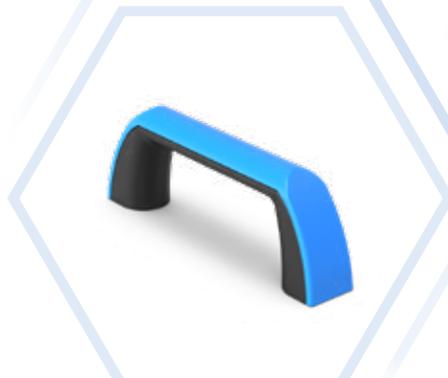
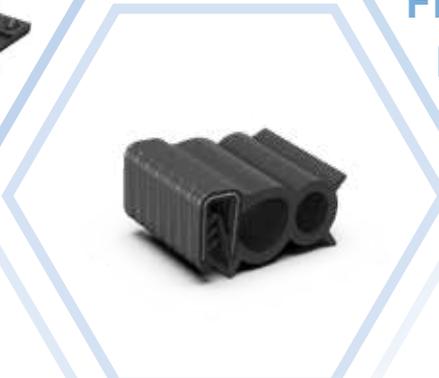


SPECIAL CATALOGUE



SALES
WORLDWIDE

92 %
FROM IN-HOUSE
PRODUCTION

**Ingenious Locking Technology
for Mobile Homes, Buses and Trailers**

Pictograms

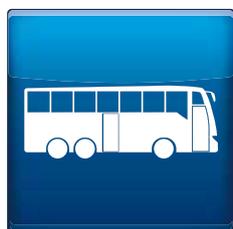
The pictograms on the catalogue pages show the areas of application of the articles illustrated there.



Mobile homes



Caravan



Buses



Horse trailers



Trailers

List of contents

INFO



1 Locks and Latches

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| T1-710 | Other locks |
| T1-910 | Accessories for locks |



2 Hinges

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3 Seals

| | |
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| T3-310 | Cell sponge rubber |
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About EMKA

The EMKA GROUP is world market leader for locks, latches, hinges and seals used in switch and control cabinets.

For more than 40 years, the company has been active across all sectors in the fields of industry (switch and control cabinets, HVACR systems, mechanical engineering) and transport (railway and commercial vehicles, caravans, etc.) with conventional and electronic locking solutions.

The overall range comprises more than 30,000 catalogue and special articles, which are developed, manufactured, refined and assembled at eleven production sites in Germany, France, Great Britain, Spain, Bosnia-Herzegovina, Serbia, China, India and Indonesia.

In one of the two new plants in Bosnia, the company produces around 900 moulds for injection moulding and die casting every year - both for own production and for external customers.

With 2,100 employees, EMKA serves over 36,000 customers in 60 countries worldwide. In 2023, the company achieved turnover of over 350 million euros.

EMKA - Ingenious Locking Technology.



 **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



Worldwide first choice

2,100 employees

Own production at 11 international locations

Represented in 60 countries worldwide

More than 30,000 catalogue and special products

More than 36,000 customers worldwide



Henriville, France



Birmingham, UK



Arnedo, Spain



Goražde (Plant 1), Bosnia-Herzegovina



Goražde (Plant 2), Bosnia-Herzegovina





Company headquarters Velbert, Germany



Wuppertal, Germany



Tianjin, China



Mionica, Serbia



Bhilai, India



Bandung, Indonesia



- Company headquarters
- Production site
- Subsidiary
- Agency

Solutions for the road

For many years, EMKA has been a major partner of the automotive and caravan / motor home industry. In its in-house technology centre, EMKA develops standardised product solutions, as well as customised components and systems for furnishing commercial and special vehicles. Whether locks, handles, hinges or gaskets for diverse mobile applications: EMKA products always stand for maximum safety and reliability.

Special vehicles for horse- and freight transport, road construction, agriculture and forestry, emergency services and disaster control, are exposed to particularly harsh conditions. Wetness, dirt, temperature fluctuations, vibrations and permanent load make extraordinary quality demands for the installed components.

The locking systems of EMKA are designed for these special demands.

According to DIN EN 61373 vibrationproof designed locks, undetachable foamed seals, as well as various materials and surfaces, are available with many standard solutions.

The large production depth of EMKA makes the delivery of the complete locking system, consisting of lock, hinge and gasket as well as useful accessories, possible.





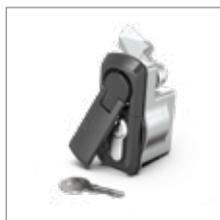
Modular program

The product program by EMKA has a consistently modular structure.

No matter whether made of stainless steel, zinc, aluminium, plastic or rubber, the products meet national as well as international standards, e.g. resistance class RC2 and are available up to protection class IP 69K.



Locks and Latches



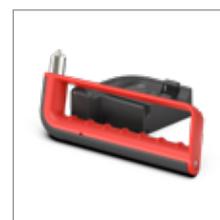
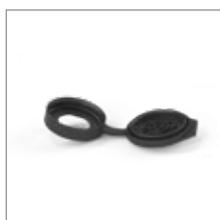
Locking Systems



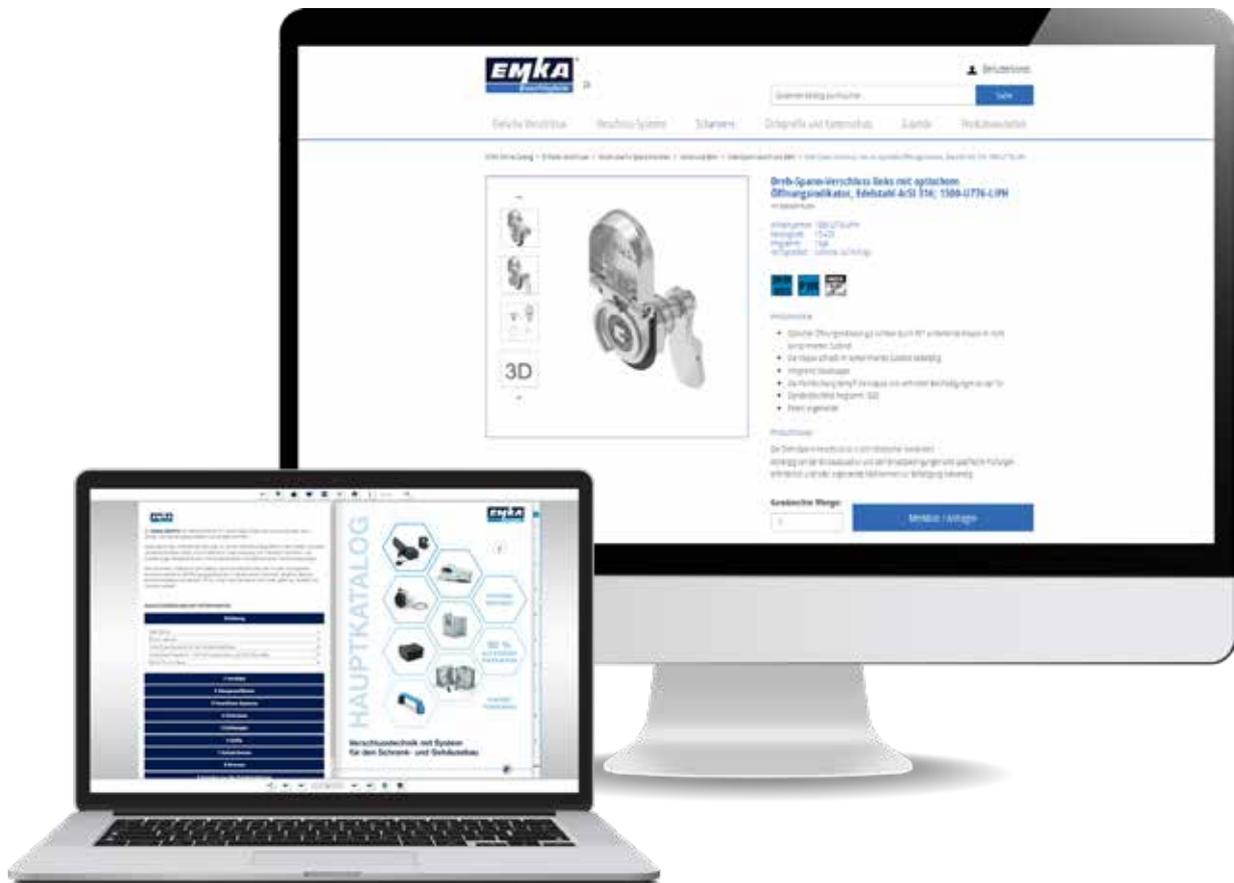
Hinges



Sealing Profiles and Edge Protection



Accessories



Everything at a glance

This special catalogue contains a selection of products that have been specially developed for the caravan and transport industry.

You will find many more products in the [interactive EMKA main catalogue](#) 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 main catalogue](#)

[View online product database](#)



Close communication with the customer from the idea to the product

In the EMKA Technology Centre the innovative products of tomorrow are created.

30 designers and design engineers convert ideas into finished products in close collaboration with the customer. Quite a few of these products are incorporated into the EMKA main catalogue which is thus strongly focused on the current market and customer needs.

To this day round 20,000 additional special parts have been created in this way that were tailor-made for special customer requirements by our specialists, intensely tested in our internal test lab and finally produced by EMKA.

State-of-the-art CAD systems and development methods such as finite elements method, rapid prototyping and 3D print are only some of the processes that are used in this context. A powerful project management software completes the range of services.

You have got an idea?

Together, let's make a product out of it!

EMKA Mould + Series

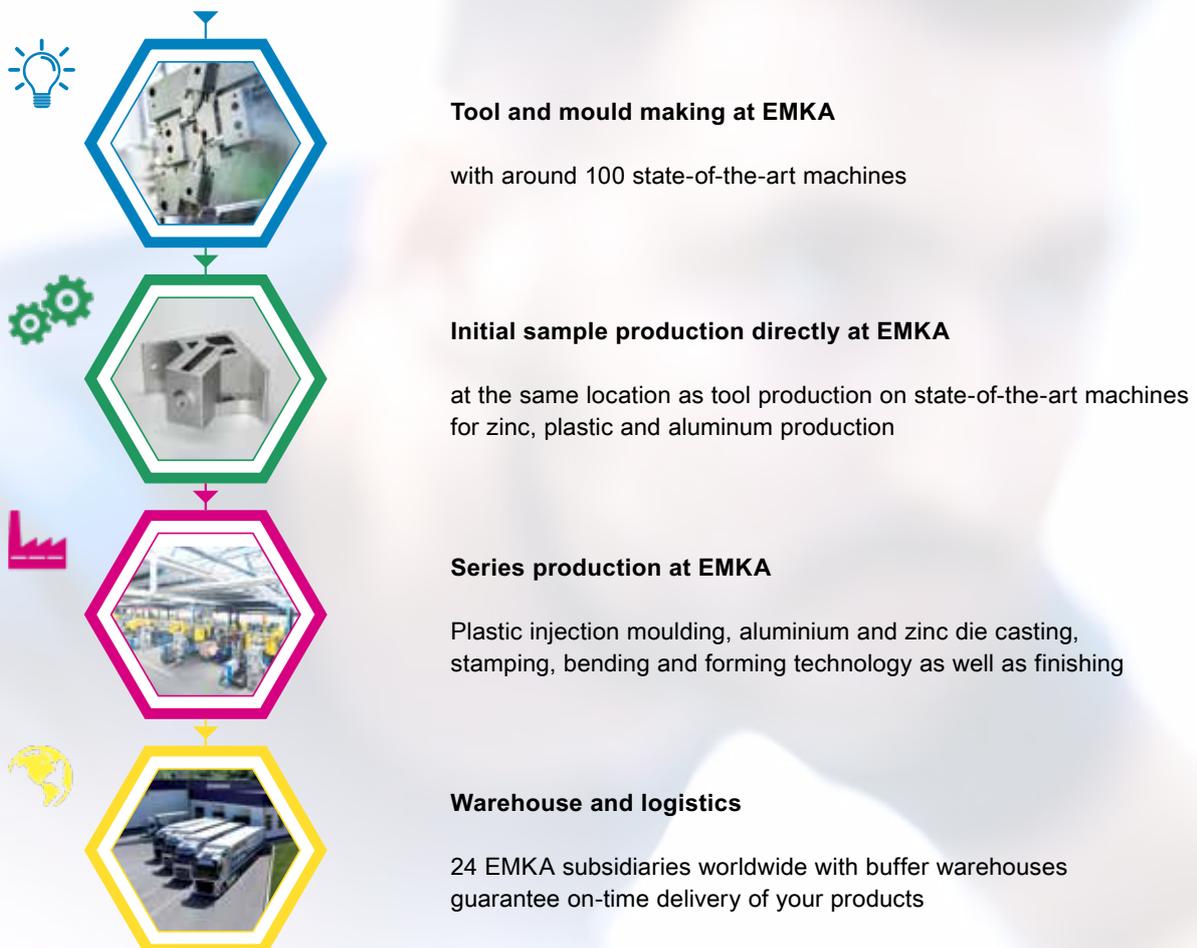
EMKA is one of the three largest mould makers in Europe.

One reason for this is that all of EMKA's 30,000 catalogue and special products are tool-related. In its own production sites, EMKA produces these products from the materials polyamide, zinc, steel, stainless steel and aluminum. EMKA customers can take advantage of this manufacturing excellence that has been developed over decades. With the business model "Mould + Series", EMKA offers a unique service package:

Based on the customer's drawing, the mould is designed. The production of the initial sample with this mould takes place directly at EMKA on site on factory-owned machines from series production. In this way, the mould making and initial sample production stages are directly coupled with each other. Time and quality losses due to transport and coordination loops are eliminated. After tool and initial sample approval, the customer receives the complete test documentation as well as all relevant production parameters. If the customer does not want to manufacture his product himself, but wants to outsource it, EMKA can also take over the series production - if necessary with assembly work and worldwide logistics.

"Mould + Series" is mould making and initial sample production from a single source - with optional series production.

In short: Production with a system.





New products at a glance

As a long-time system partner of the caravan 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 electronic locks, special hinges, handles and gasketings, thus responding to the current requirements of the market.

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

Double Red Basic

- New, cost-optimized variants of the well-known compression latch „Double-Red“ by omitting of the optic opening indicators
 - ▶ Variant in white for a special look
 - ▶ Variant in black made of eco-material
- Rotary handle exclusively lockable in closed state
- Robust solution for many years of use
- Tamper and vibration-proof according to DIN EN 61373
- Patented
- See page T1-150



ePush Lock

- Locking solution without visible components on the outside
- Opening and closing by pressing the flap / door
- No interruption of the outer sealing due to mounting at the inside
- Integrated emergency opening on the locking element
- Capable for central locking through integrated electronics
- Usable as a building block for the alarm monitoring of the flap
- Distance adapter & protective cover optionally available
- German Innovation Award Winner 2019
- See page T1-610



eCam

- Universal, electromechanical latch for all type of cam locks
- Small installation dimension
- Easy installation in new and existing systems
- With mechanical emergency opening
- Locking / Unlocking via stand alone solution with keypad or RFID card reader
- Integrable into access control systems or machine controls
- German Innovation Award Winner 2019
- See page T1-620



Single-point latch

- Usable in various applications as a concealed lock
- Available in 4 different types
- Wide supply voltage range (9 ... 32 V)
- Potential-free switch for remote monitoring of latch status
- Emergency opening via bowden cable in case of power failure
- See page T1-630



Safety quarter turn

- Inscription on the housing immersed or pad printed
- Tamper and vibration proof
- Insert and head chrome plated or stainless steel
- RH and LH version
- Large selection of different inserts
- For cams without catch
- See page T1-120



Modular locking system

- Surface mounted lifthandle with led-through spindle
- Suitable for doors opening inwards and outwards
- Roller Cam with Adjustable Clamping Load
- Variety of locking options (round cylinder, blind plug, square insert, further inserts on request)
- Various cam types available
- Air Tightness class L1-L3 possible
- Modular Design
- Protected design
- See page T1-310



180° gear hinge

- High quality gear hinge
- Economic structure and design
- Compact construction
- Concealed, not visible
- 180° opening angle
- Right and left usable
- For doors / flaps up to 40 kg (4 hinges)
- System related, small clearance
- Fixing function optional
- Maintenance-free
- Patented
- See page T2-230



90° 3D Hinge

- Space-optimized, solid hinge for vehicle ramps and flaps
- Economic structure and design
- Integrated 3D adjustment with comfortable settings by eccentric discs
- Right and left usable
- Concealed hinge with low mounted height
- For commercial vehicles
- Opening angle 90°
- See page T2-220



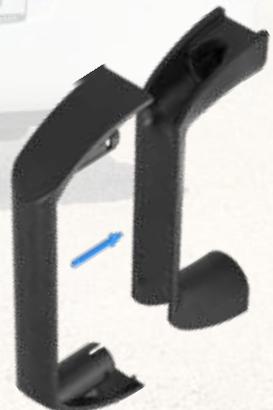
Compression Latch-Hinge

- For all door sizes > 0,8 m² surface
- The favourable pivot point of the handle allows for low actuation forces a seal compression of 5 mm
- When the door is closed, the latch is adjustable (3 mm) to achieve perfect alignment
- Door or panel can be removed by unlatching the handles on both sides
- Hinge 180° opening angle
- 3D adjustable (tolerance compensation)
- Available with or without pressure relief
- Patent submitted
- See page T2-210



Bow-type handle

- Ergonomic bow-type handle made of reinforced polyamide
- Mounting of the bow-type handle by choice. The use of cylinder head screw, hexagon head screw, counter-sunk screw or nuts can be accommodated, depending on the version
- Handle and cover are available in color and / or antibacterial version (on request)
- Bow-type handle also usable without cover
- Protected design
- See page T4-410





1 Locks

| | |
|-------------------------|--------|
| Flap locks | T1-110 |
| Door locks | T1-500 |
| Electronic locks | T1-610 |
| Other locks | T1-710 |
| Accessories for latches | T1-910 |



2 Hinges



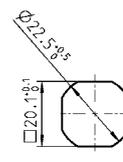
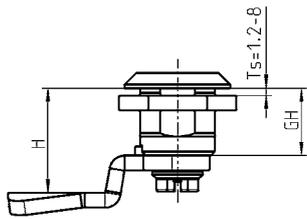
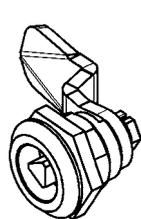
3 Gasketings



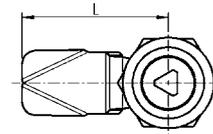
4 Accessories

Quarter turn; Housing GH = 18 and 30 - 60; Insert; Seal

PROGRAM 1000



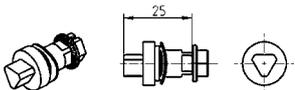
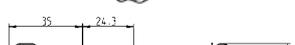
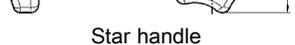
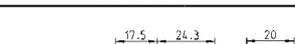
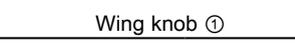
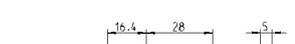
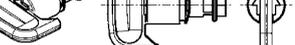
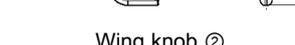
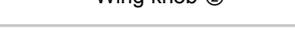
Cut out



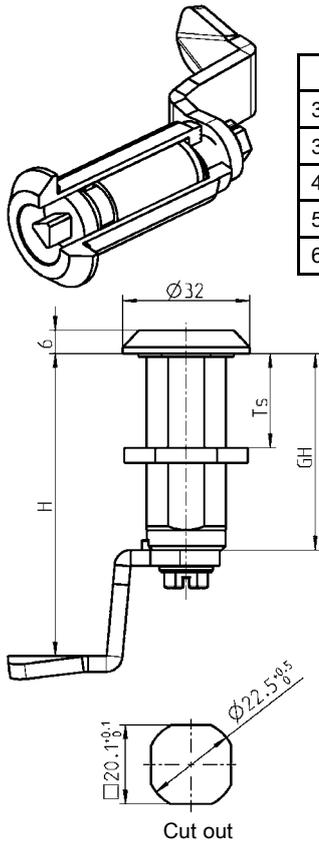
Housing with nut or earthnut m.s.zinc plated or nut stainless steel

| Head diameter GH = 18 mm | Ø28 | | Ø30 | | Ø32 | | □28 | |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|
| | Nut | Earth nut | Nut | Earth nut | Nut | Earth nut | Nut | Earth nut |
| Zinc die chrome plated | 1000-U45 | 1000-U56 | 1000-U47 | 1000-U55 | 1000-U7 | 1000-U54 | 1000-U330 | 1000-U332 |
| Zinc die chrome plated (with foamed seal) | 1000-U45-G | 1000-U56-G | 1000-U47-G | 1000-U55-G | 1000-U7-G | 1000-U54-G | - | - |
| Zinc die black powder coated | 1000-U223 | 1000-U224 | 1000-U221 | 1000-U222 | 1000-U219 | 1000-U220 | 1000-U331 | 1000-U333 |
| Zinc die black powder coated (with foamed seal) | 1000-U223-G | 1000-U224-G | 1000-U221-G | 1000-U222-G | 1000-U219-G | 1000-U220-G | - | - |
| Polyamide GF V0 black | 1000-U155 | - | - | - | 1000-U46 | - | - | - |
| Polyamide GF V0 black (with foamed seal) | 1000-U155-G | - | - | - | on request | - | - | - |
| Stainl. steel AISI 303 (with foamed seal) | 1000-U134 | - | - | - | - | - | - | - |
| Stainless steel AISI 316 (with foamed seal) | 1000-U530 | - | - | - | - | - | - | - |

Insert zinc die, polyamide or stainless steel; Fixing material m.s. zinc plated or stainless steel; with seal (only for stainless steel version)

| | Zinc die chrome plated | Zinc die black powder coated | Polyamide 66 GF 50 black | Stainless steel AISI 303 | Stainl. steel AISI 316 |
|---|------------------------|------------------------------|-------------------------------|-------------------------------|------------------------|
|  Square 6 | 1000-U17 | 1000-U322 | - | 1000-U351 | - |
|  Square 7 | 1000-U1 | 1000-U323 | 1000-U184-N | 1000-U135 | 1000-U531 |
|  Square 8 | 1000-U2 | 1000-U324 | 1000-U185-N | 1000-U136 | 1000-U532 |
|  Square 8 slotted | 1000-U18 | - | - | 1000-U352 | - |
|  Triangular 6.5 CNOMO | 1000-U197 | - | - | - | - |
|  Triangular 7 | 1000-U3 | 1000-U325 | - | 1000-U334 | 1000-U536 |
|  Triangular 8 | 1000-U4 | 1000-U326 | 1000-U186-N | 1000-U335 | 1000-U537 |
|  Triangular 9 | 1000-U194 | - | - | - | - |
|  Triangular 10 | 1000-U249 | - | - | - | - |
|  Double bit 3 | 1000-U5 | 1000-U327 | 1000-U187-N | 1000-U183 | 1000-U533 |
|  Double bit 5 | 1000-U6 | 1000-U328 | 1000-U188-N | 1000-U137 | 1000-U534 |
|  Hexagon female 10mm | 1000-U96 | - | - | - | - |
|  Square female 6 | 1000-U168 | - | - | - | - |
|  Square female 7mm | 1000-U182 | - | - | - | - |
|  Square female 8 | 1000-U169 | - | - | - | - |
|  Daimler Benz | 1000-U20 | - | - | - | - |
|  Slot 1.2 x 3 | 1000-U195 | - | - | - | - |
|  Slot 2 x 4 | 1000-U142 | 1000-U329 | 1000-U196-N | 1000-U630 | 1000-U631 |
|  Slot 2 x 4 coinproof | 1000-U738 | 1000-U739 | - | - | - |
|  Crown type | 1000-U336 | - | - | - | - |
| Eastern Europe Ø 13 | 1000-U509 | - | - | 1000-U729 | - |
| Hexagon female 8 with pin | 1000-U757 | - | - | 1000-U757-01 | - |
| Star handle | - | Zinc die black powder coated | Polyamide GF / Zinc die black | Polyamide GF black / AISI 303 | - |
| Wing knob ① | - | - | 1000-U13 | 1000-U138 | - |
| Wing knob ② | - | - | 1000-U78 | 1000-U510 | - |
| Wing knob ② | - | 1000-U910 | - | - | - |

Assembly instruction



| GH | Ts |
|-------|-----------------|
| 30 mm | 1.5 up to 20 mm |
| 36 mm | 1.5 up to 26 mm |
| 40 mm | 1.5 up to 30 mm |
| 50 mm | 1.5 up to 40 mm |
| 60 mm | 1.5 up to 50 mm |



| IP 65 achieved by: | |
|----------------------|-----------|
| ** Flat seal | 1000-23 |
| ** O-ring | 1000-24 |
| IP 66 achieved by: | |
| Seal set | 1000-U769 |
| IP 69K achieved by: | |
| * Seal set | 1000-U841 |
| Assembly on request: | |
| without O-ring | 1000-990 |
| with O-ring | 1000-991 |

| Housing material on choice; nut or earthnut m.s. zinc plated or nut stainless steel Adapter zinc die or AISI 303; screw m.s. zinc plated or stainless steel | | | | | | |
|--|------------------------|-----------|------------------------------|-----------|---------------------|--------------|
| GH in mm | Zinc die chrome plated | | Zinc die black powder coated | | Polyamide black Nut | AISI 316 Nut |
| | Nut | Earthnut | Nut | Earthnut | | |
| 30 | 1000-U51 | 1000-U65 | 1000-U225 | 1000-U226 | 1000-U876 | 1000-U878 |
| - Adapter | 1000-U164 | | | | | 1000-U879 |
| 36 | 1000-U246 | 1000-U248 | 1000-U317 | 1000-U318 | - | - |
| - Adapter | 1000-U198 | | | | | - |
| 40 | 1000-U66 | 1000-U67 | 1000-U227 | 1000-U228 | 1000-U737 | - |
| - Adapter | 1000-U165 | | | | | - |
| 50 | 1000-U68 | 1000-U69 | 1000-U229 | 1000-U230 | 1000-U736 | - |
| - Adapter | 1000-U166 | | | | | - |
| 60 | 1000-U504 | 1000-U505 | 1000-U506 | 1000-U507 | - | - |
| - Adapter | 1000-U535 | | | | | - |

** included in case of stainless st. version
* Seal set only completely assembled with housing, insert and cam available

Safety quarter turn without mask

PROGRAM 1000

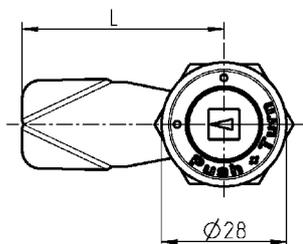
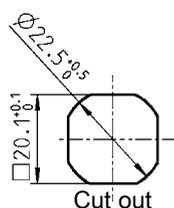
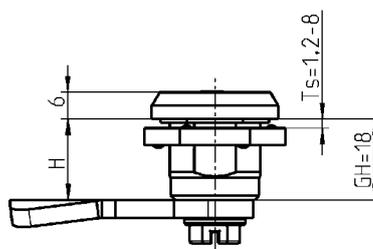
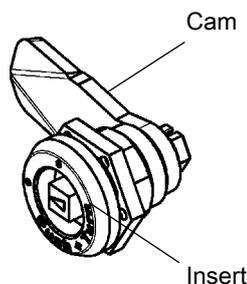


Tamper and vibration proof

This lock is of a vibration proof design. Depending on the installation location and operational conditions, specific checks are necessary and/or supplementary measures of fastening required.



for stainless steel version



Housing and insert material of your choice, mask zinc die raw, screw and earthnut m.s. zinc plated and/or screw and nut stainless steel, with spring and seal

| | ① Zinc die zinc plated housing labeling is immersed | ② AISI 316 housing labeling is pad printed |
|------------------------------|---|--|
| Square 6 | on request | 1000-U817-01PH |
| Square 7 | 1000-U817-02IA | on request |
| Square 8 | 1000-U817-03IA | 1000-U817-03PH |
| Square 8 slotted | on request | on request |
| Triangular 6.5 CNOMO | on request | on request |
| Triangular 7 | 1000-U817-04IA | on request |
| Triangular 8 | 1000-U817-05IA | 1000-U817-05PH |
| Triangular 9 | on request | on request |
| Triangular 10 | on request | 1000-U817-07PH |
| Double bit 3 | 1000-U817-08IA | on request |
| Double bit 5 | on request | on request |
| Hexagon female SW 8 | on request | 1000-U817-24PH |
| Hexagon female SW 10 | on request | on request |
| Square female 6 | on request | on request |
| Square female 7 | on request | on request |
| Square female 8 | on request | on request |
| Slot 1.2 x 3 | 1000-U817-16IA | on request |
| Slot 2 x 4 | 1000-U817-17IA | on request |
| Slot 2 x 4 coinproof | on request | on request |
| Crown type | on request | on request |
| Eastern Europe Ø 13 | on request | on request |
| Hexagon female SW 8 with pin | on request | on request |
| Insert railway | 1000-U817-23IA | 1000-U817-23PH |

Press down insert and turn quarter turn!

Note:
Only cams without a stop can be used!
The H-dimension will be reduced by 2 mm if the opening handle is installed

Insert railway in conformity with RIC.

On request:
– Further inserts

Further parts see page
– Cam without catch
– Key

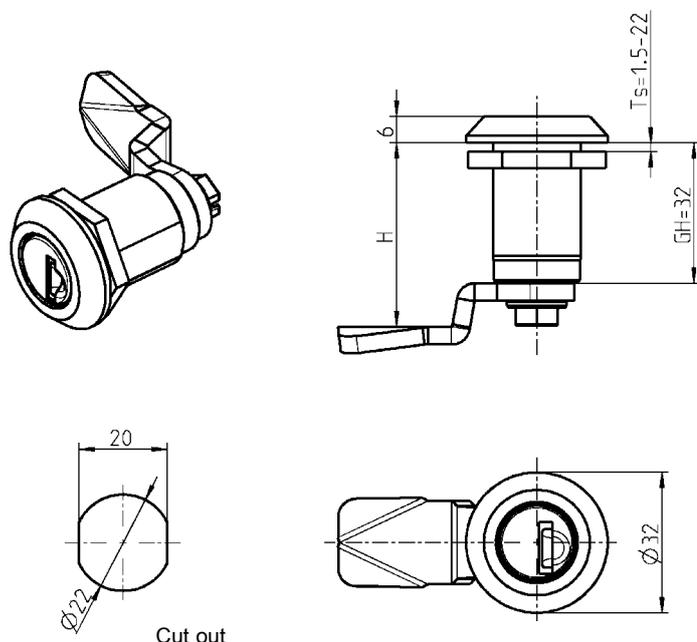
T1-910
T1-930

Quarter turn designed for clip-in cylinders

PROGRAM 1000



As a supplementary measure for vibration proof fastening the serrated washer 1000-103 can be used.

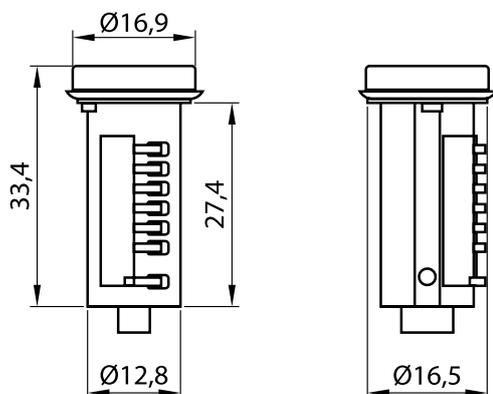


Quarter turn for clip-in cylinder;
housing zinc die surface of your choice;
adapter zinc die raw; nut and screw m.s. zinc plated

| | black powder-coated | chrome-plated |
|--|---------------------|---------------|
| Clip-in cylinder system 1 | on request | on request |
| Clip-in cylinder system 2 | on request | on request |
| Clip-in cylinder system 3 | 1000-U875-03 | on request |
| Serrated lock washer m.s. zinc plated | | 1000-103 |

Attention:
The H-dimension will be reduced by 2 mm when this dust cap is installed.

Further parts see page
– Cam without catch T1-910



Clip-in cylinder 3 zinc die chromated with stainless steel cap; with 2 keys

| | |
|-----------------|-----------|
| Keyed 8888 | 9850-U100 |
| Keyed different | 9850-U101 |

Further parts see page
– Rotary bolt lock T1-410

Handle clip fix

PROGRAM 1500



L-Handle clip fix



L-Handle with housing

T-handle quarter turn, clip fix



T-handle with housing



Cam



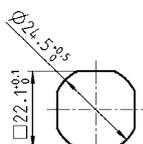
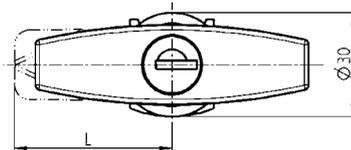
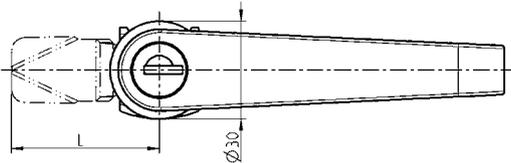
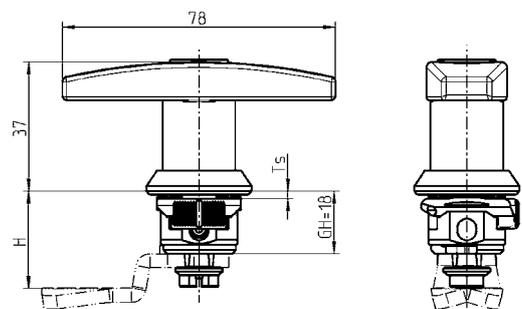
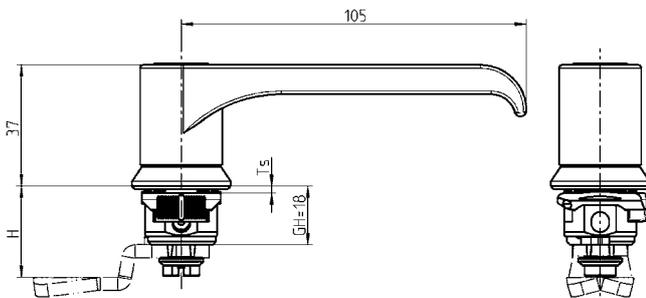
Locking clip



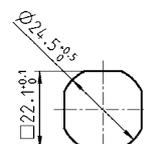
Cam



Locking clip



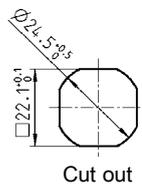
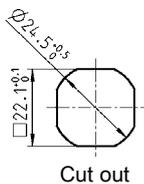
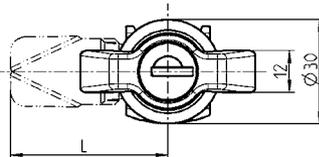
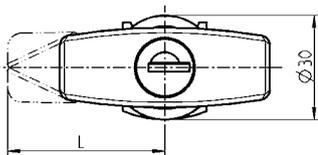
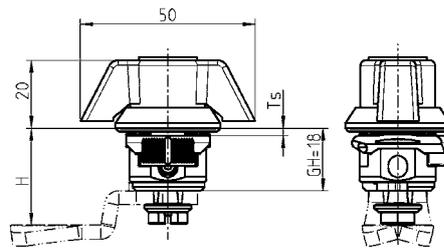
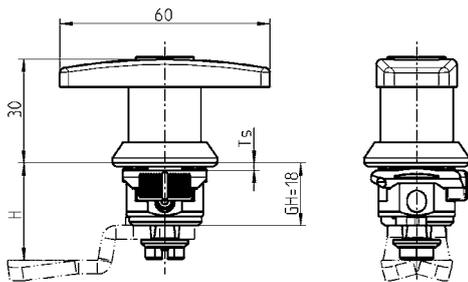
Cut out



Cut out

T-handle quarter turn, small, clip fix

Wing knob quarter turn clip fix



Handle polyamide GF black / zinc die, housing polyamide GF black, round cylinder zinc die with stainless steel cap and dust cap, screw m.s. zinc plated, with seal. Each cylinder has one silver steel key with polyamid grip. Key removable in both positions

| | non locking | Keyed EK 333 | Keyed different |
|----------------|-------------------|--------------|-----------------|
| Wing knob | 1500-U343 | 1500-U345 | 1500-U347 |
| T handle small | 1500-U775 (IP 40) | 1500-U773 | 1500-U774 |
| T-Handle | 1500-U546 | 1500-U548 | 1500-U550 |
| L-handle | 1500-U570 | 1500-U572 | 1500-U574 |

Locking clip polyamide GF, colour depending on item

Ts = 1.0 - 1.5 colour pebble grey

Ts = 1.5 - 2.0 colour black

1500-05-10

1500-05-15

Further parts see page
– Cam (GH=18)

T1-910

Compression latch 'Double Red' with or without visual opening indicators for storage cases

PROGRAM 1000



Product description:

The compression latch has two optical opening indicators. These consist of the indicator of the clip-in cylinder and the second indicator for the position of the handle. In case the opening indicator on the sleeve and the clip-in cylinder is visible, the compression latch is unlocked. The same is true for the opening indicator between handle and housing. In case the opening indicator is visible, the compression latch is compressed.

Basic:

The Basic versions are the new, cost-optimized variants of the compression latch, which do without the optic opening indicators.

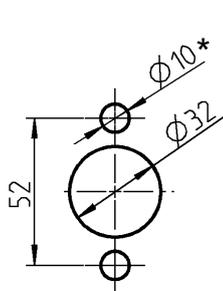
In addition to the basic variant in ECO black, a UV-stabilized variant in white is also available.



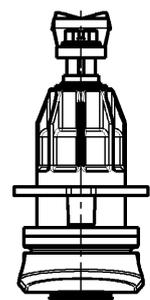
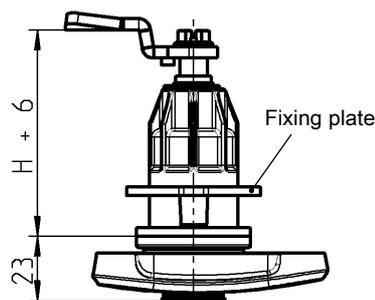
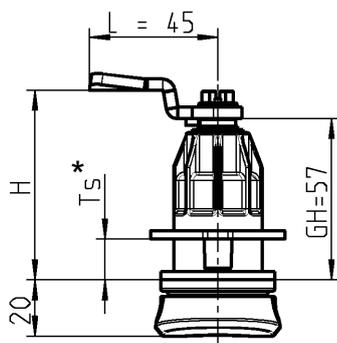
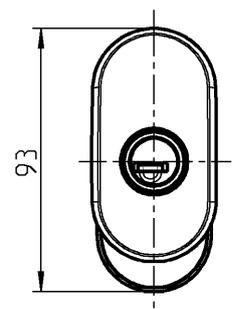
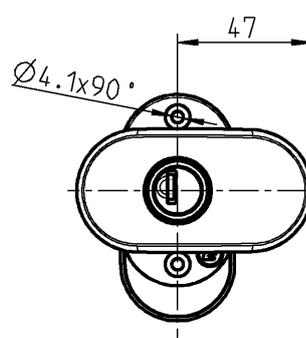
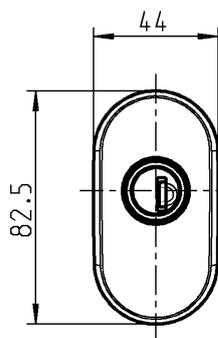
'Double Red'
with visual opening indicators

Basic
ECO black

Basic white
(UV-stabilised)



Cut out



* Attention:
When the fixing plate is turned over, the cut out holes are decreased from Ø 10 auf Ø 4.1.
The Maximum value of the Ts dimension is decreased by -10 mm.

Tamper and vibration proof

The compression latch is vibration-proof according to DIN EN 61373.

Depending on the installation location and operational conditions, specific checks are necessary and/or supplementary measures of fastening required.

Compression latch version by choice for clip-in cylinder;
 handle PA6 colour by choice; housing PA6 GF colour by choice;
 bush for clip-in cylinder zinc-die zinc-coated;
 adapter, cog and locking shaft zinc-die;
 fixing plate POM black; screw, circlip and pin m.s. zinc coated;
 with spring and seal; key can be removed in both positions

| Clip-in cylinder | 'Double Red' with visual opening indicators | Basic ECO black | Basic white (UV-stabilised) |
|--|---|-----------------|-----------------------------|
| System 1 | on request | on request | on request |
| System 2 | 1000-U866-02 | on request | on request |
| System 3 | 1000-U866-03 | 1000-U866-04 | 1000-U866-05 |
| Clip-in cylinder 3 zinc die chromated with stainless steel cap; with 2 keys | | | |
| Keyed 8888 | | | 9850-U100 |
| Keyed different | | | 9850-U101 |

Please order separately:

Cam m.s. zinc plated

Cams with other H and L dimensions on request.

Minimum quantity 2000 pieces

| H | Ts | GH = 57 mm |
|----|---------|------------|
| 43 | 17 - 38 | 1000-112 |
| 45 | 17 - 40 | 1000-22 |
| 47 | 17 - 42 | 1000-113 |
| 49 | 17 - 44 | 1000-21 |
| 52 | 17 - 47 | 1000-20 |
| 53 | 17 - 48 | 1000-19 |
| 55 | 17 - 50 | 1000-18 |
| 57 | 17 - 50 | 1000-17 |
| 59 | 17 - 50 | 1000-16 |
| 61 | 17 - 50 | 1000-15 |
| 63 | 17 - 50 | 1000-14 |
| 64 | 17 - 50 | 1000-27 |
| 65 | 17 - 50 | 1000-50 |
| 67 | 17 - 50 | 1000-13 |
| 69 | 17 - 50 | 1000-28 |
| 71 | 17 - 50 | 1000-26 |
| 73 | 17 - 50 | 1000-12 |
| 74 | 17 - 50 | 1000-11 |
| 75 | 17 - 50 | 1000-51 |
| 77 | 17 - 50 | 1000-52 |
| 79 | 17 - 50 | 1000-25 |
| 81 | 17 - 50 | 1000-53 |
| 83 | 17 - 50 | 1000-54 |
| 84 | 17 - 50 | 1000-10 |
| 86 | 17 - 50 | 1000-55 |
| 89 | 17 - 50 | 1000-56 |



Open

By a rotation of the handle of 90°, the cam rotates.



Closed

By further rotation of the handle of 90° the cam moves 6 mm in axial direction.



Compressed

Open:
Reversed motion

Compression latch with optical opening indicator

PROGRAM 1500

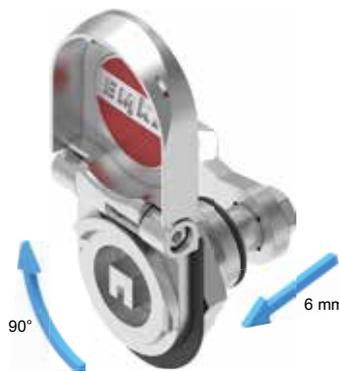


Tamper and vibration proof

The compression latch is designed to be vibration-proof as such. Depending on the installation location and operational conditions, specific checks are necessary and/or supplementary measures of fastening required.



Open
By turning the insert by 90° the cam is turned.



Closed
By further rotation of the operation of 90° the cam moves 6 mm in axial direction.

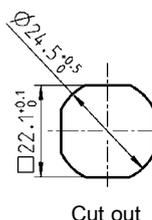
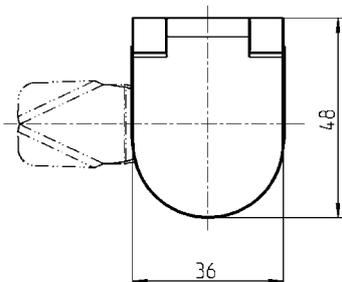
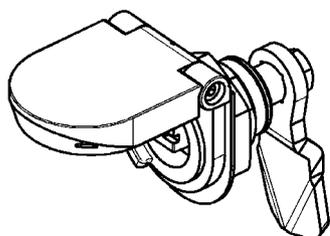
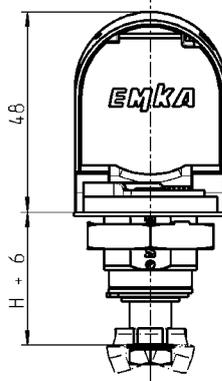
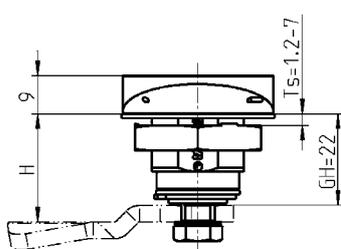
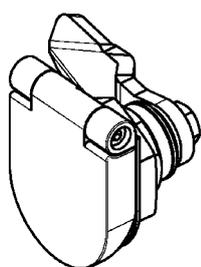


Compressed

Open:
Reversed motion

Product benefits

- Visual opening indicator clearly visible due to 90° open flap when uncompressed
- The red surface on the inside of the cap makes it easier to recognize the open position
- The flap closes automatically when compressed
- Integrated dust cap
- The flat seal cushions the flap and prevents damages to the door
- Standard cut out program 1500
- Patent submitted



Cut out

Compression latch with visual opening indicator AISI 316;
nut and earth nut AISI 316;
screw and lock washer stainless steel; with spring and seal

| | LH version | RH version |
|---|------------------|------------------|
| Square 8 with marking | 1500-U776-LIPH | 1500-U776-REPH |
| Square 8 with marking and cap with red pad printing | 1500-U776-01LIPH | 1500-U776-01REPH |

Further parts see page
– Cam without catch
– Key

T1-910
T1-930

Stainless steel compression latch with red - green indicator

PROGRAM 1000



Tamper and vibration proof

The compression latch is designed to be vibration-proof as such. Depending on the installation location and operational conditions, specific checks are necessary and/or supplementary measures of fastening required.



for stainless steel version



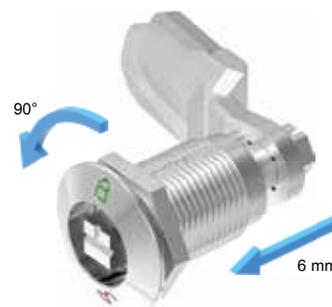
Open
By turning the insert by 90° the cam is turned.



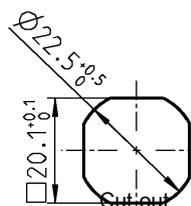
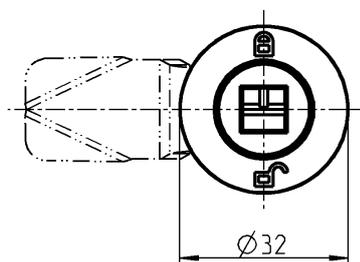
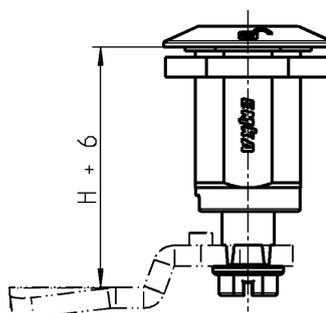
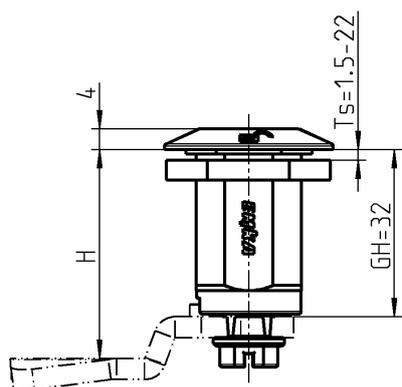
AISI 316 polished



AISI 316 highly polished;



Closed
By further rotation of the operation of 90° the cam moves 6 mm in axial direction.



Compressed

Open:
Reversed motion

Stainless steel compression latch with red - green indicator
Housing AISI 316 with surface of your choice;
insert, spindle and nut AISI 316;
screw AISI 304; with spring and seal

| Housing polished | LH version | RH version |
|-------------------------|------------------|------------------|
| Insert railway | 1000-U890-LIPH | 1000-U890-REPH |
| Hexagon male SW 11 | 1000-U891-LIPH | 1000-U891-REPH |
| Housing highly polished | | |
| Insert railway | 1000-U890-01LIPH | 1000-U890-01REPH |
| Hexagon male SW 11 | 1000-U891-01LIPH | 1000-U891-01REPH |

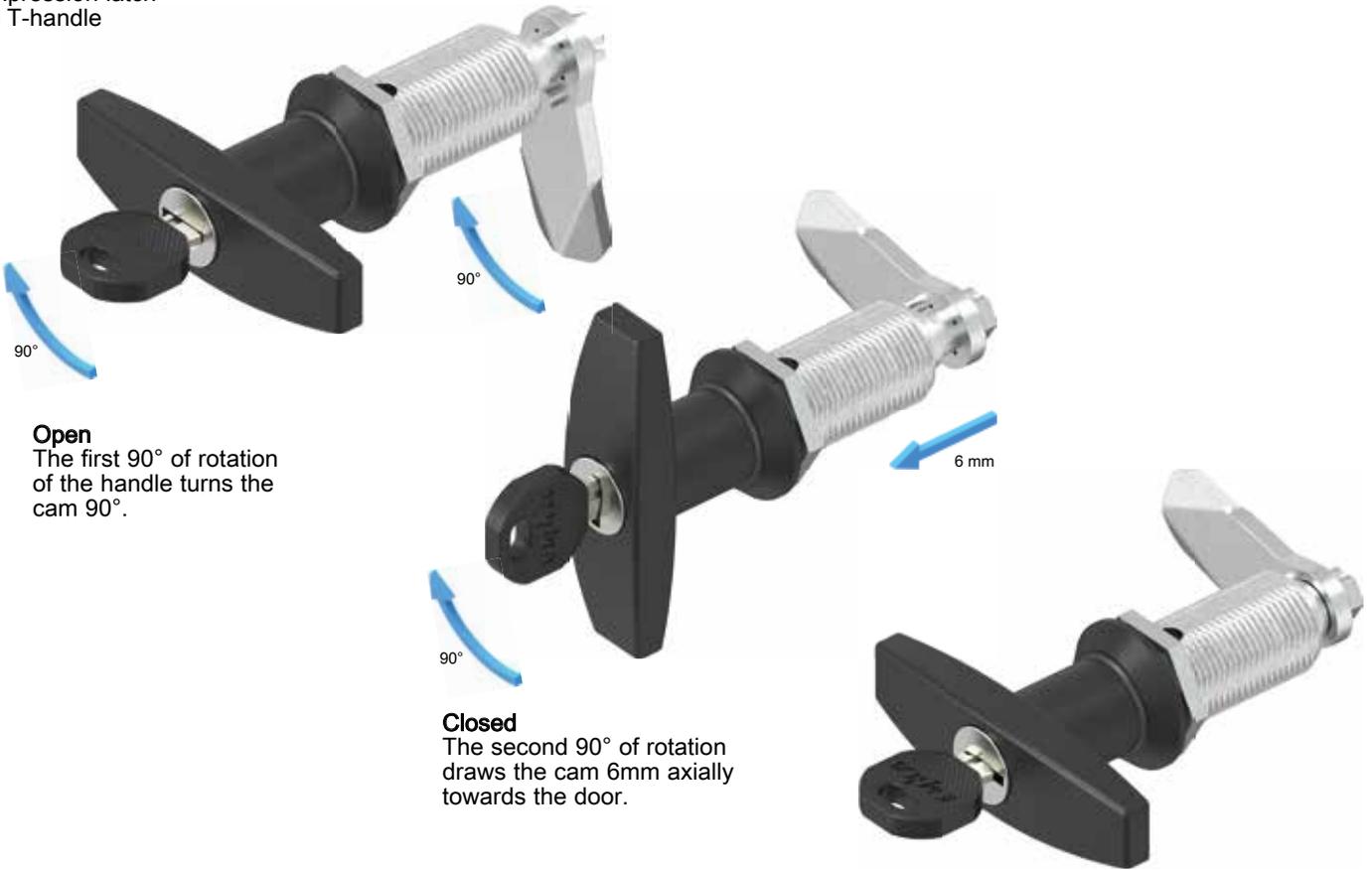
Further parts see page
– Cam with catch
– Key

T1-910
T1-930

Compression latch with handle PROGRAM 1000



Example:
Compression latch
with T-handle

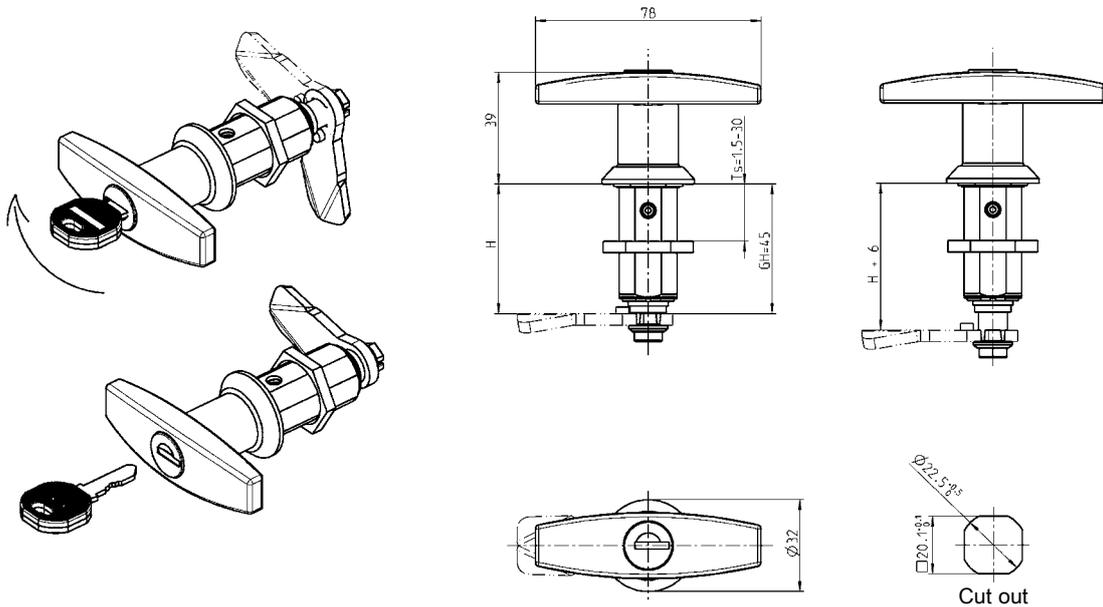


Open
The first 90° of rotation
of the handle turns the
cam 90°.

