



INDUSTRY FOCUS

RAILWAY TRANSPORT

LATCHES | HINGES | GASKETS

 **WirtschaftsWoche**


 **WELT
MARKT
FÜHRER**

Champion
2024

EMKA Beschlagteile
Verschlüsse, Scharniere und
Dichtungen für Schalt- und
Steuerungsschränke für Elektronik
und Elektrotechnik

Quelle: Weltmarktführerindex
von Dr. Walter Döring
und Prof. Dr. Christoph Müller

WORLD MARKET LEADER SINCE 2018

A portrait of Friedhelm Runge, an older man with white hair and a mustache, wearing a dark suit jacket over a white shirt with a patterned collar. He is standing in a large industrial factory with various machines and equipment in the background. The lighting is bright, and the overall tone is professional.

*"You can negotiate
on prices, but not
on **quality!**"*

Friedhelm Runge

Managing Director and Partner of
the EMKA Group

QUALITY

FROM THE WORLD MARKET LEADER

92%

In-house production rate



36,000 customers worldwide



Own production at 11 international locations



Represented in 60 countries worldwide



In-house mould making



More than 50 years of production experience



Own technology center



20 million € insurance per product



Identical production possibilities
at different locations



2,100 employees worldwide



Accredited test laboratory



30,000 catalogue and special products

LOCKING SYSTEMS FOR THE RAILWAY INDUSTRY

Particularly in trains, special requirements apply to safety - even in the smallest detail. For example, the regulations on fire protection according to DIN EN 45545 play a major role for the railway industry.

In this area, EMKA provides its railway customers with complete systems of locks, latches, hinges and accessories that meet this standard. In addition, there are seals for interior and exterior use, which are integrated into a well thought-out locking system program for the railway industry.

The wide product range of EMKA comprises outdoor as well as indoor applications for the railway industry. Well-known manufacturers such as Alstom, Siemens, Stadler, Voith, Vossloh or Deutsche Bahn have been our customers for many years.

As a long-time system partner of the railway and transport industry EMKA is constantly working on new and innovative products. In addition to newly developed and enhanced locking solutions, EMKA complements its product portfolio with innovative quarter turns, special hinges, handles, seals and special solutions, thus responds to the current requirements of the market.

EMKA already has the trends that will become the standard tomorrow!



EVERYTHING AT A GLANCE

A large selection of EMKA products specially developed for the railway industry can be found in the **interactive EMKA special catalogue for the railway industry** as well as in the **online product database**.

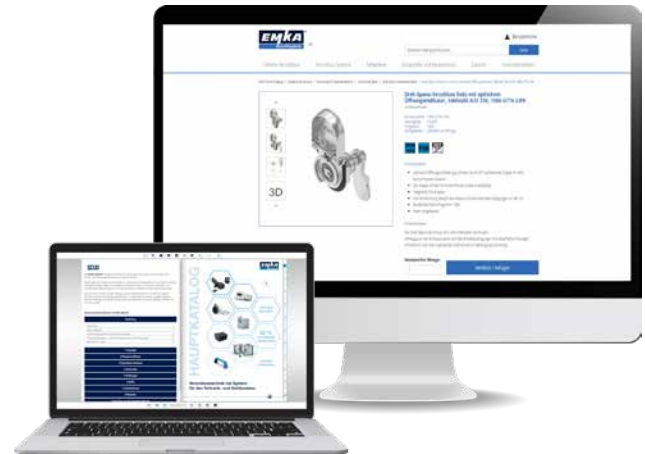
There you also have the possibility to download CAD data in the international exchange formats STEP and IGES as well as detailed product data sheets.



**View interactive EMKA special catalogue
for the railway industry**



View online product database



APPLICATION AREAS

IN THE RAILWAY INDUSTRY

Exterior

Covers

Access panels

Rooftop units

Underfloor containers

Mudguards

Front lighting



Interior

Ceiling & wall panels

HVACR units

Displays and screens

Luggage storage

On-board kitchen equipment

Lighting

Door fixings



Infrastructure

Outdoor enclosures

Switch cabinets

Control systems

Signal systems



QUALITY AND SAFETY REQUIREMENTS

Fire protection acc. to DIN EN 45545



The European fire safety standard *DIN EN 45545* regulates fire safety in rail transportation.

The fire behaviour is categorized according to *DIN EN 45545-2*, whereby the tested material is rated with the hazard levels *HL1* to *HL3*. EMKA products are all tested to the highest and most demanding level *HL3* and can therefore also be used in critical design classes, such as fully automatic trains and sleeping and couchette cars.

