

LATCHES HANDLES ELECTRONICS

CYLINDER AND KEY SYSTEMS ACCESSORIES







## **DLP LOCK MAG 2023**

Innovative locking systems for the commercial vehicle industry

know how to open the world



### **CUSTOMIZED PRODUCTS**

made for the highest and heaviest demands

### Our company

#### D. LA PORTE SÖHNE GMBH

know how to open the world

As a medium-sized family business DLP has a good name worldwide. With over 160 years of experience and consistent commitment to our customers, we face the tasks that each new project brings.

The high-precision locking systems from DLP are designed in every respect for use in the off-highway market. With the toughest demands, sometimes under extreme environmental and climatic conditions- we are familiar with the challenges of the commercial vehicle industry. We are at the service of this industry with innovative locking solutions for construction machinery, fork-lift trucks, tractors, industrial and special vehicles.

Adapted for off-highway use all DLP locking systems meet the highest requirements in terms of functionality, flexibility, load, service life, design, handling and splash and dust protection. The basis for this is our "Made in Germany" production:

In order to ensure and consistently maintain the high quality standards typical for DLP, we manufacture almost all components for our latches, external handles and electronic locking systems ourselves.

Due to the high 85% share of in-house production, we can influence the quality of our products to a maximum and meet the demands of our partners in the off-highway industry. The result is high-quality locking systems for use in construction machinery, forklifts, agricultural vehicles, tractors, cranes and other special vehicles, which are guaranteed to be ready when it counts: always.

Get comprehensive information now about what added value our locking systems can offer you. Including the One Key System from DLP, locking systems with remote control keys, keyless entry, keyless go and much more. For a large part of the DLP product portfolio there are numerous product variants, so that you can access many existing standard solutions for a wide range of applications.

Do you need an individual solution? We can develop and manufacture a product that meets your exact requirements for the installation. We look forward to your inquiries.

For us, customer proximity also means being where you are. In addition to our main plant in Germany, in 2009 we founded a subsidiary in the USA: D. La Porte N.A. LLC. Our American plant supports us not only in sales but in meeting tight timelines within development processes. Here we have "Made in USA" production so that we can respond directly to the specific requirements of the American commercial vehicle industry.

In 2011 we established D. La Porte Asia Ltd., which is based in China. Together with our subsidiaries we are a strong alliance with a common core: know how to open the world.







### **D. LA PORTE SÖHNE GMBH**Committed to protecting the environment

At DLP, the issues of environmental protection and energy efficiency have a high priority. We work consistently to avoid any kind of waste. Our production processes are therefore fundamentally designed on efficiency and precision. Here, our in-house production of 85% is a big advantage. Because of this, we get the opportunity to ensure our internal process chain is at an optimal level to have maximum impact and conserve resources.

The first photovoltaic system on the roofs of our production halls in Wuppertal dates back to 2012 – a time when solar energy was by no means as popular as it is today. In 2018, we expanded the plant and source electricity from our own production. Our in-house heat recovery system generates heating power. In this way, heat generated in the zinc-diecast foundry is used to generate heat for underfloor heating in the production rooms.

CO2 neutral and energy-efficient heating is our goal. Our latest project is the commissioning of a woodchip heater. Our managing director, Dipl.-Ing. Michael La Porte, wants to heat the buildings with over 10,000 m2 with such a modern and eco-friendly system. .

Each of our employees has the natural resource advantage to be used sparingly and ensure their activities have the least possible environmental impact.



We don't just talk about environmental protection, we take concrete action and measures to operate in a way that conserves our resources.