Closed
The second 90° of rotation
draws the cam 6mm axially
towards the door.

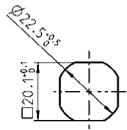
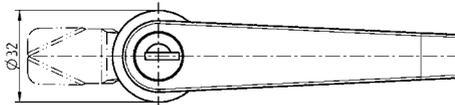
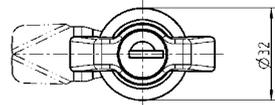
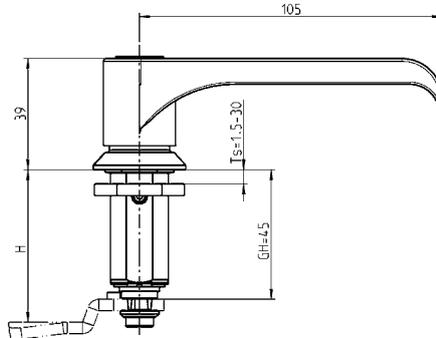
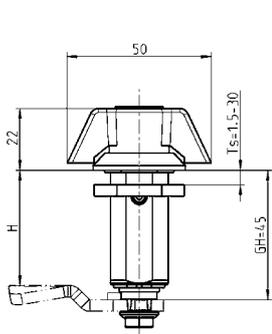
Compressed
Key removable
Open:
Reversed motion

Compression latch with T-handle

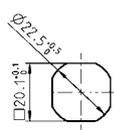


Compression latch with wing knob

Compression latch with L-handle



Cut out



Cut out



Tamper and vibration proof

The compression latch is designed to be vibration-proof as such. Depending on the installation location and the operational conditions, specific tests and/or supplementary measures of fastening are necessary.



Handle and housing zinc die, black powder coated, cylinder zinc die, with stainless steel cap and shutter, nut and screw zinc plated m.s. with spring and seal. Each cylinder has one silver steel key with polyamid grip. Key removable in both positions

| | non locking | Keyed EK 333 | Keyed different |
|-----------|-------------|--------------|-----------------|
| Wing knob | 1000-U826 | 1000-U827 | 1000-U828 |
| T-Handle | 1000-U820 | 1000-U821 | 1000-U822 |
| L-handle | 1000-U823 | 1000-U824 | 1000-U825 |

On request:
– Stainless steel version

Further parts see page
– Cam with catch

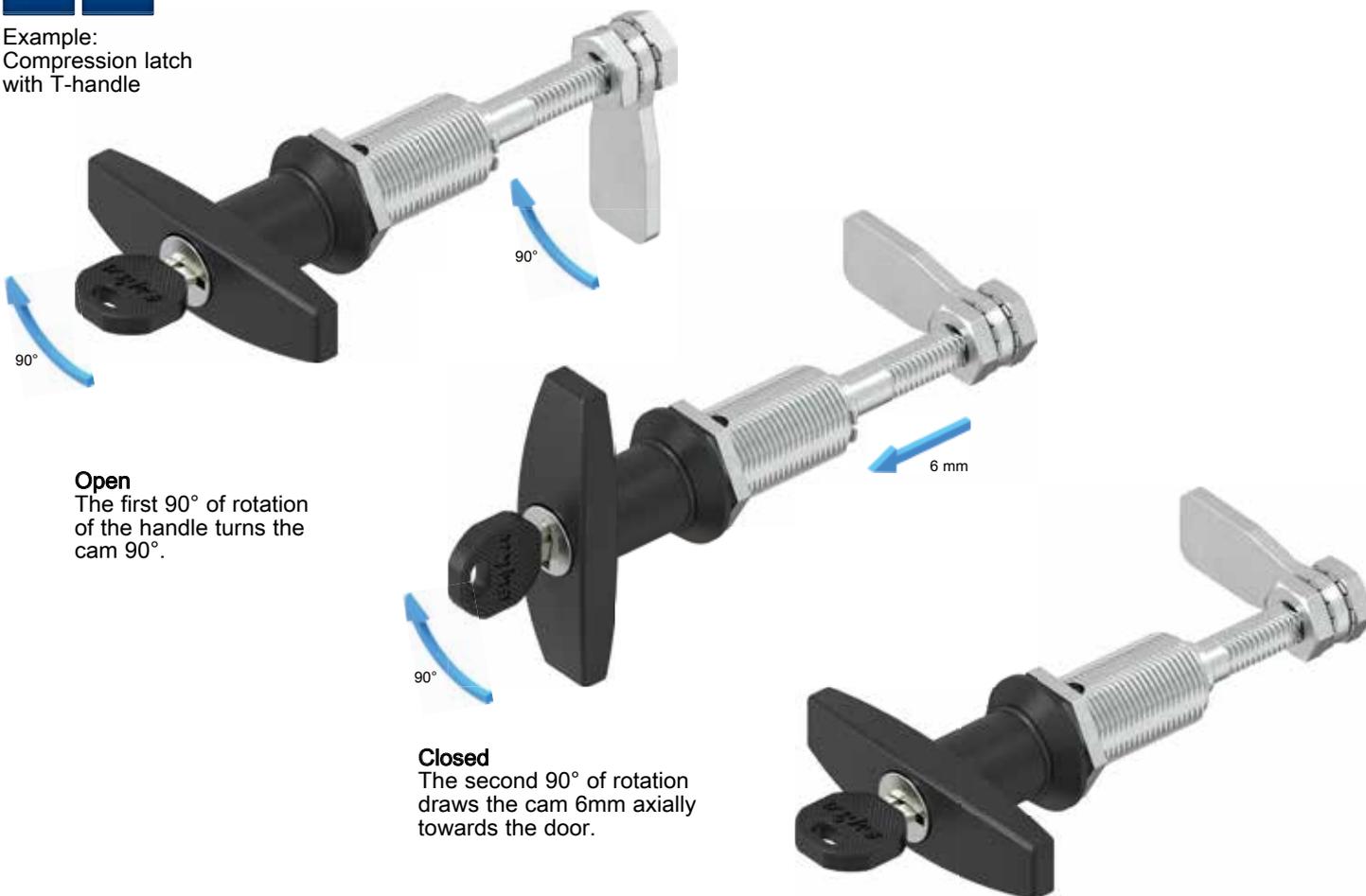
T1-910

Compression Handles with adjustable Cams

PROGRAM 1000



Example:
Compression latch
with T-handle

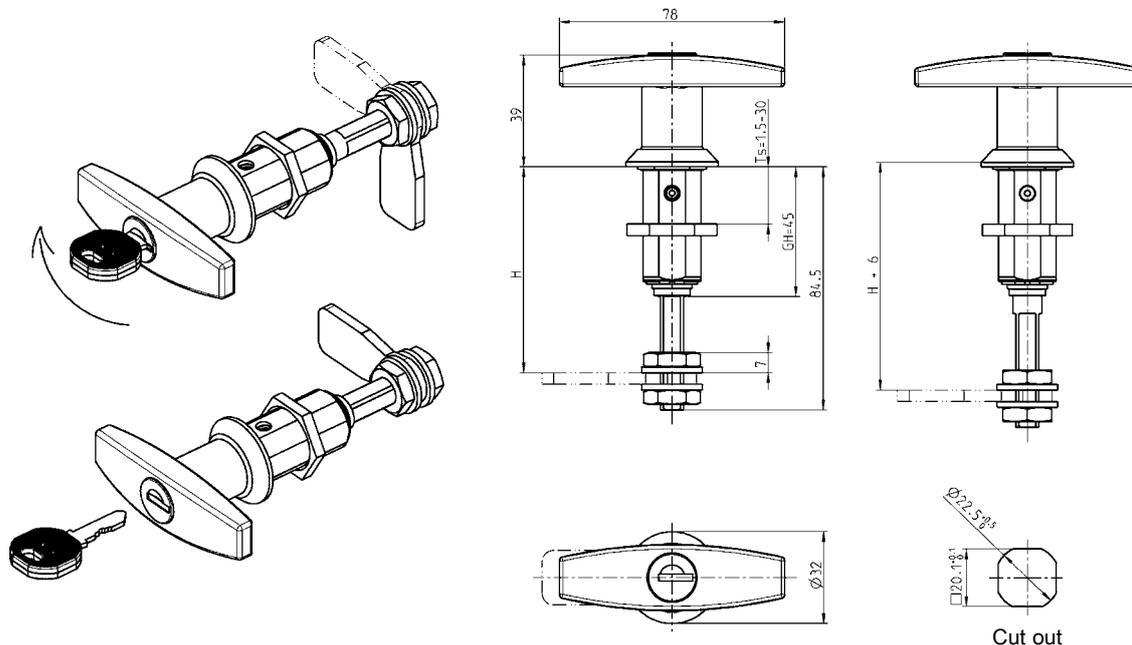


Open
The first 90° of rotation
of the handle turns the
cam 90°.

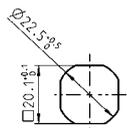
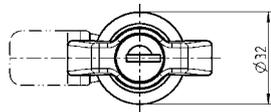
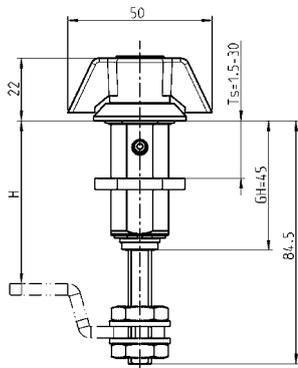
Closed
The second 90° of rotation
draws the cam 6mm axially
towards the door.

Compressed
Key removable
Open:
Reversed motion

Compression latch with T-handle

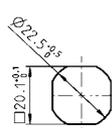
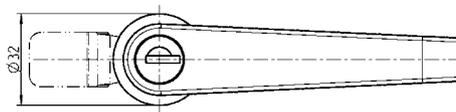
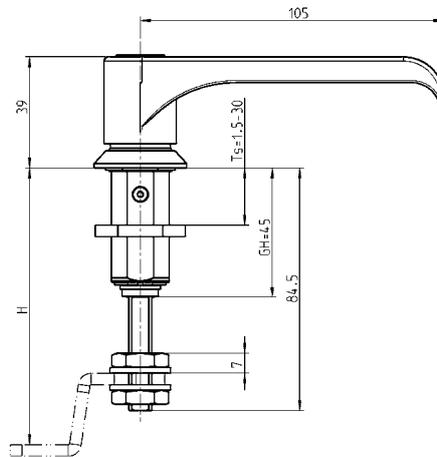


Compression latch with wing knob



Cut out

Compression latch with L-handle



Cut out



Tamper and vibration proof

The compression latch is designed to be vibration-proof as such. Depending on the installation location and the operational conditions, specific tests and/or supplementary measures of fastening are necessary.



Handle and housing zinc die black powder coated, cylinder zinc die with stainless steel cap and dust cover, nut and screw zinc plated with spring and seal. Each cylinder has one silver steel key with polyamid grip. Key removable in both positions

| | non locking | Keyed EK 333 | Keyed different |
|-----------|-------------|--------------|-----------------|
| Wing knob | 1000-U790 | 1000-U789 | 1000-U791 |
| T-Handle | 1000-U785 | 1000-U784 | 1000-U792 |
| L-handle | 1000-U788 | 1000-U787 | 1000-U793 |

On request:
– Stainless steel version

Further parts see page
– Cam with catch

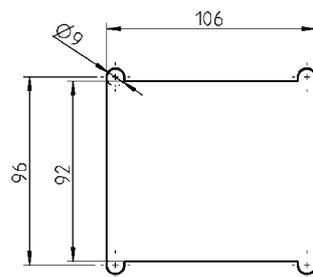
T1-920



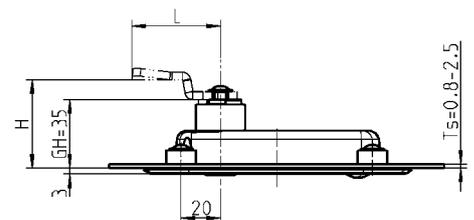
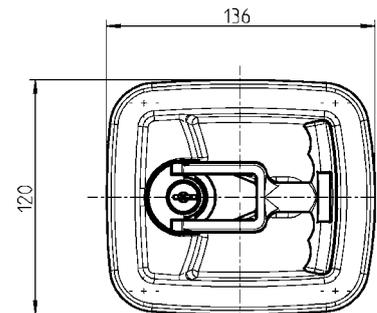
Front view,
handle open



Rear view,
handle closed



Cut out



Recess T-handle polyamide GF black; fixing material m.s. zinc plated; with seal.
Each round cylinder has one key m.s. nickel plated.

Keyed EK 333

1130-U3

Keyed different

1130-U4

Further parts see page
– Cam with catch

T1-910

Recess T-handle with compression function and adjustable cam level

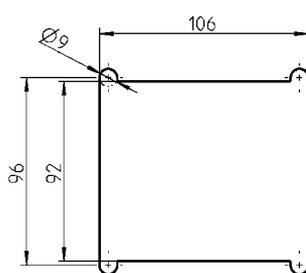
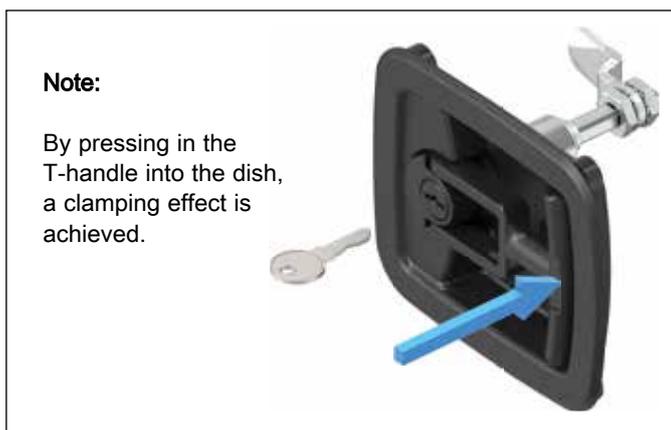
PROGRAM 1130



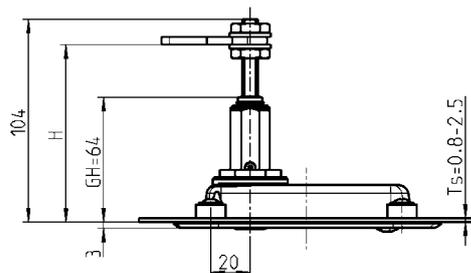
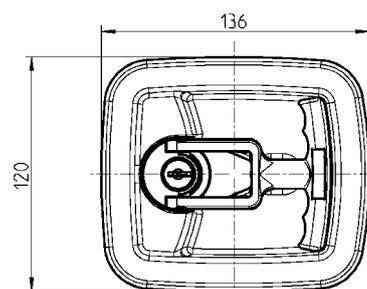
Front view,
handle open



Rear view,
handle closed



Cut out



Recess T-handle polyamide GF black; housing zinc die;
fixing material m.s. zinc plated; with seal.
Each round cylinder has one key m.s. nickel plated.

Keyed EK 333

1130-U10

Keyed different

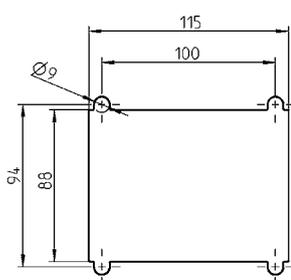
1130-U11

Further parts see page
- Cam

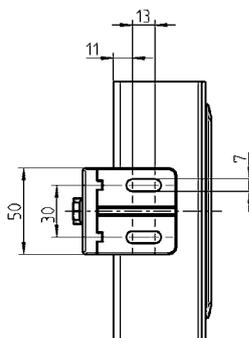
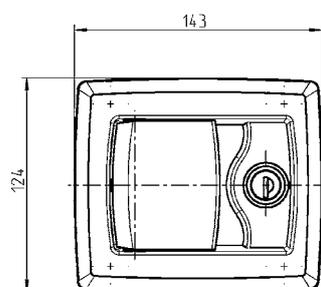
T1-920

Chest handle

PROGRAM 1130



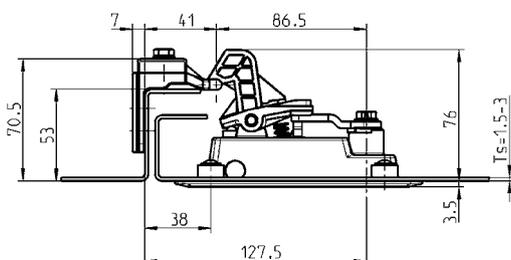
Cut out



Note:

The hinged handles 1130-U1 and -U2 are constructed for the version on the right-hand side

Version for LH use is created by removal of the round cylinder, rotating it of 180°, and refitting it.



Function:

The spring-loaded locking hook is equipped with a 'door-slam' effect.

Thereby door can also be closed when locked.

Hinged pattern handle polyamide GF black, compensator and lock catch zinc die zinc pl., round cylinder zinc die with stainless steel cap and dust cap, springs stainless steel, cam and fastening material m.s. zinc pl., with seal
Each round cylinder has one silver steel key with polyamide grip GF black.

Keyed EK 333

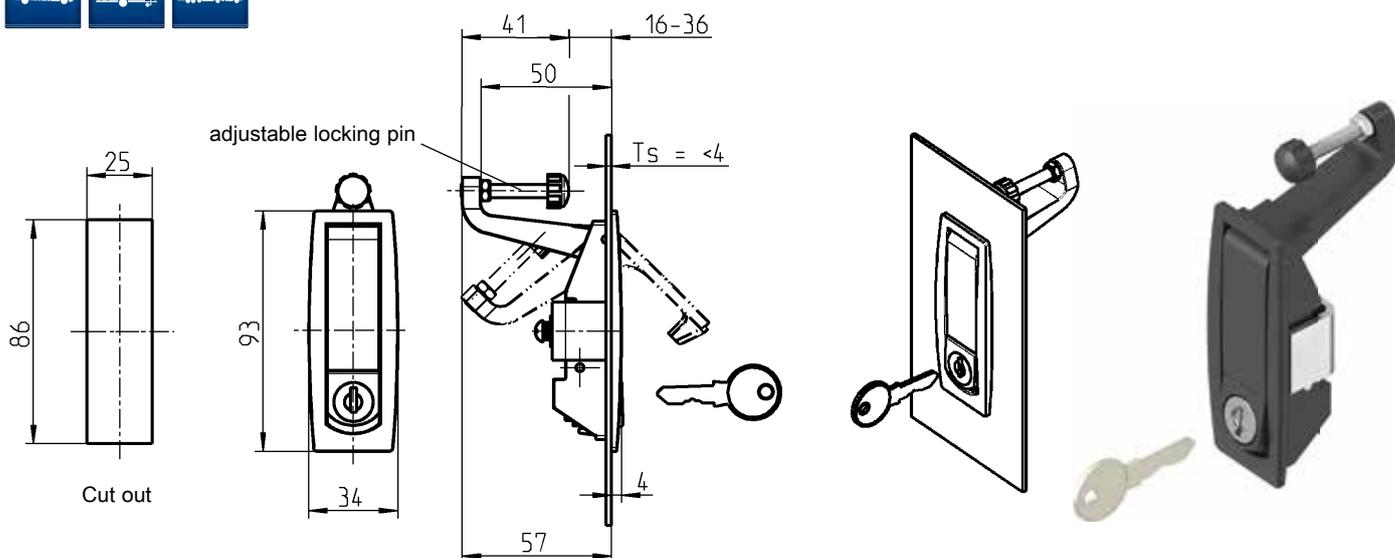
1130-U1

Keyed different

1130-U2

Chest handle

PROGRAM 1130



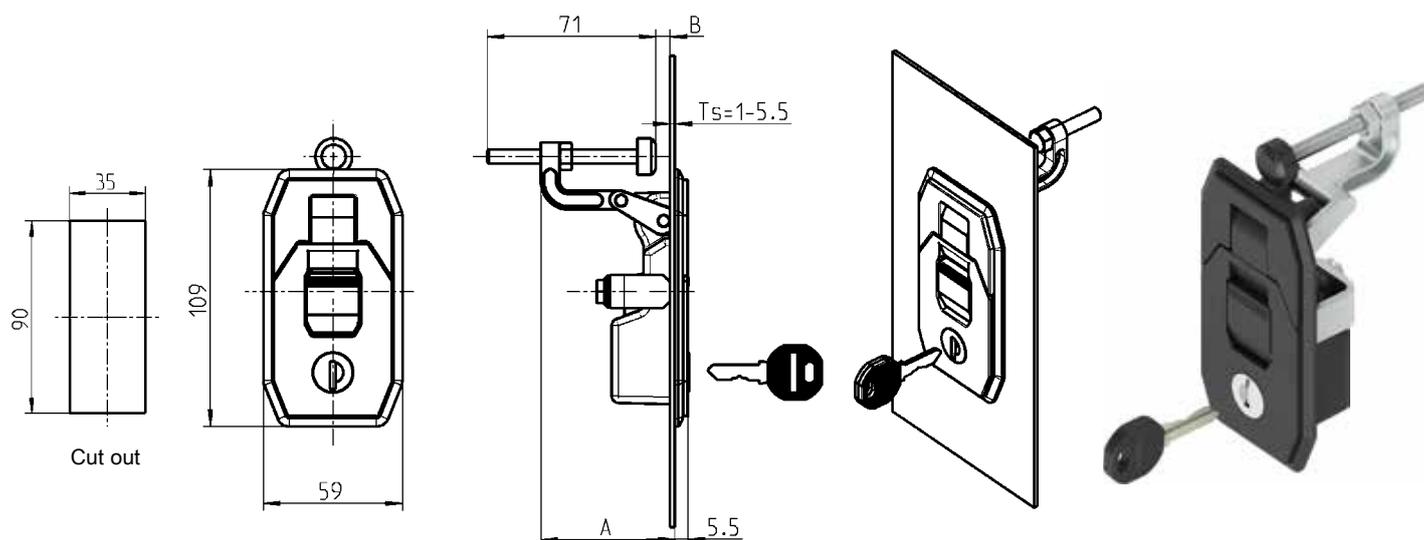
Compression flush handle zinc die black powder coated, locking pin m.s. zinc plated / TPE-V, fixing material m.s. zinc plated.
Each round cylinder has one key m.s. nickel plated.

Keyed EK 333

1130-U8

Blank

1130-U9



Hinged handle zinc die black powder coated, locking pin m.s. zinc plated / TPE-V, fixing material m.s. zinc plated, round cylinder with stainless steel cap and dust cap, with seal.

One key from nickel silver with polyamide grip GF black per round cylinder

A = 57 ; Keyed EK 333

1130-U7

A = 57 ; Keyed different

1130-U7-V

A = 71 ; Keyed EK 333

1130-U7-01

A = 71 ; Keyed different

1130-U7-01V

On request:
– Chest handle with different lever

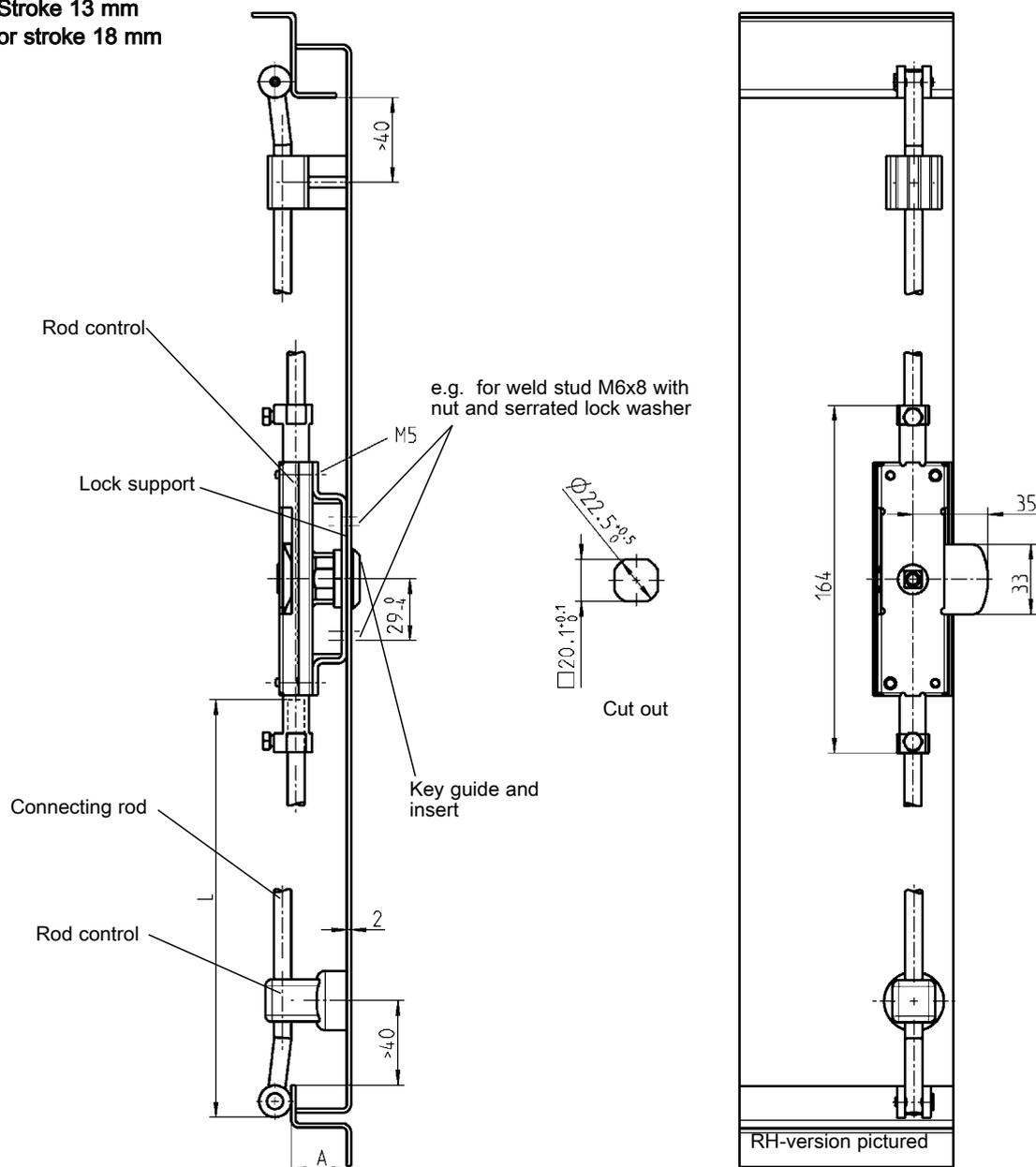
Info

Rod control and insert

PROGRAM 1049, 1068

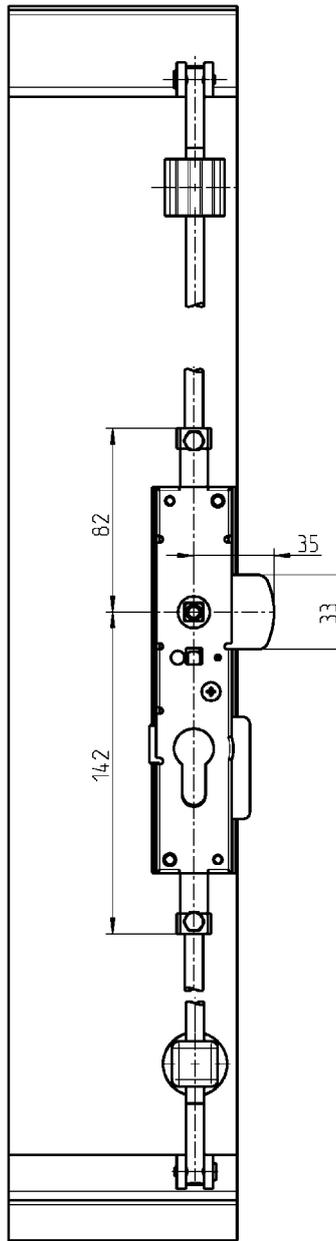
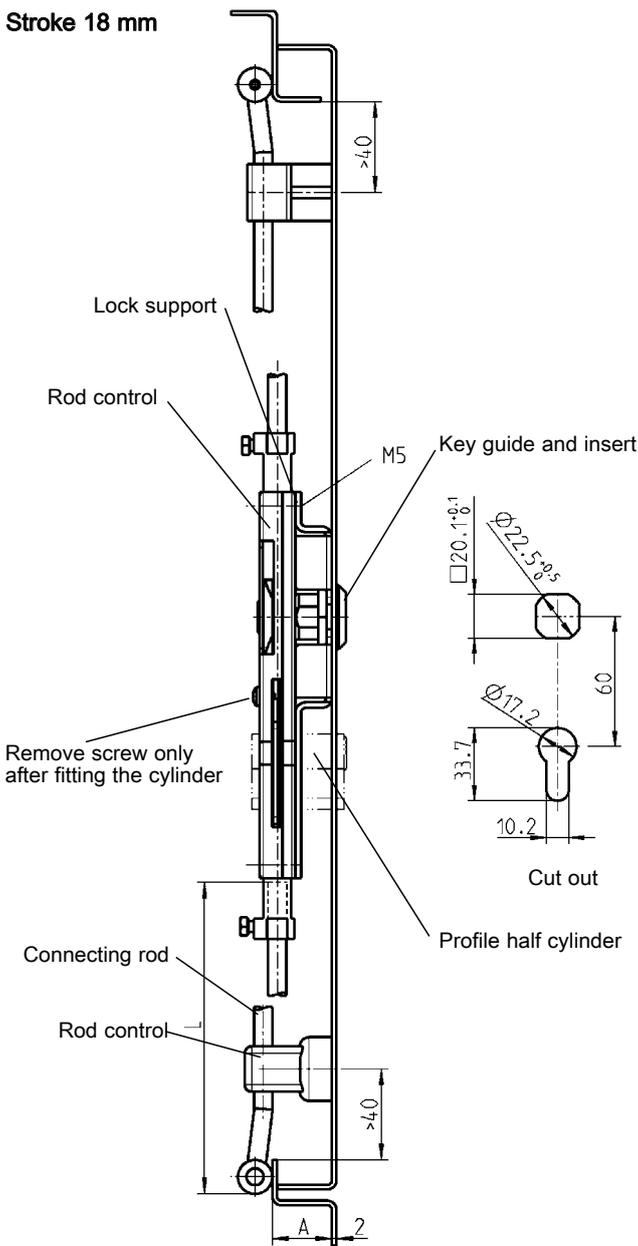


Stroke 13 mm
or stroke 18 mm



| Latch m.s. zinc pl. | | | Latch m.s. zinc pl. for profile cylinder | | |
|--------------------------|-----------|-----------|--|---------|-----------|
| | Stroke 13 | Stroke 18 | | | Stroke 18 |
| RH | 1049-U1 | 1049-U19 | RH | - | 1068-U1 |
| LH | 1049-U2 | 1049-U20 | LH | - | 1068-U2 |
| Support m.s. zinc plated | | | Support m.s. zinc plated | | |
| | A20 | A26 | | A20 | A26 |
| RH/LH | 1001-47 | 1001-50 | RH | 1001-45 | 1001-48 |
| | | | LH | 1001-46 | 1001-49 |

Stroke 18 mm



RH-version pictured



| Key guide zinc die Chrome plated or powder coated black with nut m.s. zinc plated | | | Insert zinc die chrome pl. | |
|---|------------|------------|----------------------------|-----------|
| chrome-plated | A20 | A26 | Square | 6 1000-59 |
| for square and triangular | 1001-U13 | 1001-U14 | Square | 7 1000-04 |
| for double bit | 1001-U15 | 1001-U16 | Square | 8 1000-05 |
| for Daimler Benz | 1001-U17 | 1001-U18 | Triangular | 7 1000-06 |
| for FIAT | 1001-U32 | - | Triangular | 8 1000-07 |
| black powder-coated | | | for double bit | 3 1000-08 |
| for square and triangular | 1001-U24 | 1001-U25 | for double bit | 5 1000-09 |
| for double bit | 1001-U26 | 1001-U27 | for Daimler Benz | 1000-64 |
| for Daimler Benz | 1001-U28 | 1001-U29 | for FIAT | 1000-352 |
| for FIAT | 1001-U33 | - | IP 65 achieved by: | |
| | | | Flat seal | 1000-23 |
| | | | O-ring | 1000-24 |

Further parts see page

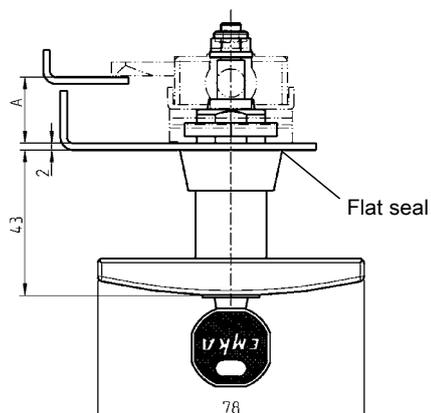
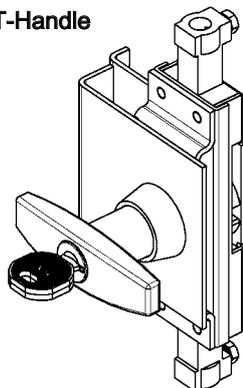
- T-Handle T1-260
- L-handle T1-260
- Rods T1-280
- Rod guide on request
- Profile half cylinder on request
- Key T1-930
- Escutcheon on request
- Adapter system for insulation doors T1-270

T-Handle; L-Handle

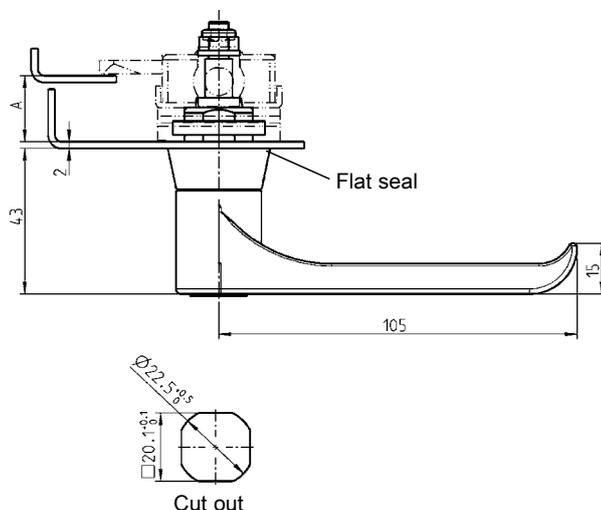
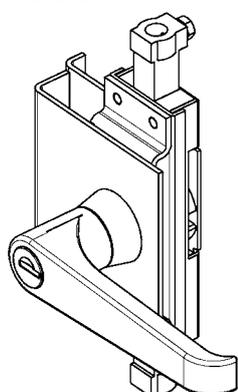
PROGRAM 1102, 1103



T-Handle



L-Handle



T-Handle zinc die with nut and washer m.s. zinc pl., with seal.
For each round cylinder one silver steel key with polyamide grip GF black.

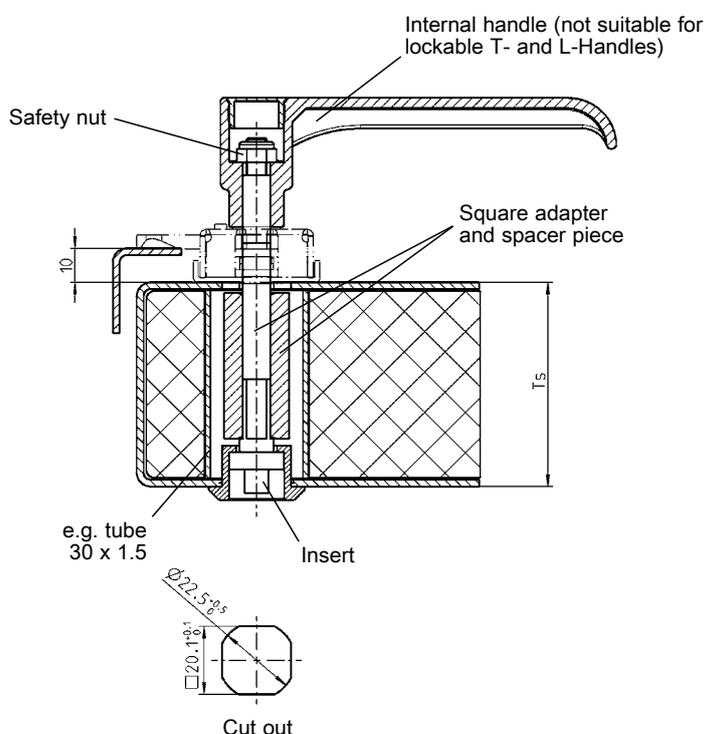
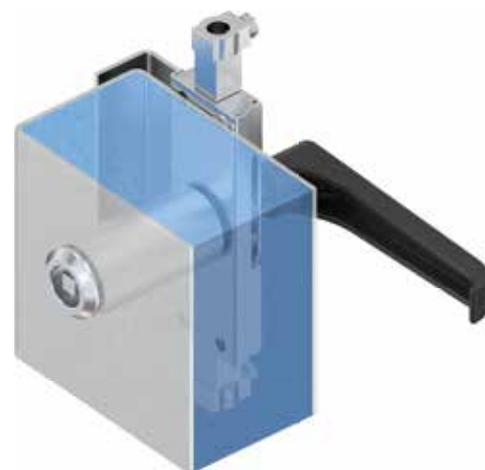
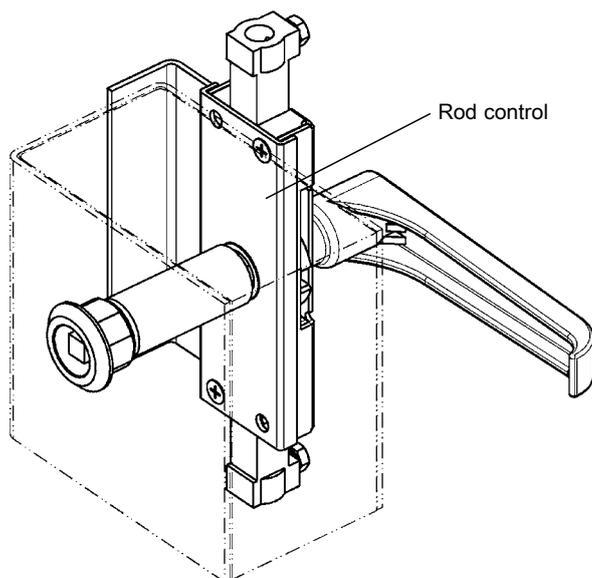
| | | non locking | Keyed EMKA 333 | Keyed different |
|------------|---------------------|-------------|-------------------|-----------------|
| A20 | chrome plated | 1102-U1 | 1102-U3 | 1102-U5 |
| | black powder coated | 1102-U7 | 1102-U9 | 1102-U11 |
| A26 | chrome plated | 1102-U2 | 1102-U4 | 1102-U6 |
| | black powder coated | 1102-U8 | 1102-U10 | 1102-U12 |

L-Handle zinc die with nut and washer m.s. zinc pl., with seal.
For each round cylinder one silver steel key with polyamide grip GF black.
– Insert spring loaded –

| | | chrome plated | | black powder coated | |
|-----------------|---------|---------------|----------|---------------------|----------|
| | | A20 | A26 | A20 | A26 |
| non locking | (IP 65) | 1103-U1 | 1103-U2 | 1103-U21 | 1103-U22 |
| Keyed EMKA 333 | (IP 65) | 1103-U3 | 1103-U4 | 1103-U23 | 1103-U24 |
| Keyed different | (IP 65) | 1103-U5 | 1103-U6 | 1103-U25 | 1103-U26 |
| Square | 7 | 1103-U7 | 1103-U8 | 1103-U27 | 1103-U28 |
| Square | 8 | 1103-U9 | 1103-U10 | 1103-U29 | 1103-U30 |
| Triangular | 7 | 1103-U11 | 1103-U12 | 1103-U31 | 1103-U32 |
| Triangular | 8 | 1103-U13 | 1103-U14 | 1103-U33 | 1103-U34 |
| Double bit | 3 | 1103-U15 | 1103-U16 | 1103-U35 | 1103-U36 |
| Double bit | 5 | 1103-U17 | 1103-U18 | 1103-U37 | 1103-U38 |
| Daimler Benz | | 1103-U19 | 1103-U20 | 1103-U39 | 1103-U40 |

Further parts see page

- Rod control T1-250
- Adapter system for insulation doors T1-270
- Key T1-930
- Rods T1-280



Adapter system pre-assembled with handle or insert, inserted into the aperture and held by locking nut M6.

| Insert, m.s. zinc plated key guide zinc die chrome plated safety nut m.s.zinc plated | | Door gauge Ts | Square adapter m.s.z.pl. | Spacer piece aluminium |
|--|-----------|------------------|--------------------------------|---------------------------|
| Square 7 | 1001-U21 | 20 | - | - |
| Square 8 | 1001-U22 | 40 | 1x1001-65 | 1001-69 |
| Double bit 5 | 1001-U23 | 50 | 1x1001-66 | 1001-70 |
| Adapter for interior handle m.s.zinc plated | | 60 | 1x1001-67 | 1001-71 |
| | 1001-65 | 80 | 2x1001-66 | 1001-72 |
| Int. handle polyamide black | | 100 | 2x1001-67 | 1001-73 |
| | 1000-U829 | | | |

Further parts see page

- Rod control T1-250
- T- or L-Handle T1-260
- Key T1-930
- Rods T1-280
- Anti-rotation device on request

Rods

PROGRAM UNIVERSAL



Minimum quantity: 200 pieces
Lower quantities on request

Round rod
in fixed lengths

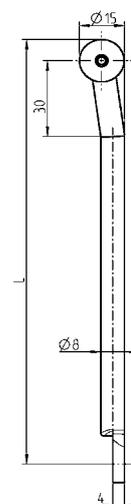
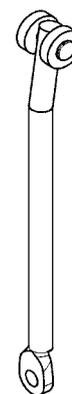
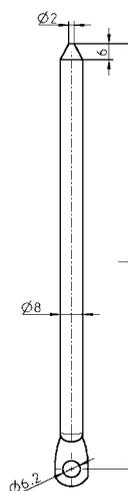
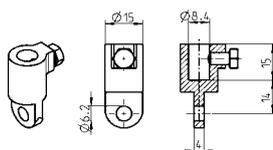
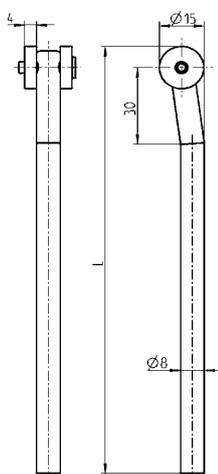
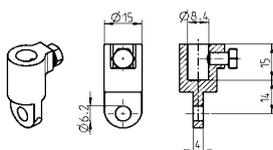
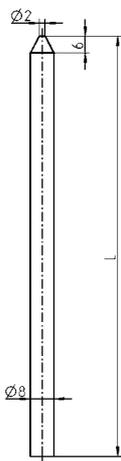
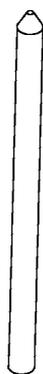
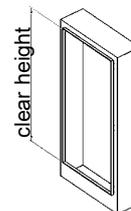
Program 1000

How to find dim. L
when pivot point is central

$$\begin{array}{l} \text{with adapter} \quad \frac{\text{clear height} - 40}{2} \\ \text{with eye} \quad \frac{\text{clear height} - 12}{2} \end{array}$$

$L \leq 1200$

Order example: Part number for rod with rollers and a length
L of 1034 mm = 1049-U18-L 1034



with eye m.s. zinc pl.
and rollers
polyamide black
(not suitable for program 1121
and 2121)

1000-U144-L mm

(1000-U144-01 to -17
see price list)

with pointed end
m.s. zinc plated

1049-19-L mm

(1049-19-01 to -17
see price list)

m.s. zinc pl., with rollers
polyamide black

1049-U18-L mm

(1049-U18-01 to -17
see price list)

with eye and pointed end
m.s. zinc plated

1000-211-L mm

(1000-211-01 bis -17
see price list)

with eye AISI 304
and rollers

polyamide black

(not suitable for program 1121
and 2121)

1000-U538-L mm

(1000-U538-01 bis -09
see price list)

Adapter

zinc die,
m.s. z.pl.

AISI 303

Adapter

zinc die,
m.s. z.pl.

