the quarter-turn does not extend outward, which prevents persons or items from being caught on them. This increases safety in escape routes, for example. The closed position is marked on the edge of the cover and on the insert. This makes it possible to see at first glance whether the rotary latch is open or closed. In addition, it is shock and vibration-proof and IP69K-protected in accordance with DIN EN 40050.



### Simple. Secure.

The DST fastener with DIRAK-SNAP-Technology was developed for a connection that is firm on one side and redetachable on the other. This enables various fastening options, such as screws with a countersunk head, for example. So that it is flush-mounted, the fastener can be mounted in a countersunk.





### Unique Optical Control.

Through an upright flap in an opened state, the locking position is easily visible from a distance — even in the dark. This is because the flap only closes into in actual closed state, which happens automatically. At the same time, the spring-loaded stainless-steel flap cover prevents dust and dirt from soiling the quarter-turn.





# Sturdy and Durable.

Outdoors, hinges should be especially durable and sturdy. DIRAK's stainless-steel hinge defies these challenges and is corrosion, weather and chemical-resistant.







#### As Flat as Possible, as Deep as Necessary.

On trains, space is usually at a premium. For the Schweizerische Südostbahn AG's new Traverso, we have developed a secure and convenient lock type for the end wall housing in the interior of the train. The flat swinghandle not only saves space in the railway car and protects passengers against possible injuries, it also underscores the design of the Traverso and boasts ergonomic handling.

This product emerged as a customized solution and will soon be available as part of DIRAK's standard product range.





#### Securely Connected.

In order to meet the requirements of rail transport and in order to withstand high strains, hinges need to be resilient, sturdy, and durable. Easy assembly, good load-bearing capacity and flexible use should also be among their properties. This is why we have developed a hinge with bridge fastening, which ensures that it fits exactly in the rectangular cutout and enables hinge halves to be fastened with only one screw. The use of seals on the hinge provides additional protection from water and dust.



#### Has many Intrinsic Values.

The flat construction ensures a noble design of the quarter-turn. As a result, it also has a low attack surface for vandalism and climbing on. A colored marking indicates the current locking status of the lock. The cam of the resistant steel quarter-turn can be adjusted via an H-dimension. Furthermore, it is grounded by a single-sided grounding nut and boasts a IP65/67 certification in accordance with DIN EN 60529.











#### Closed and Protected.

The wing knob insert encloses the quarter-turn housing so that dust and water cannot penetrate it. The version with cylinder is IP65-certified in accordance with DIN EN 60529 and protected from hose water. The version without cylinder is IP69-certified in accordance with DIN EN 40050 and thus also suitable for high-pressure cleaning. The quarter-turn can be installed pre-assembled. Grounding is enabled by a single-sided grounding nut.



#### One for All.

In rail transport, one has to deal with different closures in various fields of application, yet would still like to be able to work in a way that is flexible and convenient. This is why DIRAK developed the corrosion-free, universal square section wrench made from stainless steel that can open the four different inserts.







Swinghandle



Customer-specific solutions Multi-Point latches





Fastening Technology



Handles



Hinges



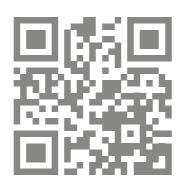
Mechatronic locking solutions



Gaskets



Latches



By the way: You can find these and other products on our website.

### Always the Best Product for Your **Application**

At the center of our activity is the constant desire to find the best product and with it the optimal solution for your application. Meeting your specifications and fine-tuning our development to them is what we do. Whether swinghandle, quarter-turn, hinge, fastener, gaskets or a system or individual part specifically manufactured according to your data - we take great care and our processes are oriented to ensure that both the consulting and the product you receive meet your quality standards. To do this, we use whatever means we have entirely for your benefit. In addition, development-stage prototypes and various load tests are just as important to each process as the logistics to safeguard your required supply chain.

From the concept stage to when the order is fulfilled and delivered, we always focus on your requirements and are at your side as a reliable partner, even after the project has ended.



Contact

Andreas Preuße Königsfelder Straße 1 58256 Ennepetal Telephone:+49 2333 837-190 Cell: +49 176 18370190 a.preusse@dirak.de

Do you have questions about our products or would you like personal advice? As an expert in the field of rail transport, I am always available to answer your questions.



#### DIRAK Dieter Ramsauer Konstruktionselemente GmbH

Königsfelder Straße 1 58256 Ennepetal, Germany info@dirak.de

Tel.: +49 (0) 2333 / 837-0 Fax: +49 (0) 2333 / 837-103