<20% ELECTRICITY PURCHASE THANKS TO 200 KWP PHOTOVOLTAIC MODULES



DOMESTIC WATER PRODUCTION FROM 5000L RAINWATER CISTERNS



HEAT RECOVERY FROM OUR OWN PRODUCTION

### **Business Sectors**



**AGRICULTURAL MACHINERY** 



**CONSTRUCTION MACHINERY** 



INDUSTRIAL VEHICLES & FORKLIFT TRUCKS



OTHER

### know how to open the world



**LATCHES** 



**CYLINDER AND KEY SYSTEMS** 



**HANDLES** 



**ELECTRONICS** 



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know how to open the world

### Latches







**DLP LATCHES**Quality that exceeds your expectations

#### **GENERAL**

Our latches are divided into door and cabin, flap and hood latches and door hold backs. They are installed in construction machines, agricultural and industrial vehicles. We offer a wide range of product lines with a large variety of standard parts. If you like, you can have numerous latches as a complete system with external handles of your choice and our remote control key.

#### INDIVIDUALITY

Your individual requirements and applications are all of great importance in order to be able to decide on the right product. An important aspect for example, is the force that is transmitted to the latches. This is determined by several factors such as the weight, size and material of the door.

#### **FEATURES**

The question of whether a door is either large or small is not easy to answer. The question becomes clearer if for example, we compare a combine harvester with a standard door and a tractor with large panoramic glass doors. However, it is easier to distinguish the material which the latch comes into contact with and desired service life of our products.

#### QUALITY

Our latches are tested under extreme loads and meet all the necessary standards required for use in vehicle doors. With most of our latches, we meet the transverse and longitudinal load standards required in the automotive industry. This puts us far above the level generally required in the off-highway industry.

#### **DURABILITY**

Our latches are very durable products. They are tested according to our own standards developed specifically for this industry. We can therefore assure you that our latches are usually designed for 50,000 cycles and more. If you want, we run tests to ensure that your individual application more than meets the requirements of your customers.

#### KNOW HOW TO OPEN THE WORLD

We know exactly what we are doing, because we have been manufacturing latches and handles for around 160 years, have a well-founded know-how and for this reason, we are one of the market leaders. As we produce a high proportion of our own assembly parts, we can influence the quality of our products to the maximum and respond to your demands and wishes. See for yourself!









### Door and cabin latches











5000

5100

5200

5300

5400

Our latches are used in a wide variety of off-highway vehicles. Depending on the size, weight and application of the door, we jointly select a suitable locking system. There is a significant difference if you have a panoramic door made of solid glass or a smaller metal door. To complete the package, we offer you the handle and other accessories to create a harmonious overall concept. We will work with you on your project and give you our experienced advice.

#### HIGH DEMANDS

No matter whether our latches are exposed to heat or have to withstand the Arctic cold, we will work with you to determine the applicable environmental influences for your vehicle.

#### AREAS OF APPLICATION

Our latches for smaller doors are equipped with a rotary latch.

The latches with two rotors, called double rotor latches, are used mainly for heavy door concepts, as well as when there are high loads due to vibration.

#### DOOR AND HOOD LATCH

For safety reasons, every door latch must be equipped with a main and secondary lock according to the ECE R116 standard. Some of our series are also used in hoods and are available without secondary lock.

| Characteristics         | 4600     | 5000     | 5100     | 5101     | 5200     | 5201     | 5300     | 5400       | 5500     |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|------------|----------|
| Safety device           | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | -        | -        | -          | -        |
| Direct release          | <b>√</b> | <b>√</b> | <b>√</b> | ✓        | ✓        | <b>√</b> | <b>√</b> | ✓          | -        |
| Indirect release        | <b>√</b>   | <b>√</b> |
| Inner release           | <b>√</b>   | <b>√</b> |
| Inner handle            | <b>√</b> | <b>√</b> | <b>√</b> | -        | <b>√</b> | <b>√</b> | <b>√</b> | -          | -        |
| Main and secondary lock | <b>√</b>   | <b>√</b> |
| Special rotors          | -        | -        | -        | -        | <b>√</b> | <b>√</b> | -        | <b>√</b>   | -        |
| Screw fixing M6         | <b>√</b> | <b>√</b> | -        | -        | -        | -        | -        | -          | -        |
| Screw fixing M8         | -        | <b>√</b>   | -        |
| Hood/flap installation  | -        | <b>√</b> | <b>√</b> | -        | <b>√</b> | -        | <b>√</b> | -          | <b>√</b> |
| Door installation       | <b>√</b>   | <b>√</b> |
| Latch cover             | -        | <b>√</b> | <b>√</b> | <b>√</b> | -        | <b>√</b> | <b>√</b> | $\sqrt{2}$ | -        |
| Tube                    | -        | -        | -        | <b>√</b> | -        | <b>√</b> | -        | <b>√</b>   | <b>√</b> |
| Microswitch             | -        | -        | -        | -        | <b>√</b> | <b>√</b> | -        | <b>√</b>   | <b>√</b> |
| Remote control          | -        | <b>√</b> | -        | -        | √        | <b>√</b> | -        | √          | √        |