The fire resistance and fire protection closure of doors and flaps is categorized according to *DIN EN 45545-3*. The resistance time achieved is categorized in minutes, e.g. *E20*, *E30*, *E60*. The majority of EMKA products achieve category *E60* and therefore easily meet the requirements of the railway industry.

Vibration resistance



For use in rail vehicles, it is essential that the latches used can reliably withstand the vibrations and oscillations to which they are exposed in rail traffic.

EMKA closures are therefore all shock and vibration tested in accordance with the *DIN EN 61373 Cat. 1B* standard.

Resistance to weathering



The products are exposed to extreme environmental and weather conditions, especially outdoors. These include, for example, water, UV radiation, dust, dirt and temperature fluctuations.

Solutions by EMKA are designed precisely to withstand these adverse conditions and ensure maximum safety in the long term.

Optical recognition



Locking solutions with visual opening indicators increase safety and convenience for passengers and service personnel in rail transportation. The opening indicator or locking status indicator shows directly whether the lock is open or closed. This minimizes operating errors during use.

Opening indicators are available in various designs - as small colorless markings, as small colored markings and symbols up to large colored areas or protruding components.

Individual security levels



The different areas of application in rail transport require different security levels of access authorization.

EMKA offers the right security level for every application, whether simple insert, profile half cylinders or even electronic access authorization.

PROGRAM 1000 (e.g. 1000-SU1277)

VIBRATION-RESISTANT QUARTER TURN

Product description

Material:

- Housing, insert and snap-in washer made of zinc die
- Spring washer made of steel zinc-plated

Surface:

- Housing, insert and snap-in washer chrome-plated

Standard cut out, Program 1000

Length of housing (GH): 18 mm

Suitable for door thicknesses from 1.2 - 8 mm

Product benefits

Acoustic and haptic feedback while operation

Shock and vibration tested according to DIN EN 61373 Cat. 1B

Meets protection class IP 69K

Successfully tested over 10,000 cycles

Various insert variants available

High operating comfort

Stainless steel version available on request



PROGRAM 1000 (e.g. 1000-U968-06LI)

HYBRID COMPRESSION LATCH

Product description

Material:

- Housing aluminium anodized
- Insert AISI 316
- Nut and screw stainless steel

Standard cut out, Program 1000

Length of housing (GH): 31 mm

Compression distance: 6 mm

Suitable for door thicknesses from 1.5 - 20 mm

Right and left versions available

Product benefits

Combination of stainless steel and aluminum

Weight savings approx. 30 %

Meets protection class IP 66

Shock and vibration tested according to
DIN EN 61373 Cat. 1B

Fire protection tested according to
DIN EN 45545-3 - Class E20

Various insert variants available



PROGRAM 1000 (e.g. 1000-U890-REPH)

COMPRESSION LATCH WITH RED-GREEN MARKING

Product description

Material:

- Housing, insert, locking shaft and nut AISI 316
- Screw AISI 304

Housing surface:

- ground or highly polished

Standard cut out, Program 1000

Length of housing (GH): 32 mm

Compression distance: 6 mm

Suitable for door thicknesses from 1.5 - 22 mm

Right and left versions available

Product benefits

Good recognizability of the locking positions due to colour-coded lock symbols

Low-profile aerodynamic head design for less wind resistance in outdoor use and less risk of injury in indoor use

Meets protection class IP 65

Shock and vibration tested according to DIN EN 61373 Cat. 1B

Fire protection tested according to DIN EN 45545-3 - Class E60

Various insert variants available



1000-SU1222

COMPRESSION LATCH

SQUARE 8 WITH OPEN - CLOSED INDICATOR

Product description

Material: V4A / AISI 316

Insert: square 8 mm

Further inserts on request

Standard cut out, Program 1000

Housing head: Ø 40 mm

Length of housing (GH): 31 mm

Compression distance: 6 mm

Product benefits

Status indicator pad print:
red = open, green = closed

Abrasion-resistant colour marking according to
DIN EN 62208-2012-06

Retainer for cams of 4 mm and 6 mm material
thickness for higher load requirements

Meets protection class IP 65 when housing is
equipped with flat gasket

Shock and vibration tested according to
DIN EN 61373 Cat. 1B

Fire protection tested according to
DIN EN 45545-3 - Class E60



PROGRAMM 1500 (e.g. 1500-U776-LIPH)