AISI 303

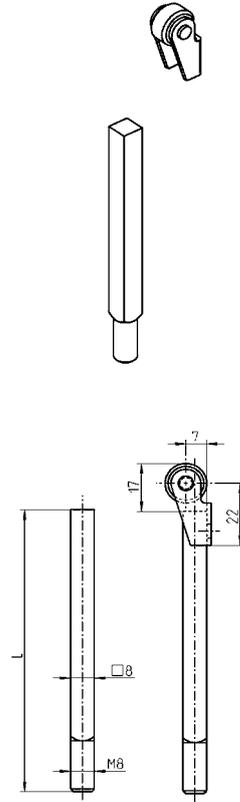
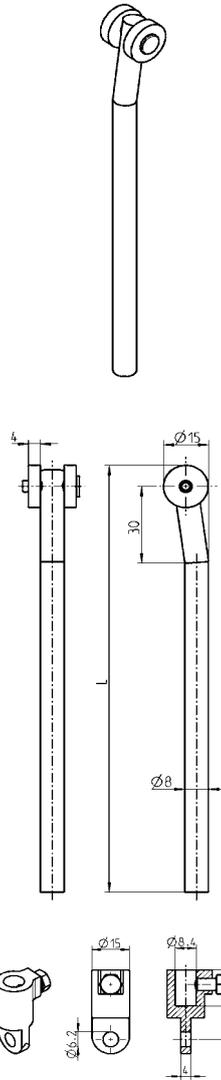
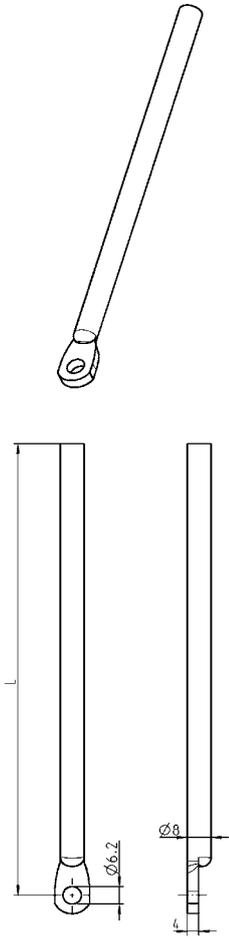
1000-U49

1000-U141

1000-U49

1000-U141

Round- and square rods in available lengths



| Round rod with eye, m.s. zinc pl. | | Round rod m.s. zinc pl. or AISI 304 with rollers polyamide black | | | Square rod m.s. zinc pl. suitable for catalogue page 2B-120 | |
|--------------------------------------|----------|---|-------------------------|-----------|---|---------|
| L in mm | | L in mm | m.s. z.pl. | AISI 304 | L in mm | |
| 400 | 1000-33 | 600 | 1049-U3 | 1049-U12 | 600 | 1001-11 |
| 500 | 1000-34 | 700 | 1049-U4 | 1049-U13 | 700 | 1001-12 |
| 600 | 1000-35 | 800 | 1049-U5 | 1049-U14 | 800 | 1001-13 |
| 700 | 1000-36 | 900 | 1049-U6 | 1049-U15 | 900 | 1001-14 |
| 800 | 1000-37 | 1000 | 1049-U7 | 1049-U16 | 1000 | 1001-15 |
| 900 | 1000-38 | 1100 | 1049-U8 | 1049-U17 | 1100 | 1001-16 |
| 1000 | 1000-39 | 1200 | 1049-U9 | – | 1200 | 1001-17 |
| 1100 | 1000-114 | Adapter | zinc die, m.s. z.pl. | AISI 303 | Roller unit m.s. zinc pl., roller polyamide white | |
| 1200 | 1000-115 | | | | – | 1019-U1 |
| | | | 1000-U49 | 1000-U141 | | |

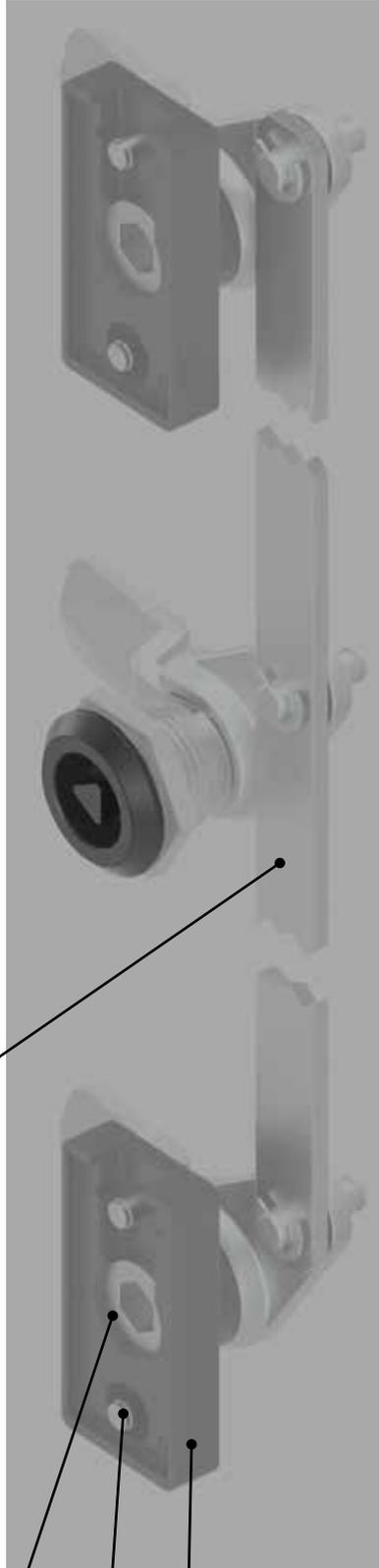
Further parts see page
– Rod control T1-250
– Rod control see
General Catalogue 1C-640

Rod control for multiple interlocking

PROGRAM 1000



Example with one quarter turn and two bearing bushes



⑤ Connecting rod

③ Connecting shaft

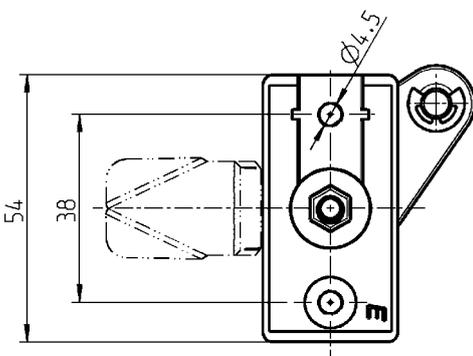
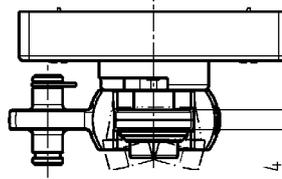
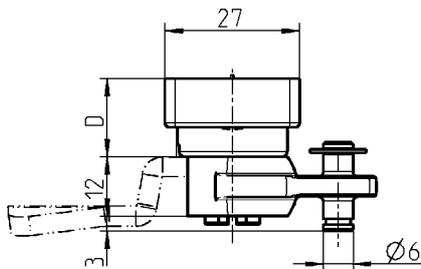
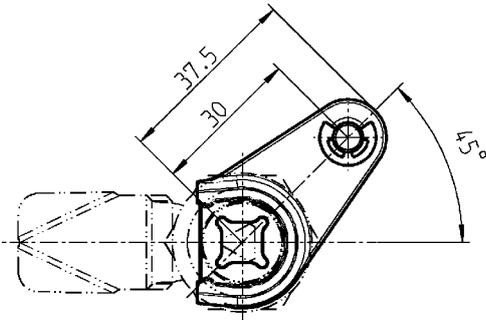
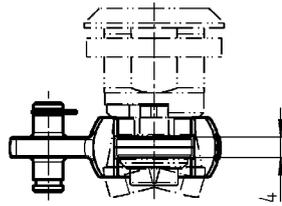
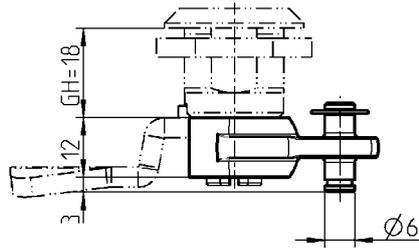
e.g. weld stud DIN 32501 5x6-M3
not included in the scope of supply

② Bearing bush

e.g. screw M3x6
not included in the scope of supply

④ Locking screw M6x10

① Rod control



Note:
Combined with a safety quarter turn, e.g. 1000-U817-231A, the application fulfills the standard of DIN EN 61373 (shock and vibration resistance)

Rod control zinc die, zinc plated or AISI 316; circlip m.s. zinc plated or stainless steel

| | |
|----------------------|--------------|
| Zinc die zinc plated | 1000-U874 |
| AISI 316 | 1000-U874-VA |

② Bearing bush Polyamide black or AISI 316

| Ts | D | Left stop Polyamide GF black | Right stop Polyamide GF black | Bearing bush Polyamide GF black | Without stop AISI 316 |
|-----|------|------------------------------------|-------------------------------------|---|--------------------------|
| 1,5 | 16,5 | 1125-83-015 | 1125-84-015 | additional Ts gauges available with and without stopper | on request |
| 2,0 | 16,0 | 1125-83-020 | 1125-84-020 | | 1125-81-20PH |

③ Connecting shaft zinc-die

1000-556-KA

④ Vibration-proof screw M6x10 for connecting shaft m.s. zinc-plated

1000-277-01JB

⑤ Connecting rod m.s. zinc-plated

Lengths between 100 to 1,200 mm available

1000-608-LJB

Note:
When using the rod control for multi-point locking, the screw-in depth of the screw is reduced by 4 mm

Further parts see page

- Cam (type 1) T1-910
- Quarter turns from T1-110
- to T1-140
- Safety quarter turn T1-120

Examples of customer solutions: Multi-point locking system with compression latch

PROGRAM 1121



Open

Compressed

Closed

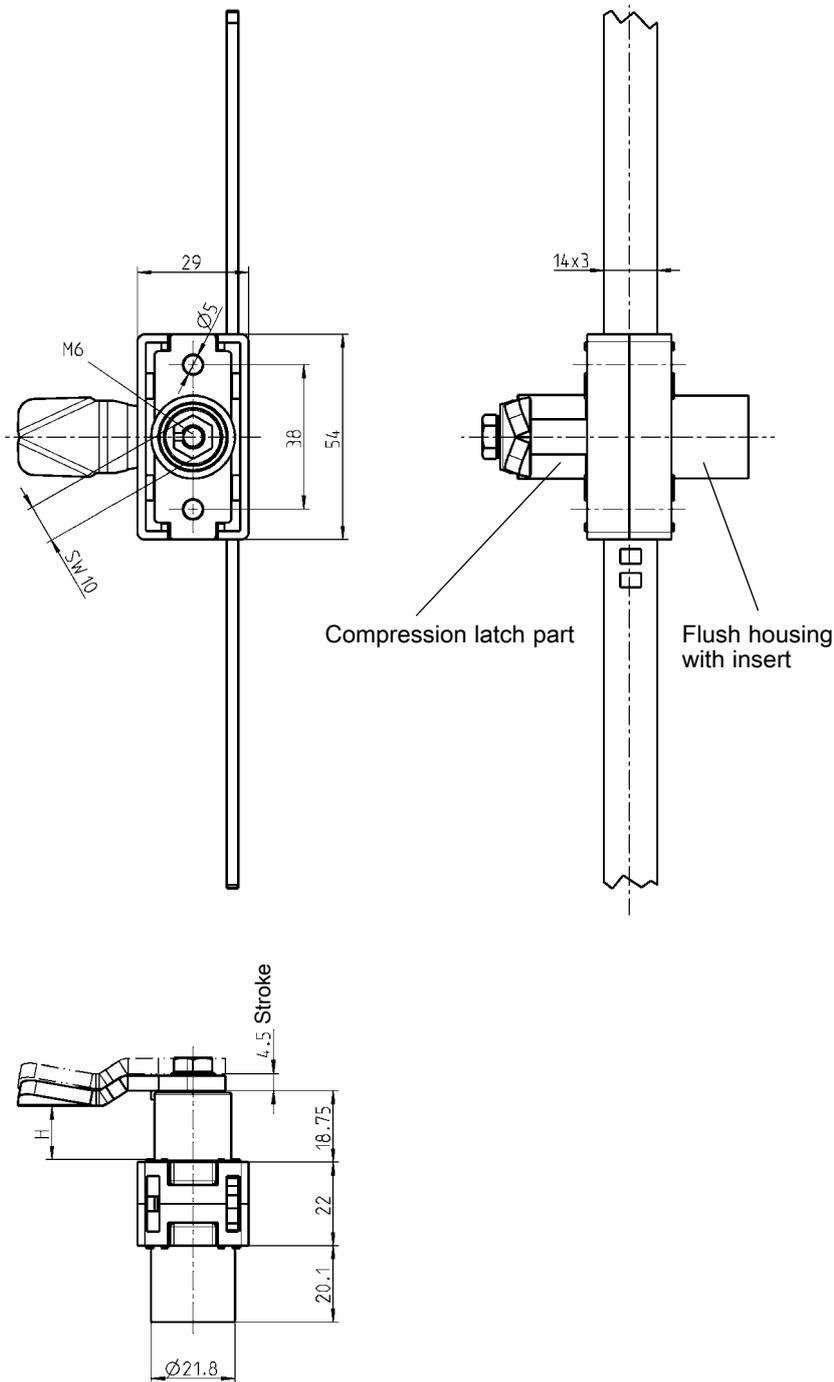


Actuation through lockable swinghandle



Flush housing with insert

Detail of a locking unit



Product benefits

- Multiple point locking system for a high impermeability and a high security against damage
- Every compression latch has 4.5 mm travel
- Spacing between locking points are variable at customer's request
- Unit can be mounted on the flap
- Suitable for thick-walled flap designs
- Can be certified according to fire protection standard DIN EN 45545-2
- Simple use due to time saving, with only one insert



For doors opening inwards (In-Swing)

For doors opening outwards (Out-Swing)

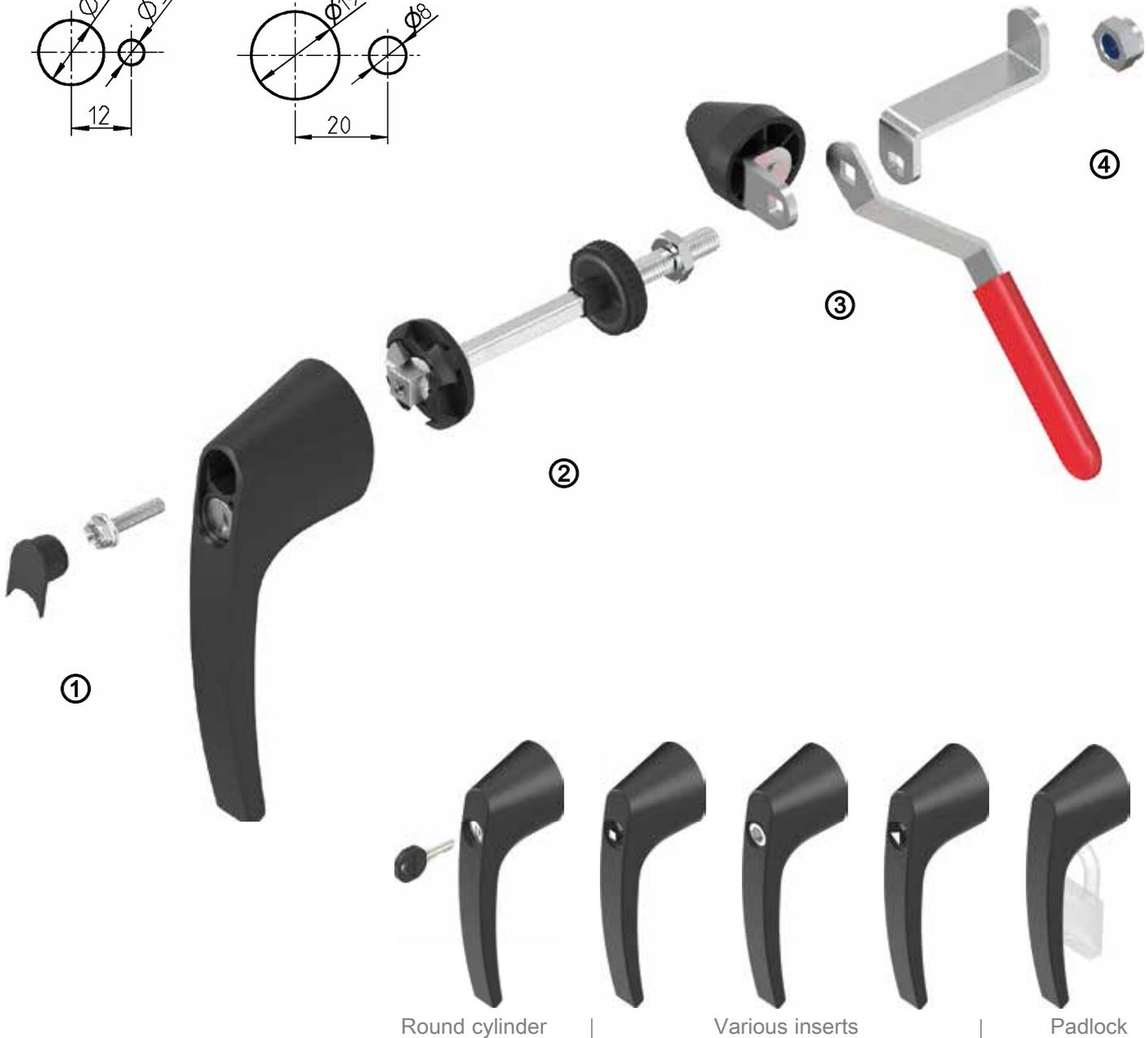
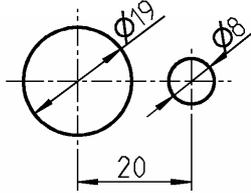
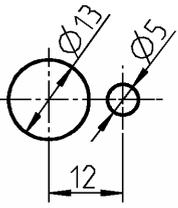
Product benefits

- New modular handle with an innovative design
- Suitable for doors opening inwards and outwards
- Suitable for various door thicknesses (25 - 110 mm)
- **Fits 2 standard cut outs (13 mm, 19 mm)**
- Variety of locking options (round cylinder, blind plug, square insert, further inserts on request)
- Roller Cam with adjustable clamping load
- Adjustable eccentric roller
- **Removable handle during transport**
- Meets the industry-specific national and international standards
- Conforms with the entire EMKA range
- Material: Polyamide with 30% glass filled
- Air Tightness class L1-L3 possible
- Protected design

Cut out E1

or

Cut out E2



① Sleak ergonomic lines shape the design of the new EMKA HVACR handle. The handle system makes simple and quick mounting of all components possible. Suitable for doors opening inwards and outwards. Variety of locking options (round cylinder, blind plug, square insert, further inserts on request)

② The inside mechanism is the heart of the new locking system of EMKA as it connects the outside handle with the inside components. This set-up of the lock has been specially developed for use in panel and sandwich doors used in HVACR installations. The handles are available in a variety of locking options.

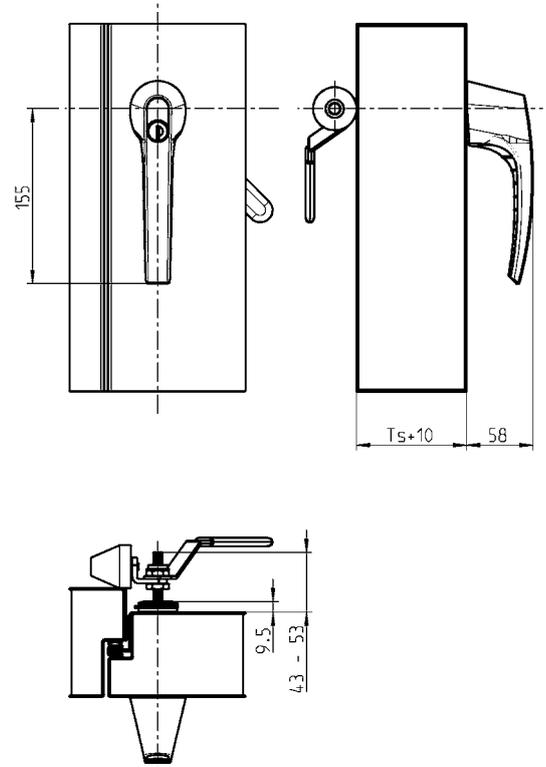
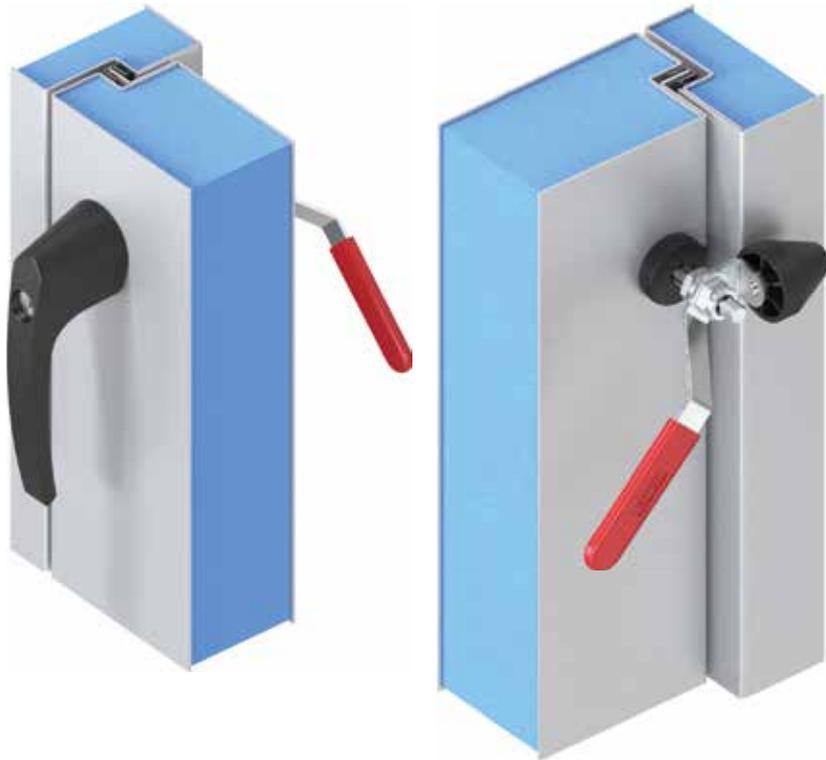
③ Roller cam with adjustable clamping load can be mounted quickly and easily to ensure the desired compression. In addition, EMKA offers the possibility of multi-point latching.

④ EMKA offers a variety of optional components such as inside unlocking and the two-step opening system important for over-pressure installations. The comprehensive choice of hinges and gaskets completes the range.

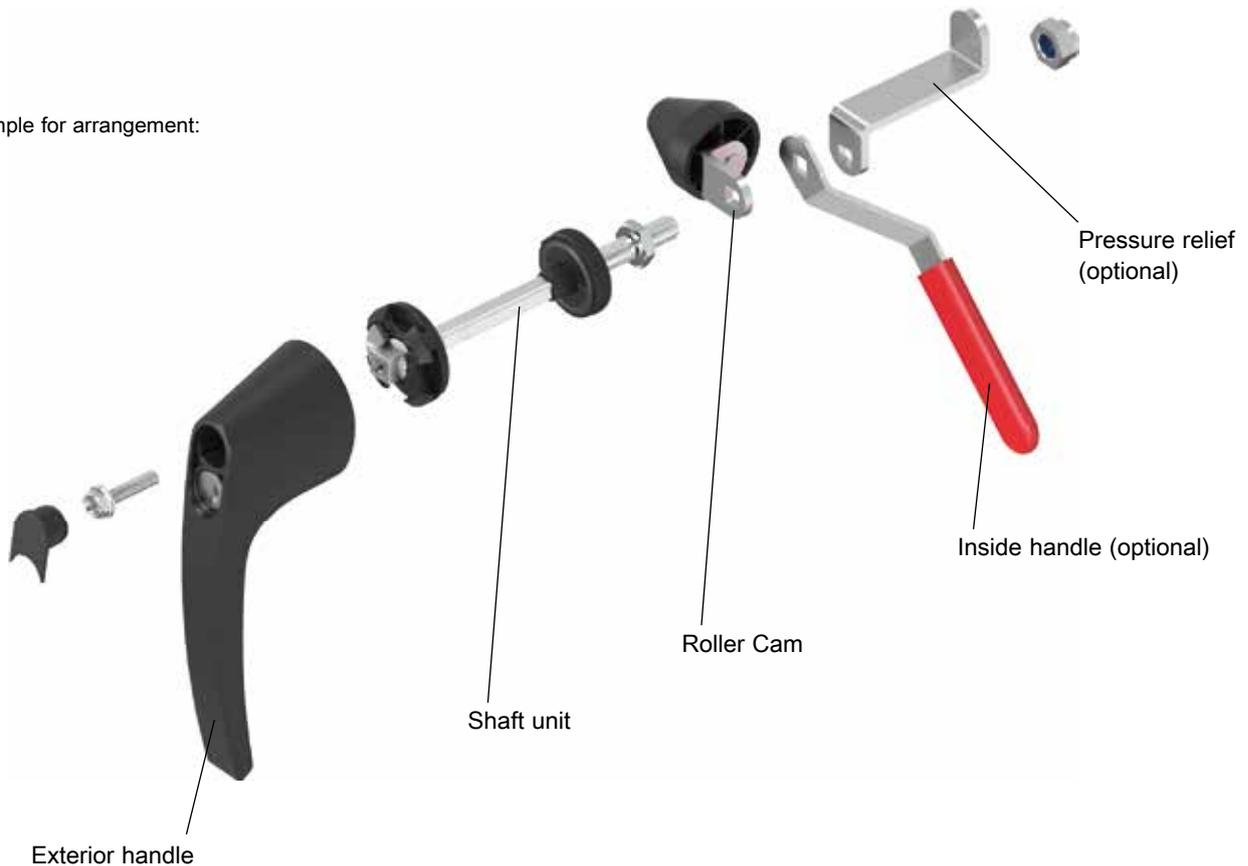
Overview (Out-Swing) PROGRAM 1091



For doors opening outwards (Out-Swing)



Example for arrangement:

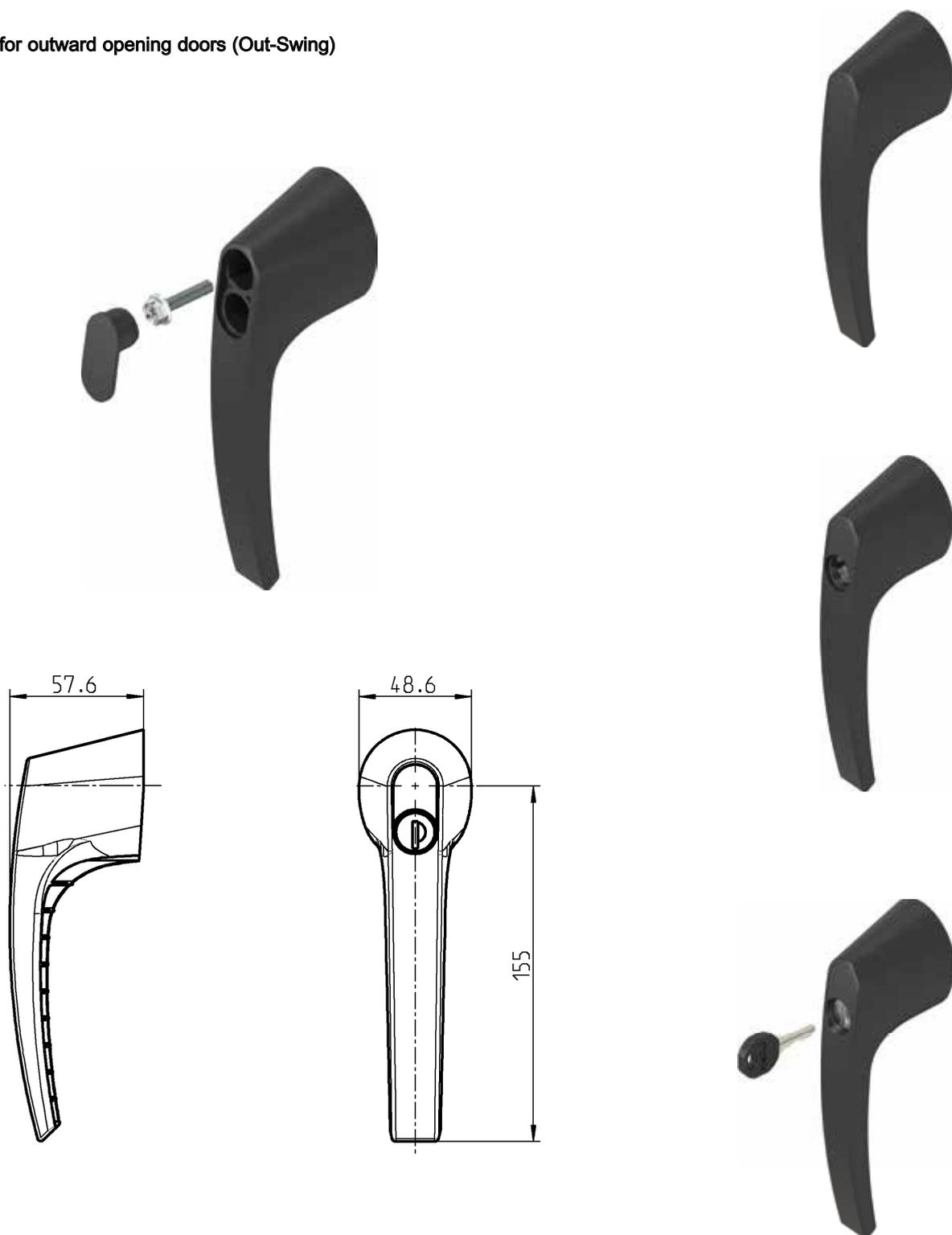


Exterior handle (Out-Swing)

PROGRAM 1091



External handle for outward opening doors (Out-Swing)



Handle polyamide GF black; locking cam AISI 316; cover cap polyethylene black;
Insert zinc die chrome plated; spacer ring brass, with o-ring;
round cylinder zinc die with stainless steel cap and dust cap; screws m.s. zinc-plated;
Each round cylinder has one nickel silver key with polyamide grip GF black

| | |
|-----------------|------------|
| non locking | 1091-U159 |
| Double bit 5 | 1091-U160 |
| Keyed EK 333 | 1091-U161 |
| Keyed different | on request |

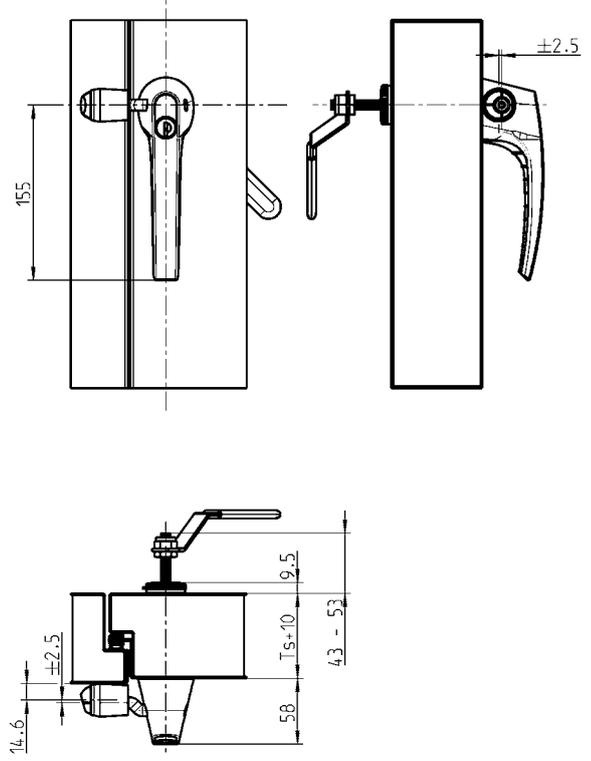
Further parts see page

| | |
|-------------------|--------|
| - Overview | T1-320 |
| - Shaft unit | T1-360 |
| - Roller Cam | T1-370 |
| - Interior handle | T1-380 |
| - Pressure relief | T1-380 |
| - Rod control | T1-390 |

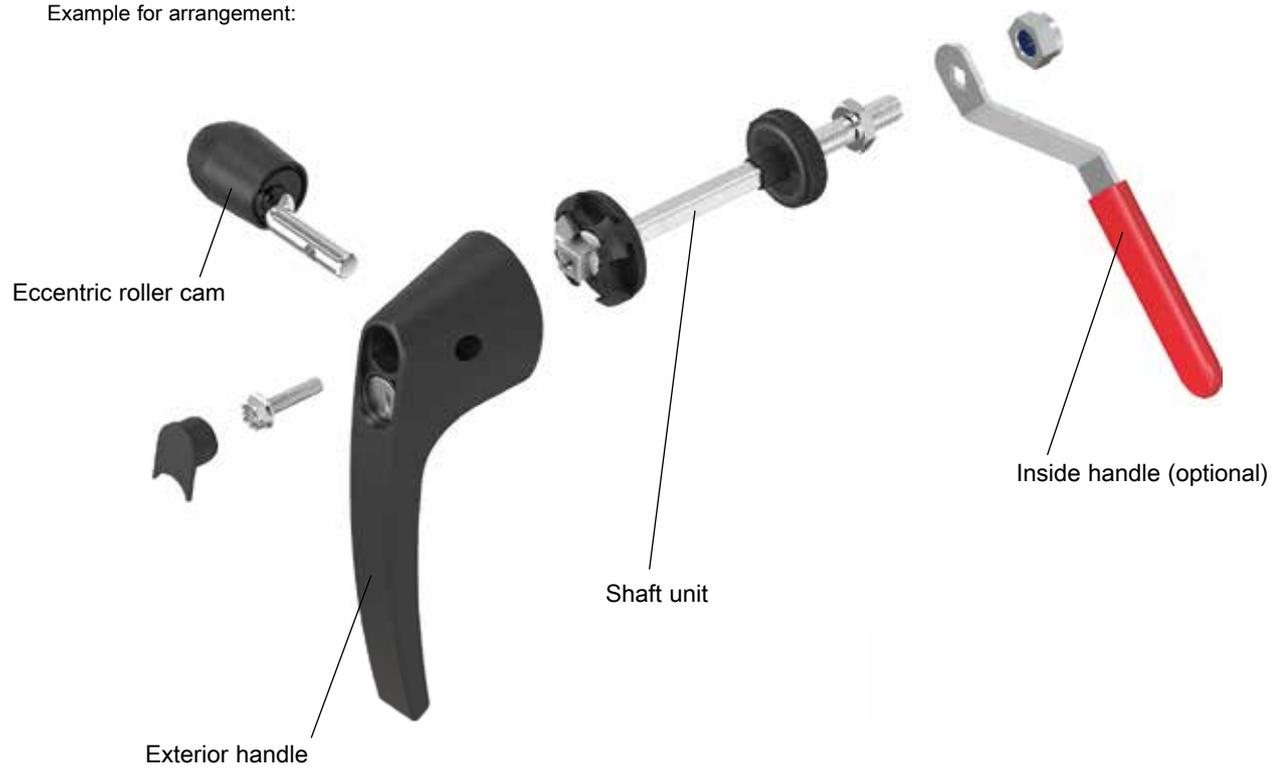
Overview (In-Swing) PROGRAM 1091



For doors opening inwards (In-Swing)



Example for arrangement:

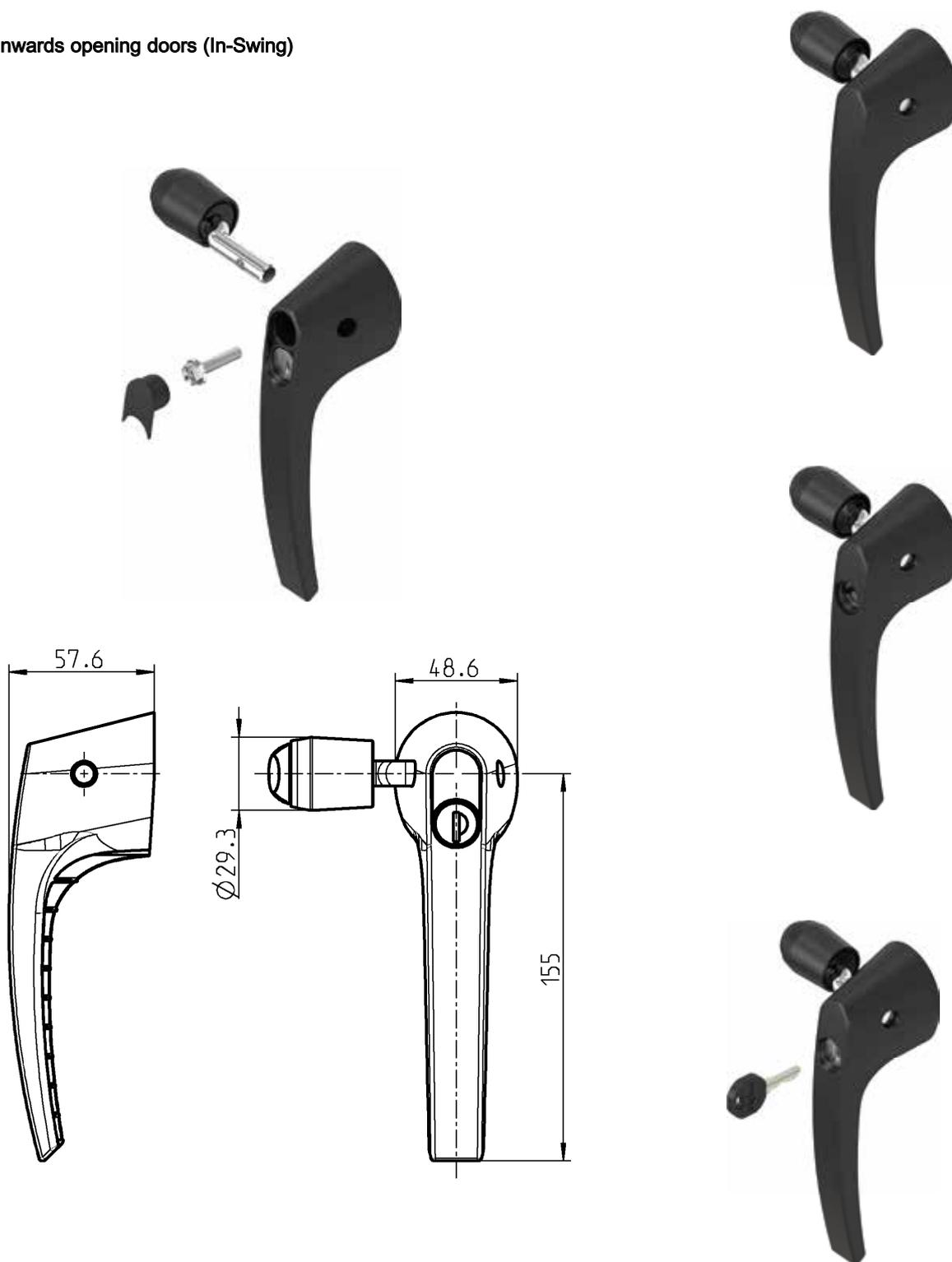


Exterior handle (In-Swing)

PROGRAM 1091



External handle for inwards opening doors (In-Swing)



Handle polyamide GF black; locking cam AISI 316; cover cap polyethylene black;
Insert zinc die chrome plated; spacer ring brass, with o-ring;
round cylinder zinc die with stainless steel cap and dust cap; screws m.s. zinc-plated;
Each round cylinder has one nickel silver key with polyamide grip GF black;
Eccentric roller cam: roll POM black; eccentric polyamide GF black; Shaft m.s. zinc plated

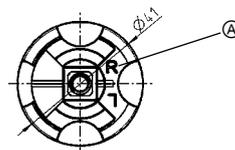
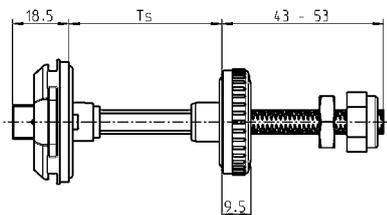
| | |
|-----------------|------------|
| non locking | 1091-U163 |
| Double bit 5 | 1091-U164 |
| Keyed EK 333 | 1091-U165 |
| Keyed different | on request |

Further parts see page

| | |
|-------------------|--------|
| - Overview | T1-340 |
| - Shaft unit | T1-360 |
| - Interior handle | T1-380 |

Shaft unit E1 and E2

PROGRAM 1091

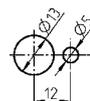


Ⓐ The readability of the letter (R / L) indicates the orientation of the axis to the door stop.

Cut out (inside)



Cut out front for right hand version



Cut out front for left hand version

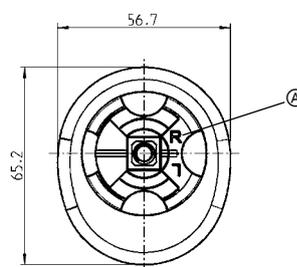
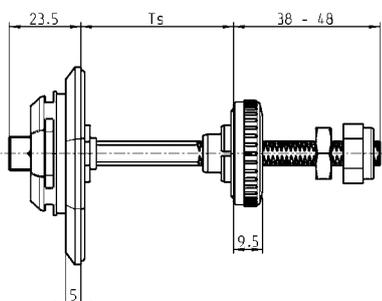


Bezel inside self catching

Shaft unit E1, small cut out:

Mild steel shaft with 90° stop zinc die in assembly zinc plated;
bezel outside zinc die black powder coated;
bezel inside polyamide GF black;
nut and counter nut m.s. zinc plated, with seal

| | |
|-----------------------|---------------|
| Ts = 25 up to 35 mm | 1091-U158-25 |
| Ts = 50 up to 60 mm | 1091-U158-50 |
| Ts = 75 up to 85 mm | 1091-U158-75 |
| Ts = 100 up to 110 mm | 1091-U158-100 |

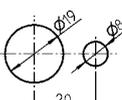


Ⓐ The readability of the letter (R / L) indicates the orientation of the axis to the door stop.

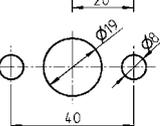
Cut out (inside)



Cut out front for right hand and left hand version



Cut out front alternative



Bezel inside self catching

Shaft unit E2, large cut out:

Mild steel shaft with 90° stop zinc die in assembly zinc plated;
bezel outside zinc die black powder coated;
bezel inside polyamide GF black with foamed seal;
nut and counter nut m.s. zinc plated, with seal

| | |
|-----------------------|---------------|
| Ts = 25 up to 35 mm | 1091-U215-25 |
| Ts = 50 up to 60 mm | 1091-U215-50 |
| Ts = 75 up to 85 mm | 1091-U215-75 |
| Ts = 100 up to 110 mm | 1091-U215-100 |

Further parts see page

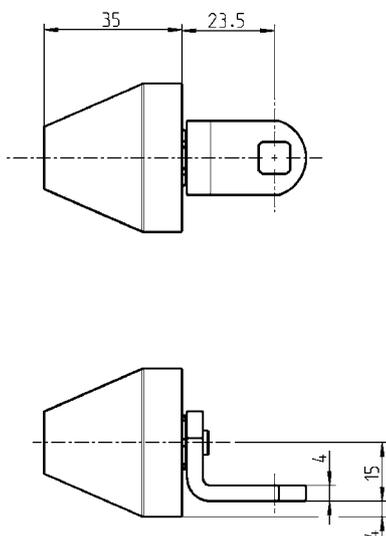
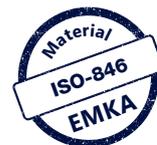
| | |
|-------------------|--------|
| - Overview | T1-320 |
| | T1-340 |
| - Exterior handle | T1-330 |
| | T1-350 |
| - Roller Cam | T1-370 |
| - Interior handle | T1-380 |
| - Pressure relief | T1-380 |
| - Rod control | T1-390 |

Conical roller cam for inside the door

PROGRAM 1000



Conical roller cam big for inside the door

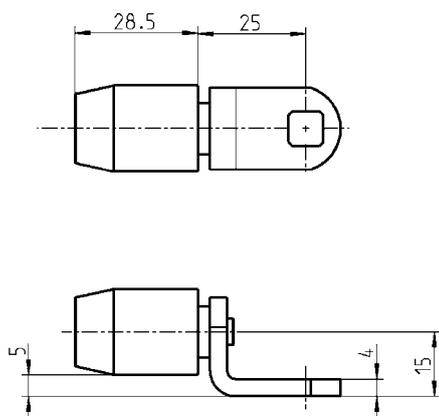
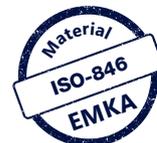


Roller polyamide GF black;
cam and shaft m.s. zinc plated

1000-U897



Conical roller cam small for inside the door



Roller polyamide GF black;
cam and shaft m.s. zinc plated

1000-U898

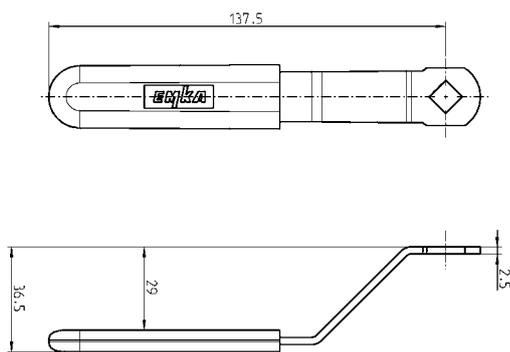
Further parts see page

- Overview T1-320
- Exterior handle T1-330
- Shaft unit T1-360
- Interior handle T1-380
- Pressure relief T1-380
- Rod control T1-390

Interior handle; Pressure relief PROGRAM 1091



Interior handle

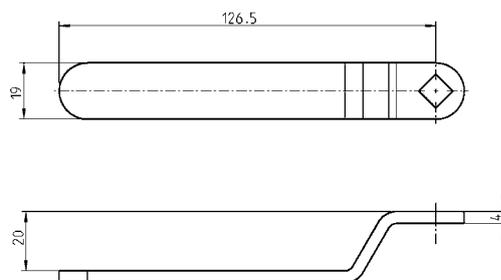


Interior handle m.s. zinc plated;
end stay polyamide GF red

1091-133



Interior handle



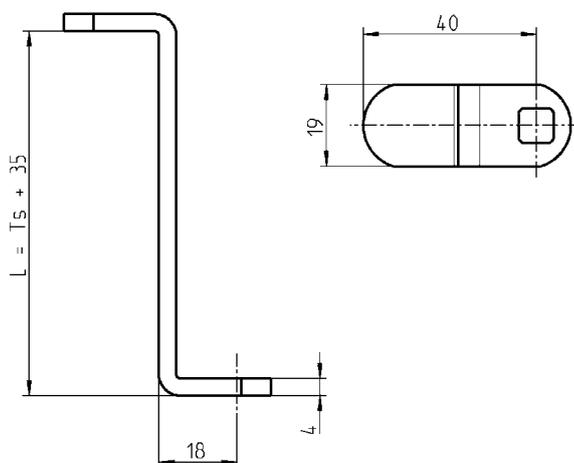
Interior handle m.s. zinc plated

1000-617-20

Other dimensions on request



Pressure relief



Pressure relief m.s. zinc-plated

| | |
|------------|-------------|
| L = 60 mm | 1000-579-01 |
| L = 85 mm | 1000-579-02 |
| L = 110 mm | 1000-579-03 |
| L = 135 mm | 1000-579-04 |

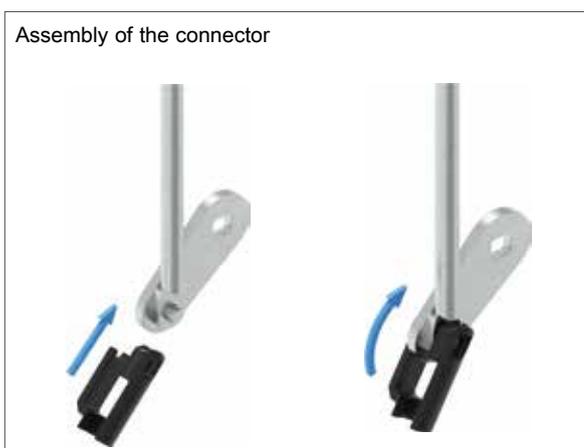
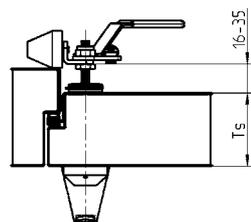
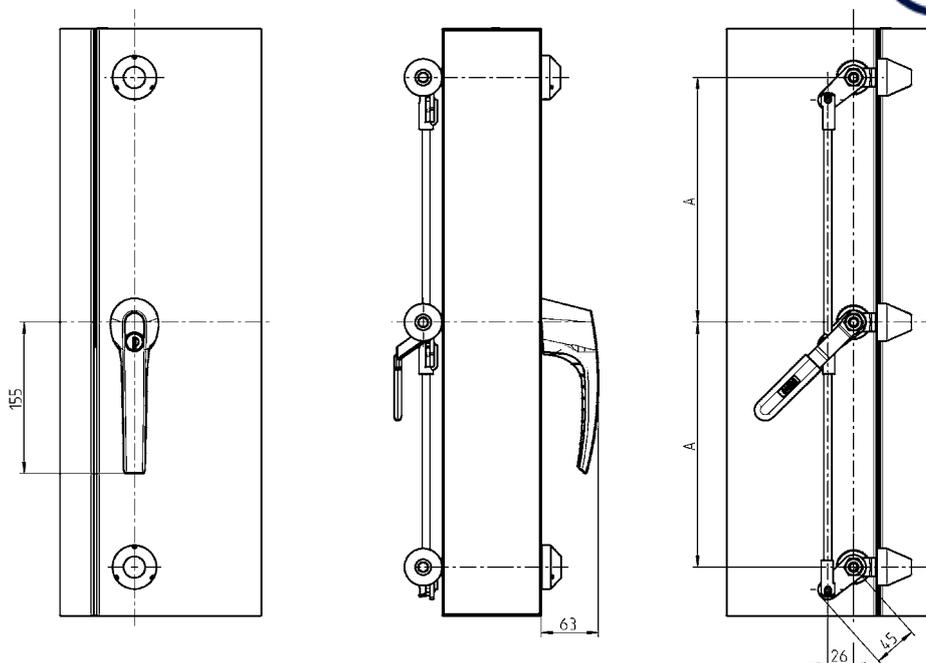
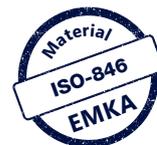
Further parts see page

| | |
|-------------------|--------|
| - Overview | T1-320 |
| | T1-340 |
| - Exterior handle | T1-330 |
| | T1-350 |
| - Shaft unit | T1-360 |
| - Roller Cam | T1-370 |
| - Rod control | T1-390 |

Rod control; Cover clip-in PROGRAM 1091



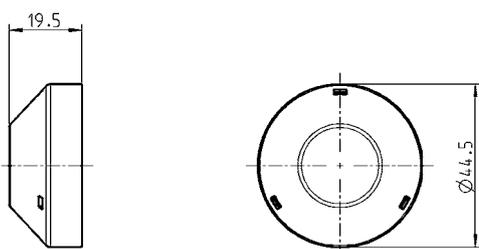
Rod control for multiple interlocking



| | |
|--|------------|
| 1x Rod control m.s. zinc plated; 1x connercor polyamide GF black | |
| | on request |
| Rod control m.s. zinc-plated | |
| Dimension A by choice of costumer | on request |



Cover clip-in for the inactive shaft units of the multi-point-locking



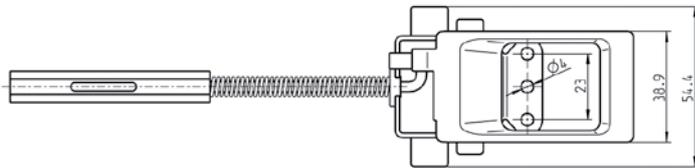
| | |
|----------------------------------|------------|
| Cover clip-in polyamide GF black | |
| | on request |

Further parts see page

- Overview T1-320
- Exterior handle T1-330
- Shaft unit T1-360
- Roller Cam T1-370
- Interior handle T1-380
- Pressure relief T1-380

Interior release; Housing

PROGRAMM 5225

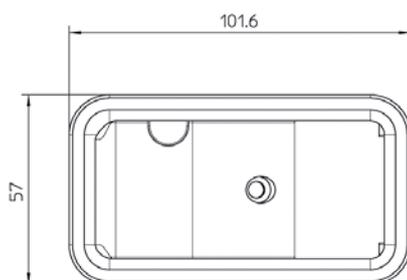
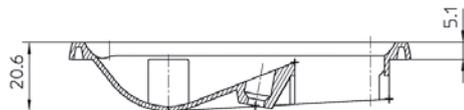


Inner release mechanism black ABS and galvanized steel retaining plate with spring

5225-U8

Further parts see page
– Housing

see below



Housing black ABS for inner lock

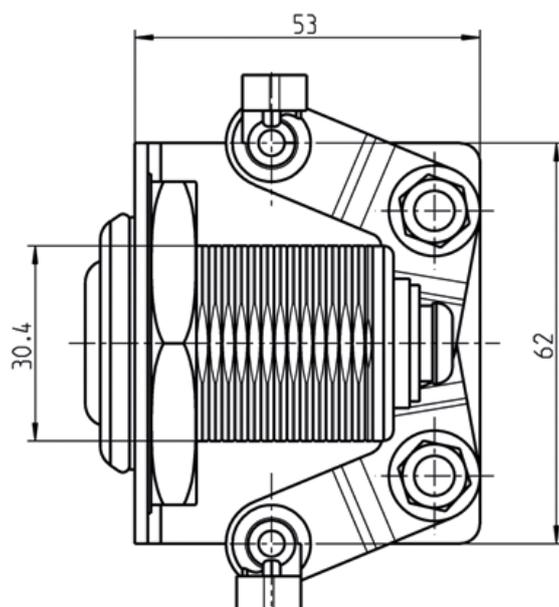
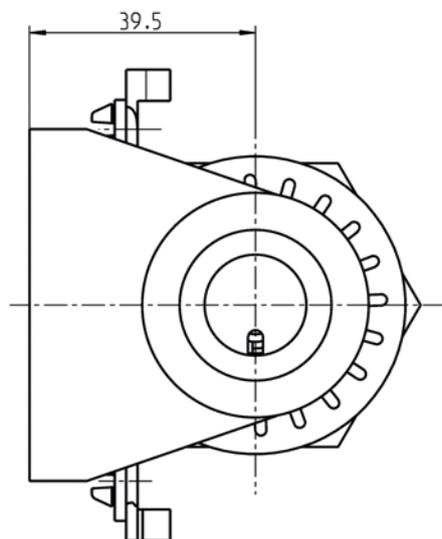
5225-01-AA

Further parts see page
– Interior release

see above

Pushbutton lock

PROGRAMM 5225



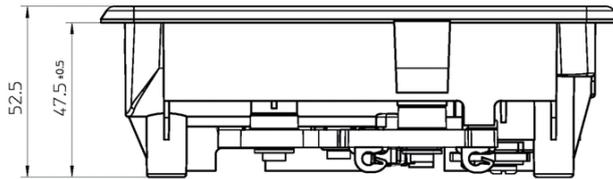
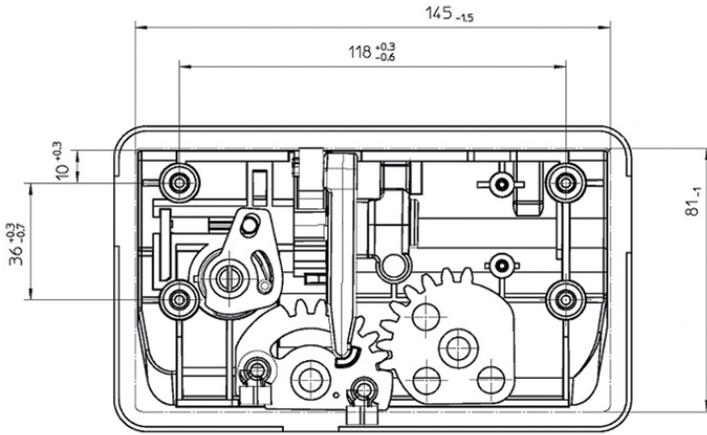
Push button locks for use with clip in cylinder, zinc plated with spring

5225-U200

Further parts see page
– Rotary bolt lock

T1-460

Exterior handle PROGRAMM 5225



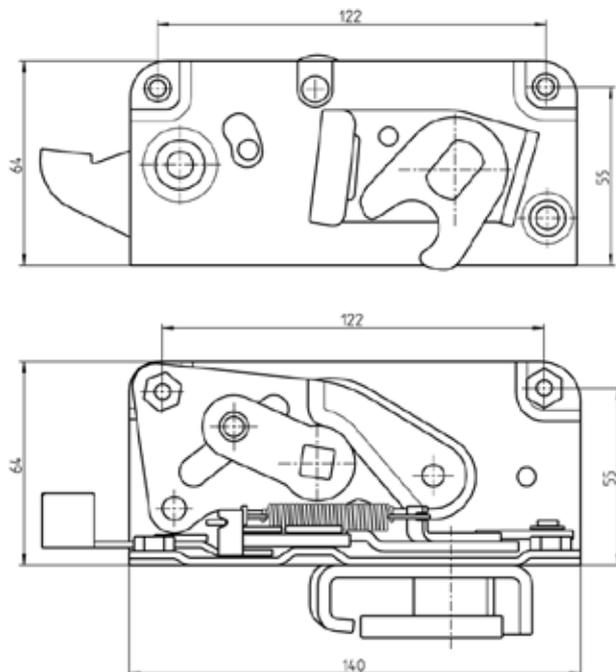
Cut out

Exterior handle ABS black; screws m.s. zinc plated; with seal and spring
Manual operation 5225-U100

Further parts see page
- Interior release T1-400
- Rotary bolt lock from T1-430
to T1-450
- Locking pin T1-470

Rotary bolt lock; Rotary bolt lock with safety catch

PROGRAMM 5225



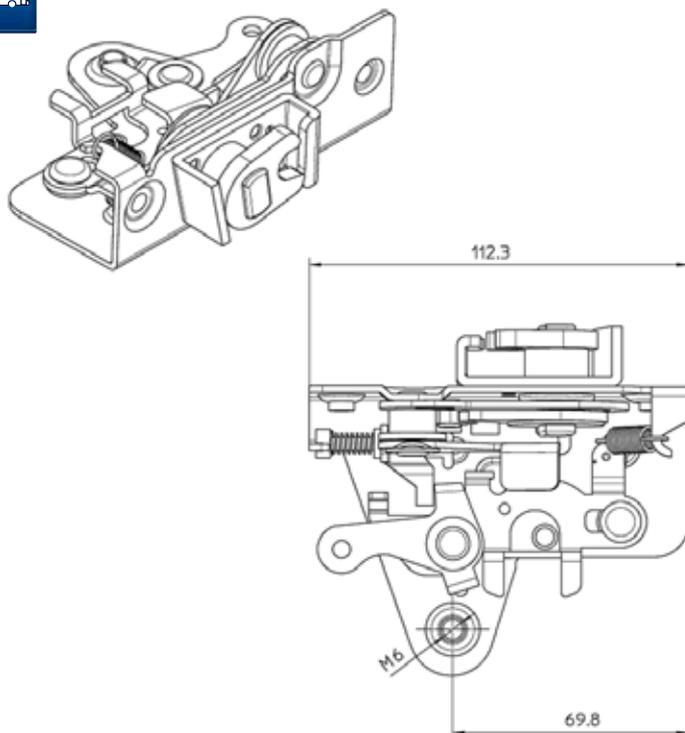
Lockable and unlockable from the inside

Rotary bolt lock m.s. zinc plated, with spring

| | |
|--------------------|----------|
| Right mirror image | 5225-U13 |
| Left, as drawn | 5225-U14 |