### Hood and flap latches



5005



5006



5035



5036



5039

|          | Characteristics         | 5005         | 5006     | 5035     | 5036     | 5039     |
|----------|-------------------------|--------------|----------|----------|----------|----------|
|          | Direct release          | -            | -        | <b>√</b> | <b>√</b> | <b>√</b> |
|          | Indirect release        | √            | <b>√</b> | -        | -        | <b>√</b> |
|          | Inner release           | -            | -        | -        | -        | ✓        |
| 0        | Inner handle            | -            | -        | -        | -        | ✓        |
|          | Main and secondary lock | √            | -        | -        | -        | <b>√</b> |
| 0        | Main lock               | $\checkmark$ | <b>√</b> | <b>√</b> | <b>√</b> | ✓        |
| Мб       | Screw fixing M6         | $\checkmark$ | <b>√</b> | -        | -        | -        |
| M8       | Screw fixing M8         | -            | -        | <b>√</b> | <b>√</b> | ✓        |
|          | Hood/flap installation  | ✓            | <b>√</b> | <b>√</b> | <b>√</b> | ✓        |
| <b>6</b> | Door installation       | <b>√</b>     | -        | -        | -        | ✓        |
| 7        | Microswitch             | -            | -        | -        | -        | ✓        |
|          | Remote control key      | √            | -        | -        | -        | ✓        |

Our latches meet your requirements. They are used in construction machinery, agricultural machinery and industrial vehicles. We offer you a wide range of products for large, small, heavy or light flaps and hoods.

#### **DURABILITY**

DLP hood latches are characterized by their persistance, even under the highest loads. We develop the latches according to your conditions and test them according to customer requirements. Whether tear resistance tests or corrosion protection tests: we provide what you need.

DIFFICULT INSTALLATION POSITIONS In our product range you will find specially developed latches for the side flaps of harvesting machines as well as a latch series which are excellent for installation in difficult mounting positions or little installation space. We will be happy to advise you!

#### SPACE-SAVING

We have a particularly space-saving series that can be installed into the smallest hoods. Some of our flap latches can be opened manually or with a tool.

#### **EXTENSIONS AND ACCESSORIES**

For some years now, our latches can be optionally equipped with electronic components, so that they can be locked and unlocked by our remote control key. Further information on our electronics can be found in the electronics chapter.



Custom-fit products for the highest demands and heaviest loads

### Door holdbacks

|         | Characteristics        | 5030     | 5032     | 5034     | 5044     |
|---------|------------------------|----------|----------|----------|----------|
|         | Direct release         | <b>√</b> | <b>√</b> | <b>√</b> | √        |
| (7-)    | Indirect release       | <b>√</b> | <b>√</b> | <b>√</b> | -        |
|         | Inner release          | <b>√</b> | -        | <b>√</b> | -        |
| 0       | Inner handle           | <b>√</b> | -        | <b>√</b> | -        |
| 6       | Main lock              | <b>√</b> | ✓        | <b>√</b> | ✓        |
| M6      | Screw fixing M6        | ✓        | ✓        | <b>√</b> | -        |
| EIOT    | Screw fixing EJOT      | -        | -        | -        | <b>√</b> |
|         | Hood/flap installation | ✓        | ✓        | -        | -        |
| <u></u> | Door installation      | ✓        | ✓        | <b>√</b> | ✓        |
| M       | Metal installation     | ✓        | <b>√</b> | <b>√</b> | <b>√</b> |
| 6       | Glass installation     | -        | -        | <b>√</b> | <b>√</b> |



DLP door holdbacks are used to keep a driver's door in the opened position. This ensures that the driver's cab is ventilated and the door does not close unintentionally.