COMPRESSION LATCH WITH COVER AND OPTICAL OPENING INDICATOR



Product description

Material:

- Nut and earthing nut AISI 316
- Screw and toothed lock washer stainless steel

Insert: square 8 with marking

Standard cut out, Program 1500

Length of housing (GH): 22 mm

Compression distance: 6 mm

Suitable for door thicknesses from 1.5 - 22 mm

Right and left versions available

Product benefits

Optical opening indicator clearly visible due to 90° upright flap when not closed

Flap closes automatically when completely closed

Integrated dust cap

Flat seal cushions the flap and prevents damages to the door

Meets protection class IP 69K

Shock and vibration tested according to DIN EN 61373 Cat. 1B

Fire protection tested according to DIN EN 45545-3 - Class E60



FLAT SWINGHANDLE

WITH INTERCHANGEABLE LOCKING SETS, SHORT VERSION

Product description

Material:

- Dish, handle and cylinder cover made of zinc die black powder-coated
- Cap zinc die zinc-plated
- Shaft AISI 303

Foamed gasket

Spring-loaded handle

Suitable for cams

Cut out: 70 x 25 mm

Available as a simple cam lock or with compression function

Compression distance: 6 mm
for version with compression function

Product benefits

Stands only 9 mm in front of the door

Interchangeable locking sets for profile half cylinder (PHZ), KABA cylinder (type 1036), round cylinder, inserts and push button

Locking sets can be exchanged from the front of the cabinet (patented)

Integrated scratch protection

High strength with a flat design

Meets protection class IP 66

Shock and vibration tested according to DIN EN 61373 Cat. 1B

Successfully tested over 10,000 cycles
(approx. 6 Nm load)



More info



FLAT SWINGHANDLE

WITH INTERCHANGEABLE LOCKING SETS, LONG VERSION

Product description

Material:

- Handle, dish, cylinder cover and cap made of zinc die black powder-coated
- Shaft AISI 303

Foamed gasket

Spring-loaded handle

Suitable for rod controls and cams

Cut out: 50/50/50

Product benefits

Stands only 9 mm in front of the door

Interchangeable locking sets for profile half cylinder (PHZ), KABA cylinder (type 1036), round cylinder, inserts and push button

Locking sets can be exchanged from the front of the cabinet (patented)

Integrated scratch protection

High strength with a flat design

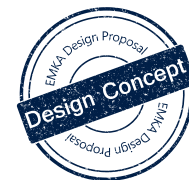
Meets protection class IP 66

Shock and vibration tested according to DIN EN 61373 Cat. 1B

Successfully tested over 10,000 cycles (approx. 10 Nm load)



FLAT SWINGHANDLE WITH ELECTRONIC LOCKING SET



Product description

Material:

- Handle, dish, cylinder cover and cap made of zinc die black powder-coated
- Shaft AISI 303

Foamed gasket

Spring-loaded handle

Suitable for rod controls and cams

Suitable for installation in standard cut outs:
25 x 150 mm or split 50 x 50 x 50 mm

Activation of the handle by applying the
operating voltage - 12 / 24 VDC

Integrated LED visually signals that the handle
is ready to open

Opening via push button under the cover

Product benefits

Stands only 9 mm in front of the door

Electronic locking set as a supplement
to the standard program

Status contact for recognising the
OPEN / CLOSED handle status

Integrated scratch protection

High strength with a flat design

Shock and vibration tested according to
DIN EN 61373 Cat. 1B



MULTI-POINT LOCKING SYSTEM WITH CAMS AND COMPRESSION FUNCTION

Product description

Modular locking system with multiple locking points

Closure by cams inside the gasket

Locking points with compression function (combined rotary and lifting movement with 4 mm compression)

Positioning and number of locking points freely selectable

Locking points, cams, connecting rod and rod control made of stainless steel (also available in other materials)

Cut out and control element independent of the system inside the cabinet

Right and left usable

Product benefits

Maximum security through operation of one drive and simultaneous locking of several locking points

Saves time when opening and closing several locking points simultaneously

Even distribution of closing forces

Delay-free and translation-free process

Drive with various EMKA latches possible, e.g. swinghandle, knob handle, T-handle or quarter turn

Corner guide for additional locking points in the cross shoring possible



MULTI-POINT LOCKING SYSTEM

COMBINATION EXAMPLES**Combination example**

4 locking points with
compression function

Swinghandle as control element

Material: Stainless steel AISI 316

**Combination example**

6 locking points with
compression function

Swinghandle as control element

Corner guide

Material: Stainless steel AISI 316



125° HINGE

FOR QUICK DOOR ASSEMBLY

Product description

Material:

- Frame part, pin and dowel pin steel zinc-plated
- Door part with bolt zinc die zinc-plated
- Shaft clamping ring POM red
- Sliding washer plastic black
- Spring stainless steel

Cut out:

- Hole spacing frame part: 25 mm
- Hole spacing door part: 35 mm

Concealed hinge (not visible) for prominent doors

Fixing type: screw-on

Opening angle 125°

Right and left usable

Door return 25 mm

Product benefits

Simplified door assembly without tools (door part engages automatically when the door is assembled)

Hinge pin secured against loss with knurl and shaft clamping ring

Shock and vibration tested according to DIN EN 61373 Cat. 1B

Slotted holes on the door section allow precise fine adjustment in the horizontal direction

Excellent sliding properties thanks to use of plastic sliding washer

Successfully tested in an endurance run



EMERGENCY HAMMER FOR RAILWAY VEHICLES

MADE OF FLAME-RETARDANT PLASTIC

Product description

Material:

- Hammer head made of zinc-plated steel with carbide tip to effectively ensure the destruction of toughened safety glass / laminated safety glass
- Handle and holder made of flame-retardant plastic (PA 66 with 30 % glass fibers, halogen-free, heat stabilized)

Integrated theft protection in the holder securely connects emergency hammer to the vehicle and prevents the hammer from being stolen

Steel cable with 1.5 m length provides sufficient freedom of action in case of emergency

Emergency hammer with hand protection without holder for spare parts requirements (5225-U315)

Product benefits

Ergonomically designed emergency hammer for applying a high impact energy

High safety with low risk of injury

Protected, two-colour, modern design

Different colour combinations possible due to the 2 shells (handles)

Low weight due to handle and holder made of flame-retardant plastic

Fire protection tested according to DIN EN 45545-2 HL3

Optionally available in photoluminescent material (depending on previous light stabilisation, the material glows for 15 - 30 minutes in the dark)



reddot winner 2024



CUSTOM-MADE SEALING PROFILES MADE OF FIRE PROTECTION MATERIAL FROM IN-HOUSE PRODUCTION

Facts

In-house production in Spain and UK

Both production sites are certified to ISO 9001:2015, the plant in Spain is also certified to ISO 14001:2015 and IATF 16949:2016

7 lines for EPDM
2 lines for PVC
1 line for TPE

5 injection moulding machines (50 - 100 t)
for the production of corners

Manufacturers: Gerlach, Itaigum

Your benefits

Fire protection tested materials in accordance with **DIN EN 45545-2 HL3** for maximum safety in the railway industry

Individual profile geometry according to customer requirements

Sealing profiles with and without metal reinforcement, as mono and bi profiles

Production of rings and frames, as well as ready-made lengths

Profiles with bonded coating, flock, adhesive tapes and EMC foil

Reliable top quality from in-house production in Europe



SEALING TECHNOLOGY

AT A GLANCE

In two own production plants in Spain and UK, EMKA manufactures over 1,500 gaskets and rubber profiles from various materials as a catalogue standard as well as countless individual customer solutions after detailed consultation with our gasket experts.

Loops and roll editing tape, stamped steel and reinforcements of textile fibres can be additionally incorporated. In further processing, it is possible to produce fixed lengths, rings and corner frames. The application of adhesive tape, lubricant varnish or flocking, as well as special special coatings for electro-magnetic compatibility (EMC seals) round off the range of services.

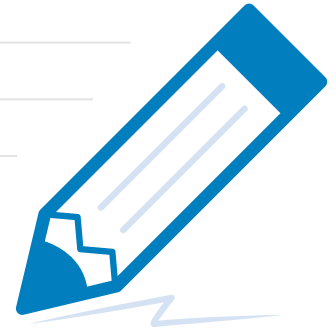
EMKA know-how guarantees top quality.

You can find a large selection of standard gaskets and further information on the subject of sealing technology in our [interactive EMKA special catalogue for sealing technology](#).



**View interactive EMKA special catalogue
for sealing technology**

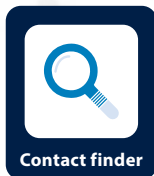
NOTES



OUR SERVICE

Do you have any questions or an idea for a customized special product? Contact us!

We look forward to receiving your inquiry and are by your side as a strong partner with our expertise!



A STRONG PARTNER BY YOUR SIDE

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