Further parts see page
– Locking pin

T1-470



Lockable and unlockable from the inside

Rotary bolt lock with safety catch m.s. zinc plated and chromated; with spring

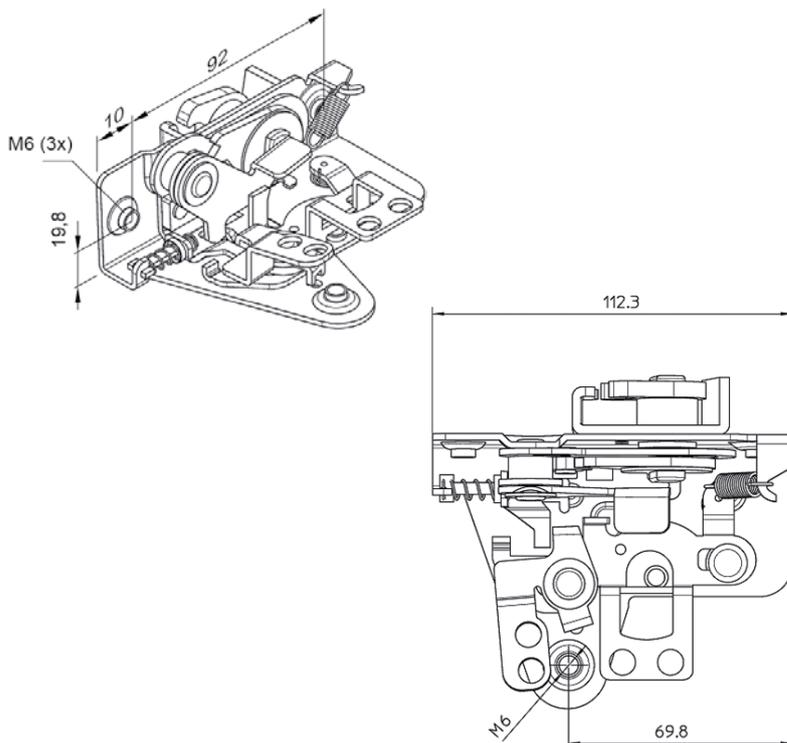
| | |
|--------------------|----------|
| Right mirror image | 5225-U21 |
| Left, as drawn | 5225-U22 |

Further parts see page
– Locking pin

T1-470

Rotary bolt lock with safety catch

PROGRAMM 5225



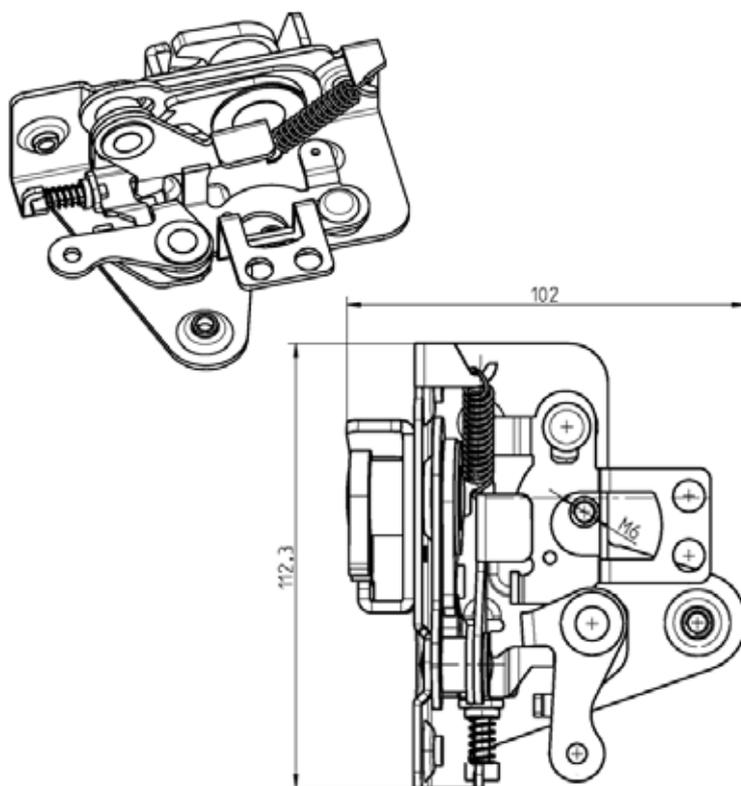
Lockable and unlockable from the inside

Rotary bolt lock with safety catch m.s. zinc plated and chromated; with spring

| | |
|--------------------|----------|
| Right mirror image | 5225-U23 |
| Left, as drawn | 5225-U24 |

Further parts see page

| | |
|-------------------|--------|
| - Locking pin | T1-470 |
| - Pushbutton lock | T1-410 |



Lockable and unlockable from the inside

Rotary bolt lock with safety catch m.s. zinc plated and chromated; with spring

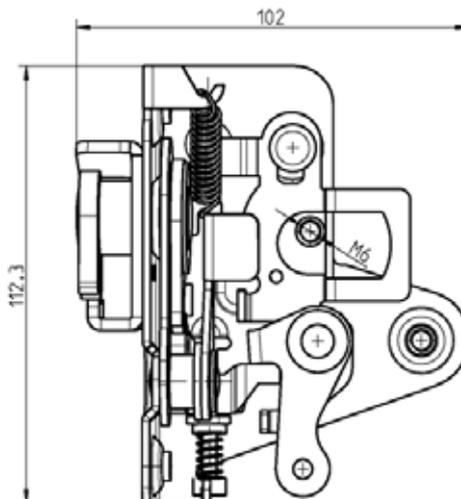
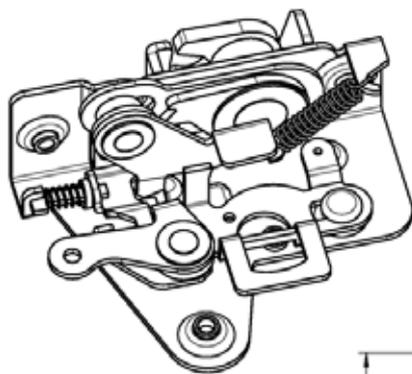
| | |
|--------------------|------------|
| Right mirror image | on request |
| Left, as drawn | on request |

Further parts see page

| | |
|---------------|--------|
| - Locking pin | T1-470 |
|---------------|--------|

Rotary bolt lock with safety catch; Spring bolt lock

PROGRAMM 5225



Lockable and unlockable from the inside

Rotary bolt lock with safety catch m.s. zinc plated and chromated; with spring

Right mirror image

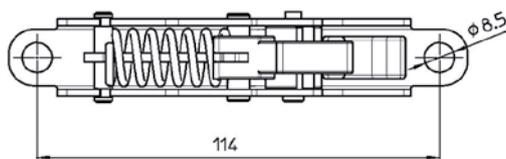
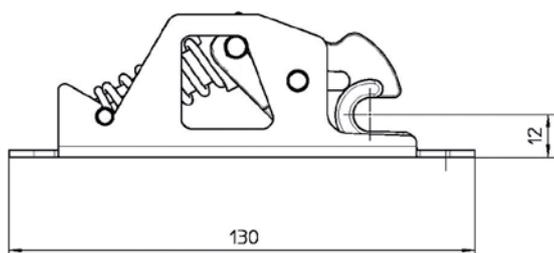
on request

Left, as drawn

on request

Further parts see page
– Locking pin

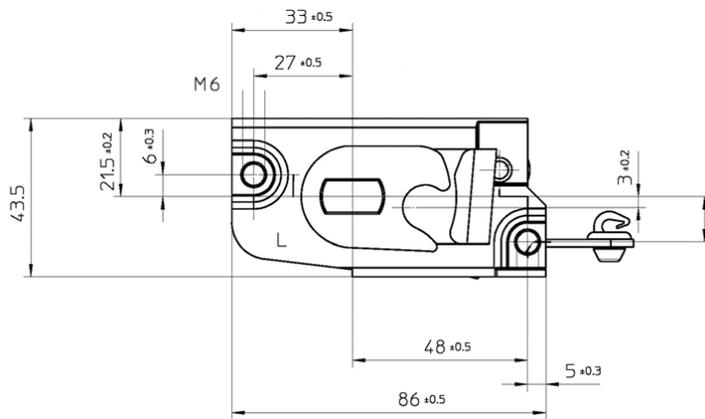
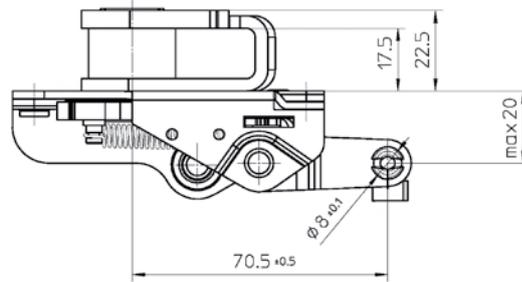
T1-470



Opening force: 90N ± 12N
Locking force: 70N ± 10N

Spring bolt lock stainless steel

5225-U31



Rotary bolt lock m.s. zinc plated, with spring

| | |
|--------------------|----------|
| Right mirror image | 5225-U9 |
| Left, as drawn | 5225-U10 |

Rotary bolt lock m.s. zinc and nickel plated for 480h salt spray test; with spring

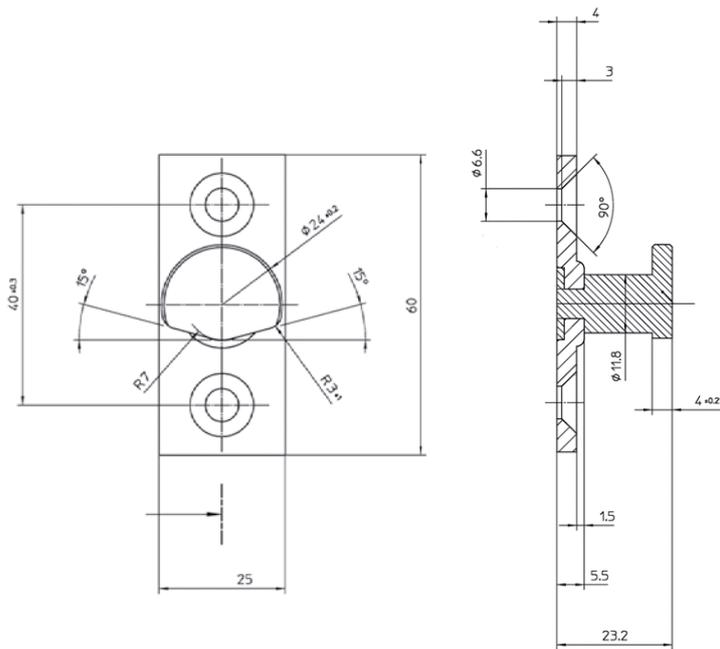
| | |
|--------------------|-------------|
| Right mirror image | 5225-U9-01 |
| Left, as drawn | 5225-U10-01 |

Further parts see page

- Locking pin
- Pushbutton lock

T1-470
T1-410

Locking pin PROGRAMM 5225



Locking pin Type 1 with zinc coated steel plate

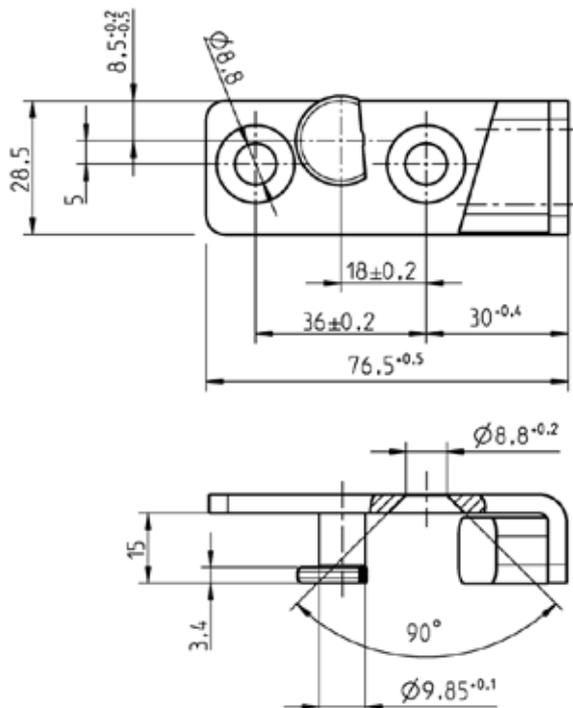
RH/LH 5225-U25

Locking pin Type 1 with zinc coated steel plate and 480h salt spray resistance

RH/LH 5225-U25-01

Further parts see page

– Rotary bolt lock from T1-430 to T1-450



Striker plate type 2 zinc plated

RH 5225-U27

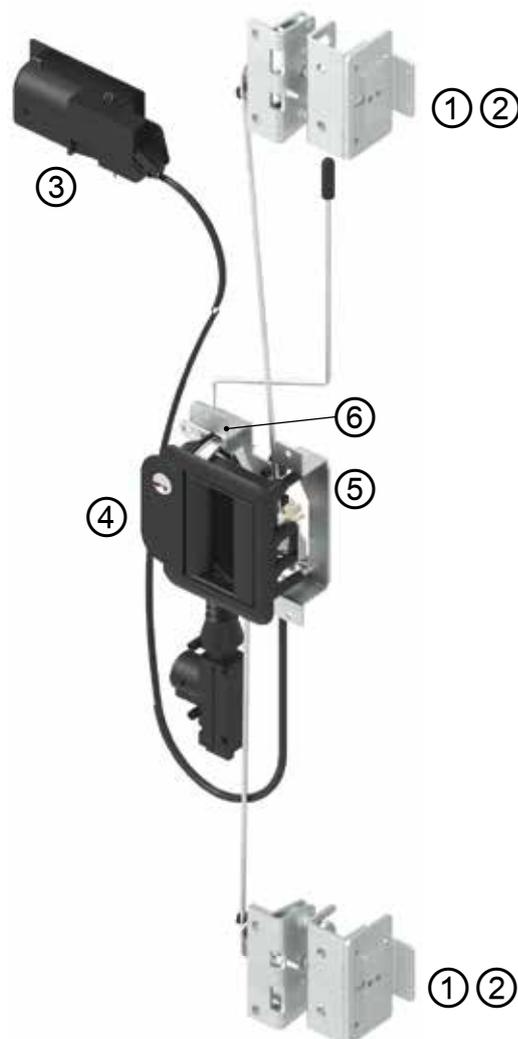
LH 5225-U28

Further parts see page

– Rotary bolt lock from T-430 to T-450



CATIA system image



- ① Rotary latch lock
- ② Striking plate
- ③ Interior handle
- ④ Exterior handle
- ⑤ Mounting bracket
- ⑥ Lock shackle

Door locking system

Technology

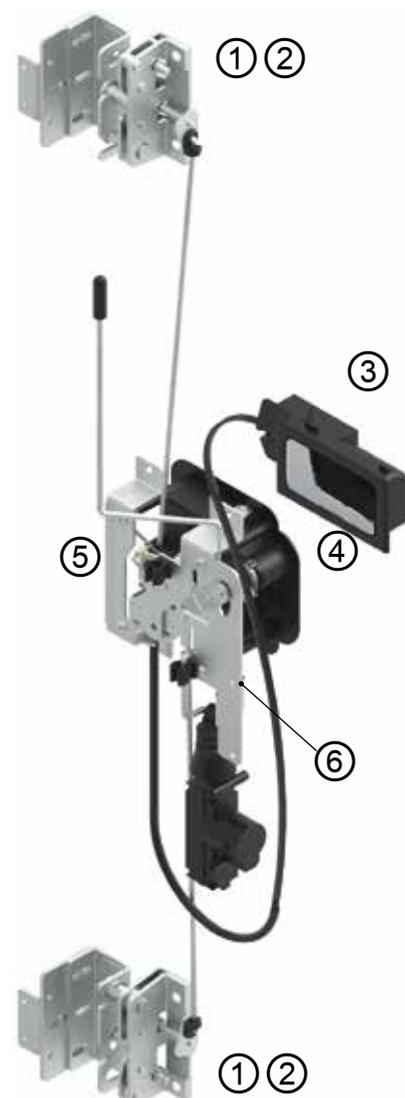
- M1 tested locking system, according to EU specification 70/387
- Two rotary latch locks to be positioned freely, hence double security
- Automotive interior door release, zinc die chrome plated, can be positioned freely
- Breakup assurance by exterior handle with freewheel clutch
- Exterior handle designed for clip-in cylinder
- Emergency opening from the interior

Handling

- Ergonomically designed actuators
- Special smooth-running operation
- Low closing force, hence very quiet
- With central locking, comfortable and secure

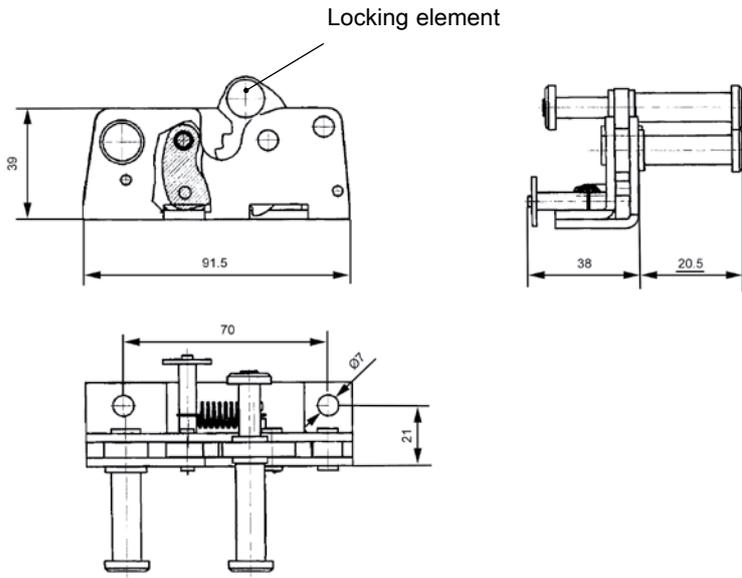
Versions

- Colours as per request
- Also available as M1 tested locking system with rotary latch lock
- Interior door release with galvanized surface in alu matt-finished look
- Designed for clip-in cylinder, compatible with clip-in cylinder system 3
- Optionally with positioning element for central locking
- Bowden control and round rods Ø4 available on request



Door locking system: 2-point-locking

PROGRAM 2004, 5177



Locking element



① Rotary latch lock m.s. zinc plated; with spring

| | |
|--------------------|------------|
| Right, as depicted | 2004-B8036 |
| Left, mirror image | 2004-B8031 |

② Strike plate St zinc plated

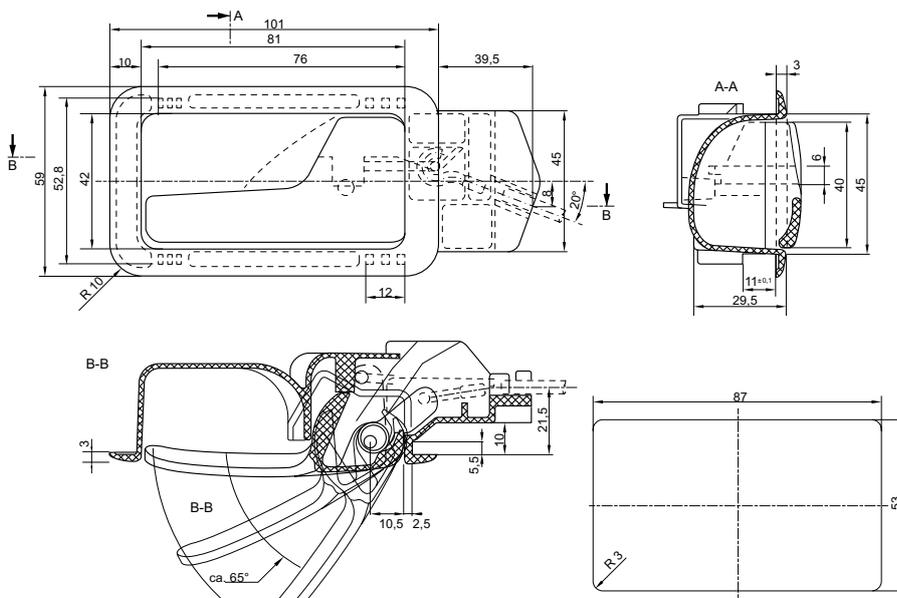
| | |
|--------------------|------------|
| Right, as depicted | 2004-B8034 |
| Left, mirror image | 2004-B8027 |

Fastening clamp polyamide black

2004-5060-783

Further parts see page

- Interior handle see below
- Exterior handle T1-520
- Mounting bracket T1-520
- Lock shackle T1-520



Drawing, mirror image

Cut out



Note:
The cut out is to be adjusted to the respective application

On request:
- further colours

Interior handle polyamide GF black; handle zinc die matt chrome-plated; with spring

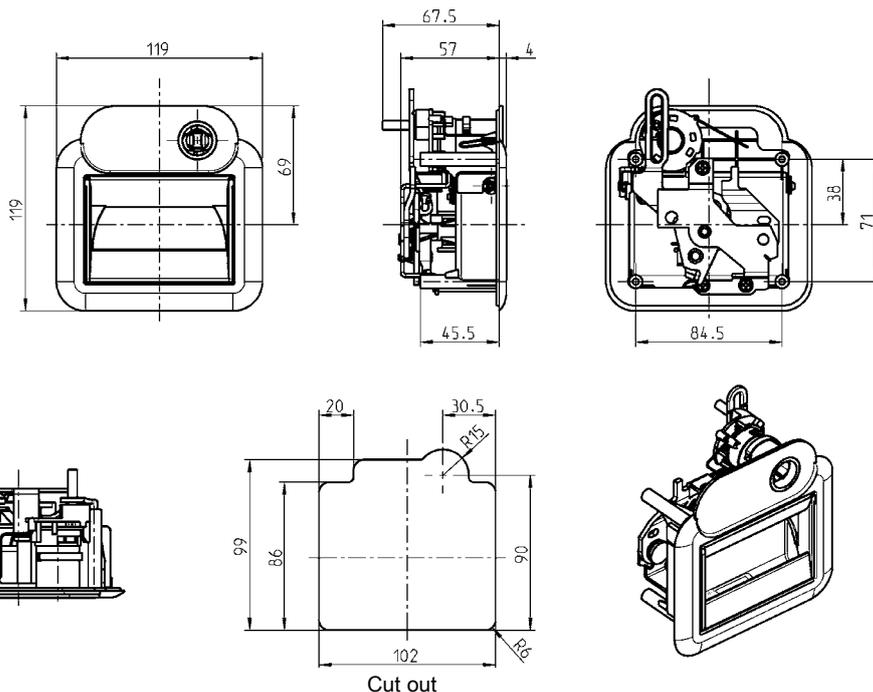
| | |
|---------------------|--------------|
| LH | 5177-U201-AA |
| Bowden cable | |
| | 2004-8001-00 |

Further parts see page

- Rotary latch lock see above
- Strike plate see above
- Exterior handle T1-520
- Mounting bracket T1-520
- Lock shackle T1-520

Door locking system: 2-point-locking

PROGRAM 2004, 5177



Exterior handle polyamide GF black; pivot m.s. zinc plated; pivot arm zinc die zinc plated; with spring

RH/LH 2004-B8811

Clip-in cylinder 3 zinc die chromated with stainless steel cap; with 2 keys

Keyed 8888 9850-U100

Keyed different 9850-U101

Locking rod m.s. zinc pl.

2006-5113-PC

Slide-on cap polyamide black

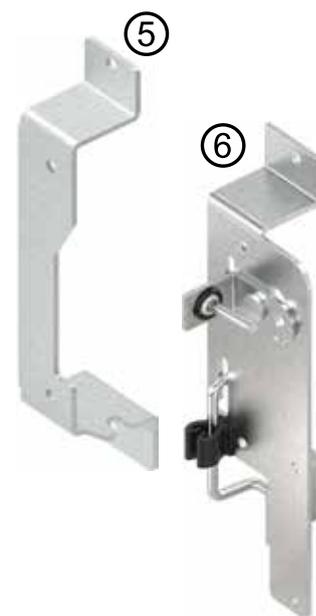
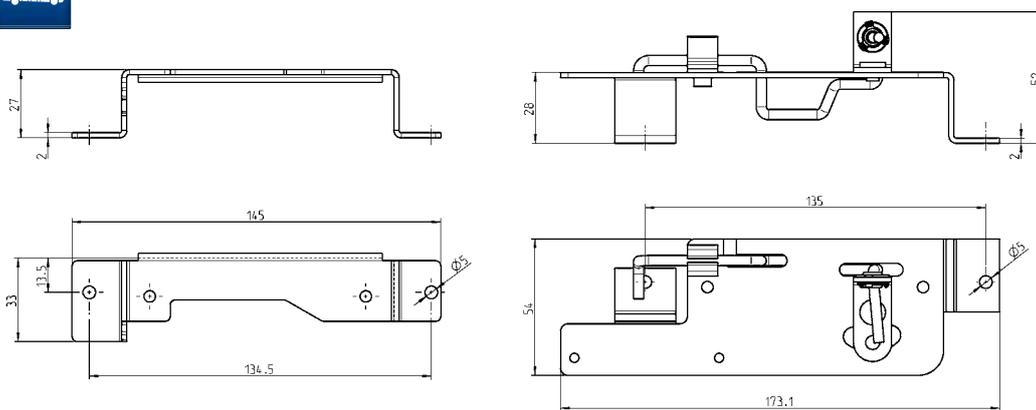
2004-4000-AA

Note:

The cut out is to be adjusted to the respective application

Further parts see page

- Rotary latch lock T1-510
- Strike plate T1-510
- Interior handle T1-510
- Mounting bracket see below
- Lock shackle see below



⑤ Mounting bracket m.s. zinc pl.

9822-5014-JF

⑥ Lock shackle m.s. zinc plated; engine rod AISI 304; lever m.s. microcor silver; rod holder and spherical bearings polyamide

2004-B8825

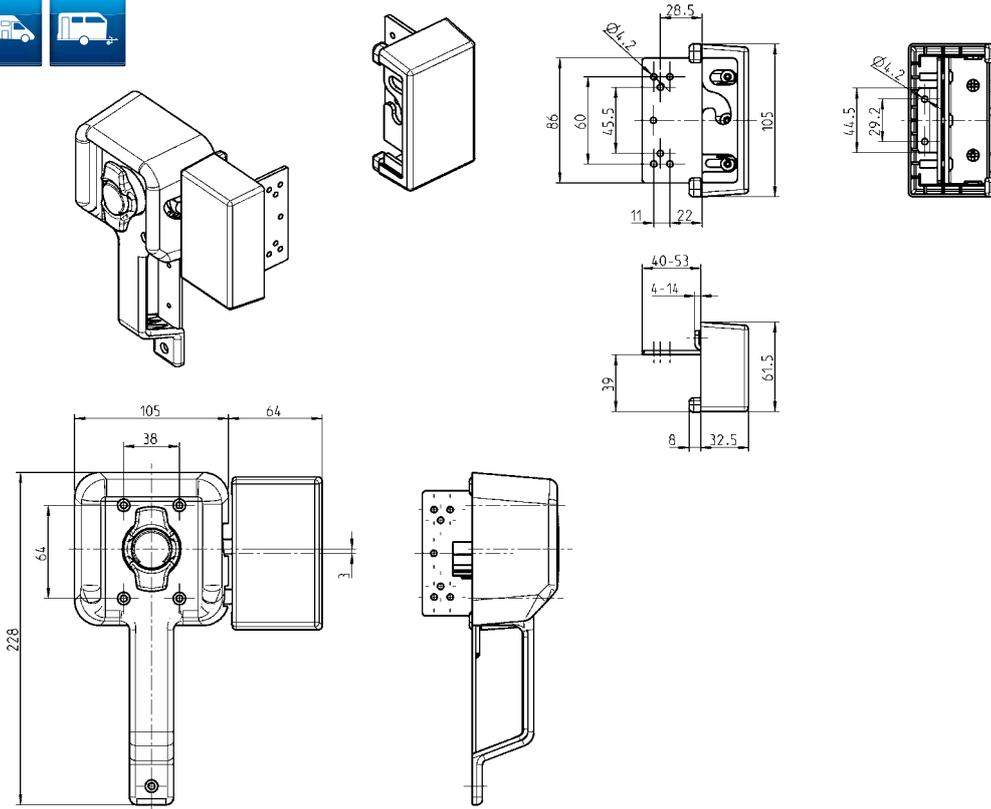
Rod holder polyamide black

2004-4001-AA

Further parts see page

- Rotary latch lock T1-510
- Strike plate T1-510
- Interior handle T1-510
- Exterior handle see above

Interior lock; Exterior handle PROGRAM 5271



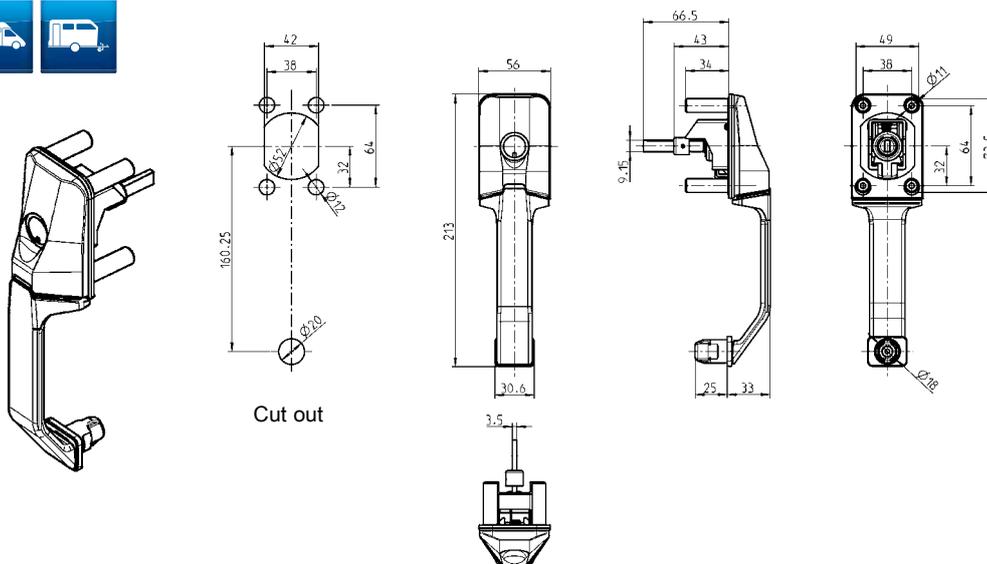
Interior lock polyamide black; apron m.s. zinc plated;
clamp m.s. zinc plated; covering cap polyamide black; with spring

Door thickness = 30; right

9400-U218-AA

Door thickness = 30; left

9400-U219-AA



Exterior handle for clip-in cylinder polyamide GF black; pivot arm, cap and
handle housing POM; bush zinc die zinc plated; tappet zinc die chromated;
with seal and spring

RH

5271-U600-AA

LH

5271-U601-AA

Clip-in cylinder 3 zinc die chromated with stainless steel cap; with 2 keys

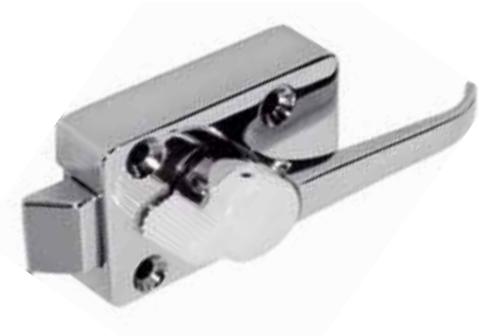
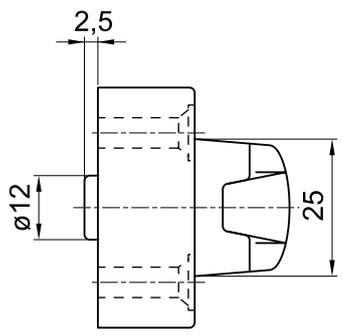
Keyed 8888

9850-U100

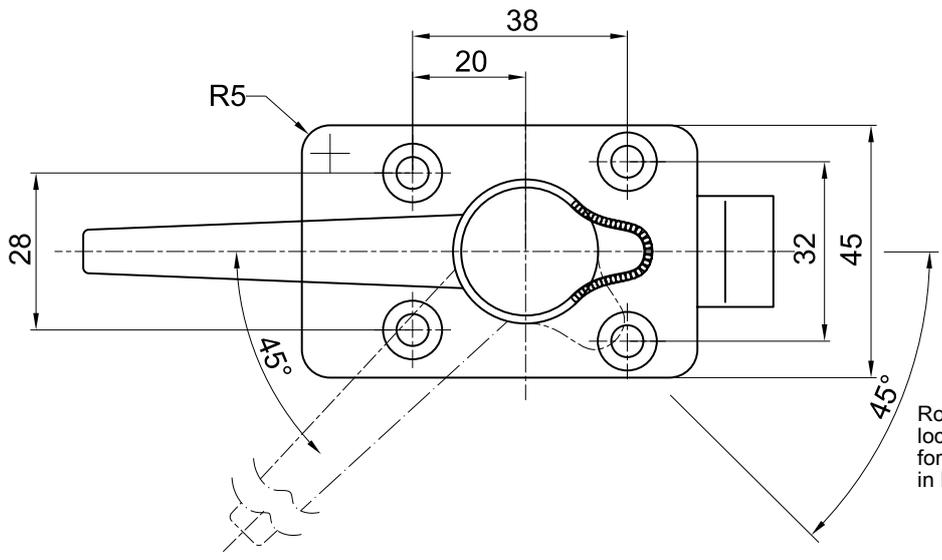
Keyed different

9850-U101

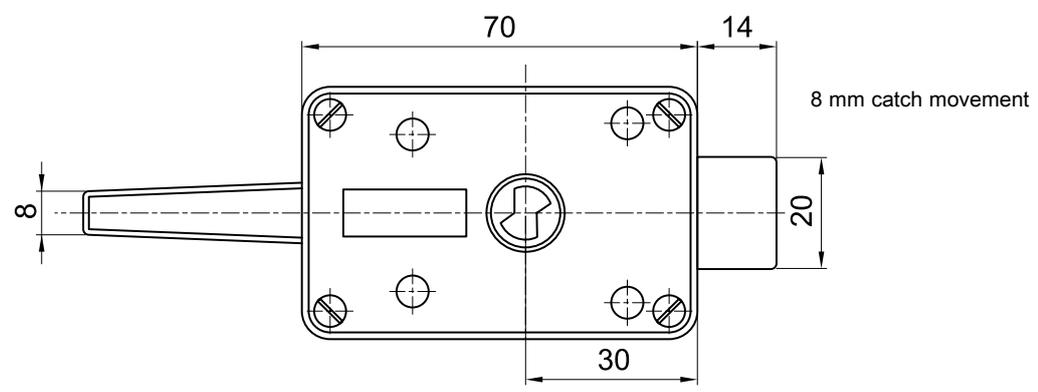
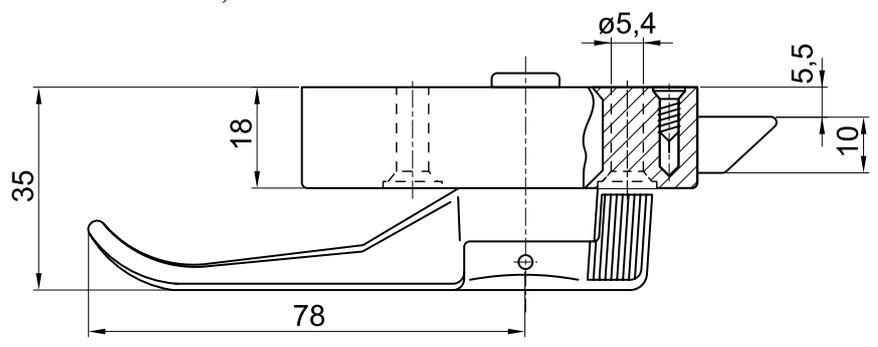
Interior lock PROGRAM 5064



■ with inside handle and locking device



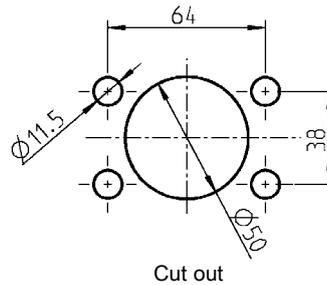
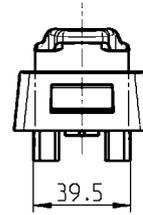
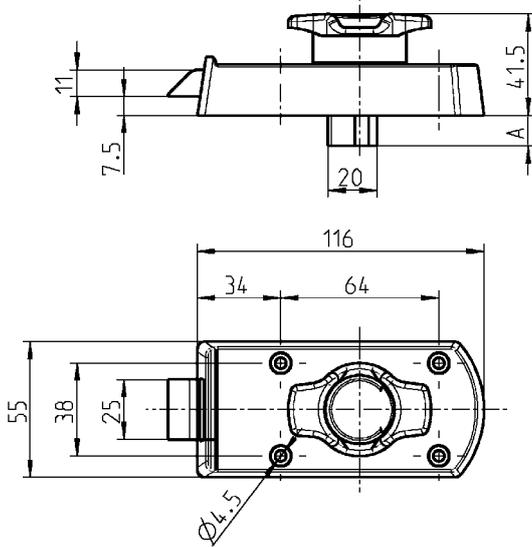
Rotation of the safety catch for locking or rather unlocking or for the locking of the catch bolt, in locked position



Interior lock zinc die chrome plated; inside handle alu polished; locking device plastic
5064-U647-IK

Interior lock

PROGRAM 5131, 9301



- Available in various colours
- Locking block ordered separately
- RH and LH applicable

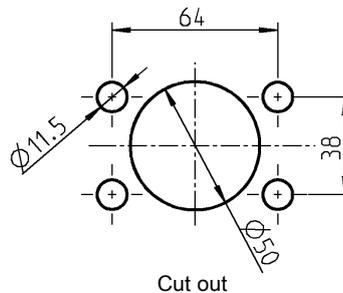
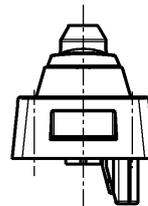
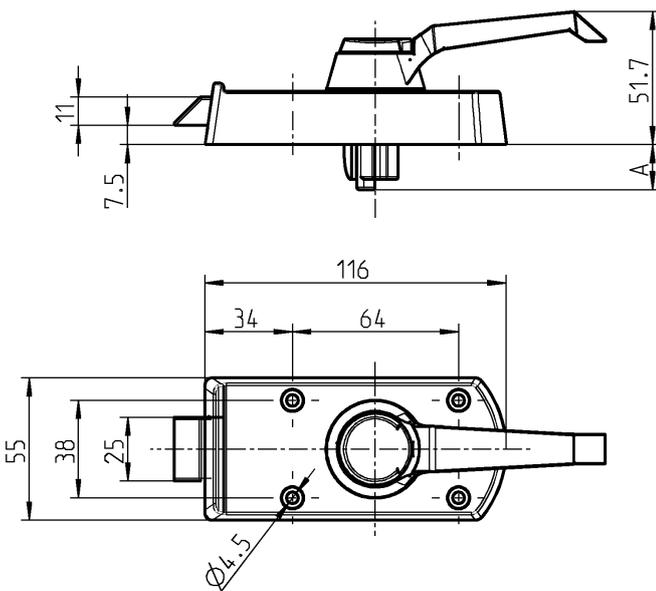
Interior handle polyamide black; pivot stainless;
plate and screws zinc plated; with spring

for exterior handle (1) or (2)

| | A | LH | RH |
|-----------------------------------|------|--------------|--------------|
| Door thickness = 31 - 35; for (2) | 6,5 | 9301-U803-AA | 9301-U802-AA |
| Door thickness = 32 - 36; for (1) | 12,5 | 9301-U813-AA | 9301-U812-AA |
| Door thickness = 35 - 39; for (2) | 10,5 | 9301-U805-AA | 9301-U804-AA |
| Door thickness = 39 - 43; for (2) | 14,5 | 9301-U815-AA | 9301-U810-AA |

Further parts see page

- Exterior handle (1) T1-530
- Exterior handle (2) T1-560
- Handle plate T1-570
- Bottom plate T1-570



- Available in various colours
- Locking block ordered separately
- RH and LH applicable

Interior lock polyamide black; handle material of your choice; cam and plate POM;
pivot stainless; with gasket and spring

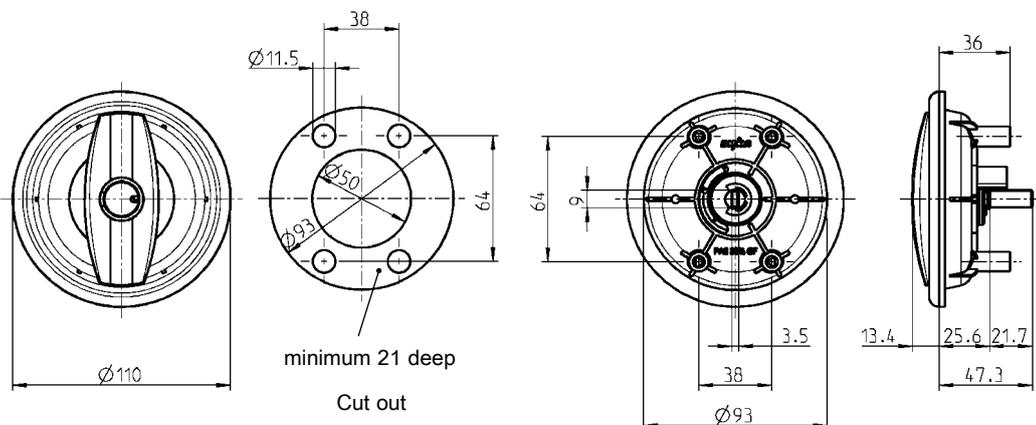
| | A | LH | RH |
|---|-----|--------------|--------------|
| Door thickness = 24 - 29; handle polyamide black | 3,5 | 5131-U659-AA | 5131-U649-AA |

Further parts see page

- Exterior handle T1-560
- Handle plate T1-570
- Bottom plate T1-570

Exterior handle

PROGRAM 9301, 5131



Exterior handle polyamide GF black; bush zinc die zinc plated; tappet zinc die chromated; with seal and spring

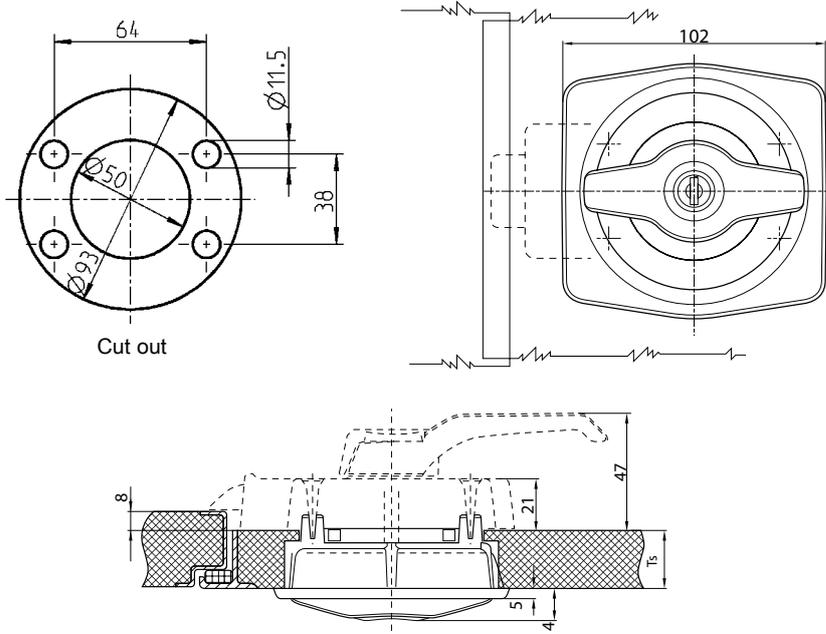
| | |
|----|--------------|
| RH | 9301-U500-AA |
| LH | 9301-U501-AA |

Clip-in cylinder 3 zinc die chromated with stainless steel cap; with 2 keys

| | |
|-----------------|-----------|
| Keyed 8888 | 9850-U100 |
| Keyed different | 9850-U101 |

Further parts see page
– Interior lock

T1-550



- Lockable with GX- closings
- Consisting of interior lock and exterior handle
- Ts = door thicknesses

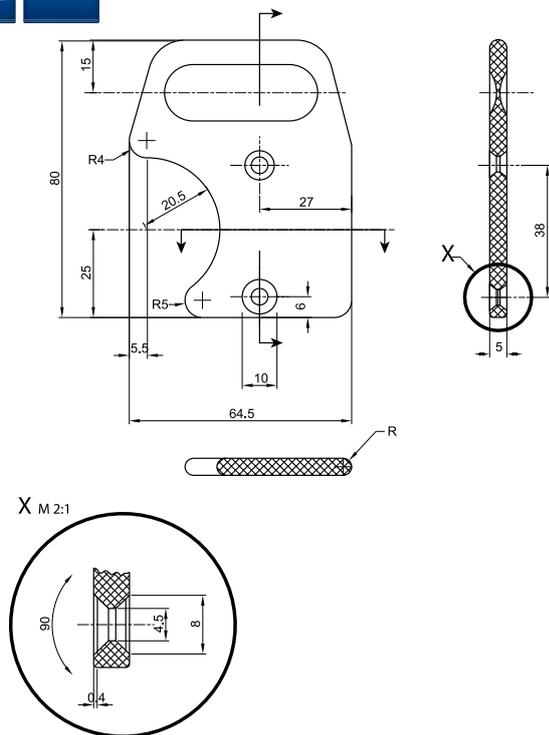
Exterior handle polyamide GF black; pivot stainless steel; plate cylinder zinc die chrome plated with two keys; plate and screws m.s. zinc plated; with spring

| | LH | RH |
|--------------------------|--------------|--------------|
| Door thickness = 24 - 29 | 5131-U606-AA | 5131-U638-AA |
| Door thickness = 32 - 36 | on request | 5131-U644-AA |
| Door thickness = 36 - 40 | on request | 5131-U758-AA |

Further parts see page
– Interior lock

T1-550

Handle plate; Bottom plate PROGRAM 5131



- For interior locks
- Hole spacing 38 mm

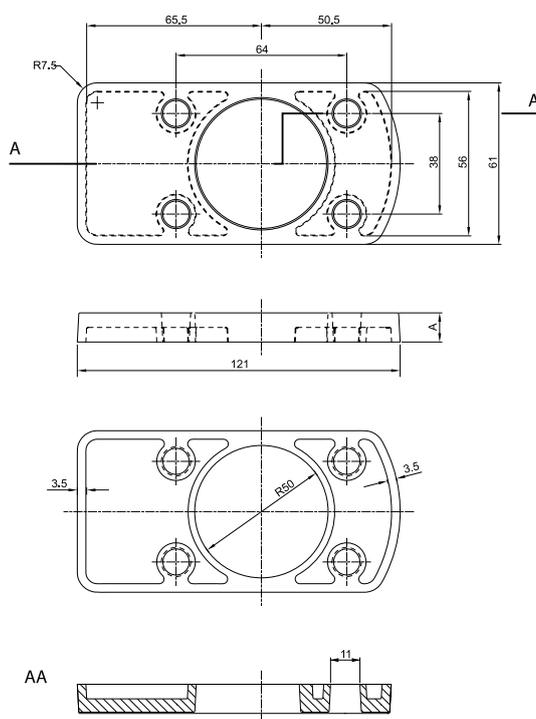
On request:
– Further colours

Handle plate polyamide black

5131-4064-AA

Further parts see page
– Interior lock

T1-550



On request:
– Further colours

Spacer plate polystyrene black

A = 2 mm

5131-4000-AA

A = 4 mm

5131-4001-AA

Further parts see page
– Interior lock

T1-550

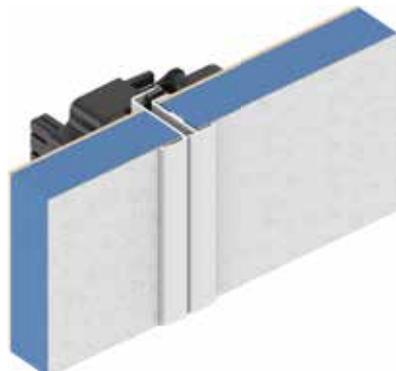
ePush Lock

Electromechanical push locking system

PROGRAM 3000



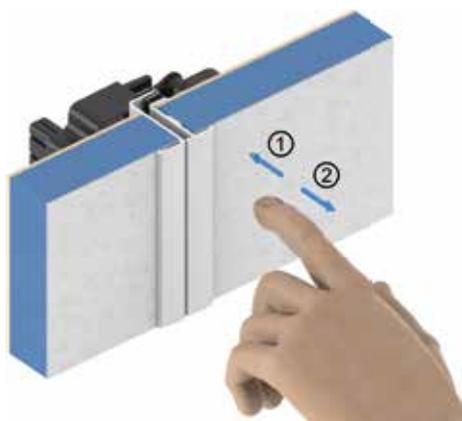
The electromechanical push lock ePush Lock is used as an invisible lock from the outside in different applications.



Locked and invisible from the outside

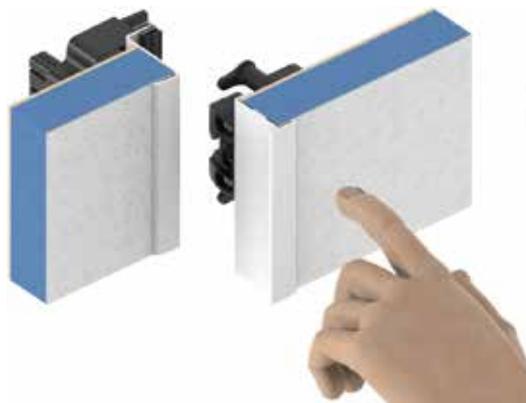


Closed



Open by pushing

Opening



Close by pushing

Open



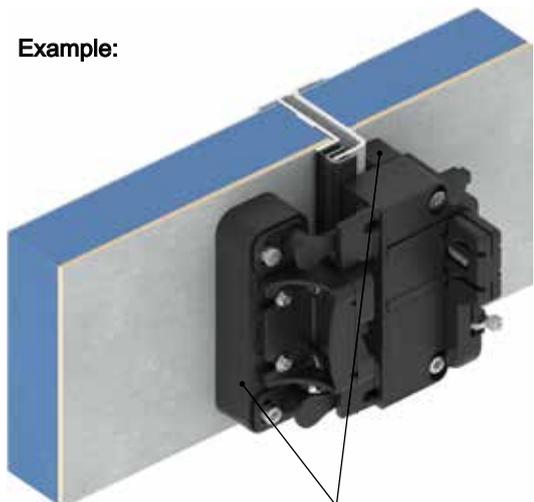
Closing



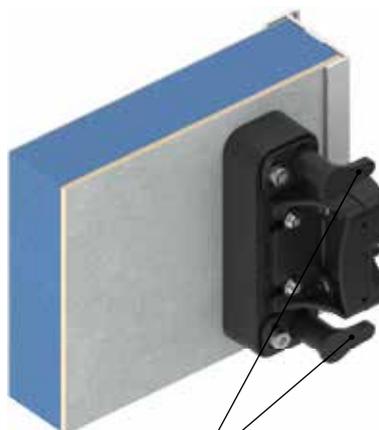
Closed



Example:



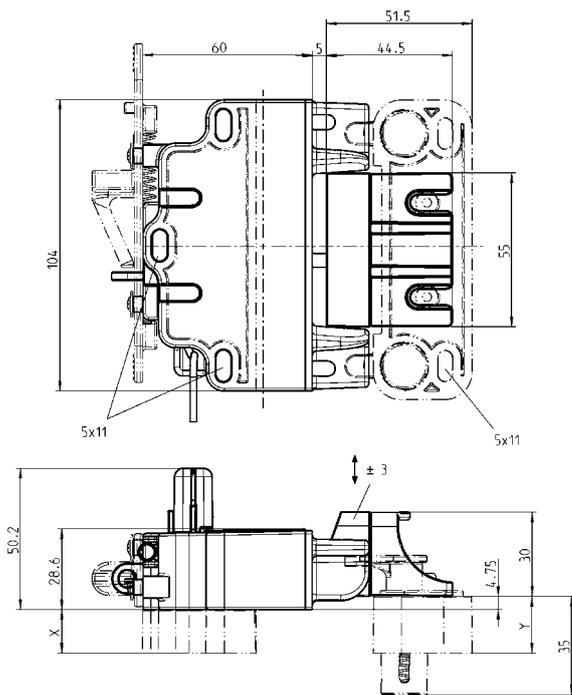
Spacer



Ejector

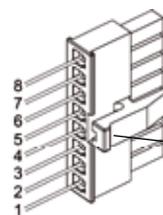


Cable cover



Features

- Wide supply voltage range from 9...32V DC, 200mA
- Digital output max. 26V, 30mA
- Open collector output for monitoring of lock status and door status
- Emergency opening possible via bowden cable in case of power failure



Emergency opening



Turn for emergency opening

Wiring information for version (plug type: Micro MATE-N-LOK 1445022-8)

| PIN | Button / Switch, central locking + permanent current (equal voltage level) | Central locking |
|-----|--|----------------------|
| 1 | Locking | Locking, channel 1 |
| 2 | Unlocking | Unlocking, channel 1 |
| 3 | — | — |
| 4 | V + | — |
| 5 | V - | V - |
| 6 | — | — |
| 7 | Lock status | Lock status |
| 8 | Door status | Door status |

ePush Lock

Housing, catch, cap and cam disc polyamide GF black; locking pin AISI 303; emergency opening slider polyamide GF red; spring AISI 301; screw ms.s zinc plated; mounting and operating instructions

| | |
|--|--------------|
| Lock with emergency opening for central locking | 3000-U600-01 |
| Lock with emergency opening for switch / button | 3000-U600-02 |
| Lock with emergency opening for central locking and turn for emergency opening | 3000-U600-03 |
| Lock with emergency opening for switch / button and turn for emergency opening | 3000-U600-04 |
| Lock for manual operation | 3000-U600-05 |

Ejector

Housing polyamide GF black; plunger POM black; spring AISI 301

3000-U600

Cable cover polyamide GF black

3000-112-10AA

Spacer for lock housing and catch polyamide GF black

Dimension X and Y by choice of customer;
X = 13 - 32,25 ; Y = 4,75 - 40

on request

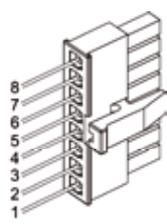
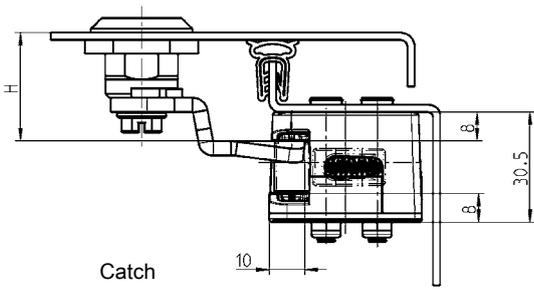
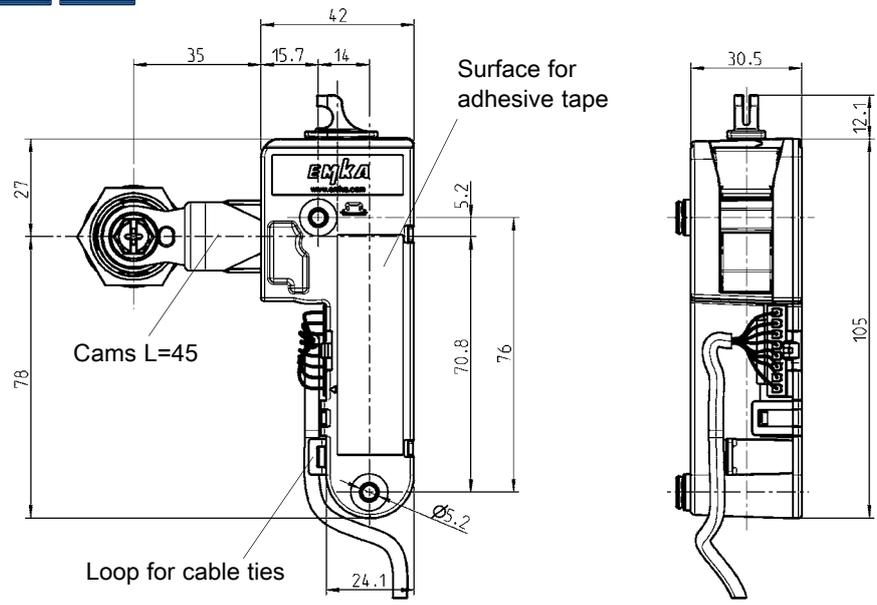
Connection cable 2 m with connector and open wire ends

3000-111

Note:

Mirror image version of catch, lock housing and turn for emergency opening on request

eCam Electromechanical cam lock



The electromechanical lock for cams is used as concealed lock in different applications.