#### INDIVIDUAL SELECTION

Depending on the situation we can recommend for the right product. We have a comprehensive selection of standard variants, which we gladly present to you. When making a selection, the type of material in your area of application (glass or metal) is an important factor.

#### **DIFFERENT VARIANTS**

Our door holdbacks have different release levers and are partially splash and dust protected (according to IP 64). Let us convince you with our selection.

#### SPECIAL STRENGTHS

Especially when the doors are exposed to high vibrations, such as in tracked vehicles, we offer you particularly stable door holdbacks. For each door holdback there is a matching counterpart, a locking bolt or bracket. Of course you can get both products together as a set from us.

#### AND TO CONTINUE

On the following pages you will find our different latch series with matching accessories. These have been summarized for the best possible way and we hope that you will find exactly what you are looking for.



The DLP door holdback-delivers what it promises

### Fields of application

























release







Inner handle



Screw fixing M6



Striker bolt 10,00 mm

#### TO KNOW

Our 4600 series was developed in the 70s. At that time, agricultural vehicles were equipped with cabs for the first time to protect drivers from wind and cold during work. DLP took the opportunity to establish itself in the market with this latch.

This series became the first mass-produced product and is still popular with many customers today. Most of the latches in this series have a reinforcement plate to withstand even higher demands.



61.4600.0002 Safety device



61.4600.0003 Inner release



61.4600.0013 Angled lever



61.4600.0027 Inner handle



61.4600.0031 Indirect release



61.4600.0034 Flap latch



61.4600.0043 Inner handle long



Without reinforcement plate

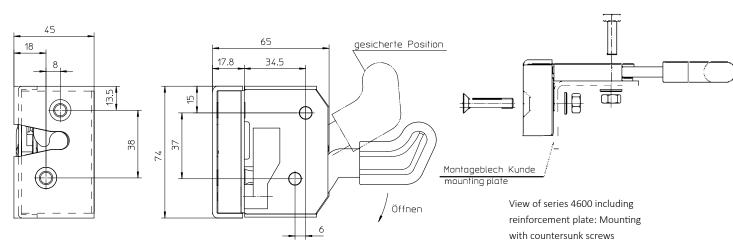
#### **SAMPLES**

| Part number  | Side  | Safety<br>device | Inner handle | Inner<br>release | Indirect<br>release | Angled<br>lever | Reinforce-<br>ment plate | Door     | Hood     |
|--------------|-------|------------------|--------------|------------------|---------------------|-----------------|--------------------------|----------|----------|
| 61.4600.0002 | right | <b>√</b>         | <b>√</b>     | <b>√</b>         | -                   | -               | <i>√</i>                 | <b>√</b> | -        |
| 61.4600.0003 | left  | -                | ✓            | <b>√</b>         | -                   | -               | <b>√</b>                 | <b>√</b> | -        |
| 61.4600.0013 | left  | $\checkmark$     | <b>√</b>     | <b>√</b>         | -                   | <b>√</b>        | <b>√</b>                 | <b>√</b> | -        |
| 61.4600.0015 | left  | -                | <b>√</b>     | <b>√</b>         | -                   | <b>√</b>        | <b>√</b>                 | <b>√</b> | -        |
| 61.4600.0027 | left  | -                | ✓            | ✓                | -                   | -               | <b>√</b>                 | <b>√</b> | -        |
| 61.4600.0031 | left  | -                | -            | -                | <b>√</b>            | -               | <b>√</b>                 | <b>√</b> | <b>√</b> |
| 61.4600.0034 | right | -                | -            | -                | -                   | -               | <b>√</b>                 | -        | <b>√</b> |
| 61.4600.0043 | left  | -                | ✓            | <b>√</b>         | -                   | -               | <b>√</b>                 | <b>√</b> | -        |
| 61.4601.0003 | left  | -                | ✓            | ✓                | -                   | -               | -                        | <b>√</b> | -        |
| 61.4601.0027 | left  | -                | <b>√</b>     | <b>√</b>         | -                   | -               | -                        | <b>√</b> | -        |
| 61.4601.0034 | right | -                | -            | -                | -                   | -               | -                        | -        | <b>√</b> |
| 61.4601.0075 | left  | -                | <b>√</b>     | <b>√</b>         | -                   | <b>√</b>        | -                        | <b>√</b> | -        |