The following types are available:

- Basic: lock for cam without status feedback, UL508 certified
- Basic Plus: lock for cam with status feedback, UL508 certified
Open collector output A1 indicates if cam is engaged in the catch
- Energy store: lock for cam with status feedback and automatic unlock of the catch in case of power failure, UL508 certified
Open collector output A1 indicates if cam is engaged in the catch
- Safety: Type approved as "position switch, design type 1" acc. to EN ISO 14119 (Machine Directive) and as "monitoring device with performance level d" acc. to EN ISO 13849



Features

- Wide supply voltage range
from 9 ... 32 V
- Open collector output for remote monitoring of lock status

Emergency opening via bowden cable in case of power failure

Wiring information for version

| PIN | Basic | Basic Plus | Energy store | Safety |
|-----|---------------|-----------------|-----------------|---------------|
| 1 | — | Output A1 | Output A1 | NC R1 |
| 2 | — | — | — | NC R2 |
| 3 | Control input | Control input | Control input | Control input |
| 4 | V - | V - | V - | V - |
| 5 | V + | V + | V + | V + |
| 6 | — | — | — | — |
| 7 | — | Door contact A1 | Door contact A1 | COM R2 |
| 8 | — | Door contact A2 | Door contact A2 | COM R1 |



eCam

Housing, catch, cam disc, plunger polyamide GF;
magnet; gear motor; with springs; installation and operating manual
Power supply: 9 ... 32 VDC, max. 100 mA, stand-by 3 mA
Output signal: Open-Collector (max 30 V, 50 mA)

| | |
|---|--------------|
| Basic: lock for cam without status feedback | 3000-U304-01 |
| Basic Plus: lock for cam with status feedback | 3000-U304-02 |
| Energy store: lock for cam with status feedback | 3000-U304-03 |
| Safety: lock for cam with status feedback | 3000-U304-04 |

Connection cable 2 m with connector and open cable ends

3000-111

Adhesive tape for quick assembly

2834

Bowden cable holder

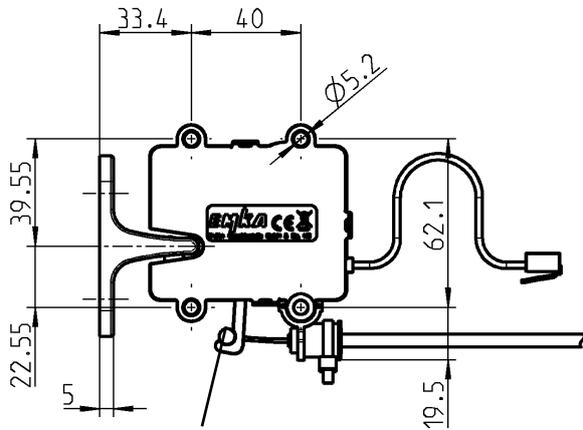
on request

Further parts see page
– Cam

T1-910

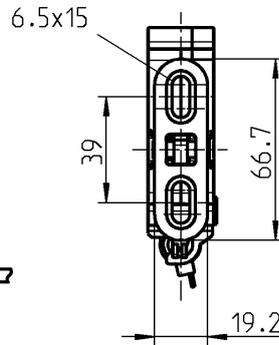
Fitting quarter turns, escutcheons or swinghandles can be found on the cam catalog pages

Single point latch with emergency opening PROGRAM 3000

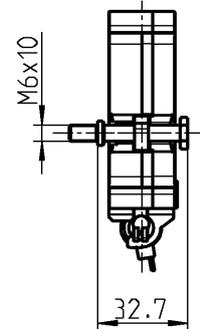


Lever for mechanic unlock, e.g. bowden cable

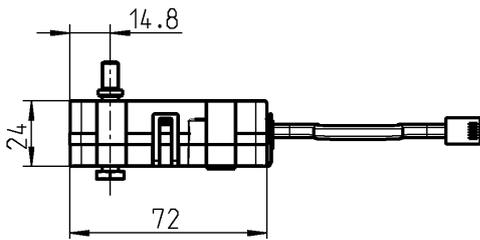
Single point latch with catch



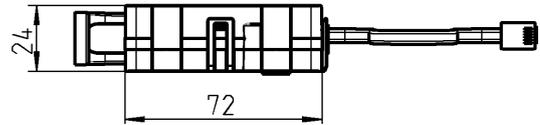
Single point latch with locking bolt



Single point latch with locking bolt



Single point latch with catch



The single point latch is used in various applications as concealed lock.

The following types are available:

- Basic = latch is opened by switching on the power supply and locked as soon as the door is closed again
- Basic delayed Re-Lock = latch is opened by switching on the power supply and remains in the position 'open' as long as the power supply is applied
- Energy store = latch opens when switching off of the power supply (alternative to magnetic locks)
- Battery backup = latch is permanently powered and opened via electrical pulse; protection class IP 56

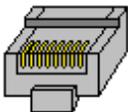


Features

- Wide supply voltage range from 9 ... 32 V
- Potential-free switch for remote monitoring of latch status
- Emergency opening via bowden cable in case of power failure
- Connection possible to Locking Unit 3000-U32-x or Access Unit 3000-U47-x; adapter cable optional
- ATEX / UL-Ex approval in preparation



Wiring information for

| RJ45 plug front view | PIN | Basic Basic delayed Re-Lock Energy store | Battery backup | Wire colours |
|---|-----|--|----------------|--------------|
|  87654321 | 2 | — | V - | white |
| | 3 | Contact | Contact | black |
| | 4 | V - | Release - | red |
| | 5 | V + | Release + | green |
| | 6 | Contact | Contact | yellow |
| | 7 | — | V + | blue |



Single point latch with integrated status contact,
housing polyamide GF black;
ratch and pawl steel lubricant varnished;
cable 150 mm with RJ45 plug;
with mounting and operating instructions

Power supply: 9 ... 32 VDC, 100 mA
Contact switching power: max. 30 VDC, min. 1 mA, max. 100 mA

| | |
|---|--------------|
| Basic | 3000-U301-01 |
| Basic delayed Re-Lock; with delayed re-lock | 3000-U301-02 |
| Energy store; automatic unlock in case of power failure | 3000-U301-03 |
| Battery backup, IP 56 | 3000-U301-04 |

Catch material of your choice

| | |
|----------------------|--------------|
| AISI 316 | 3000-78-PH |
| Zinc die zinc plated | 3000-78-01KA |

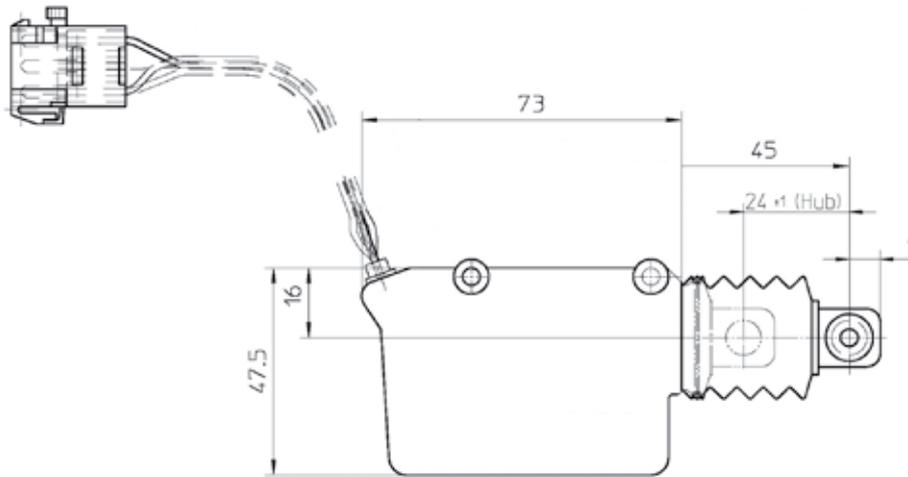
Striker bolt m.s. zinc plated

3000-102-JB

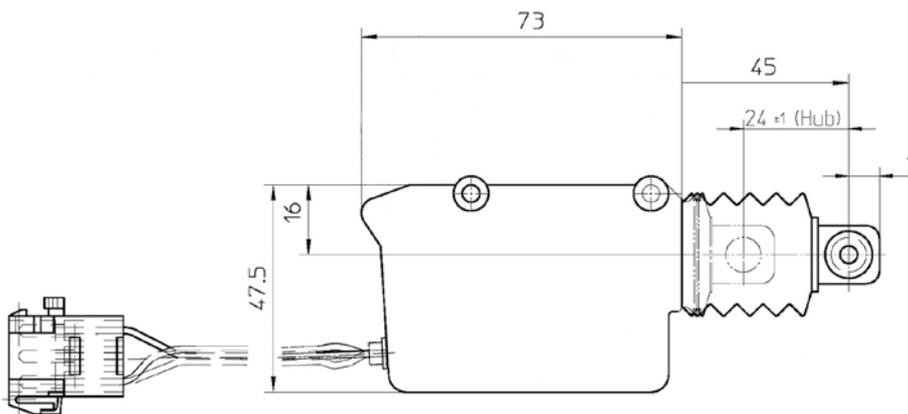
Mounting kit for bowden cable polyamide GF black;
washer m.s. zinc plated and cable tie

3000-U303

On request:
- Mounting plate
- Bowden cable



Execution 5225-U1 and U3, max. 1 second to energize



Several versions available:
Tension and motor pressure with spring return

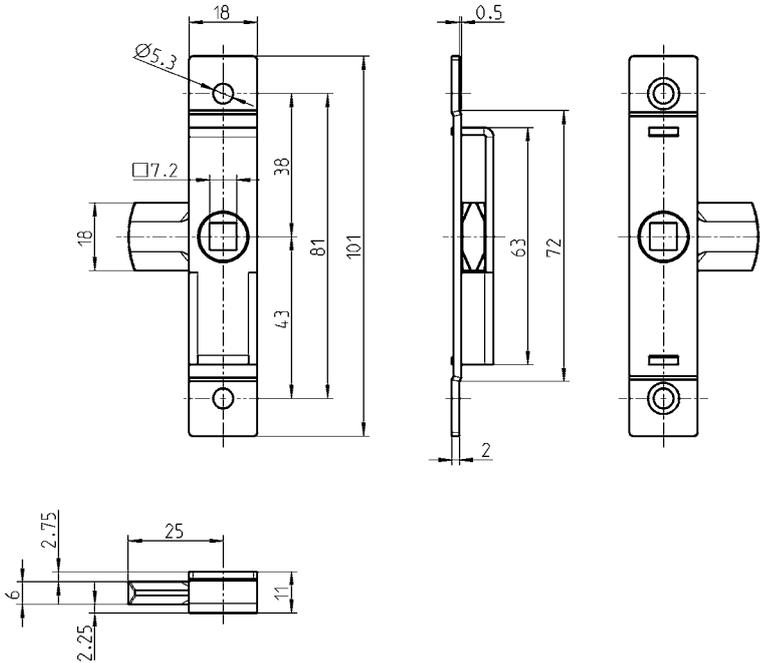
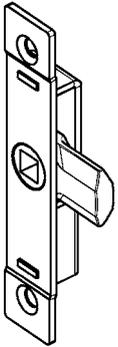
- Motor for central locking
- Tension and pressure motor
- With or without microswitch
- Multiple connectors
- Cable lengths and versions on request

Actuator electric locking and unlocking e.g. for central locking

| | |
|---|------------|
| 12V with microswitch, cable length 400 mm with 6-pin. AMP connector | 5225-U1 |
| 24V with microswitch, cable length 400 mm with 6-pin. AMP connector | 5225-U3 |
| Further types and cable lengths | on request |

Info
1 Locks
2 Hinges
3 Gasketings
4 Accessories
Index

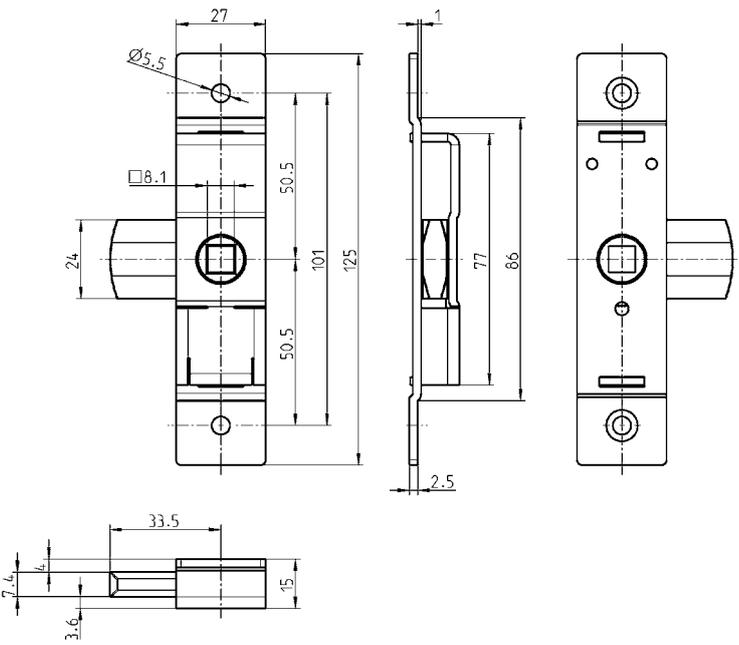
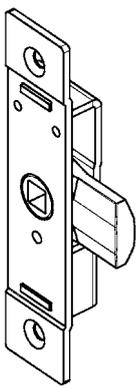
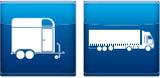
Cam lock PROGRAM 1001



- Door edge to sq drive c/l approx. 9.5 mm

Housing m.s. zinc plated; cam zinc die raw; with spring

1001-U43



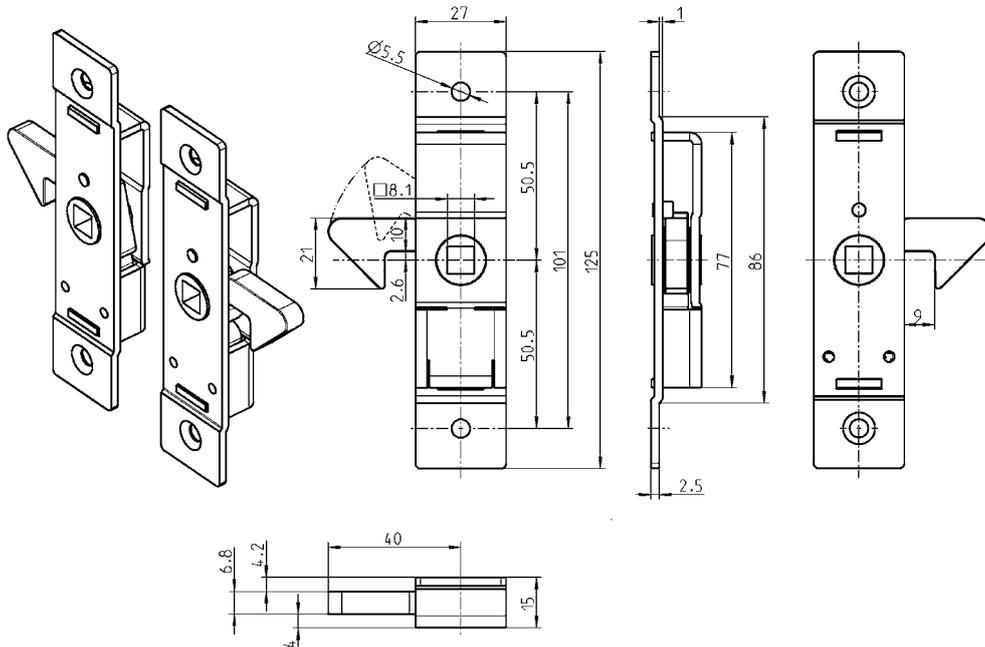
- Door edge to sq drive c/l approx. 13 mm

Housing m.s. zinc plated; cam zinc die raw; with spring

1001-U44

Hook latch; Dead-bolt lock

PROGRAM 1001, 1080



- Door edge to sq drive c/l approx. 13 mm

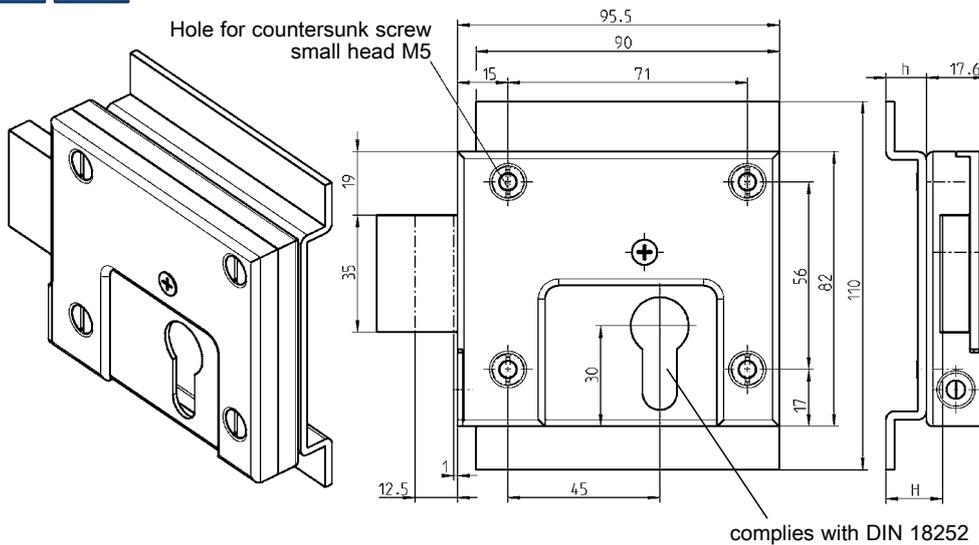
Housing m.s. zinc plated; hook cam zinc die raw; with spring

right, as depicted

1001-U45-RE

left, mirror image

1001-U45-LI



Dead-bolt lock for both LH/RH

small head = DIN ISO 2009,
2010, 7046-1, 7046-2, 7047

Dead-bolt lock m.s. zinc plated

1080-U1

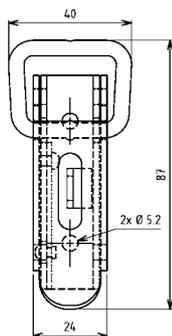
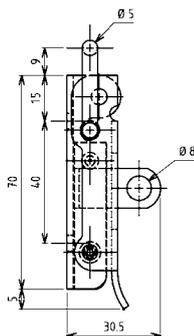
Lock support m.s. raw

| H | h | Profile cylinder length | |
|------|----|-------------------------|---------|
| 16,5 | 12 | 40 | 1080-01 |
| 26,5 | 22 | 50 | 1080-02 |

On request:
– further lock versions

Toggle latches with latch fastener and safety catch

PROGRAM 6000



Toggle latch with hard aperture resistance

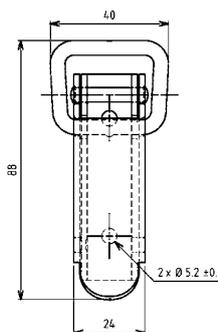
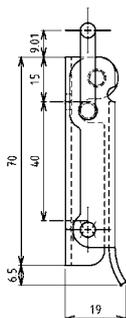
| | without padlock facility | with padlock facility |
|------------------------------------|--------------------------|-----------------------|
| Zinc plated steel DS plus Top Coat | 6002-U75-JQ | 6002-U74-JQ |

Toggle latch with easy aperture resistance

| | without padlock facility | with padlock facility |
|------------------------------------|--------------------------|-----------------------|
| Zinc plated steel DS plus Top Coat | 6002-U77-JQ | 6002-U73-JQ |
| AISI 304 drilled | 6002-U77-PC | 6002-U73-PC |

Further parts see page
– Catch plate

T1-760

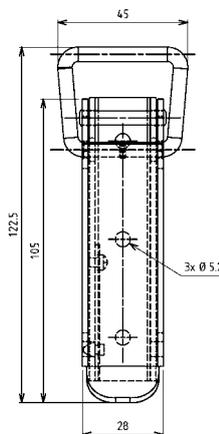
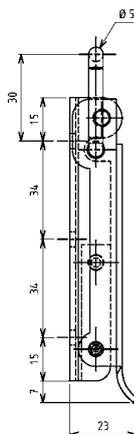


Toggle latch with easy aperture resistance, Economic Version

| | without padlock facility | with padlock facility |
|----------------------------|--------------------------|-----------------------|
| Zinc plated steel, drilled | 6002-U76-JB | - |

Further parts see page
– Catch plate

T1-760



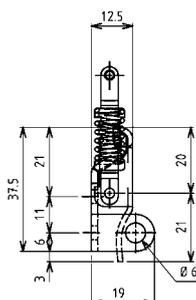
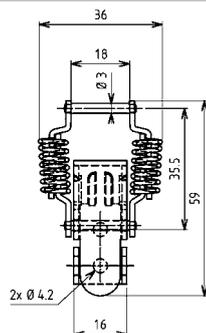
Toggle latch with hard aperture resistance

| | without padlock facility | with padlock facility |
|------------------------------------|--------------------------|-----------------------|
| Bare steel drilled | 6002-U15-KA | 6002-U14-KA |
| Zinc plated steel DS plus Top Coat | 6002-U15-JQ | 6002-U14-JQ |
| AISI 304 drilled | 6002-U15-PC | 6002-U14-PC |

Further parts see page
– Catch plate

T1-760

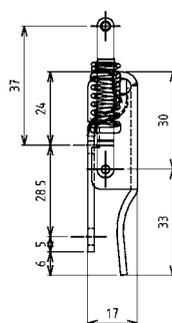
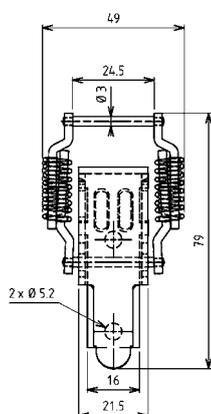
Toggle latches with springs for tolerance compensation PROGRAM 6000



| Toggle latch | without padlock facility | with padlock facility |
|------------------------------------|--------------------------|-----------------------|
| Bare steel drilled | 6004-U22-KA | 6004-U23-KA |
| Zinc plated steel DS plus Top Coat | 6004-U22-JQ | 6004-U23-JQ |
| AISI 304 drilled | 6004-U22-PC | 6004-U23-PC |

Further parts see page
– Catch plate

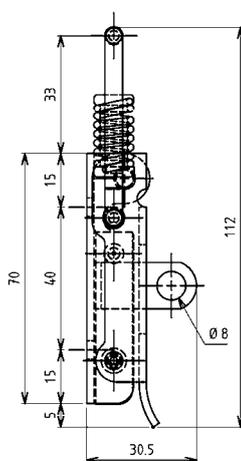
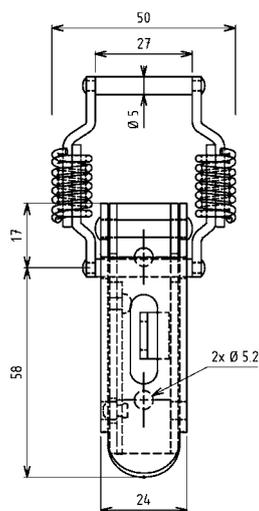
T1-760



| Toggle latch | without padlock facility | with padlock facility |
|------------------------------------|--------------------------|-----------------------|
| Bare steel drilled | 6004-U24-KA | 6004-U25-KA |
| Zinc plated steel DS plus Top Coat | 6004-U24-JQ | 6004-U25-JQ |
| AISI 304 drilled | 6004-U24-PC | 6004-U25-PC |

Further parts see page
– Catch plate

T1-760



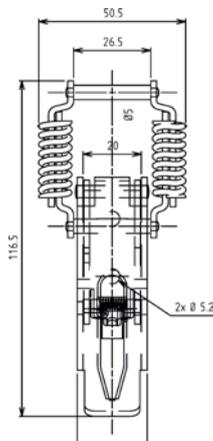
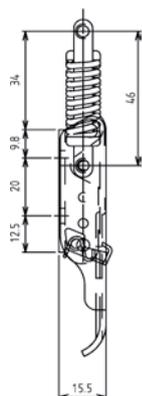
| Toggle latch with hard aperture resistance | without padlock facility | with padlock facility |
|--|--------------------------|-----------------------|
| Bare steel drilled | 6004-U26-KA | 6004-U37-KA |
| Zinc plated steel DS plus Top Coat | 6004-U26-JQ | 6004-U37-JQ |

Further parts see page
– Catch plate

T1-760

Toggle latches with springs for tolerance compensation; adjustable toggle latches

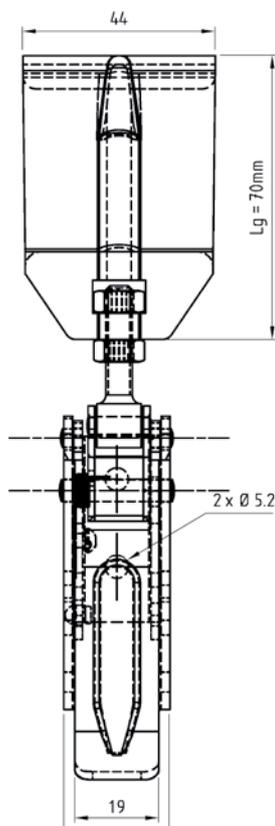
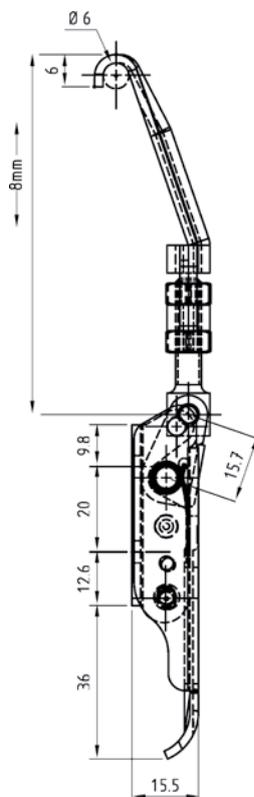
PROGRAM 6000



| Toggle latch | without lock | with lock |
|------------------------------------|--------------|--------------|
| Zinc plated steel DS plus Top Coat | 6004-U17-JQ | 6004-U517-JQ |
| AISI 304 drilled | 6004-U17-PC | 6004-U517-PC |

Further parts see page
– Catch plate

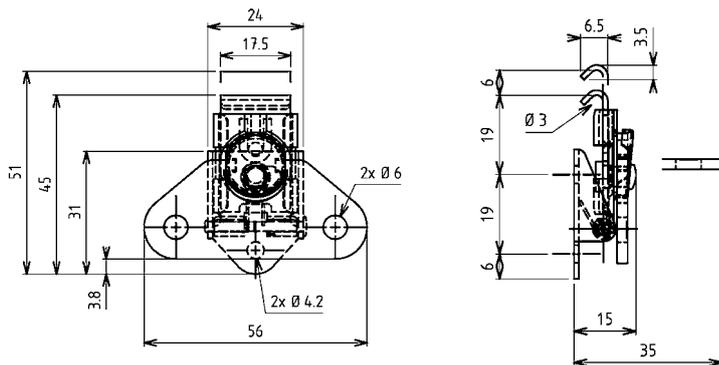
T1-760



| Toggle latch | without lock | with lock |
|------------------------------------|--------------|--------------|
| Zinc plated steel DS plus Top Coat | 6008-U365-JQ | 6008-U865-JQ |
| AISI 304 drilled | 6008-U365-PC | 6008-U865-PC |

Compression latches; Catch plate

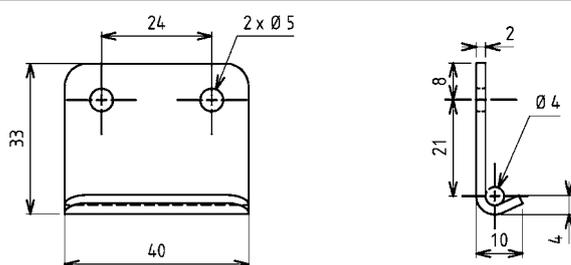
PROGRAM 6000



Compression latch

Zinc plated steel DS plus Top Coat
AISI 304 drilled

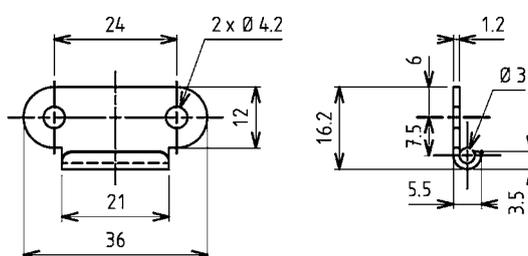
6006-U10-JQ
6006-U10-PC



Catch plate

Bare steel drilled
Zinc plated steel DS plus Top Coat
AISI 304 drilled

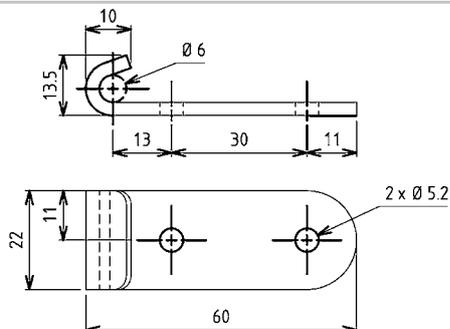
6010-18-KA
6010-18-JQ
6010-18-PC



Catch plate

Zinc plated steel DS plus Top Coat
AISI 304 drilled

6010-20-JQ
6010-20-PC



Catch plate

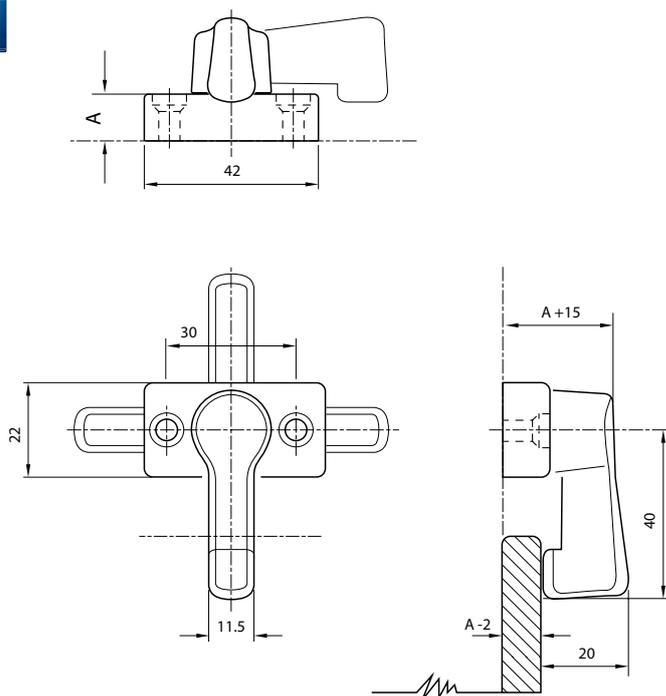
Bare steel drilled
Zinc plated steel DS plus Top Coat
AISI 304 drilled

6010-12-KA
6010-12-JQ
6010-12-PC

Notes:

Window connection catch; Back plate

PROGRAM 5100



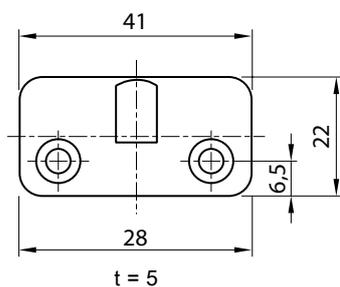
Door lock zinc die chrome plated

A = 5 mm

5100-U830-IA

A = 8 mm

5100-U831-IA



- suitable for all door connecting catches

Catch plate polyamide colour of your choice

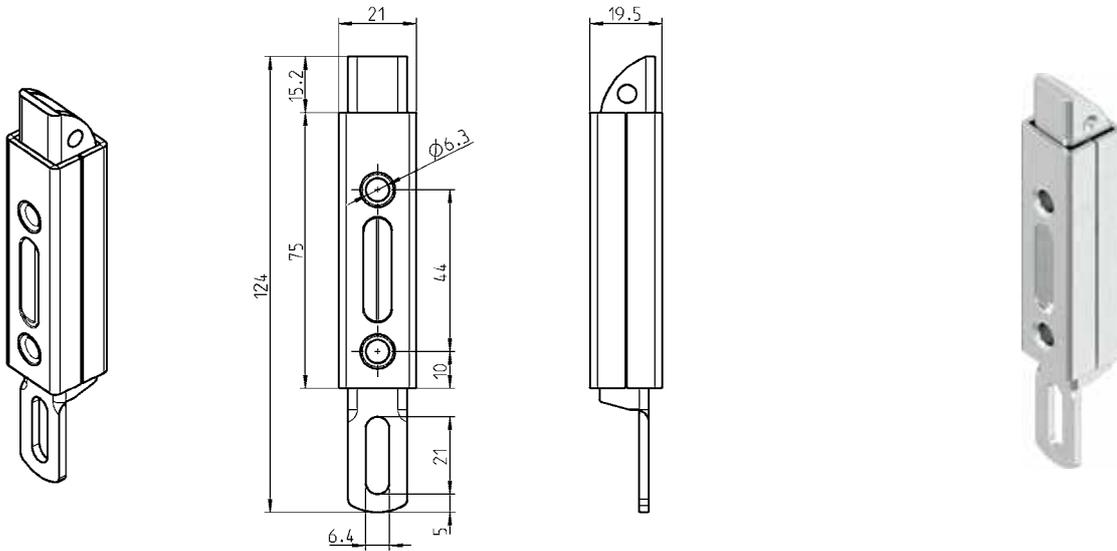
cream white

5100-4000-HA

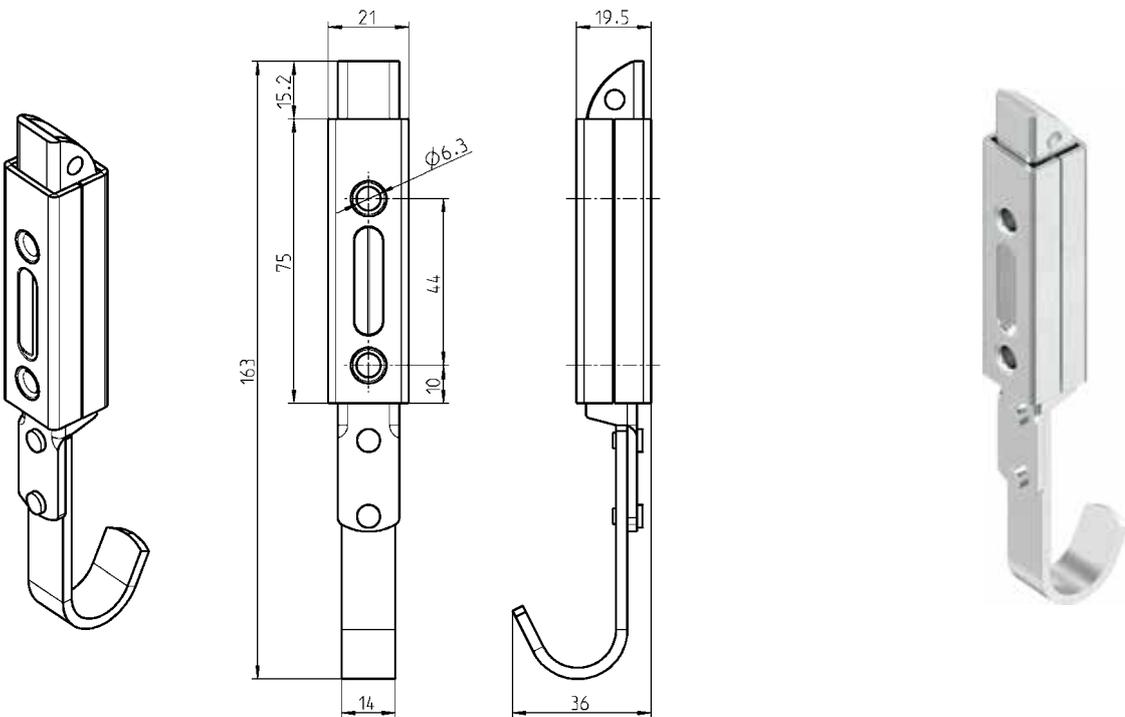
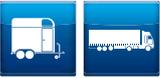
grey

5100-4000-BD

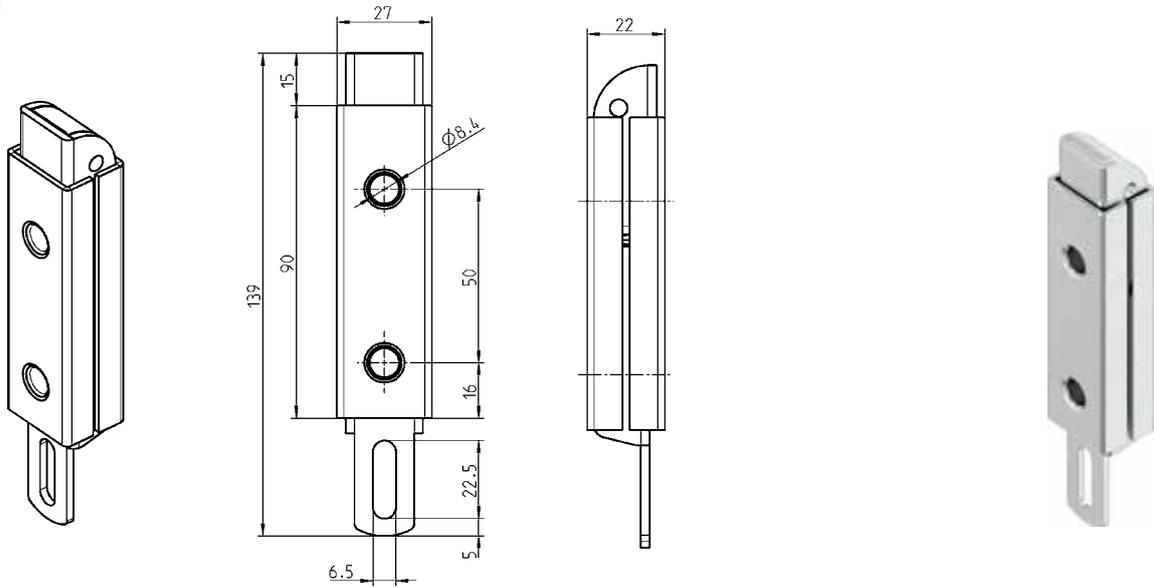
Slam lock PROGRAM 1085



| | | |
|--|---------|---|
| Slam lock m.s. zinc plated; with spring | 1085-U1 | Slam locks with different tensions on request |
|--|---------|---|



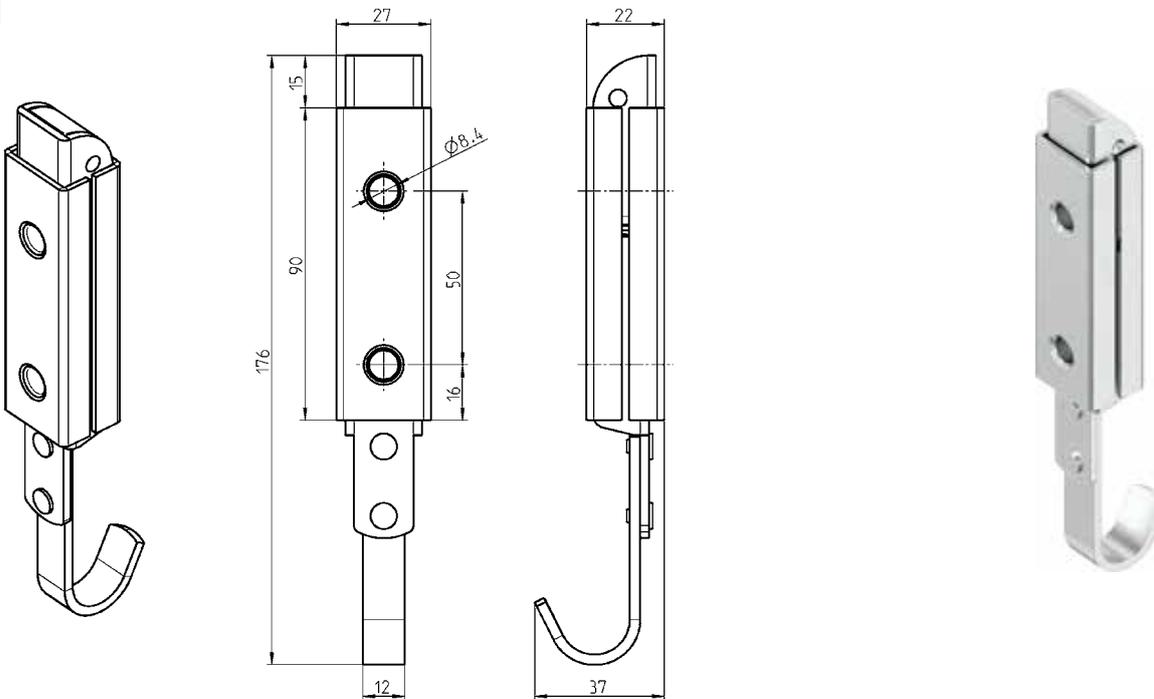
| | | |
|--|----------|---|
| Slam lock m.s. zinc plated; with spring | 1085-SU8 | Slam locks with different tensions on request |
|--|----------|---|



Slam lock m.s. zinc plated; with spring

1085-SU7

Slam locks with different tensions on request



Slam lock m.s. zinc plated; with spring

1085-SU6

Slam locks with different tensions on request

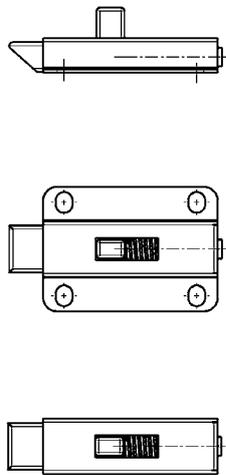
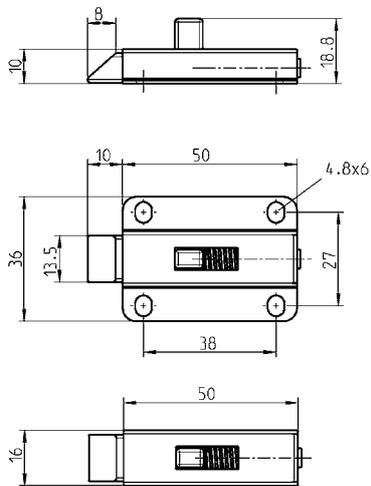
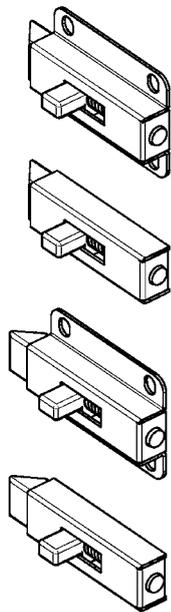
Slam lock

PROGRAM 1085



Version A

Version B



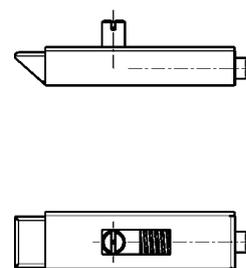
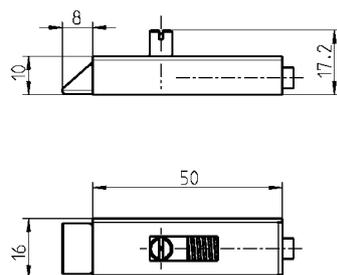
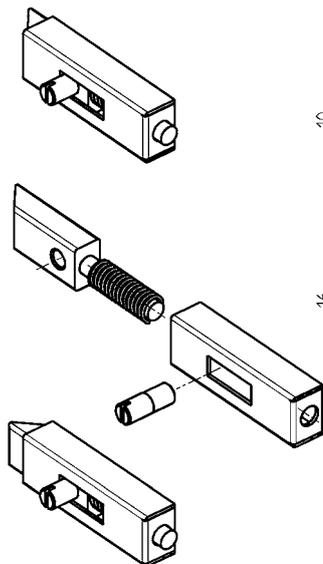
Slam-lock m.s. zinc plated resp. m.s. raw, locking bolt zinc die zinc plated

| | Version A | Version B |
|---------------------------|-----------|-----------|
| screw-on m.s. zinc plated | 1053-U1 | 1053-U2 |
| weld-on m.s. raw | 1053-U3 | 1053-U4 |



Version A

Version B



Customer can unassemble for welding on

Slam-lock m.s. raw, locking bolt zinc die zinc plated

| | Version A | Version B |
|---------|-----------|-----------|
| weld-on | 1053-U5 | 1053-U6 |

Cam with catch

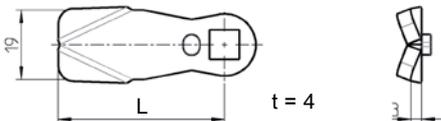
Cam without catch

PROGRAM 1000

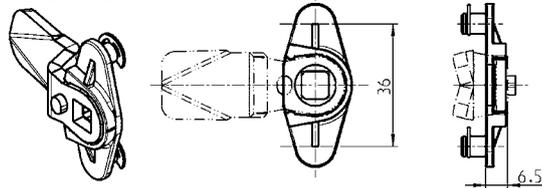


Cam with catch

Version 1
Cam

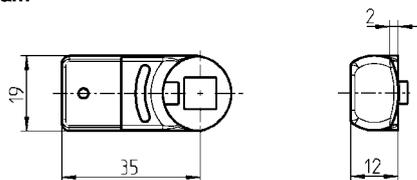


Version 3
Rod control for steel cam or stainless steel cam



Cam without catch on request

Version 2
Cam



Rod control zinc die,
zinc plated circlip m.s. zinc plated

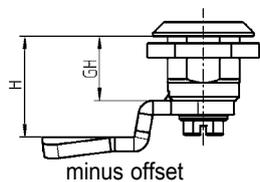
1000-U776

Rod control AISI 316,
circlip stainless steel

1000-U776-PH

Cam with catch material as requested

H dimensions for GH =

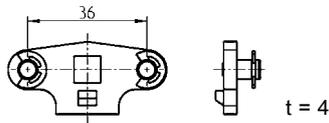


↑
straight version

↓
plus offset

| | 12 | 18 | 22 | 28 | 30 | 31 | 32 | 36 | 39 | 40 | 42 | 43 | 45 | 50 | 60 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| - | 4 | 8 | 14 | 16 | 17 | 18 | 22 | 25 | 26 | 28 | 29 | 31 | 36 | 46 | |
| - | 6 | 10 | 16 | 18 | 19 | 20 | 24 | 27 | 28 | 30 | 31 | 33 | 38 | 48 | |
| 2 | 8 | 12 | 18 | 20 | 21 | 22 | 26 | 29 | 30 | 32 | 33 | 35 | 40 | 50 | |
| 4 | 10 | 14 | 20 | 22 | 23 | 24 | 28 | 31 | 32 | 34 | 35 | 37 | 42 | 52 | |
| 7 | 13 | 17 | 23 | 25 | 26 | 27 | 31 | 34 | 35 | 37 | 38 | 40 | 45 | 55 | |
| 8 | 14 | 18 | 24 | 26 | 27 | 28 | 32 | 35 | 36 | 38 | 39 | 41 | 46 | 56 | |
| 9 | 15 | 19 | 25 | 27 | 28 | 29 | 33 | 36 | 37 | 39 | 40 | 42 | 47 | 57 | |
| 10 | 16 | 20 | 26 | 28 | 29 | 30 | 34 | 37 | 38 | 40 | 41 | 43 | 48 | 58 | |
| 12 | 18 | 22 | 28 | 30 | 31 | 32 | 36 | 39 | 40 | 42 | 43 | 45 | 50 | 60 | |
| 14 | 20 | 24 | 30 | 32 | 33 | 34 | 38 | 41 | 42 | 44 | 45 | 47 | 52 | 62 | |
| 16 | 22 | 26 | 32 | 34 | 35 | 36 | 40 | 43 | 44 | 46 | 47 | 49 | 54 | 64 | |
| 18 | 24 | 28 | 34 | 36 | 37 | 38 | 42 | 45 | 46 | 48 | 49 | 51 | 56 | 66 | |
| 19 | 25 | 29 | 35 | 37 | 38 | 39 | 43 | 46 | 47 | 49 | 50 | 52 | 57 | 67 | |
| 20 | 26 | 30 | 36 | 38 | 39 | 40 | 44 | 47 | 48 | 50 | 51 | 53 | 58 | 68 | |
| 22 | 28 | 32 | 38 | 40 | 41 | 42 | 46 | 49 | 50 | 52 | 53 | 55 | 60 | 70 | |
| 24 | 30 | 34 | 40 | 42 | 43 | 44 | 48 | 51 | 52 | 54 | 55 | 57 | 62 | 72 | |
| 26 | 32 | 36 | 42 | 44 | 45 | 46 | 50 | 53 | 54 | 56 | 57 | 59 | 64 | 74 | |
| 28 | 34 | 38 | 44 | 46 | 46 | 48 | 52 | 55 | 56 | 58 | 59 | 61 | 66 | 76 | |
| 29 | 35 | 39 | 45 | 47 | 48 | 49 | 53 | 56 | 57 | 59 | 60 | 62 | 67 | 77 | |
| 30 | 36 | 40 | 46 | 48 | 49 | 50 | 54 | 57 | 58 | 60 | 61 | 63 | 68 | 78 | |
| 32 | 38 | 42 | 48 | 50 | 51 | 52 | 56 | 59 | 60 | 62 | 63 | 65 | 70 | 80 | |
| 34 | 40 | 44 | 50 | 52 | 53 | 54 | 58 | 61 | 62 | 64 | 65 | 67 | 72 | 82 | |
| 36 | 42 | 46 | 52 | 54 | 55 | 56 | 60 | 63 | 64 | 66 | 67 | 69 | 74 | 84 | |
| 38 | 44 | 48 | 54 | 56 | 57 | 58 | 62 | 65 | 66 | 68 | 69 | 71 | 76 | 86 | |
| 39 | 45 | 49 | 55 | 57 | 58 | 59 | 63 | 66 | 67 | 69 | 70 | 72 | 77 | 87 | |
| 41 | 47 | 51 | 57 | 59 | 60 | 61 | 65 | 68 | 69 | 71 | 72 | 74 | 79 | 89 | |
| 44 | 50 | 54 | 60 | 62 | 63 | 64 | 68 | 71 | 72 | 74 | 75 | 78 | 82 | 92 | |

Version 4
Rod control



2-point rod control m.s. zinc plated

1000-U167

Note:

This catalogue page does not show all available cams.
Other versions such as:
– Cam without catch
– Cams with other H and L dimension
– Cams with recess in the opposite direction
– etc.
please ask.



| Version 1 | | | Version 1 | | Version 2 |
|-------------------------|--------------------|--------------------|-------------------------|--------------------------------|--------------------|
| L = 45 m.s. zinc pl. | L = 45 AISI 304 | L = 45 AISI 316 | L = 35 m.s. zinc pl. | L = 35 polyamide black ① | polyamide black |
| 1000-112 | - | - | - | - | - |
| 1000-22 | 1000-221 | 1000-221-PD | - | - | - |
| 1000-113 | - | - | - | - | - |
| 1000-21 | 1000-223 | 1000-223-PD | - | - | - |
| 1000-20 | - | - | - | - | - |
| 1000-19 | 1000-225 | 1000-225-PD | - | - | - |
| - | - | - | - | 1000-5043-SI | - |
| 1000-18 | - | - | - | - | - |
| 1000-17 | 1000-227 | 1000-227-PD | 1000-5046 | 1000-5046-SI | 1000-386-18 |
| 1000-16 | 1000-228 | 1000-228-PD | 1000-5161 | - | 1000-386-20 |
| 1000-15 | 1000-179 | 1000-179-PD | 1000-5119 | - | 1000-386-22 |
| 1000-14 | 1000-229 | 1000-229-PD | - | - | 1000-386-24 |
| 1000-27 | - | - | - | - | - |
| 1000-50 | 1000-230 | 1000-230-PD | - | - | - |
| 1000-13 | 1000-180 | 1000-180-PD | 1000-5164 | - | 1000-386-28 |
| 1000-28 | - | - | - | - | 1000-386-30 |
| 1000-26 | - | - | - | - | - |
| 1000-12 | - | - | - | - | - |
| 1000-11 | - | - | - | - | - |
| 1000-51 | - | - | - | - | - |
| 1000-52 | - | - | - | - | - |
| 1000-25 | - | - | - | - | - |
| 1000-53 | - | - | - | - | - |
| 1000-54 | - | - | - | - | - |
| 1000-10 | - | - | - | - | - |
| 1000-55 | - | - | - | - | - |
| 1000-56 | - | - | - | - | - |

If cams are used with rod control the axial movement of the connecting rods needs to be considered.

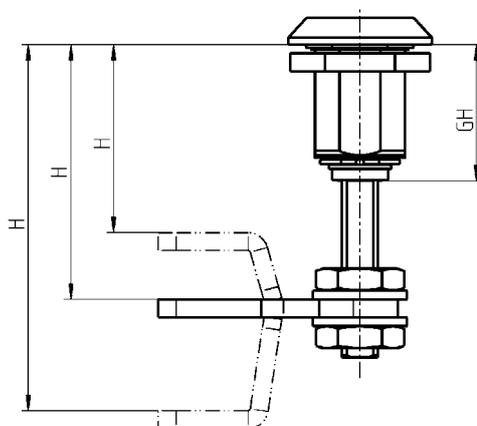
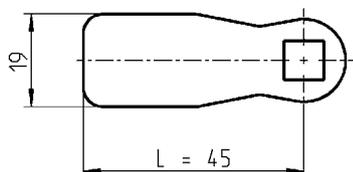
① only for light doors and covers

Cam without catch and without recess

PROGRAM 1000



t = 4



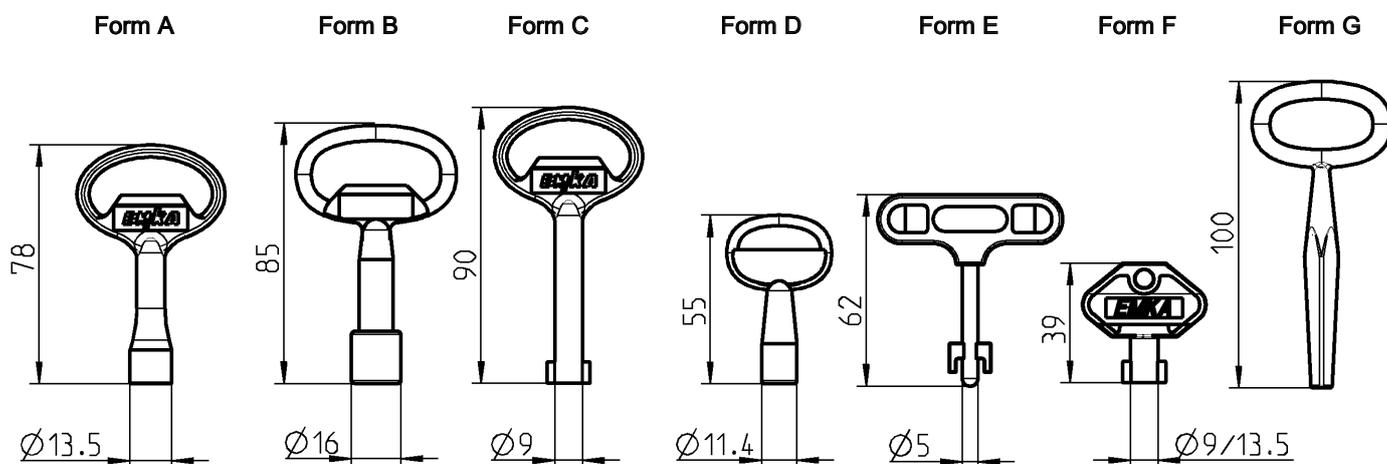
| Cam m.s. zinc pl. | | |
|--------------------|--------------------|----------------|
| for GH = 31 | H | GH = 31 |
| straight | 38 - 58 | 1000-476 |
| offset +/- 14 mm | 24 - 44 ; 52 - 72 | 1000-478 |
| offset +/- 26 mm | 12 - 32 ; 64 - 84 | 1000-477 |
| for GH = 45 | H | GH = 45 |
| straight | 52 - 72 | 1000-476 |
| offset +/- 14 mm | 38 - 58 ; 66 - 86 | 1000-478 |
| offset +/- 26 mm | 26 - 46 ; 78 - 98 | 1000-477 |
| for GH = 64 | H | GH = 64 |
| straight | 71 - 91 | 1000-476 |
| offset +/- 14 mm | 57 - 77 ; 85 - 105 | 1000-478 |
| offset +/- 26 mm | 45 - 65 ; 97 - 117 | 1000-477 |

On request:
– further cams

Notes:

Key

PROGRAM 1004



Keys can be supplied on request with customer logo

Minimum quantity: Form A, B, C, D

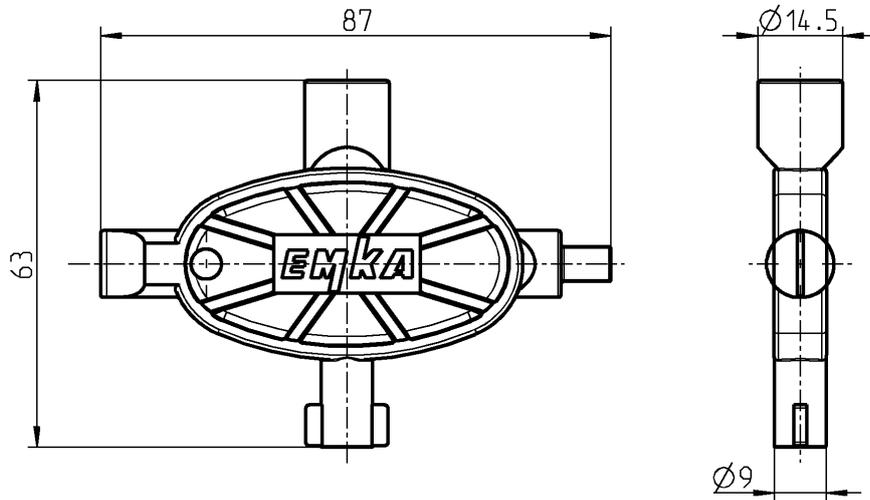
2,000 pieces

Minimum quantity: Form E, F, H

5,000 pieces

| Key form | A | B | C | D | E | F | G |
|-------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|---------------------|--------------------|-------------------|
| | Zinc die black powder coated | zinc die/ polyamide | Polyamide GF black | GTW nickel plated |
| Square 6 | 1004-18 | - | - | 1004-20 | - | 1004-37 | - |
| Square 7 | 1004-01 | - | - | - | - | 1004-36 | - |
| Square 8 | 1004-02 | - | - | - | - | 1004-35 | - |
| Triangular 6.5 | - | - | - | 1004-21 | - | - | - |
| Triangular 6.5 CNOMO type 1 | 1004-26 | - | - | - | - | - | - |
| Triangular 7 | 1004-03 | - | - | - | - | 1004-39 | - |
| Triangular 8 | 1004-04 | - | - | - | - | 1004-38 | - |
| Triangular 10 | - | 1004-24 | - | - | - | - | - |
| Crown type | - | 1004-31 | - | - | - | - | - |
| Eastern Europe Ø13 half round | - | 1004-42 | - | - | - | - | - |
| Double bit 3 | - | - | 1004-05 | - | - | 1004-34 | - |
| Double bit 5 | - | - | 1004-06 | - | - | 1004-33 | - |
| Male hexagon 11.1 | - | 1004-54 | - | - | - | - | - |
| Daimler Benz | 1004-17 | - | - | - | - | - | - |
| FIAT | - | - | - | - | 1004-41 | - | - |
| Square male 6 | 1004-29 | - | - | - | - | - | - |
| Square male 8 | 1004-30 | - | - | - | - | - | - |
| Square male 6 – 9.5 | - | - | - | - | - | - | 1004-19 |
| Hexagon head 8 with bore hole | 1004-49 | - | - | - | - | - | - |
| Tube | - | - | - | 1004-51 | - | - | - |

Form H

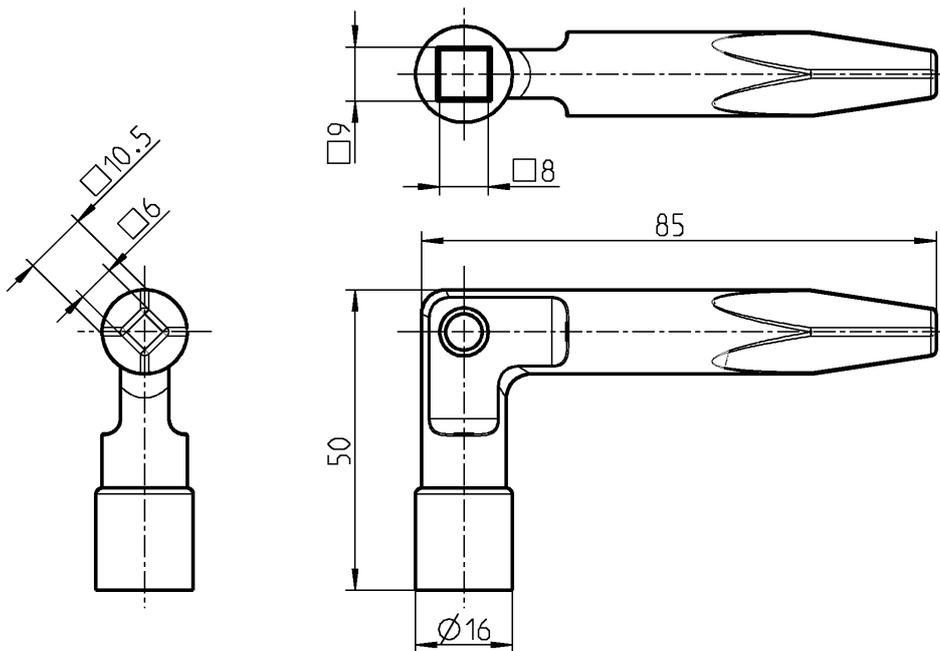


Form H, universal key polyamide blue

Square male 6, square 8, double bit 5 and slot insert

1004-48

Form I



Form I, railway version, zinc die black

Square 8 - 9, square male 6 - 10.5

1004-52

Railway key with slot

1004-S132

Stainless steel key
on request





1 Locks



2 Hinges

Screw-on hinges
Special hinges

T2-110

T2-210



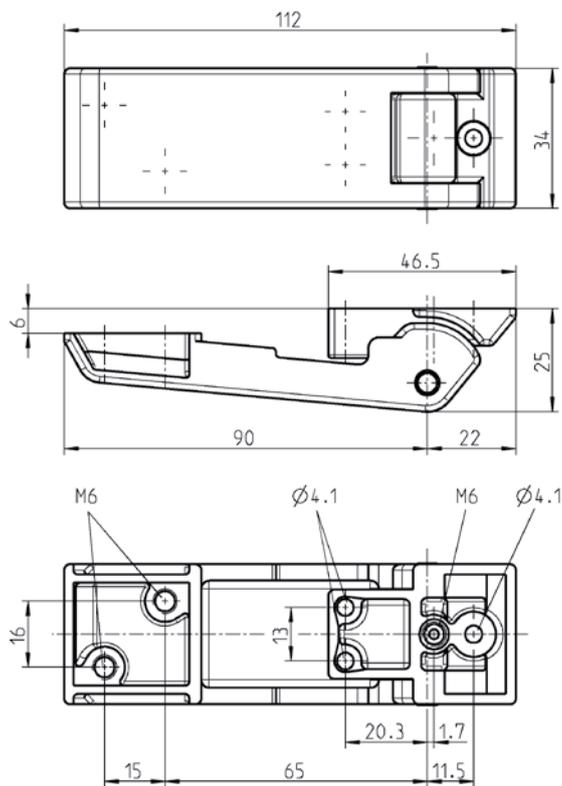
3 Gasketings



4 Accessories

Hinge; 270° Screw-on hinge

PROGRAMM 3060, 1056

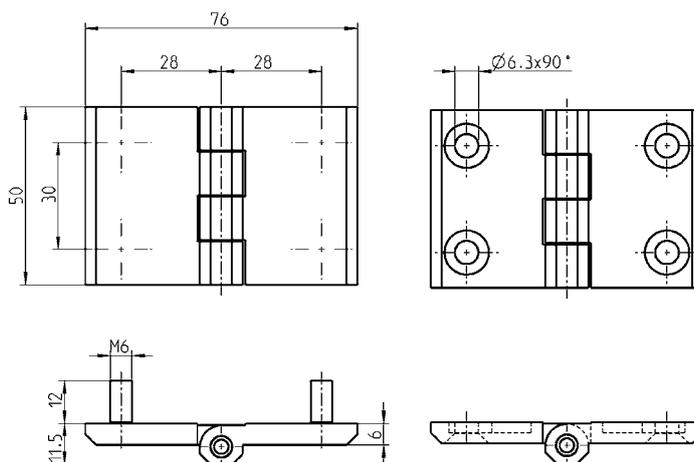
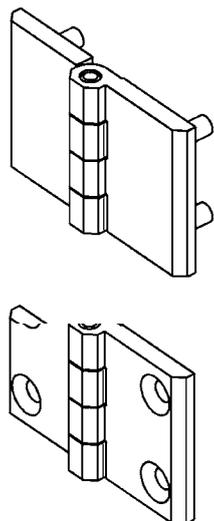


Hinge zinc die powder coat aluminum, RAL 9006; hinge pin ms zinc plated

3060-U380-BK



270° Screw-on hinge

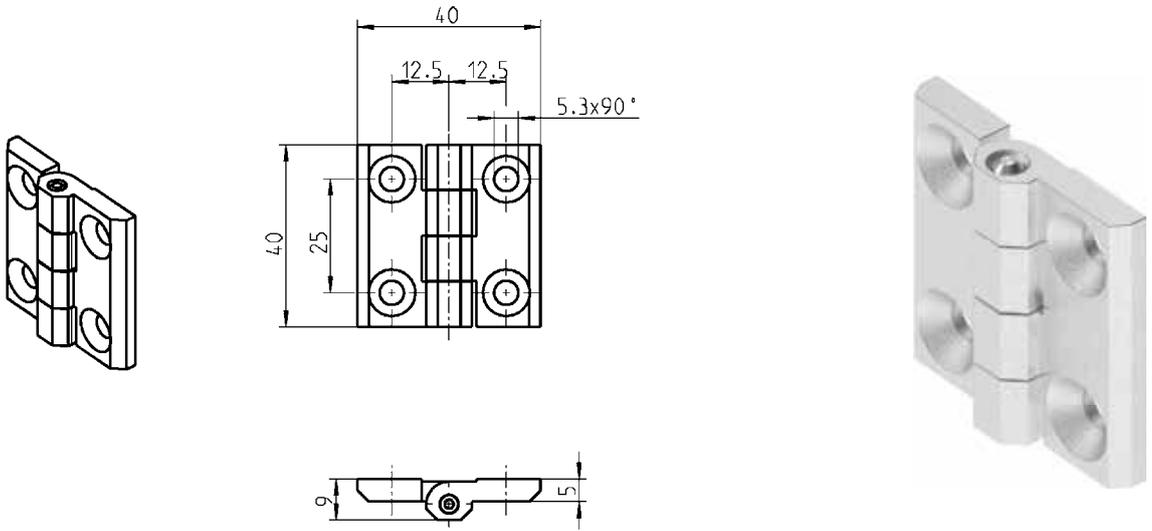


Screw-on hinge zinc die or stainl. steel, threaded studs M6 stainl. steel

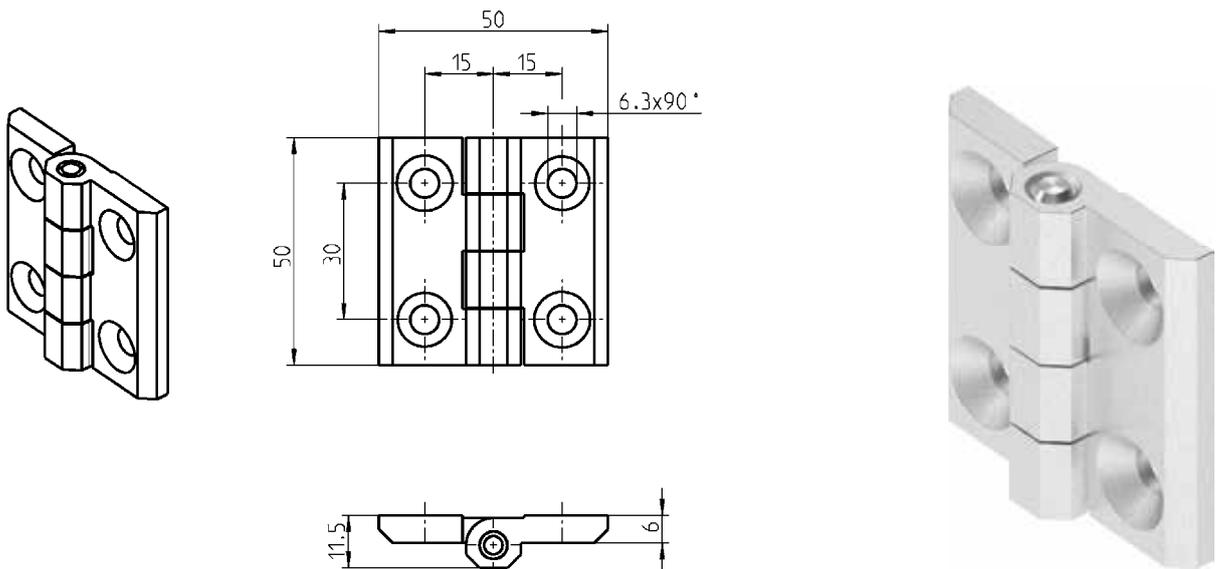
| | Pin | Threaded pin M6 | for countersunk screw M6 (2D-nut applicable) |
|---------------------------------|-----------------|--------------------|---|
| Zinc die chrome plated | Stainless steel | 1056-U15 | 1056-U17 |
| Zinc die black powder coated | Stainless steel | 1056-U16 | 1056-U18 |
| AISI 316 | Stainless steel | - | 1056-U17-PH |

180° stainless steel screw-on hinge

PROGRAM 1056



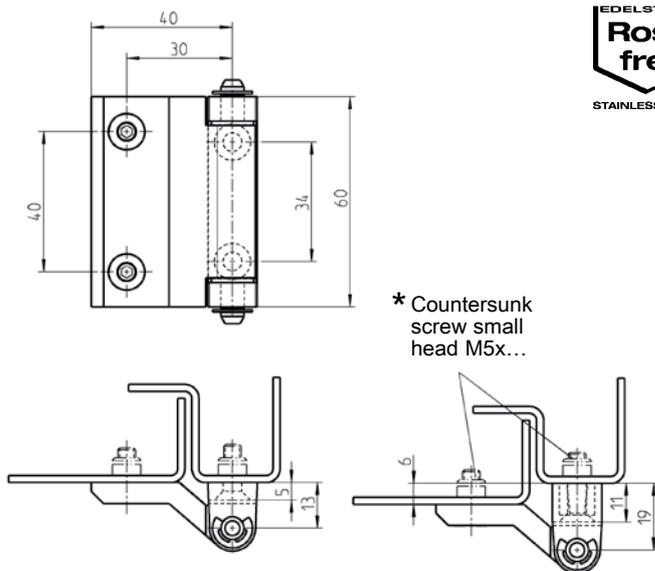
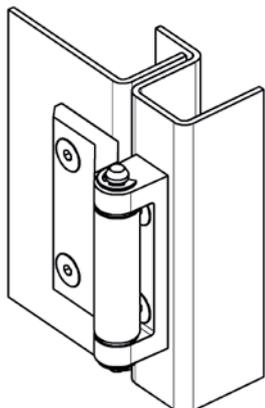
Screw-on hinge AISI 316 for countersunk screw M5 1056-U5-PH



Screw-on hinge AISI 316 for countersunk screw M6 1056-U9-PH

180° Screw-on hinge

PROGRAM 1054



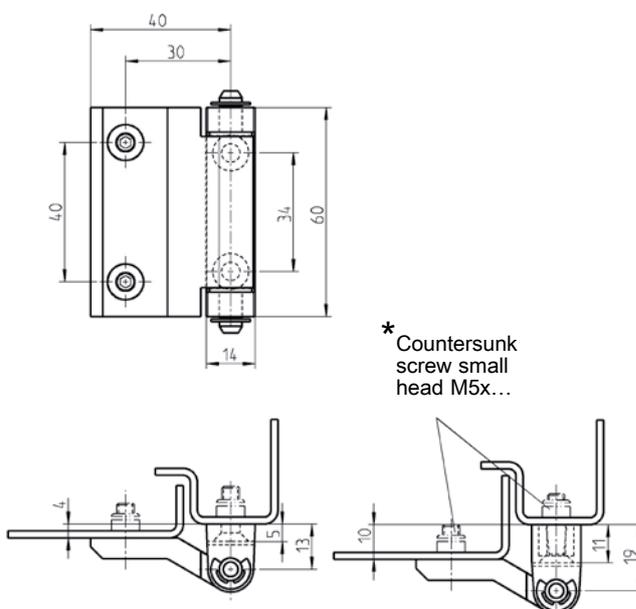
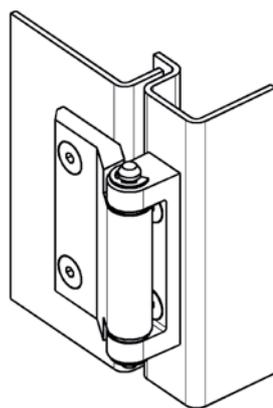
Screw-on hinge zinc die, pin and washer m.s. zinc plated and bush polyamide

| | straight | 6 mm higher |
|---------------------|-------------|-------------|
| chrome-plated | 1054-U4 | 1054-U27 |
| black powder-coated | 1054-U5 | 1054-U28 |
| raw | 1054-U22 ** | 1054-U29 ** |

** = Minimum order quantity 1,000 pcs.

Screw-on hinge AISI 316 and bushes polyamide

| | | |
|--|------------|---|
| | 1054-U5-PH | - |
|--|------------|---|



Screw-on hinge zinc die, pin and washer m.s. zinc plated and bush polyamide

| | 4 mm higher | 10 mm higher |
|---------------------|-------------|--------------|
| chrome-plated | 1054-U7 | 1054-U19 |
| black powder-coated | 1054-U10 | 1054-U20 |
| raw | 1054-U18 ** | 1054-U21 ** |

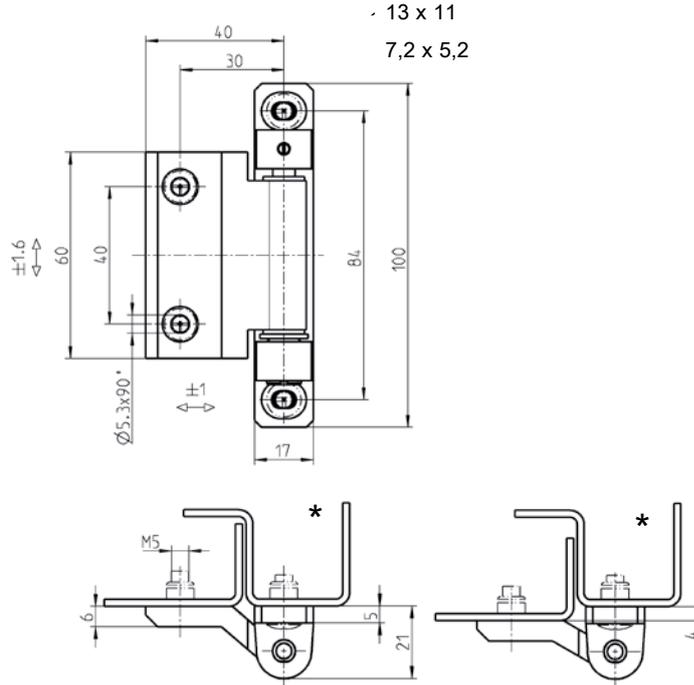
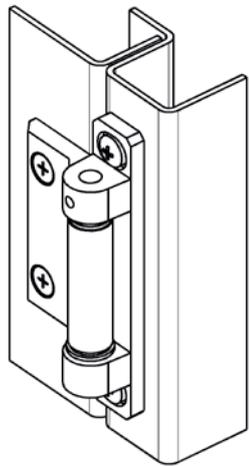
** = Minimum order quantity 1,000 pcs.

* not included in the scope of supply

small head = DIN ISO 2009, 2010, 7046-1, 7046-2, 7047

180° 2D-Screw-on hinge

PROGRAM 1054

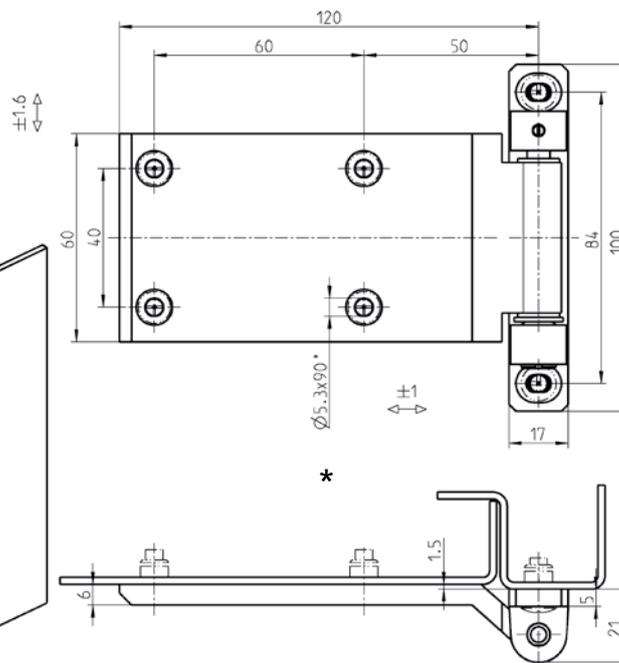
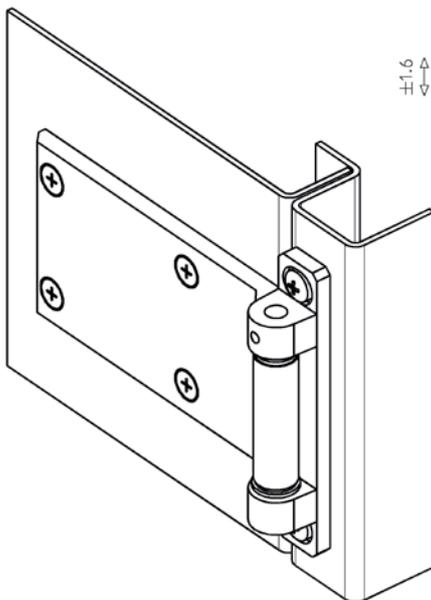


Counterbores for small head countersunk screw M5

RH or LH version by turning around the door part

Hinge pin is self-gripping

13 x 11
7,2 x 5,2



Version C



2D Screw-on hinge zinc die, axle brass nickel plated;
washer m.s. zinc plated and bush polyamide

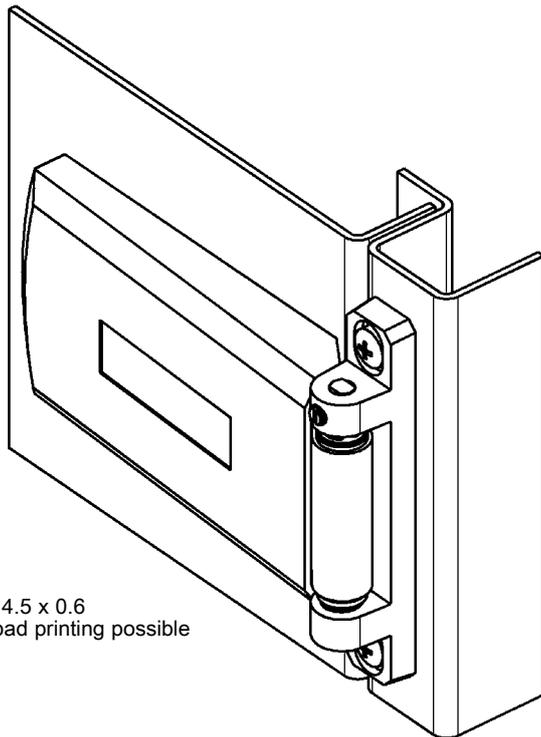
| | Version A | Version B | Version C |
|---------------------|-------------|-------------|-------------|
| black powder-coated | 1054-U33-01 | 1054-U34-01 | 1054-U35-01 |
| raw | 1054-U33-02 | 1054-U34-02 | 1054-U35-02 |

* not included in the scope of supply

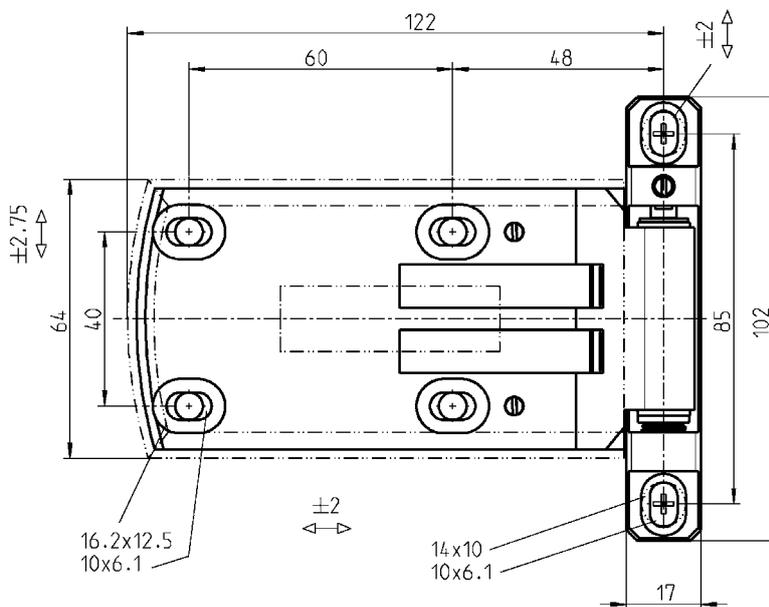
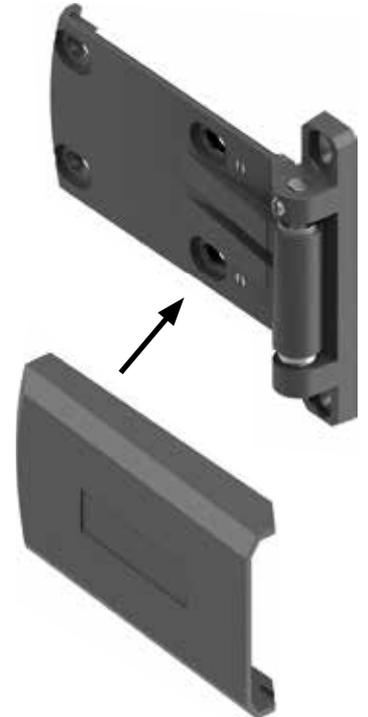
small head = DIN ISO 2009, 2010, 7046-1, 7046-2, 7047

180° 3D-Screw-on hinge

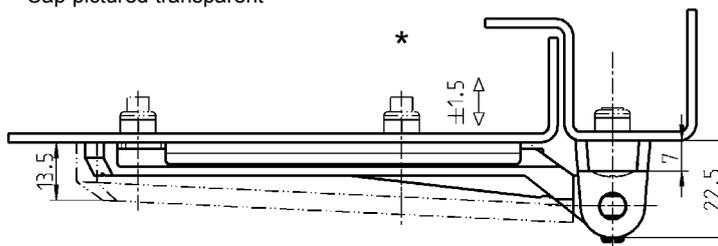
PROGRAM 1054



Logo: 49 x 14.5 x 0.6
Multicolour pad printing possible



Cap pictured transparent



3D-screw-on hinge zinc die black p.c., axle stainless steel,
pin and washer steel zinc pl., cap and bush polyamide black

RH version

1054-U36-RE

LH version

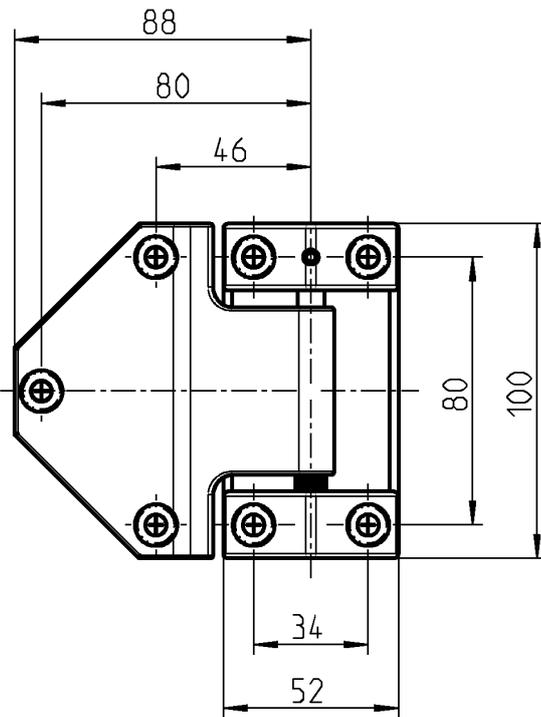
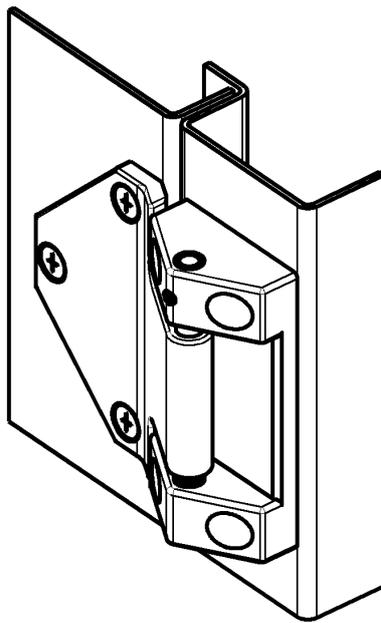
1054-U36-LI

* not included in the scope of supply

RH or LH version by turning around the door part

180° Stainless steel screw-on hinge adjustable

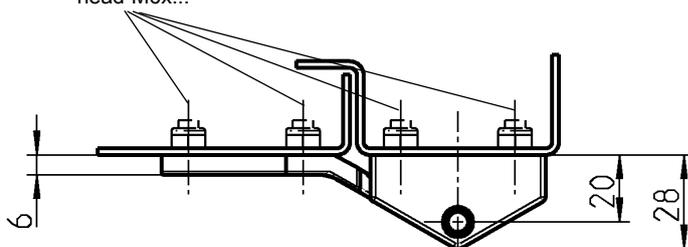
PROGRAM 1054



Height adjustment ± 4 mm

RH or LH version by turning around the door part

* Countersunk screw small head M6x...



* not included in the scope of supply

Screw-on hinge adjustable stainless steel 1.4571; washer and hinge pin

1054-U39

small head = DIN ISO 2009, 2010, 7046-1, 7046-2, 7047

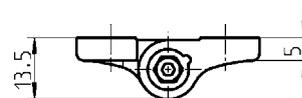
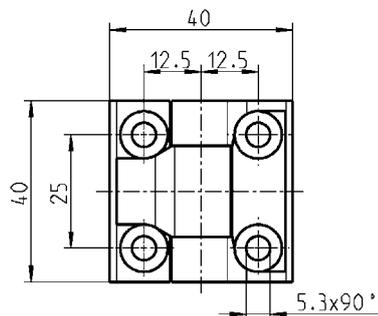
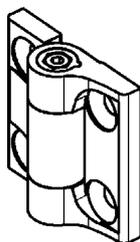
180° Screw-on torque hinge with adjustment function

PROGRAM 1056



Product benefits

- Adjustable torque
- Holds any position continuously at adequate load
- Constant torque across 180° adjustment range
- Same torque while opening and closing
- Compatible with all hinges of the 1056 program with identical cut out
- Can replace door stops, cover stays or gas springs depending on installation location



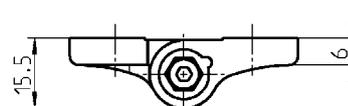
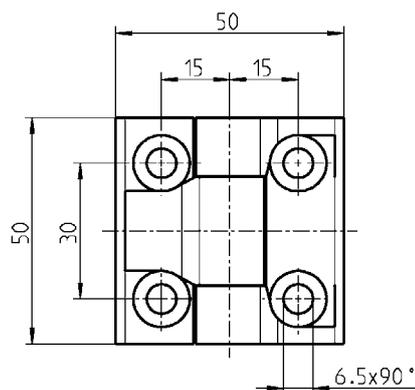
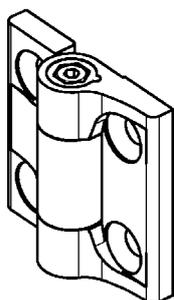
180° Screw-on torque hinge zinc-die black powder-coated for countersunk screw M5; friction cone polyacetal POM; screw and nut m.s. zinc-plated

Nm max. tightening torque of screw in Nm

to ~ 2

0,5

1056-U6-01



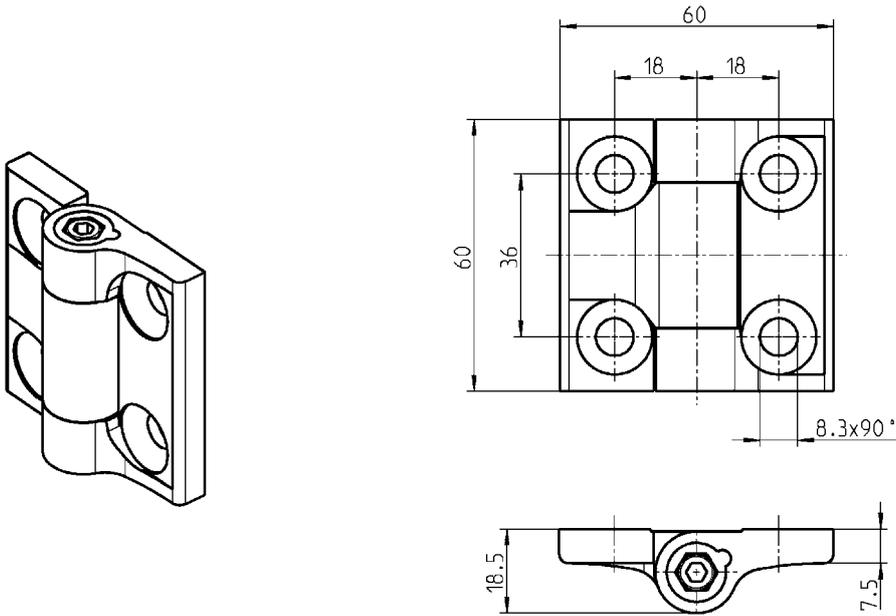
180° Screw-on torque hinge zinc-die black powder-coated for countersunk screw M6 (2D nut can be used); friction cone polyacetal POM; screw and nut m.s. zinc-plated

Nm max. tightening torque of screw in Nm

to ~ 4

0,75

1056-U10-01



180° Screw-on torque hinge zinc-die black powder-coated for countersunk screw M8; friction cone polyacetal POM; screw and nut m.s. zinc-plated

| Nm | max. tightening torque of screw in Nm | |
|----------|---------------------------------------|-------------|
| to ~ 6.5 | 1,5 | 1056-U14-01 |

Dimensioning / Calculation:

The number of hinges in case of covers depends on the size and the weight of the cover. We are pleased to help you with the dimensioning of the hinges on request.



Example:

- Opening angle: $\alpha = 120^\circ$
- Door length: $L = 0,8 \text{ m}$
- Door mass: $m = 3.5 \text{ kg}$
- Gravitational pull: $g = 9.81 \text{ m/s}^2$
- Torque hinge: $M = 6.5 \text{ Nm}$
- Number of hinges: $n = ?$

Formula:

$$\text{Total } M = \left(\frac{L \times m \times g \times \sin \alpha}{2} \right)$$

Result:

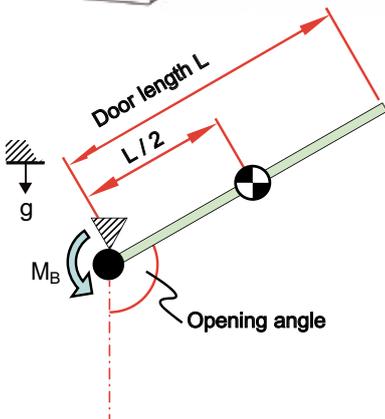
11.9 Nm = 2 hinges of item no. 1056-U14-01

Torque hinge

The hinge can be set continuously in any position. There it remains at the same position. The torque is similar when opening and closing.

Application:

This torque hinge is suitable for doors and covers.

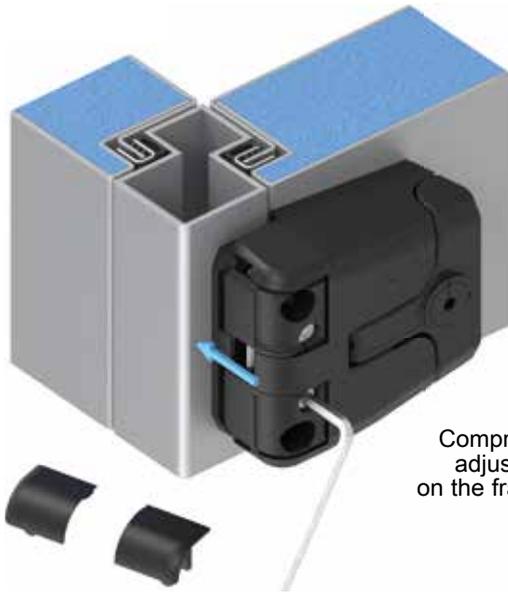


Compression Latch-Hinge medium with or without pressure relief

PROGRAM 1091



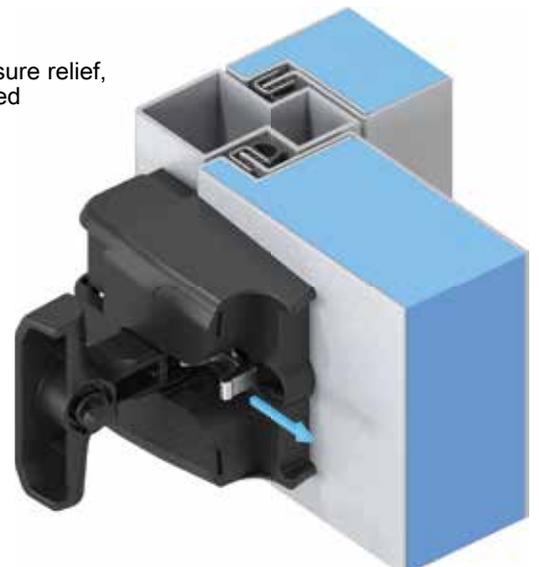
Compression Latch-Hinge locked



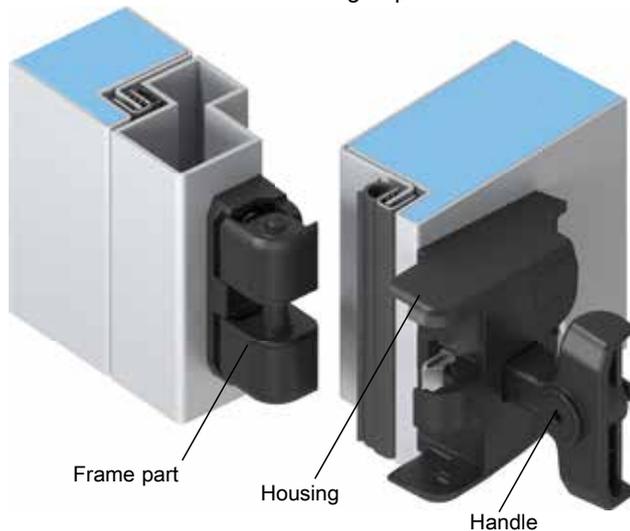
Compression adjustable on the frame part



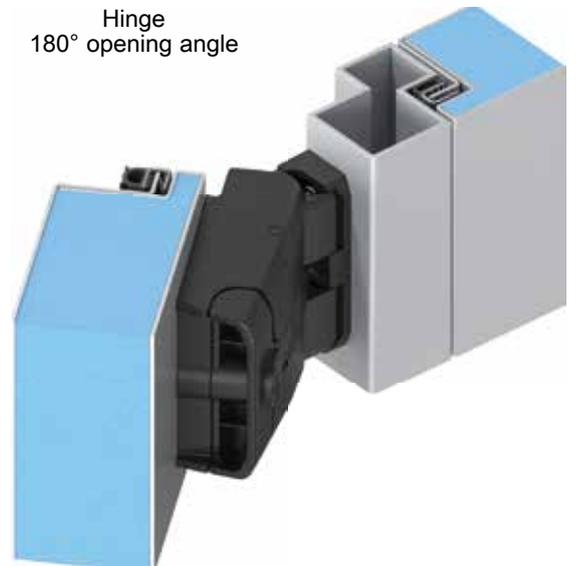
Latch-Hinge with pressure relief, handle unlocked



Latch-Hinge open

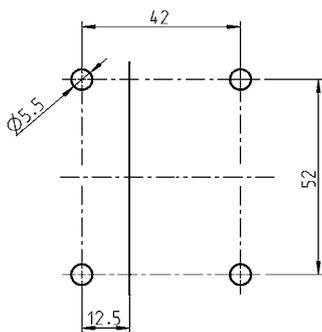
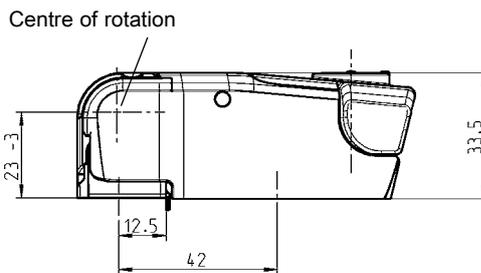
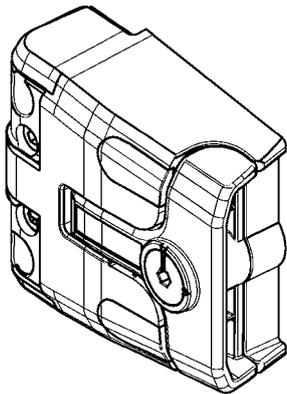


Hinge 180° opening angle

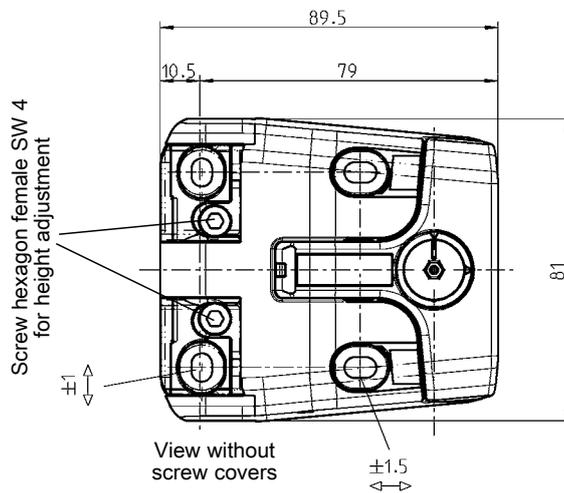


Product benefits

- When the door is closed, the latch is adjustable (3 mm) to achieve perfect alignment
- The favourable pivot point of the handle makes a seal compression of 5 mm possible using low actuation forces
- Door or panel can be removed by unlatching the handles on both sides
- 3D adjustable (tolerance compensation)
- Latch hinge can be mounted as one piece with the door / flap in place
- Right or left hinged
- Hinge 180° opening angle
- Optional Compression Latch-Hinge available with safety feature "pressure relief"
- ATEX compliant explosion protection version available
- Patent submitted



Frame part Housing
Cut out



View without screw covers

Compression Latch-Hinge medium:
housing, handle, screw covers polyamide GF black;
top and bottom frame part zinc die black powder-coated;
latch zinc die nickel-plated and Top Coat; pin AISI 303;
screw for height adjustment, washer and nut m.s. zinc-plated; with spring