#### **AVAILABLE ACCESSORIES**



### TECHNICAL DRAWING ASSEMBLY



| Tightening torque | 10 Nm |
|-------------------|-------|
| Screw             | M6    |





Safety device



Direct release



Indirect





Anti-twist device





Hood installation

Main and sec-

ondary lock



Door installation

Main



Inner handle



Screw fixing М6









#### **TO KNOW**

The 5000 series of latches was developed at the time of more modern manufacturing processes. The possibilities had improved due to innovative machines and processes. Good stability characterizes this latch, which is provided by beads and guides in the sheet metal.

The 5000 series only needs to be fixed with two screws. The series is especially suitable for small and light doors and the connection of a remote control key is possible without any problems. We also offer these latches with and without safety device. We have a standard cover available for this inexpensive variant.



61.5000.0003 With cover



61.5000.0005 **Hood latch** 



61.5000.0007 Indirect release outside



61.5000.0031 Screw M6



61.5000.0054 Direct release



61.5000.0055 Child safety lock



Anti-rotation protection



61.5000.0082 Indirect control

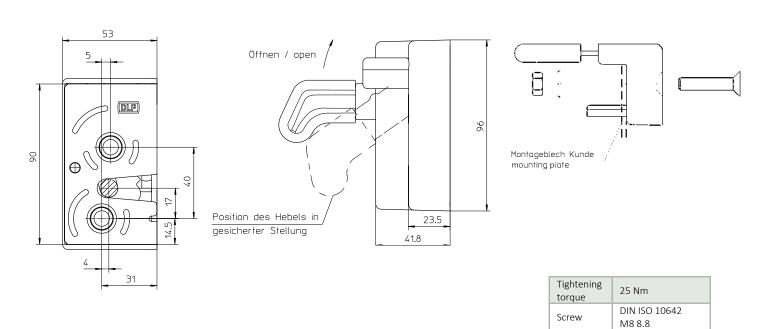
#### **SAMPLES**

| Part number  | Side  | Safety<br>device | Internal<br>handle | Inner<br>release | Indirect<br>release | Direct<br>release | Curved   | Door     | Hood     |
|--------------|-------|------------------|--------------------|------------------|---------------------|-------------------|----------|----------|----------|
| 61.5000.0003 | left  | -                | √                  | √                | -                   | √                 | -        | <b>√</b> | -        |
| 61.5000.0005 | left  | -                | -                  | <b>√</b>         | -                   | <b>√</b>          | -        | -        | <b>√</b> |
| 61.5000.0007 | left  | -                | <b>√</b>           | <b>√</b>         | ✓                   | -                 | -        | <b>√</b> | -        |
| 61.5000.0010 | right | -                | -                  | <b>√</b>         | -                   | <b>√</b>          | -        | -        | <b>√</b> |
| 61.5000.0014 | right | -                | <b>√</b>           | <b>√</b>         | -                   | <b>√</b>          | -        | <b>√</b> | -        |
| 61.5000.0031 | left  | -                | <b>√</b>           | <b>√</b>         | <b>√</b>            | -                 | -        | <b>√</b> | -        |
| 61.5000.0054 | right | -                | <b>√</b>           | <b>√</b>         | -                   | <b>√</b>          | -        | <b>√</b> | -        |
| 61.5000.0055 | left  | <b>√</b>         | <b>√</b>           | <b>√</b>         | -                   | <b>√</b>          | -        | <b>√</b> | -        |
| 61.5000.0067 | left  | -                | <b>√</b>           | <b>√</b>         | -                   | <b>√</b>          | <b>√</b> | <b>√</b> | -        |
| 61.5000.0082 | right | <b>√</b>         | -                  | -                | <b>√</b>            | <b>√</b>          | -        | <b>√</b> | -        |
| 61.5000.0094 | right | -                | <b>√</b>           | ✓                | ✓                   | -                 | -        | <b>√</b> | -        |
| 61.5000.0095 | left  | -                | -                  | -                | ✓                   | -                 | -        | -        | <b>√</b> |