① insert hexagon female BS 4 polyamide GF black

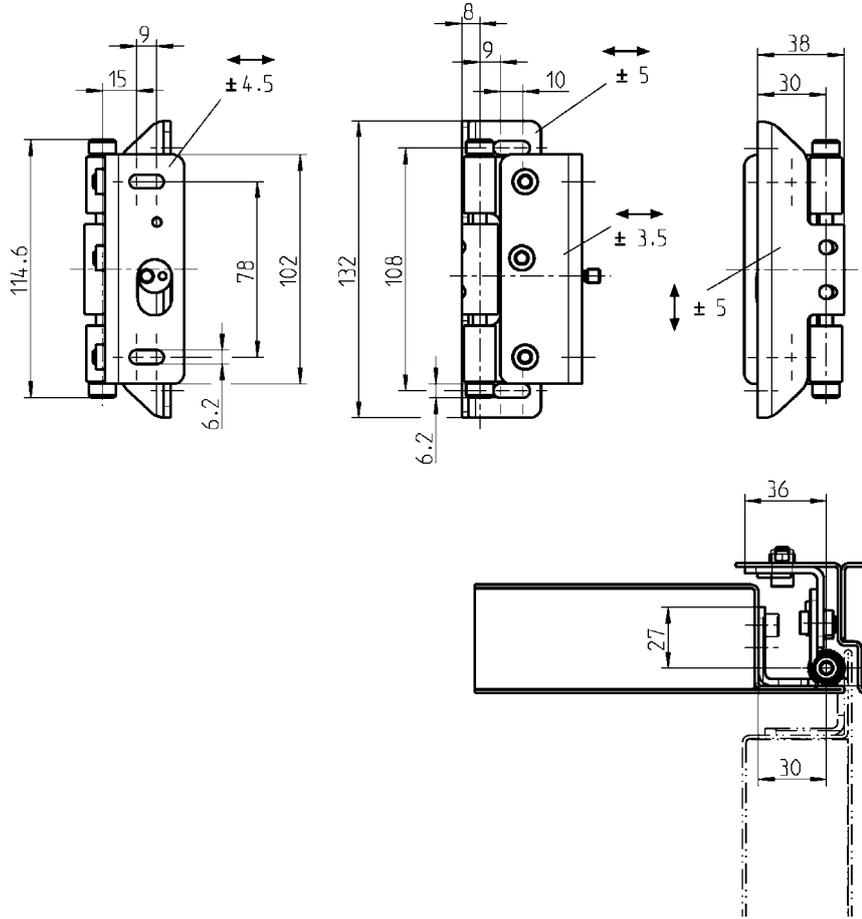
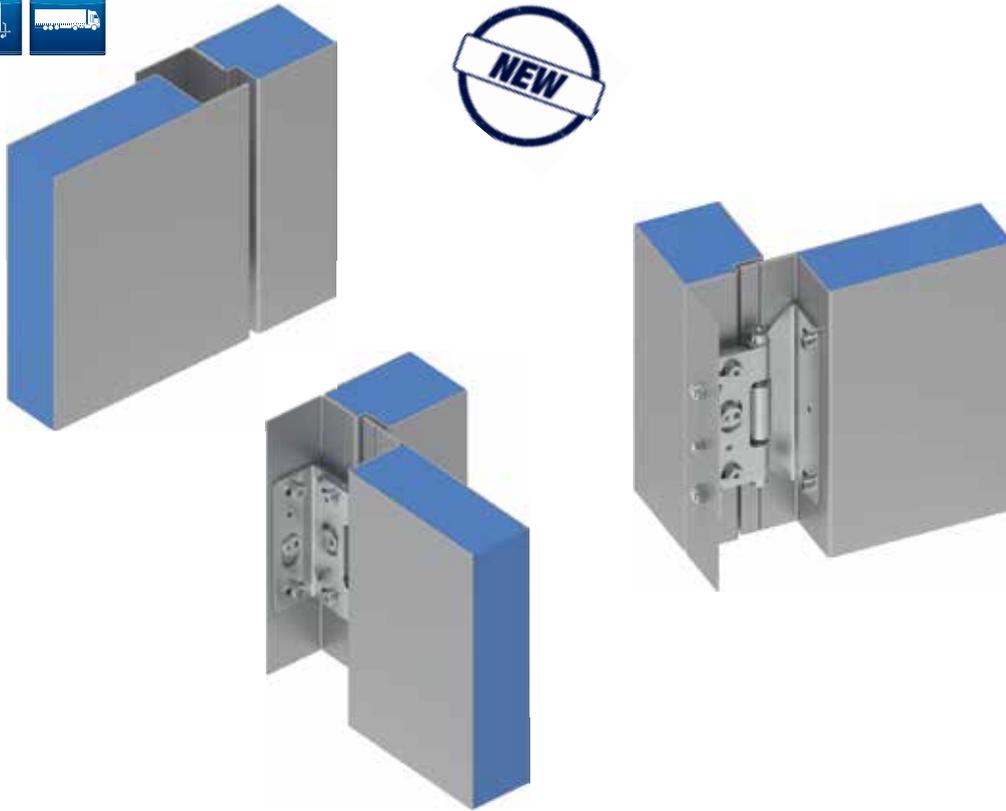
② Round cylinder Series 9000 zinc die with stainless steel cap and dust cap.
Each round cylinder has two silver steel nickel plated reversible keys at a ring.

| | ① Insert | ② Keyed 9081 | ② Keyed different |
|-------------------------|-----------|--------------|-------------------|
| without pressure relief | 1091-U146 | on request | on request |
| with pressure relief | 1091-U147 | on request | on request |

Further inserts on request

90° 3D Hinge

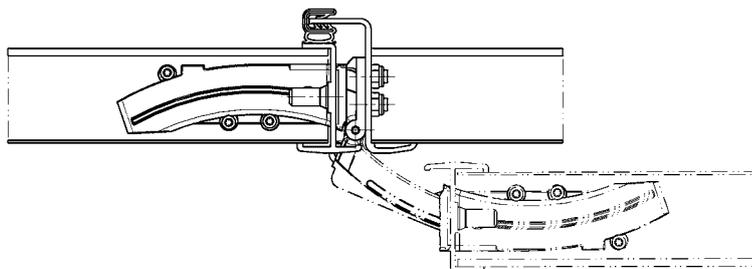
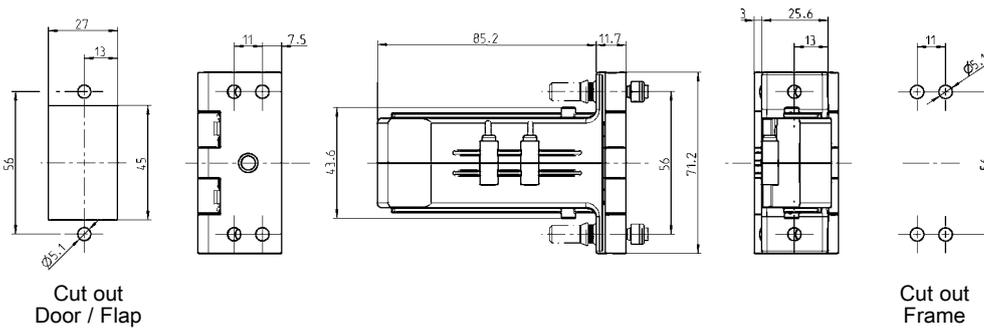
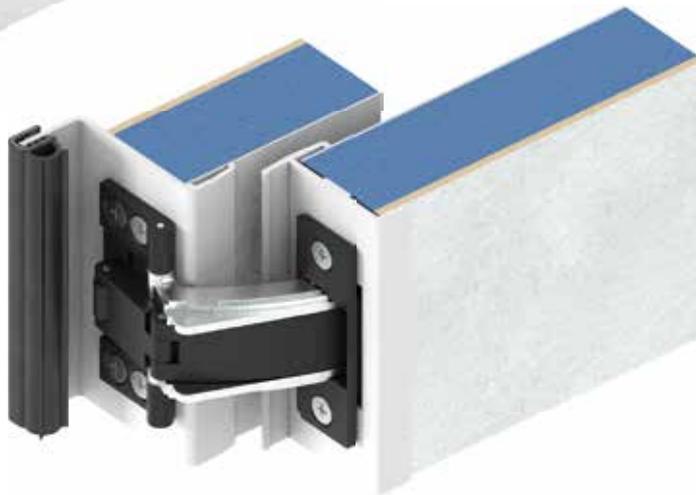
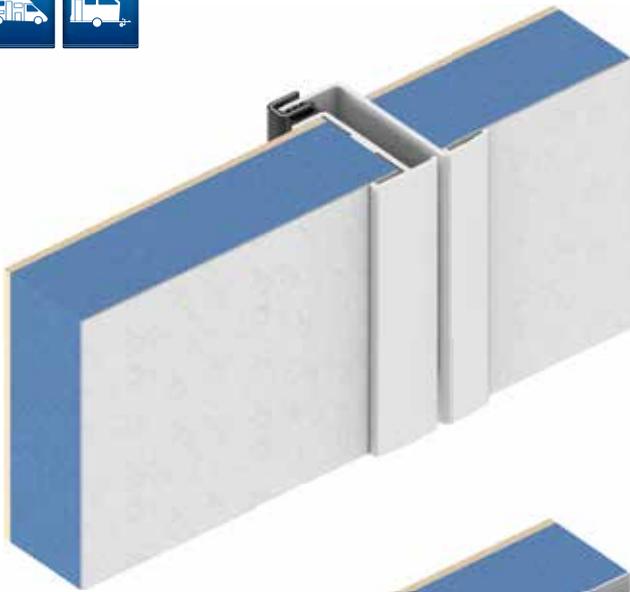
PROGRAM 1031



90° 3D Hinge m.s. zinc plated; eccentric bolt and screws m.s. zinc plated; plain bushes
1031-SU107

180° gear hinge

PROGRAMM 1007



180° Gear hinge
housing, frame part and lever polyamide 66 GF 50 black; slide POM black;
hinge slide and gearwheel zinc die zinc-plated; washers PTFE;
pins stainless steel; screws m.s. zinc-plated

1007-U10





1 Locks



2 Hinges



3 Gasketings

| | |
|----------------------------|--------|
| Information | T3-100 |
| Gasketings self-gripping | T3-210 |
| Cell sponge rubber | T3-310 |
| Fire protection gasketings | T3-400 |
| Edge protection | T3-510 |
| Support for tank straps | T3-610 |
| Examples | T3-710 |



4 Accessories



EMKA specializes in extruding rubber and plastic in a variety of profiles. At own plants in the UK and Spain rubber profiles are made in a wide range of types as standard and custom made solution.

As carrier sections meshed tape and metal-reinforced strips can be used and textile yarn can be worked in. Moreover, flocking is also possible.

In the further processing department fixed lengths, vulcanised rings and frames can be made to size. Some EMKA branches have machines for vulcanising corner joints. The application of adhesive tape or lubricant varnish completes the range.

EMKA know-how guarantees top quality.

EMKA manufactures more than 1,500 sealing profiles.

Many of which are catalogue standard parts, some custom-made unique copies. Either way, for every requirement the right sealing.

On request we supply our high quality goods with the respective certification and / or test panels for further tests at customer's site.

| Product categories | Materials |
|----------------------|-----------|
| Sealing profiles | EPDM |
| Rubber profile | NBR |
| Edge protection | SBR |
| Foam rubber | PVC |
| Moulded rubber parts | TPE |
| Plastic profiles | TPV |
| | PP |

Many more gasketings can be found in the EMKA general catalog as well as on the internet at www.emka.com



Pictograms

The sealing profiles usually can be used in any application area and can be custom-made as required. For this reason, pictograms are not used in the chapter gasketings.



Clip-on profile with sealing balloon or sealing lip top

The clip-on profile is clipped onto the designated edge.

There are various shape and material types to choose from. Depending on the installation situation a sealing balloon or sealing lip is to be used.



Clip-on profile with sealing balloon or sealing lip on the side

The clip-on profile is clipped onto the designated edge.

There are various shape and material types to choose from. Depending on the installation situation a sealing balloon or sealing lip is to be used.



Insert profile with sealing balloon on top

The insert profile is inserted into the respective designated duct.

There are various heights, widths and types to choose from.

Frames and rings information

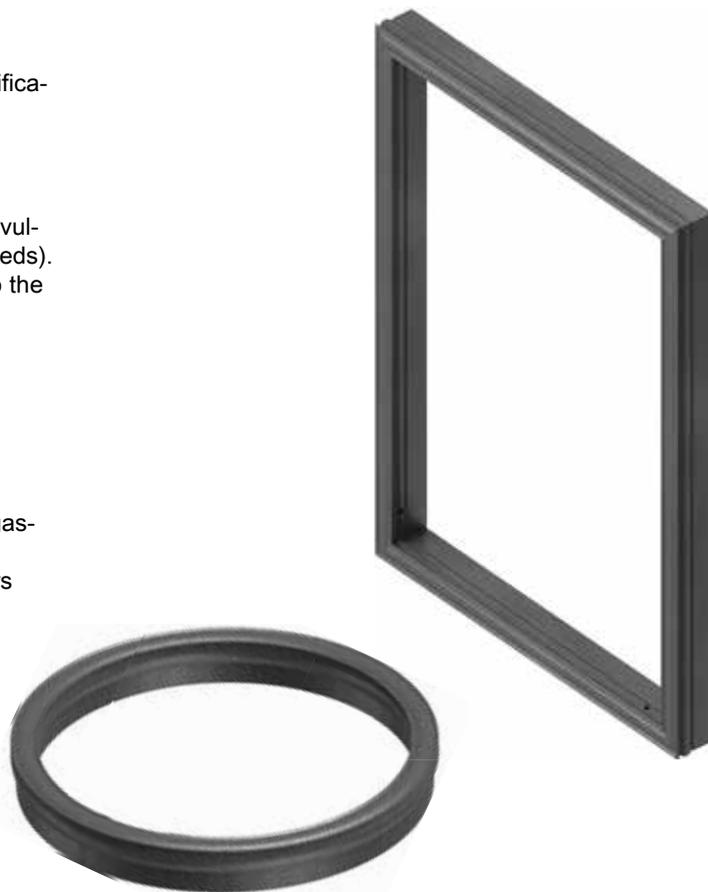
Readily customised frames and rings according to customer specifications possible.

We offer numerous assembly possibilities for the known profiles in fixed lengths.

For frames and rings the butt and corner joints can be glued, film vulcanised or realised by injection moulding (formed corners / end feeds). Possibly arising tool costs needs to be clarified beforehand due to the required assembly option.

Product benefits

- The exact and time-intensive mitre-cutting of the gasket or the observance of the given minimum bending radius of the gaskets are not necessary
- The assembled frames and rings facilitate the mounting on doors and cabinets frames
- No leakiness at butt ends and mitre joints



Glueing

The most simple process is to glue two profile ends.
For all rings, vent holes are strongly recommended as the compression force increases in a closed ring.
A better solution to glueing two profiles is film vulcanization.



Film vulcanising

Film vulcanising is a permanent and durable process. A foil of the same material is inserted between the profile ends that are to be vulcanised. The required time for film vulcanising is longer than for glueing.



Injection moulding

Injection moulding means formed corners and end injection moulding. Injection moulding is e.g. a process to produce special corners for frame. The example next shows ① a rounded frame while the clamping range ② is produced rectangular. This option is not possible for vulcanising gasket ends with mitre joint ①.



Notes:

Tolerance of gaskets:

Gasket tolerance dependant upon DIN ISO 3302-1. Soft rubber usually according to 'E2' and sponge rubber according to 'E3'.

PVC edge protection profile tolerance dependant upon DIN 16941-3B.

Following are some examples:

| Nominal dimension | | Tolerance class DIN ISO 3302-1 E2 | Tolerance class DIN ISO 3302-1 E3 |
|-------------------|-----|--------------------------------------|--------------------------------------|
| over | to | | |
| 0 | 1,5 | ±0.25 | ±0.40 |
| 1,5 | 2,5 | ±0.35 | ±0.50 |
| 2,5 | 4,0 | ±0.40 | ±0.70 |
| 4,0 | 6,3 | ±0.50 | ±0.80 |
| 6,3 | 10 | ±0.70 | ±1.00 |
| 10 | 16 | ±0.80 | ±1.30 |
| 16 | 25 | ±1.00 | ±1.60 |
| 25 | 40 | ±1.30 | ±2.00 |
| 40 | 63 | ±1.60 | ±2.50 |

| Nominal dimension | | Tolerance class DIN 16941-3B |
|-------------------|----|---------------------------------|
| over | to | |
| 0 | 3 | ±0.40 |
| 3 | 6 | ±0.60 |
| 6 | 10 | ±0.70 |
| 10 | 18 | ±0.80 |
| 18 | 30 | ±1.00 |

The appropriate storage is important (optimal storage temperature +5°C to +20°C). For the storage of gaskets, attention should be paid to DIN 7716 (guidelines for storage, maintenance and cleaning of rubber products). If possible, wrong storage in respect to long lay days or storing times should be avoided, since the mechanical characteristics may change.

| Elastomers - operating temperatures and hardnesses: | | |
|---|------------------------|-----------------------|
| Materials | Operating temperatures | Hardness(±5° Shore A) |
| EPDM | approx. -40°C to 100°C | 25° (MG) to 90° (WG) |
| NBR | approx. -30°C to 100°C | 25° (MG) to 90° (WG) |
| CR | approx. -25°C to 100°C | 40° to 90° |
| PVC | approx. -40°C to 70°C | 55° to 75° |
| Silicon | approx. -60°C to 180°C | 10° to 90° |

MG=sponge rubber / WG=soft rubber

Recommended compression for extruded sealing profile:

The compression of our sealing profiles should be 50% max. since otherwise the function (tightness) and the resetting forces are affected. In practice, the profiles are compressed between 30-50%.

It does not matter, whether it is a EPDM, NBR or a silicone profile. Here, the mechanical properties are (unlike the chemical resistances) quite comparable. If the gasket is deformed beyond these limitations, there is the risk of the compression set (DVR) becoming too big because the material deforms plastically as well.

Then the gasket would be designed too lean.

Resistances:

Because of the large variety of possible chemicals, solvent (concentrations), operating temperatures and times, no evaluations concerning the possible resistances can be made at this point. In every individual case, a test in the present circumstances, like concentration, temperature and duration of the impact, is recommended.

Fire protection:

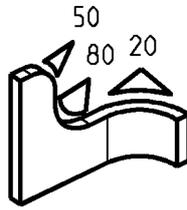
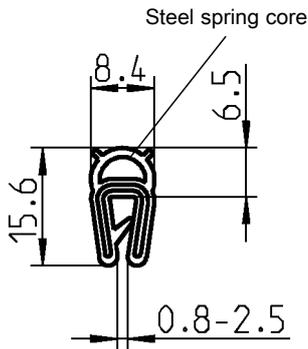
We supply materials certified according to the current fire protection standards for rail vehicles. E. g. according to DIN 5510-2; NF F 16-101/ -102; DIN EN 45545-2; UNI CEI 11170; ASTM-C and -E. Whether the achieved categories fit to the respective requirements or vehicle classes has to be verified for the individual case. Generally speaking you can achieve higher fire protection classes with silicone profiles than with EPDM.

Disclaimer:

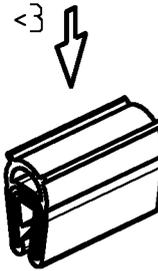
As a rule, disclosed values are standard values detected on sample plates and correspond to our state of knowledge. They do not, however, relieve the final user from their own thorough tests.

Info

1 Locks



UL US *



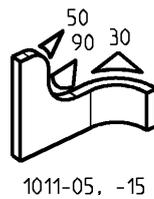
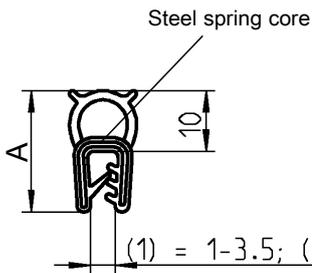
compressible



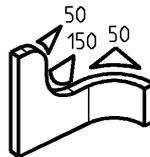
Gasket material of your choice

| | |
|--|----------|
| Sponge rubber (EPDM) black (gripping profile EPDM 65° ± 5 Shore A) | 1011-10* |
| Foam rubber(NBR) black (Clamp profile NBR 60° ± 5 Shore A) | 1011-50 |

2 Hinges



1011-05, -15



1011-47, -49

UL US *



compressible

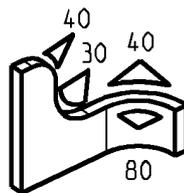
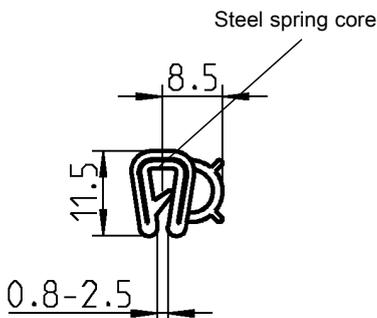


Gasket material of your choice

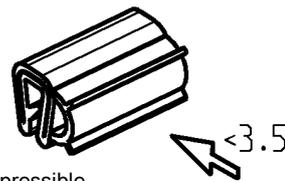
| Gasket material of your choice | A | |
|--|----|--------------|
| Sponge rubber (EPDM) black (gripping profile EPDM 65° ± 5 Shore A) | 20 | 1011-05* (1) |
| Foam rubber(NBR) black (Clamp profile NBR 60° ± 5 Shore A) | 21 | 1011-15 (1) |
| Sponge rubber (EPDM) black (gripping profile EPDM 65° ± 5 Shore A) | 21 | 1011-49 (2) |
| Foam rubber(NBR) black (Clamp profile NBR 60° ± 5 Shore A) | 21 | 1011-47 (2) |

3 Gasketings

4 Accessories



UL US *



compressible



UL US *

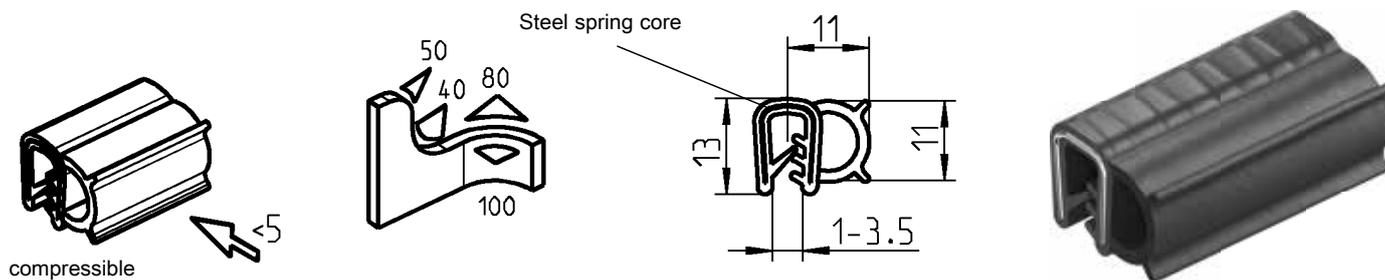
UL 50
UL 50(E)
UL 94-HB

Gasket profile sponge rubber (EPDM) black (gripping profile EPDM 65° ± 5 Shore A)

1011-09*

Index

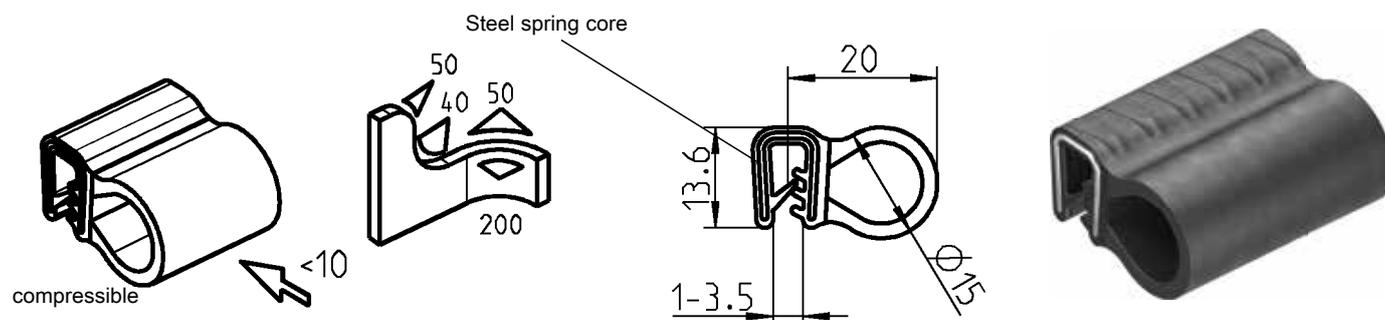
cRU[®] US *



Gasket material of your choice

| | |
|--|----------|
| Sponge rubber (EPDM) black (gripping profile EPDM 65° ± 5 Shore A) | 1011-06* |
| Foam rubber(NBR) black (Clamp profile NBR 60° ± 5 Shore A) | 1011-16 |

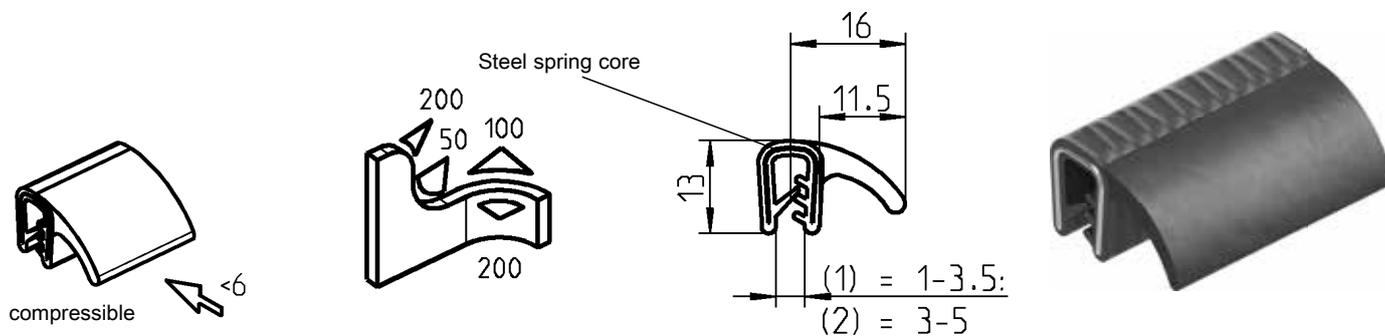
cRU[®] US *



Gasket profile sponge rubber (EPDM) black (gripping profile EPDM 65° ± 5 Shore A)

1011-12*

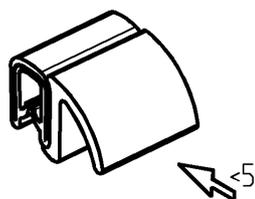
cRU[®] US *



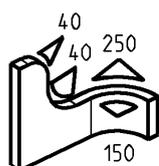
Gasket material of your choice

| | | |
|--|-----|----------|
| Sponge rubber (EPDM) black (gripping profile EPDM 65° ± 5 Shore A) | (1) | 1011-08* |
| Foam rubber(NBR) black (Clamp profile NBR 60° ± 5 Shore A) | (1) | 1011-46 |
| Foam rubber(NBR) black (Clamp profile NBR 60° ± 5 Shore A) | (2) | 1011-48 |

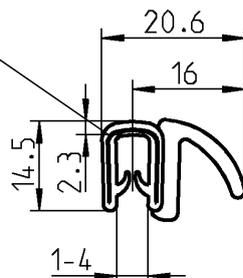
* cRU[®] US
UL 50
UL 50(E)
UL 94-HB



compressible

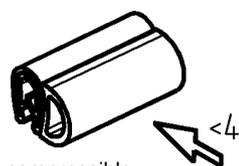


Steel spring core

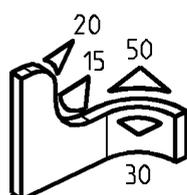


Gasket sponge-rubber (EPDM) black (clamping profile PVC 70° ± 5 Shore A)

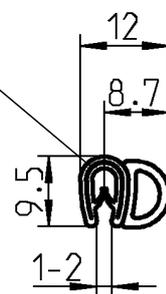
1011-17



compressible



Steel spring core



Gasket profile sponge rubber (EPDM) black (clamping profile EPDM 65° ± 5 Shore A)

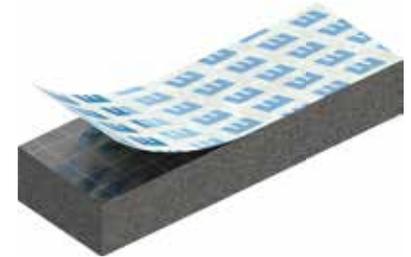
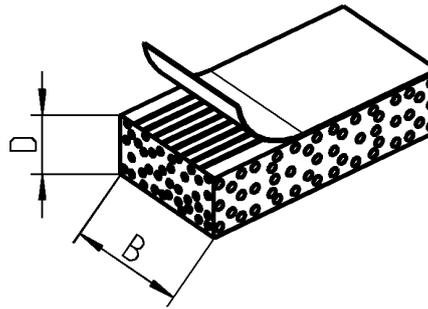
1011-20-01

Cell sponge rubber

PROGRAM 1016

Coil length:

For depths 3 – 7 = Coil length a 10 m
 For depths 8 – 10 = Coil length a 5 m
 For depths 11 = in strip a 1 m



These items can be delivered from stock.
 All others will have a lead time of 2 - 3 weeks.

Special lengths available in 6 to 8 weeks. Minimum quantity on request
 (Article-No.: 1016- ... L mm) e.g. 1016-118-1400

| Cell sponge rubber, material on choice, black, with stretch eliminating self-adhesive backing | | | | | | | |
|---|-------|---------|----------|-------------|----------|----------|----------|
| Measurement | | | | Measurement | | | |
| Width | Depth | EPDM | CR | Width | Depth | EPDM | CR |
| 10 | 3 | 1016-13 | 1016-61 | 30 | 10 | 1016-123 | 1016-159 |
| | 4 | 1016-14 | 1016-62 | | 12 | 1016-124 | 1016-160 |
| | 5 | 1016-15 | 1016-63 | | 15 | 1016-125 | 1016-161 |
| 10 | 6 | 1016-75 | 1016-99 | | 20 | 1016-126 | 1016-162 |
| | 8 | 1016-76 | 1016-100 | | 25 | 1016-127 | 1016-163 |
| | 10 | 1016-77 | 1016-101 | | 40 | 5 | 1016-128 |
| 15 | 3 | 1016-16 | 1016-64 | 10 | | 1016-129 | 1016-165 |
| | 4 | 1016-17 | 1016-65 | 15 | | 1016-130 | 1016-166 |
| | 5 | 1016-18 | 1016-66 | 20 | | 1016-131 | 1016-167 |
| 15 | 6 | 1016-78 | 1016-102 | 25 | | 1016-132 | 1016-168 |
| | 8 | 1016-79 | 1016-103 | 30 | | 1016-133 | 1016-169 |
| | 10 | 1016-80 | 1016-104 | 50 | 5 | 1016-134 | 1016-170 |
| | 12 | 1016-81 | 1016-105 | | 10 | 1016-135 | 1016-171 |
| | 15 | 1016-82 | 1016-106 | | 15 | 1016-136 | 1016-172 |
| 20 | 3 | 1016-19 | 1016-67 | | 20 | 1016-137 | 1016-173 |
| | 4 | 1016-20 | 1016-68 | | 25 | 1016-138 | 1016-174 |
| | 5 | 1016-21 | 1016-69 | | 30 | 1016-139 | 1016-175 |
| 20 | 6 | 1016-83 | 1016-107 | 60 | 5 | 1016-140 | 1016-176 |
| | 8 | 1016-84 | 1016-108 | | 10 | 1016-141 | 1016-177 |
| | 10 | 1016-85 | 1016-109 | | 15 | 1016-142 | 1016-178 |
| | 12 | 1016-86 | 1016-110 | | 20 | 1016-143 | 1016-179 |
| | 15 | 1016-87 | 1016-111 | | 25 | 1016-144 | 1016-180 |
| | 20 | 1016-88 | 1016-112 | | 30 | 1016-145 | 1016-181 |
| 25 | 3 | 1016-89 | 1016-113 | 70 | 5 | 1016-146 | 1016-182 |
| | 4 | 1016-90 | 1016-114 | | 10 | 1016-147 | 1016-183 |
| | 6 | 1016-91 | 1016-115 | | 15 | 1016-148 | 1016-184 |
| | 8 | 1016-92 | 1016-116 | | 20 | 1016-149 | 1016-185 |
| | 10 | 1016-93 | 1016-117 | | 25 | 1016-150 | 1016-186 |
| | 12 | 1016-94 | 1016-118 | | 30 | 1016-151 | 1016-187 |
| | 15 | 1016-95 | 1016-119 | 80 | 5 | 1016-152 | 1016-188 |
| | 20 | 1016-96 | 1016-120 | | 10 | 1016-153 | 1016-189 |
| 30 | 3 | 1016-22 | 1016-70 | | 15 | 1016-154 | 1016-190 |
| | 4 | 1016-23 | 1016-71 | | 20 | 1016-155 | 1016-191 |
| | 5 | 1016-24 | 1016-72 | | 25 | 1016-156 | 1016-192 |
| | 6 | 1016-97 | 1016-121 | | 30 | 1016-157 | 1016-193 |
| | 8 | 1016-98 | 1016-122 | 40 | 1016-158 | 1016-194 | |

History:

- The work on EN 45545 was finished in January 2012 for the time being.
- DIN EN 45545 was published in June 2013 (available from August 2013).
- The DOW (date of withdrawal) has been Extended from 6 to 36 months so that national standards, e. g. DIN 5510, are to be withdrawn by March 2016.

DIN EN 45545-2:

This part stipulates the test procedures for test conditions and requirements for the reaction to fire of each Hazard Level.

Hazard Level:

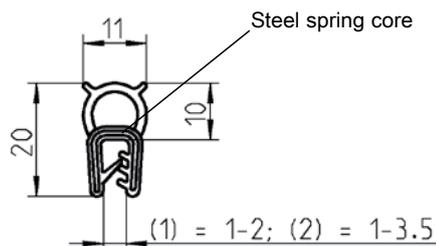
| Operation category | Building class | | | |
|--------------------|-------------------------|---|----------------------------|---|
| | N: Standard vehicles | A: Vehicles for automatic train operation not having staff on board that is trained for emergencies. | D: Double-decker trains | S: Sleepers and couchettes (bilevel or unilevel) |
| 1 | HL1 | HL1 | HL1 | HL2 |
| 2 | HL2 | HL2 | HL2 | HL2 |
| 3 | HL2 | HL2 | HL2 | HL3 |
| 4 | HL3 | HL3 | HL3 | HL3 |

Operation categories:

- Operation category 1: surface vehicles
- Operation category 2: tunnel max. 5 km
- Operation category 3: tunnel > 5 km
- Operation category 4: tunnel, evacuation from the side not possible

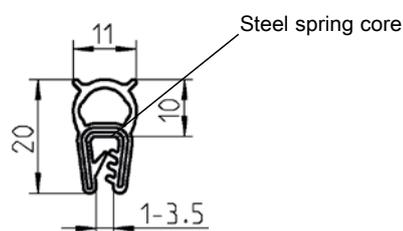
Gasketings:

The gasketing has been included in DIN EN 45545 and have to meet the requirements R22 for indoors or R23 for outdoors as a function of the Hazard Level. In order to be able to define the Hazard Level, you need to know the Operation Category and Building Class, e. g. 2 (tunnel max. 5 km) D (double-decker trains)!



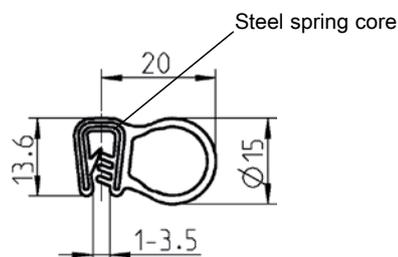
Fire protection sealing profile

| | | |
|-----|--|--------------|
| ⑤⑥⑦ | Sponge rubber (EPDM) black (clamping gasket sponge rubber EPDM) | 1011-S19 (1) |
| ①② | Sponge rubber (EPDM) black (gripping profile soft rubber) | 1011-S39 (2) |



Fire protection sealing profile silicon solid material

| | | |
|------|-------------------------------|-------------|
| ①②③④ | graphite grey 65° ±5° Shore A | 1011-S47-BF |
| ②③ | white 75° ±5° Shore A | 1011-S47-HA |

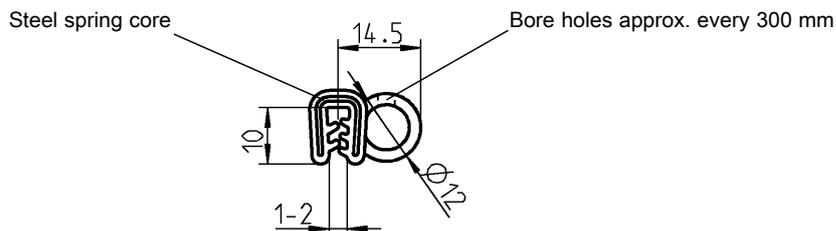


Fire protection sealing profile silicon solid material

| | | |
|------|-------------------------------|-------------|
| ①②③④ | graphite grey 65° ±5° Shore A | 1011-S42-BF |
| ②③ | white 75° ±5° Shore A | 1011-S42-HA |

Fire protection standards

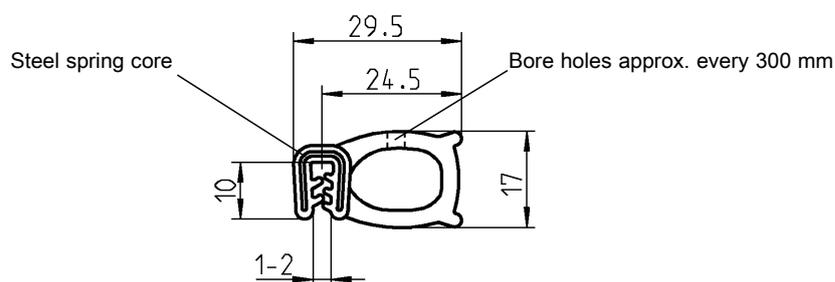
| | |
|---|-------------------|
| ① | DIN 5510-2 |
| ② | NF F 16-101/ -102 |
| ③ | DIN EN 45545-2 |
| ④ | UNI CEI 11170 |
| ⑤ | ASTM C542-90 |
| ⑥ | ASTM E662-95 |
| ⑦ | SMP 800-C |



Fire protection sponge-rubber (EPDM) black (gasket sponge-rubber EPDM)

⑤⑥⑦

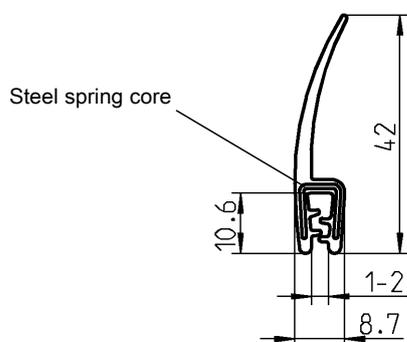
1011-S23



Fire protection sponge-rubber (EPDM) black (gasket sponge-rubber EPDM)

⑤⑥⑦

1011-S24



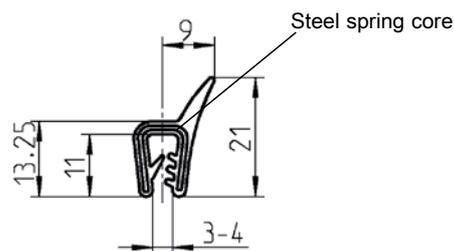
Fire protection sealing profile silicon solid material 65° ±5° Shore A graphite grey

①②③④

1011-S83-BF

Fire protection standards

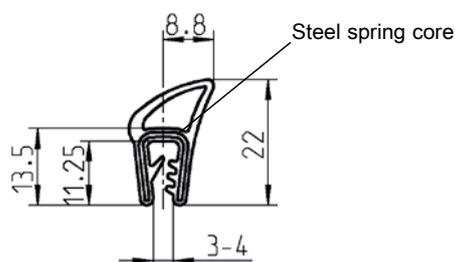
| | |
|---|-------------------|
| ① | DIN 5510-2 |
| ② | NF F 16-101/ -102 |
| ③ | DIN EN 45545-2 |
| ④ | UNI CEI 11170 |
| ⑤ | ASTM C542-90 |
| ⑥ | ASTM E662-95 |
| ⑦ | SMP 800-C |



Fire protection sealing profile silicon solid material 65° ±5° Shore A graphite grey

①②③④

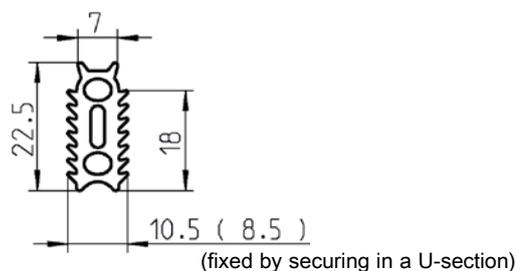
1011-S53-BF



Fire protection sealing profile silicon solid material 65° ±5° Shore A graphite grey

①②③④

1011-S56-BF



Fire protection sealing profile material of your choice

①②

Sponge rubber 30 ±5° Shore A black

1003-S23

①

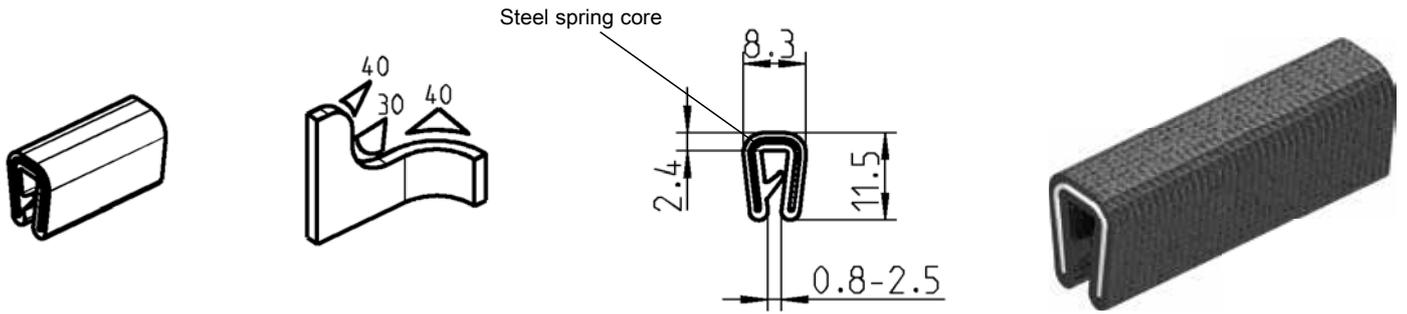
Silicon solid material 50° ±5° Shore A graphite grey

1003-S30-BF

Fire protection standards

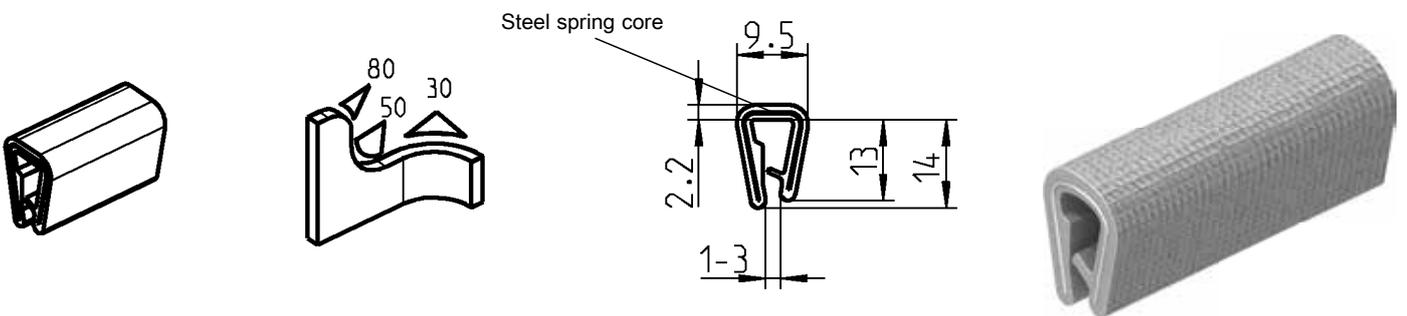
| | |
|---|-------------------|
| ① | DIN 5510-2 |
| ② | NF F 16-101/ -102 |
| ③ | DIN EN 45545-2 |
| ④ | UNI CEI 11170 |
| ⑤ | ASTM C542-90 |
| ⑥ | ASTM E662-95 |
| ⑦ | SMP 800-C |

Notes:



Edge protector EPDM 60° ± 5 Shore A black

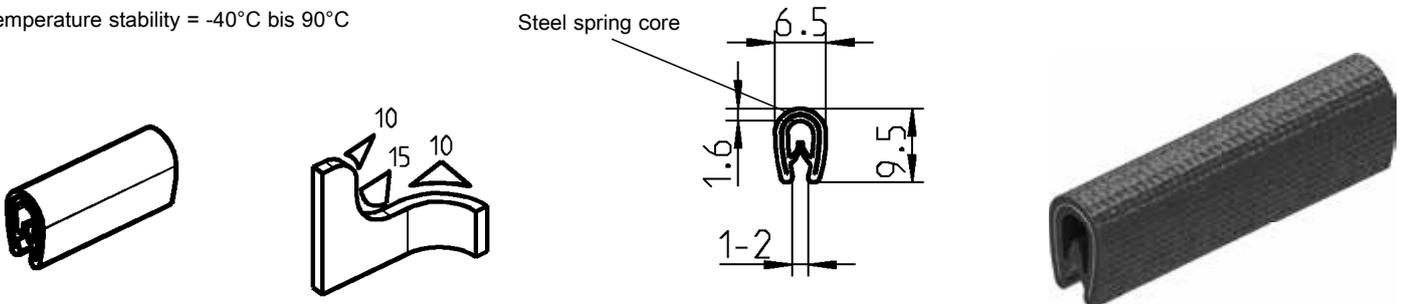
1010-12



Edge protector PVC grey

1010-05

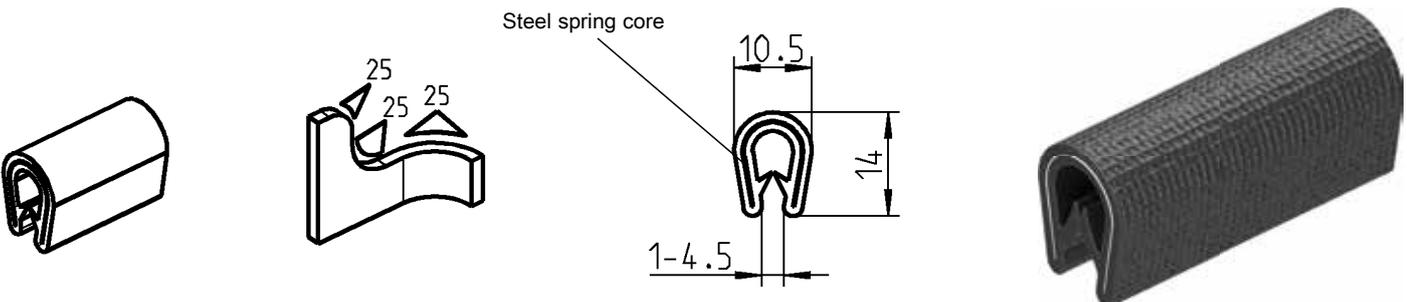
Temperature stability = -40°C bis 90°C



Edge protector PVC black

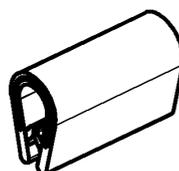
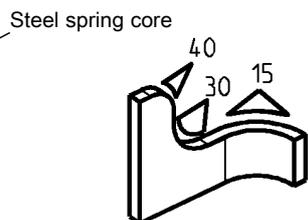
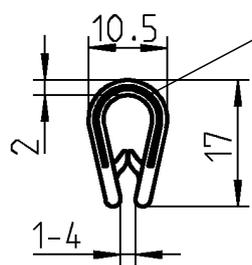
1010-02

Temperature stability = -40°C bis 90°C



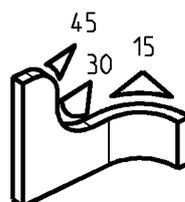
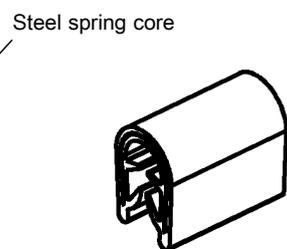
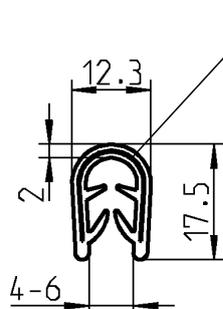
Edge protector PVC black

1010-01



Edge protector PVC black

1010-08



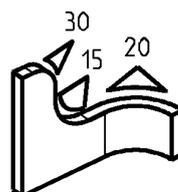
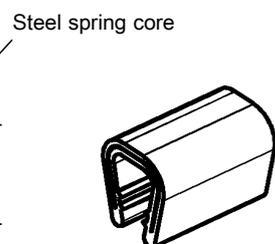
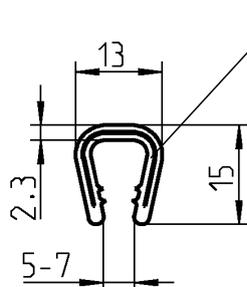
Edge protection PVC color of your choice

black

1010-11

dark grey

1010-11-01



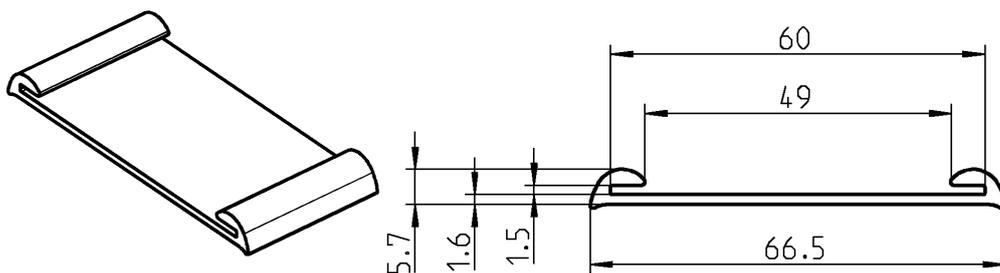
Edge protection color of your choice

black

1010-06

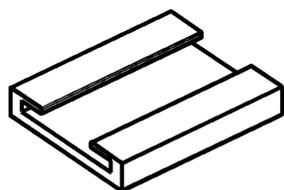
light grey

1010-06-01



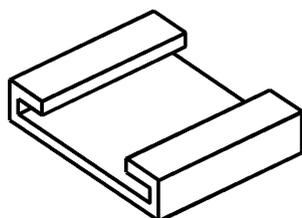
Support for tank bands EPDM 60° Shore A black

1038-HP437



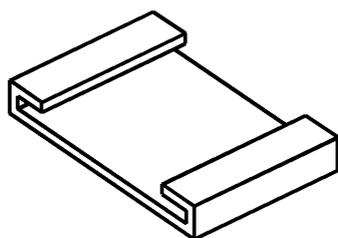
Support for tank bands NBR 70° Shore A black

1038-HP353



Support for tank bands NBR 70° Shore A black

1038-HP298



Support for tank bands NBR 70° Shore A black

1038-HP299

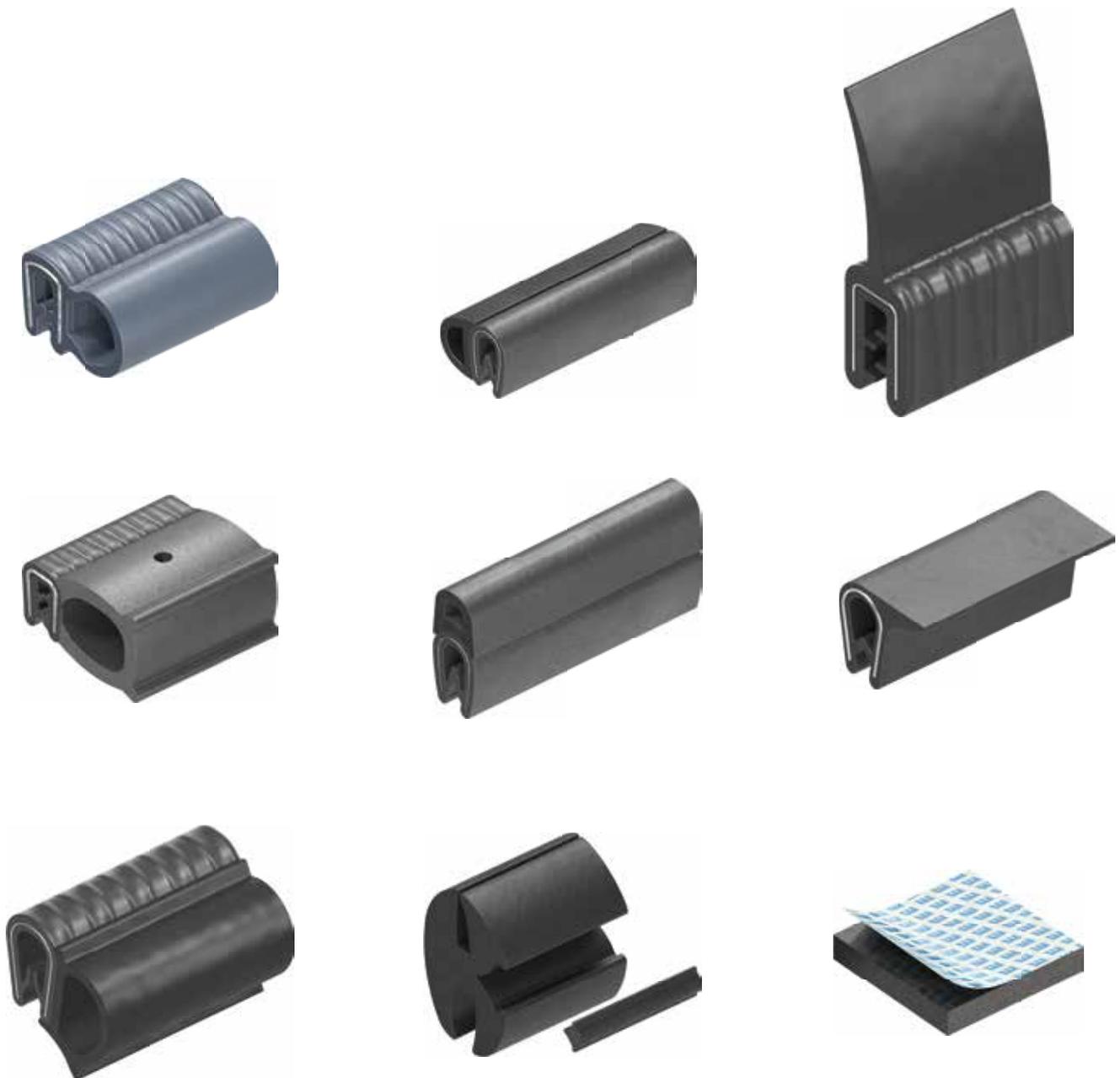
Variety of shapes and materials

EXAMPLES

More gasketings can be found in the EMKA general catalog as well as on the internet at www.emka.com

Examples of different shapes:





No suitable gasket or profile for your requirements?

No problem, just contact us!

With two own production sites for sealing technology in Spain and UK, EMKA is the perfect partner for custom-made sealing profiles.

The big number of production possibilities made of various materials enables EMKA to respond individually to customers requests.

Together, we develop a suitable concept for your requirements.





1 Locks



2 Hinges



3 Gasketings



4 Accessories

| | |
|----------------|--------|
| Loops | T4-110 |
| Dove tails | T4-210 |
| Recessed grips | T4-310 |
| Handles | T4-410 |
| Miscellaneous | T4-510 |



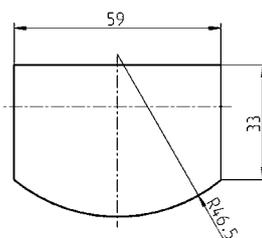
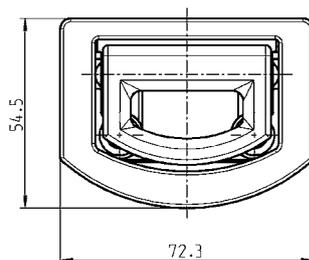
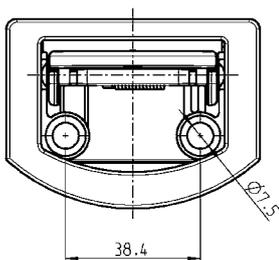
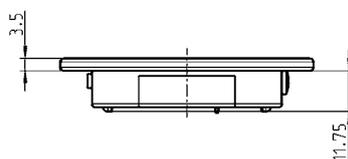
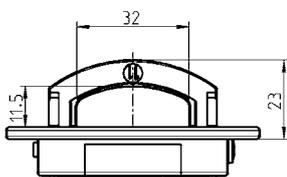
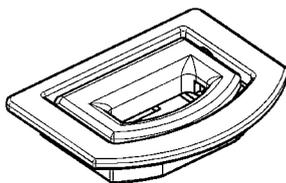
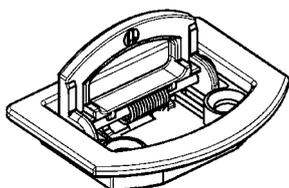
Detail: Loop and belt



Item without bracing



Complete item with bracing



Cut out

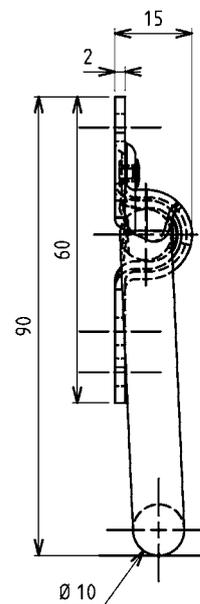
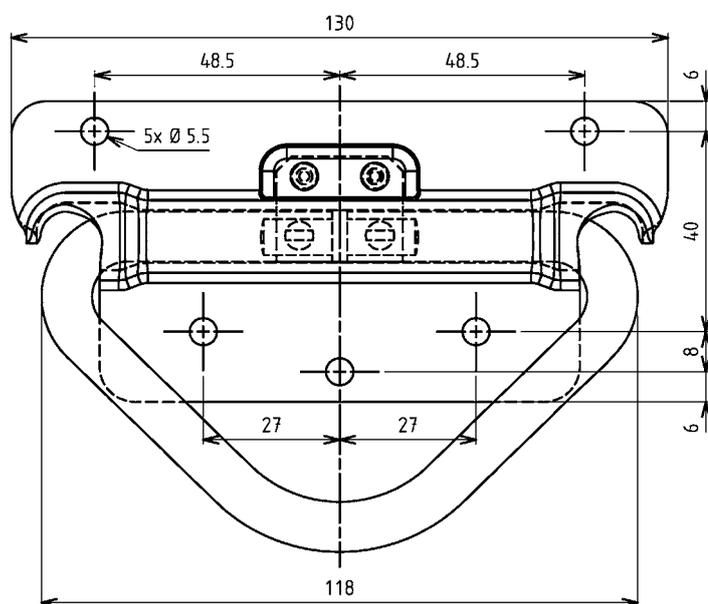
Retractable loop zinc die
loop chrome plated, trough black powder coated;
shaft m.s. zinc plated; with spring;
mounting plates and countersunk cross recessed head screw M6 x 50 m.s. zinc plated

5291-U701-IA

- e.g. for suitcases, bicycles and pushchairs
- retrofittable for all vehicles
- robust die-cast zinc construction
- accessible
- depending on surface resilient up to 3,000 N (300 kgs)
- further colours upon request

Slinging ring

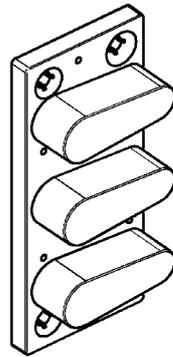
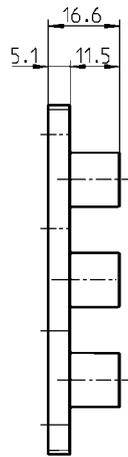
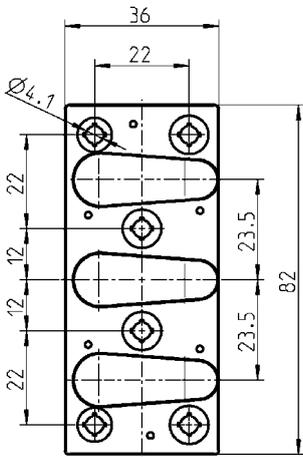
PROGRAMM 6040



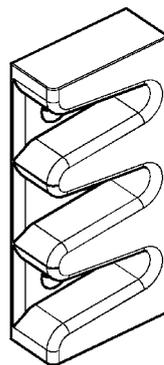
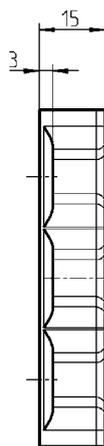
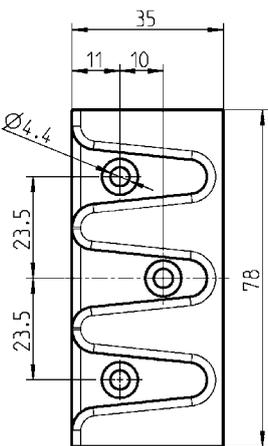
Slinging ring

| | with leaf spring |
|------------------------------------|------------------|
| Zinc plated steel DS plus Top Coat | 6040-U80-JQ |
| AISI 304 drilled | 6040-U80-PC |

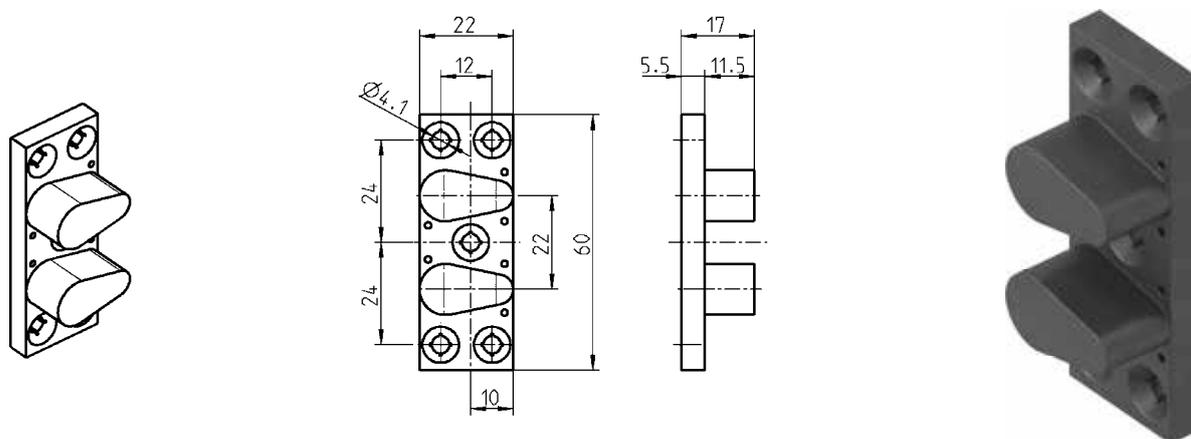
Dove tail PROGRAM 8900



Dove tail zinc die with rubber coating self lubricated
8900-SB12-01

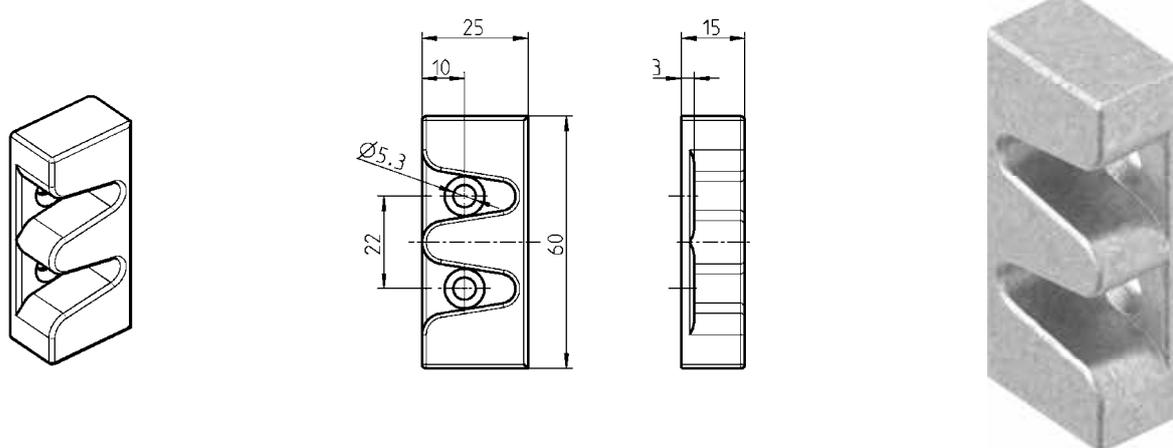


Dove tail zinc die raw
8900-S331-03KA



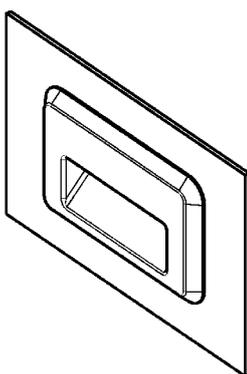
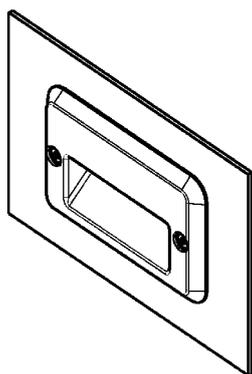
Dove tail zinc die with rubber coating self lubricated

8900-SB11-01



Dove tail zinc die raw

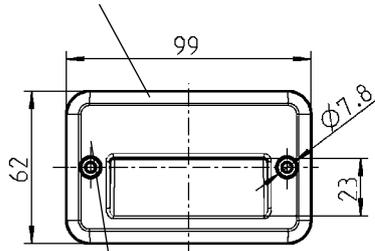
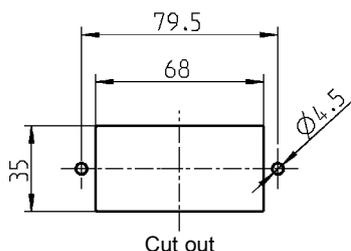
8900-S330-03KA



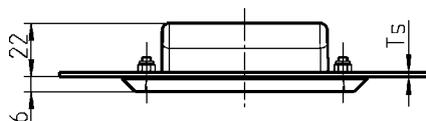
Version A

Multicolour pad printing possible

Version A



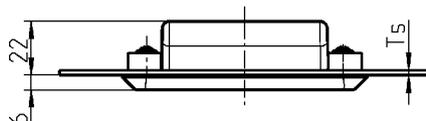
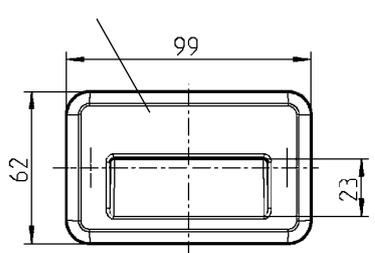
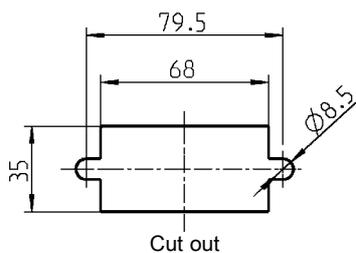
* M4x...
 e.g. DIN 7984 or
 DIN ISO 4762



Version B

Multicolour pad printing possible

Version B



Pull polyamide GF black, with seal

Version B clip polyamide GF black, fixing material m.s. zinc pl.

| | | | |
|-----------|-------|---------------|-----------|
| Version A | IP 54 | Ts 0.8 - 7 | 1091-105 |
| Version B | IP 65 | Ts 0.8 - 3 ** | 1091-U144 |

* not included in the scope of supply

Plug polyethylene black for version A

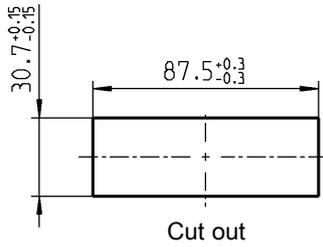
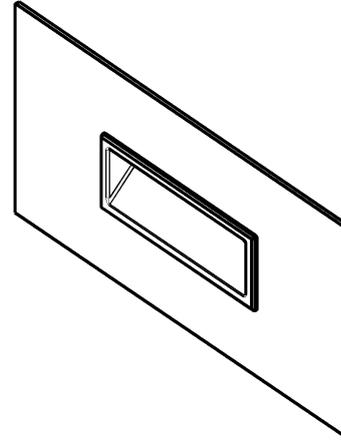
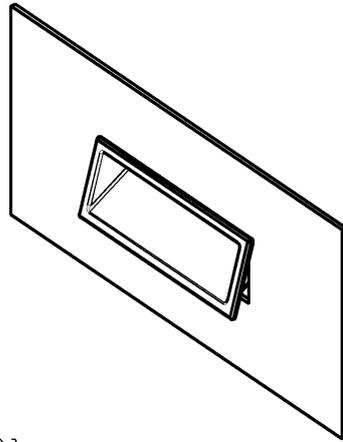
| | | | |
|-------------------------------|--|--|----------|
| (2 plugs are needed per pull) | | | 1091-106 |
|-------------------------------|--|--|----------|

** On request:
 - Pulls for further door thicknesses

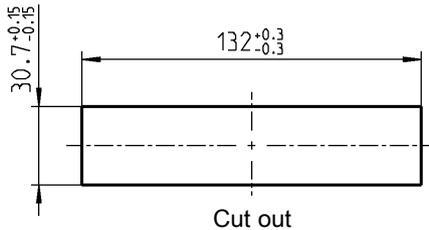
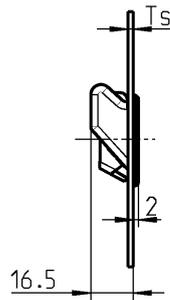
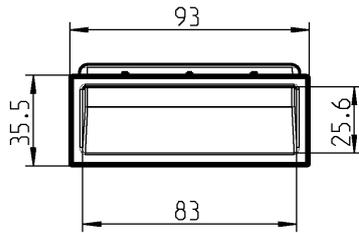


Press pull into cut out

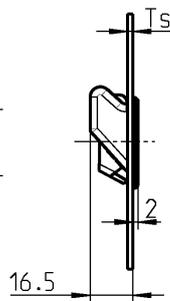
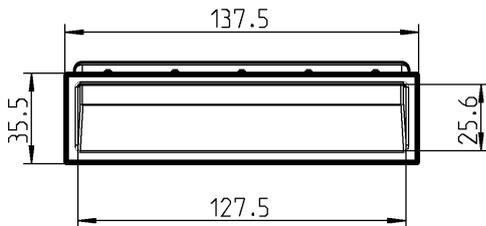
Ready for operating



Version A



Version B



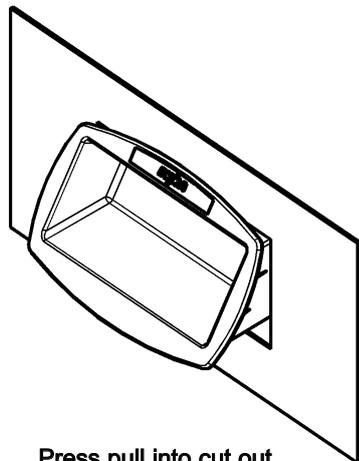
Product benefits

- Cost savings due to quick mounting without tools
- Pull is fitted with clips that automatically snap in behind the door part.
- Corrosion-resistant of PA6 GF30

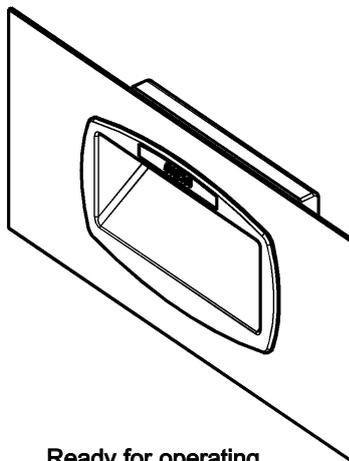
| Pull Polyamide GF Black | Version A | Version B |
|-------------------------|-------------|-------------|
| Ts 0.8 - 1.2 mm | 1091-103-01 | 1091-109-01 |
| Ts 1.2 - 1.6 mm | 1091-103-02 | 1091-109-02 |
| Ts 1.75 - 2.2 mm | 1091-103-03 | 1091-109-03 |

Assembling:
The pull is fitted with clips that automatically snap in behind the door part.

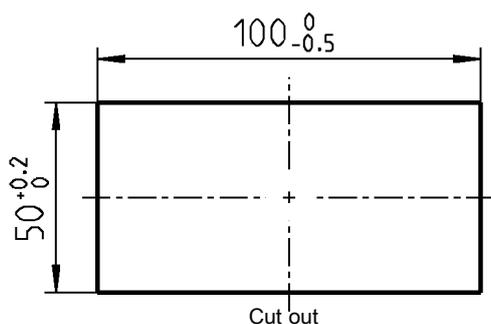
Pulls for other door thickness on request



Press pull into cut out



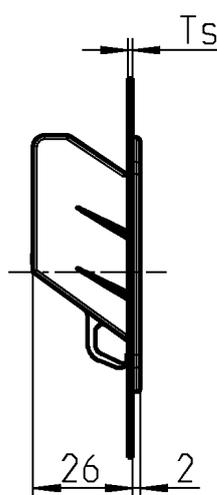
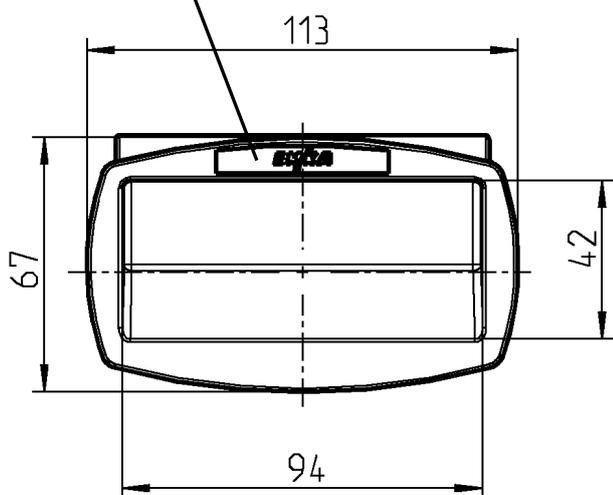
Ready for operating



Cut out



* Logo field 50 x 8.5 mm (middle, outside 6.8) x 0.3
 Pad Printing multicolour print possible



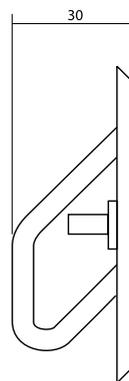
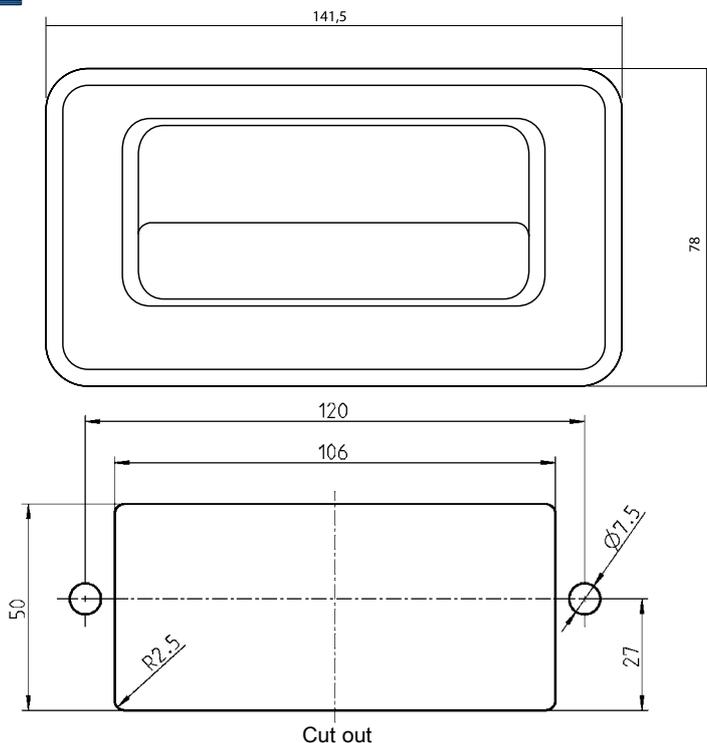
Assembling:
 The pull is fitted with clips that automatically snap in behind the door part.

Pull Polyamide GF Black

| | |
|------------------|---------|
| Ts 0,80 – 1,2 mm | 1091-93 |
| Ts 1.20 - 1.6 mm | 1091-91 |
| Ts 1,75 – 2,2 mm | 1091-92 |

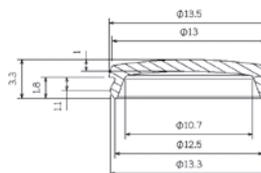
Pull; Polyamide handle

PROGRAM 1091, 1095



Pull polyamide black, threaded pin M5 m.s. zinc plated; with seal

1091-U145



Handle polyamide black

1095-33

Cover polyamide black

(2x per order)

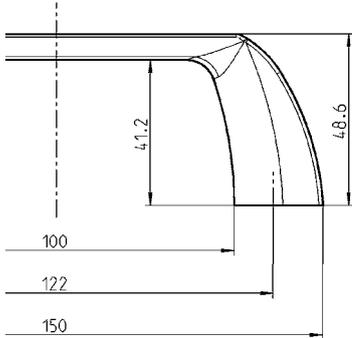
1095-34

Bow-type handle

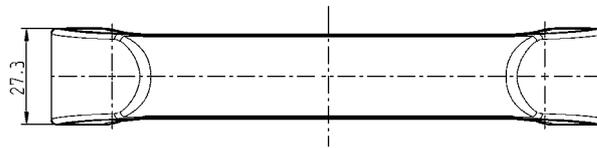
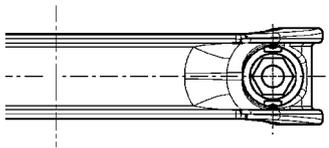
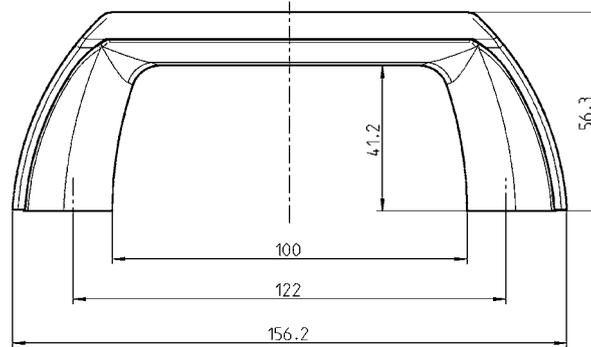
PROGRAM 1095



Bow-type handle without cover



Bow-type handle with cover



Bow-type handle polyamide GF black

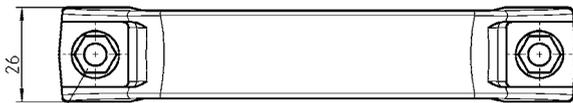
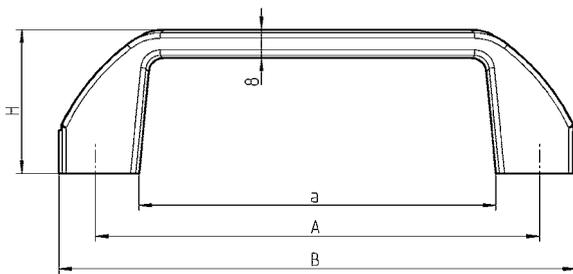
| | |
|---|---------|
| Handle for hexagon or cylinder screw M6 acc. to DIN 4017/1207 | 1095-35 |
| Handle for countersunk screw small head M5 or rivet Ø 4.8 mm | 1095-36 |

Cover for bow-type handle polyamide GF black

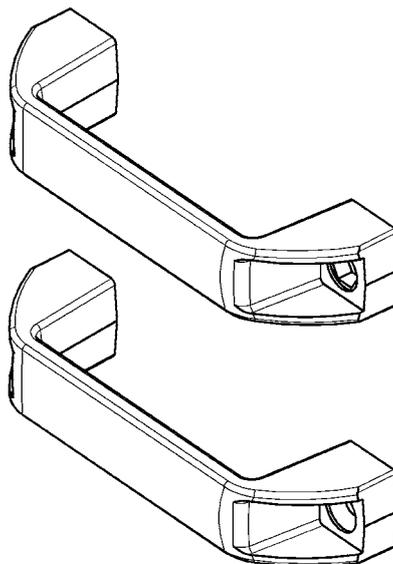
1095-37



Bow-type handle



SW 10



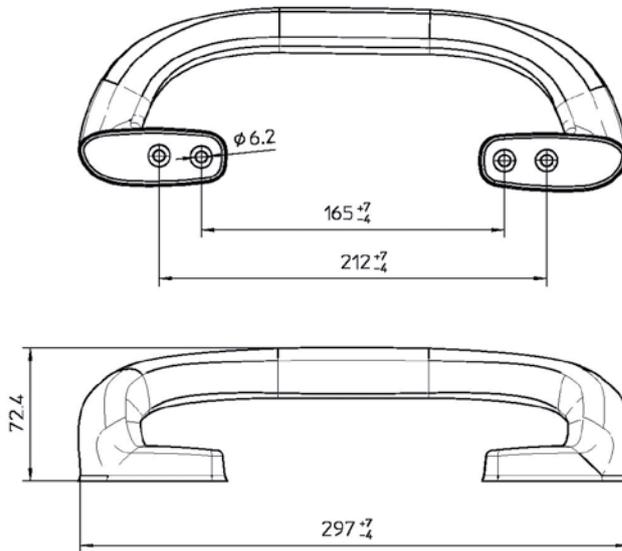
| Version | a | A | B | H |
|---------|-------|-----|-----|------|
| 1 | 98 | 122 | 142 | 40 |
| 2 | 118,5 | 152 | 167 | 53,5 |

Bow-type handle polyamide GF black

| | Version 1 | Version 2 |
|---|-----------|-----------|
| Handle for hexagon or cylinder screw M6 acc. to DIN 4017/1207 | 1095-05 | 1095-19 |
| Handle for countersunk screw small head M5 or rivet Ø 4.8 mm | 1095-06 | - |

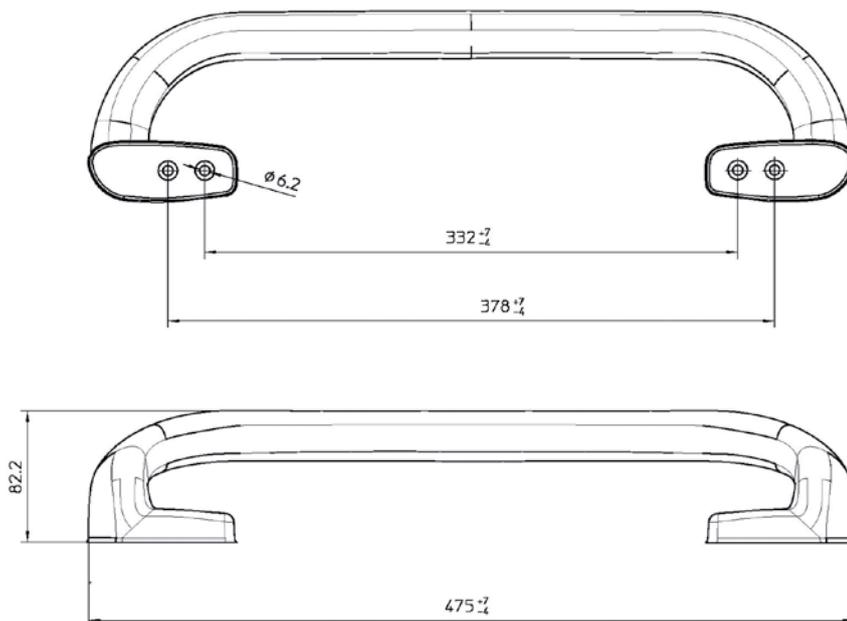
small head = DIN ISO 2009, 2010, 7046-1, 7046-2, 7047

Fastening material is not included in delivery.



Handle black polyurethane pitted, screw covers included

5225-U308



Handle black polyurethane pitted, screw covers included

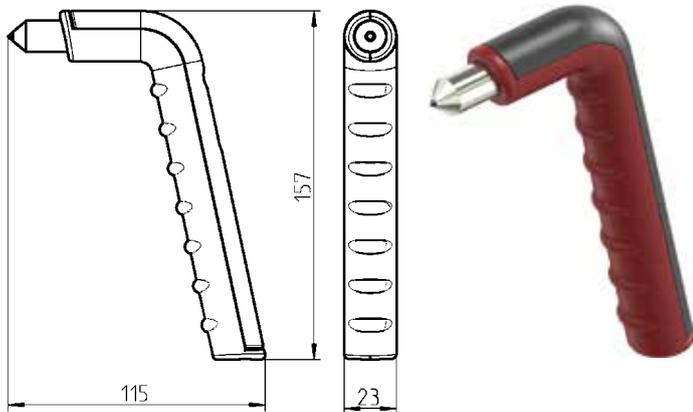
5225-U309

Emergency hammer

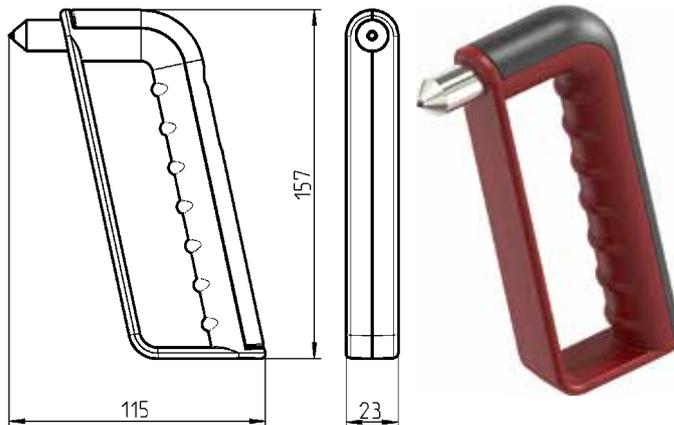
PROGRAMM 5225



Emergency hammer Basic (Order holder separately)



Emergency hammer with hand protection (Order holder separately)



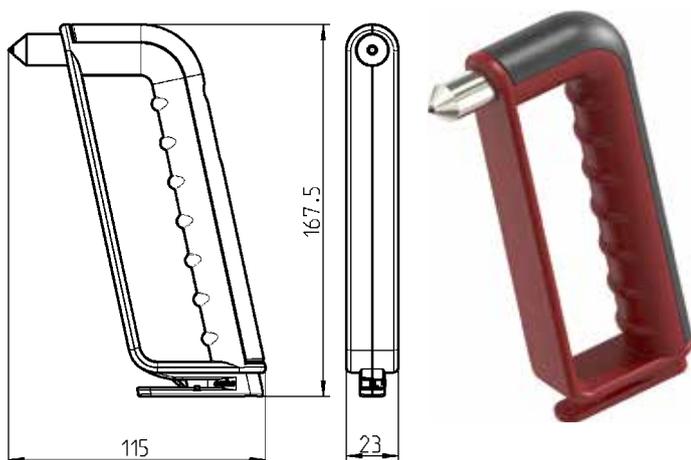
Emergency hammer Basic
Grip polyamide GF black and red;
bolt m.s. zinc plated with top coat; tip hardened steel;
screws m.s. zinc plated

| | |
|---------|------------|
| Bus | 5225-U314 |
| Railway | on request |

Emergency hammer with hand protection
Grip polyamide GF black and red;
bolt m.s. zinc plated with top coat; tip hardened steel;
screws m.s. zinc plated

| | |
|---------|------------|
| Bus | 5225-U313 |
| Railway | on request |

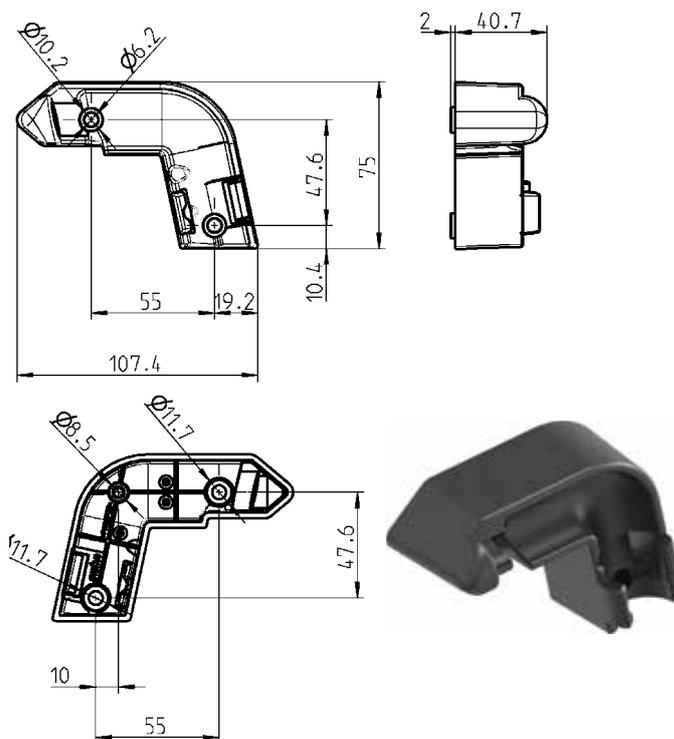
Emergency hammer with hand protection and belt cutter (Order holder separately)



Emergency hammer with hand protection and belt cutter
Grip polyamide GF black and red;
bolt m.s. zinc plated with top coat; tip hardened steel;
blade m.s. zinc plated;
screws m.s. zinc plated

| | |
|---------|------------|
| Bus | 5225-U312 |
| Railway | on request |

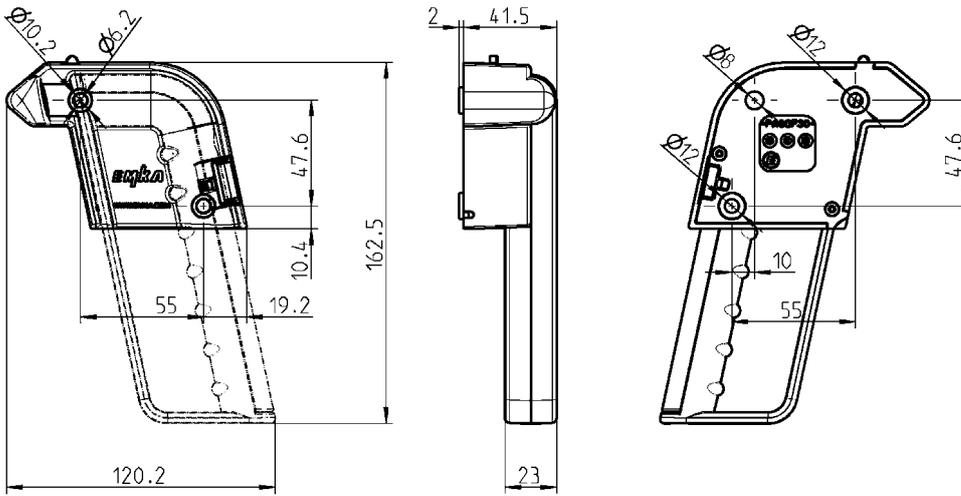
Holder for emergency hammer (Order holder separately)



Holder polyamide GF black

| | |
|---------|------------|
| Bus | 5225-17 |
| Railway | 5225-17-01 |

Emergency hammer with hand protection and holder with theft protection

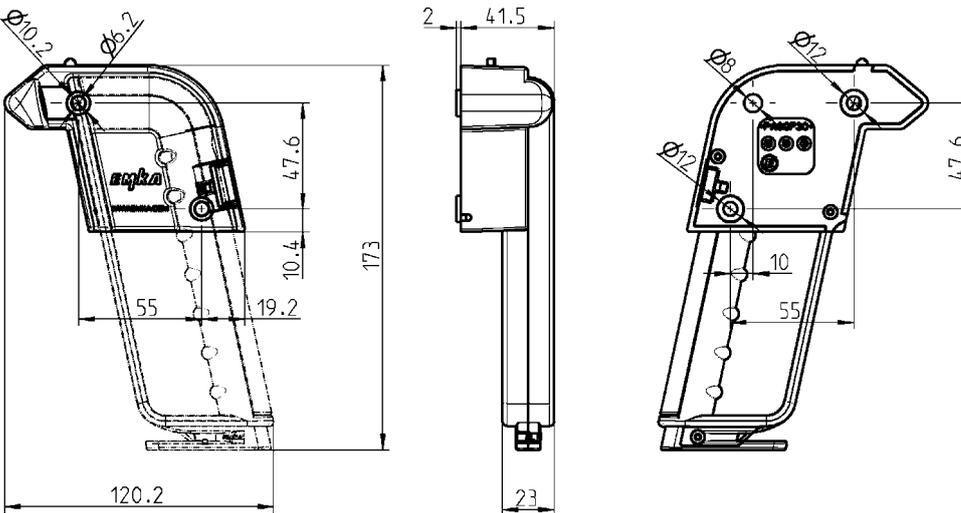


Emergency hammer with hand protection
Grip polyamide GF black and red;
bolt m.s. zinc plated with top coat; tip hardened steel;
screws m.s. zinc plated

Holder with theft protection
Holder and trigger polyamide GF black;
pulley POM; winding spring spring steel; wire cable; screws m.s. zinc plated

| | |
|---------|--------------|
| Bus | 5225-U313-01 |
| Railway | on request |

Emergency hammer with hand protection, belt cutter and holder with theft protection



Emergency hammer with hand protection and belt cutter
Grip polyamide GF black and red;
bolt m.s. zinc plated with top coat; tip hardened steel;
blade m.s. zinc plated;
screws m.s. zinc plated

Holder with theft protection
Holder and trigger polyamide GF black;
pulley POM; winding spring spring steel; wire cable; screws m.s. zinc plated

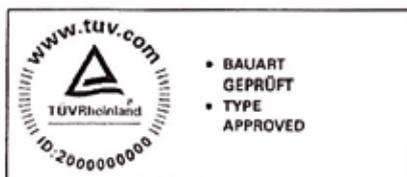
| | |
|---------|--------------|
| Bus | 5225-U312-01 |
| Railway | on request |

Emergency hammer with holder

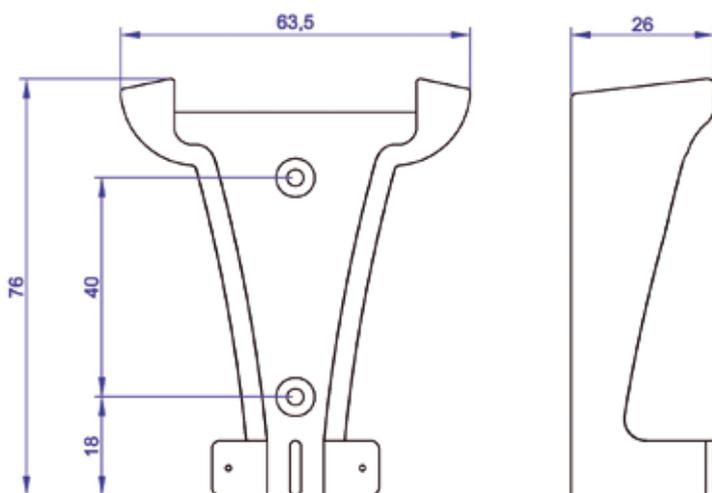
PROGRAMM 5225



Prüfzeichen Test Mark



Zertifikat Nr. Certificate No.
R 50215914



Emergency hammer material to
fire test
95/28/EC Annex 4

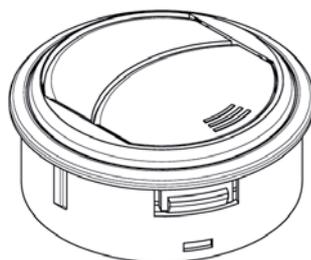
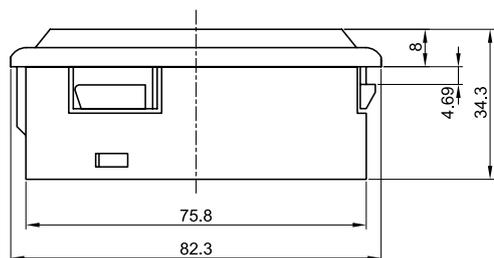
Emergency hammer polypropylene red, steel zinc plated with hardened insert on tip

5225-U305

Emergency hammer holder grey polypropylene

5225-03

Clip in Vent PROGRAMM 5225



Infinitely adjustable and rotating

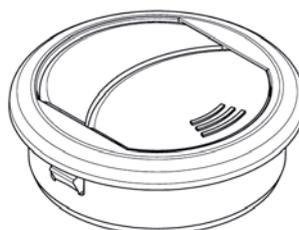
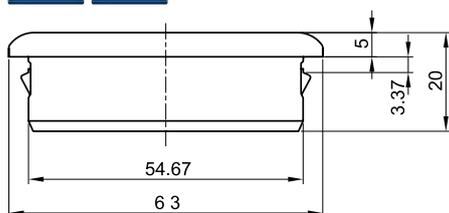
Clip in vent ABS

Black housing

5225-U302-AA

Housing RAL 9006

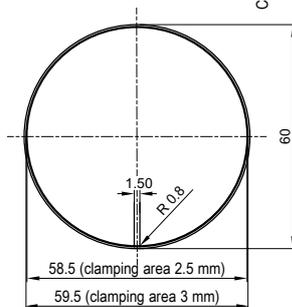
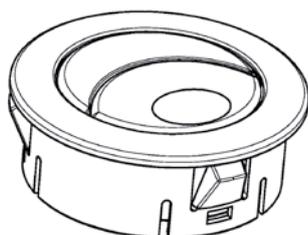
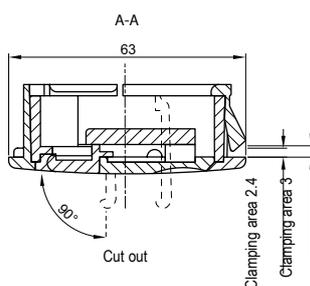
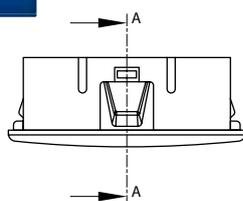
5225-U302-BK



Infinitely adjustable, non rotating

Clip in vent ABS black

5225-U303-AA

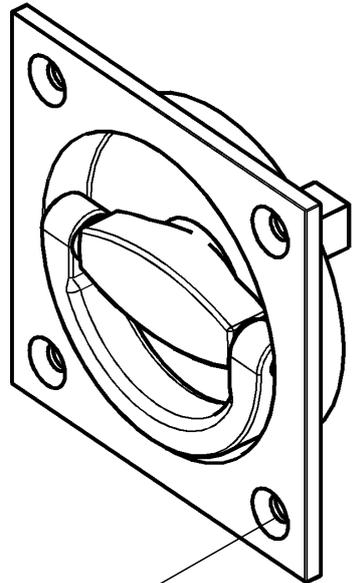


Infinitely adjustable and rotating

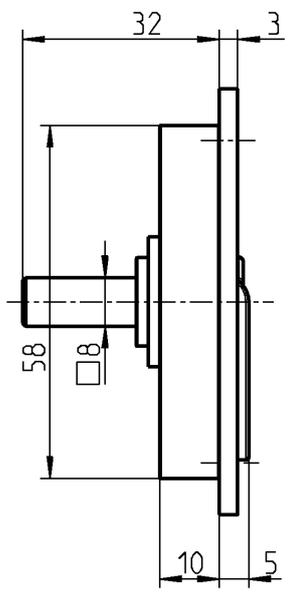
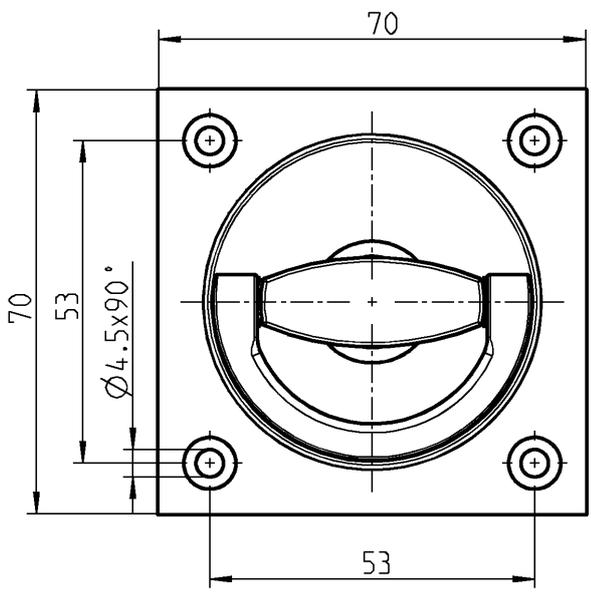
Clip in vent ABS black

5225-U304-AA

Ring-handle insert PROGRAM 1098



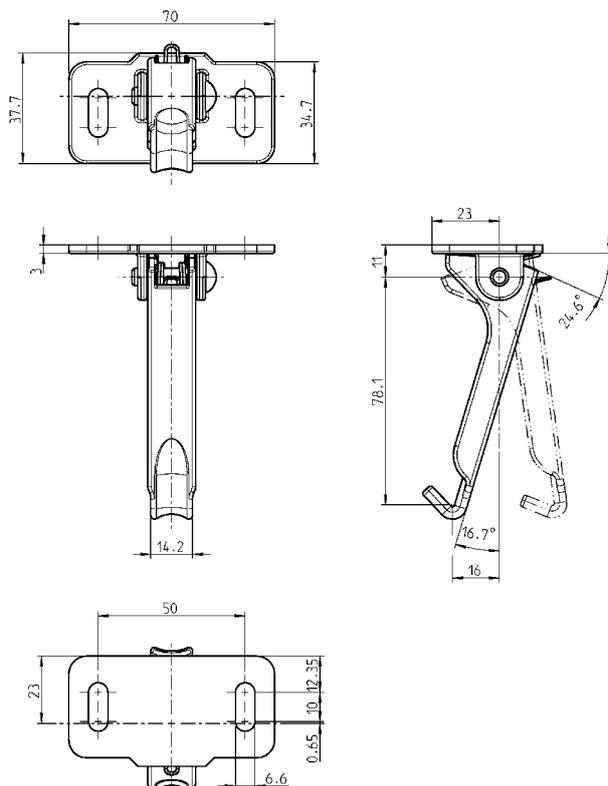
For countersunk small head M5
DIN ISO 2009, 2010, 7046-1, 7046-2, 7047



| |
|---|
| Ring-handle zinc die silver powder coated |
| 1098-U1 |

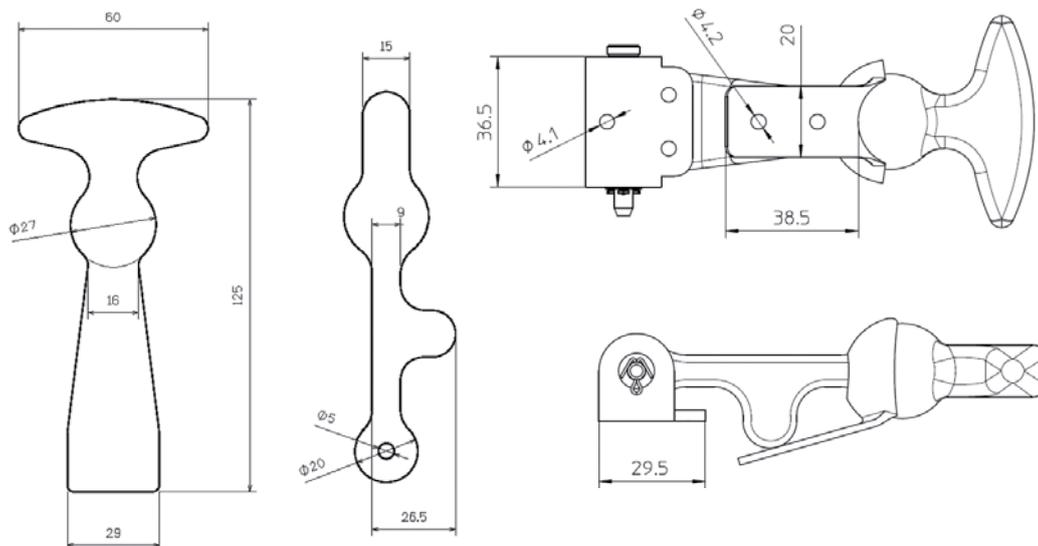
Tail hook; Rubber bonnet catch

PROGRAMM 5225



Tail hook AISI 316; spring and half-round rivet stainless steel

5225-U400



Bonnet lock black rubber self greasing, steel parts chrome plated

without holder

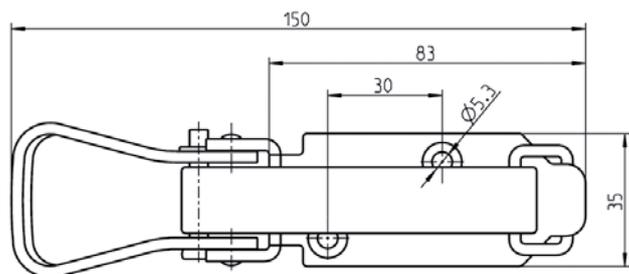
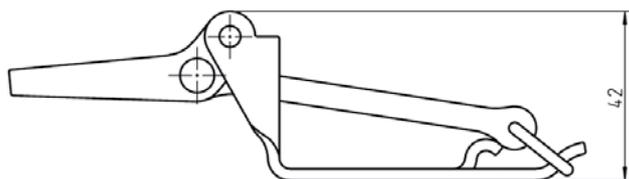
5225-02-AA

with holder

5225-U201

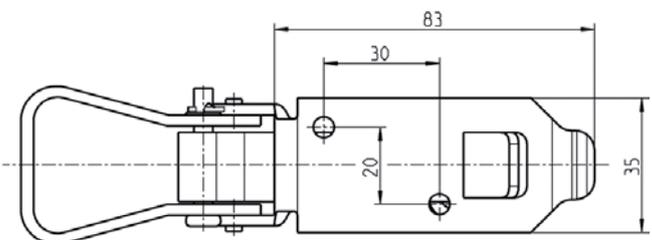
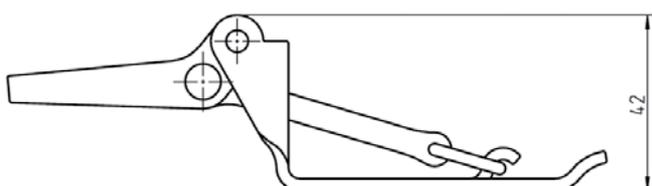
Stowage clamp for axe; Stowage clamp for spade

PROGRAMM 5225



Stowage clamp for claw axe with coating from selection with black rubber strap

| | |
|------------------|--------------|
| green | 5225-U306 |
| zinc-plated | 5225-U306-JB |
| CDP coated black | 5225-U306-IL |



Stowage clamp for spade with coating from selection with black rubber strap

| | |
|------------------|--------------|
| green | 5225-U307 |
| zinc-plated | 5225-U307-JB |
| CDP coated black | 5225-U307-IL |

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