#### **AVAILABLE ACCESSORIES**



#### TECHNICAL DRAWING ASSEMBLY







Safety device



Direct



Indirect release







Main



Hood installation



Door installation



Inner handle







Striker bolt 10,00 mm

#### **TO KNOW**

The robust 5100 series is very versatile. It is specially designed for small and light doors and is one of our cost effective, but durable latches. The 5100 series is also popular in hood and flap applications.

The extra flat design helps to protect against injury in hood applications. A very practical combination is our plastic release handle mounted on the latch (67.5100.9001).



61.5100.0001 **Cabin latch** 



61.5100.0004 With safety device



61.5100.0007 Direct release



61.5100.0010 Indirect release



61.5100.0013 Wide opening



61.5100.0018 Inner handle



61.5100.0033 **Curved lever** 



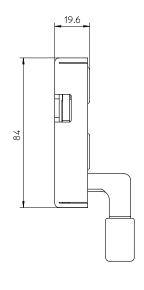
67.5100.9001 **Hood latch** 

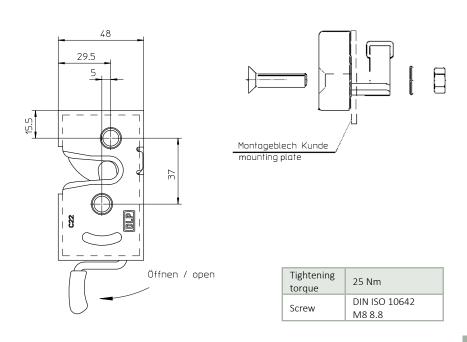
#### **SAMPLES**

| Part number  | Side  | Safety<br>device | Internal<br>handle | Direct<br>release | Indirect<br>release | Main and sec- | Wide     | Door     | Hood     |
|--------------|-------|------------------|--------------------|-------------------|---------------------|---------------|----------|----------|----------|
| 61.5100.0001 | left  | -                | <b>√</b>           | <b>√</b>          | -                   | <i>.</i> √    | -        | <b>√</b> | -        |
| 61.5100.0002 | right | -                | <b>√</b>           | <b>√</b>          | -                   | ✓             | -        | <b>√</b> | -        |
| 61.5100.0003 | left  | <b>√</b>         | <b>√</b>           | <b>√</b>          | -                   | <b>√</b>      | -        | <b>√</b> | -        |
| 61.5100.0004 | right | <b>√</b>         | <b>√</b>           | <b>√</b>          | -                   | ✓             | -        | <b>√</b> | -        |
| 61.5100.0007 | left  | -                | -                  | <b>√</b>          | -                   | ✓             | -        | <b>√</b> | -        |
| 61.5100.0008 | right | -                | -                  | <b>√</b>          | -                   | <b>√</b>      | -        | <b>√</b> | -        |
| 61.5100.0010 | right | -                | -                  | -                 | $\checkmark$        | ✓             | -        | <b>√</b> | -        |
| 61.5100.0013 | left  | -                | <b>√</b>           | <b>√</b>          | -                   | -             | <b>√</b> | <b>√</b> | ✓        |
| 61.5100.0014 | right | -                | <b>√</b>           | <b>√</b>          | -                   | -             | √        | <b>√</b> | ✓        |
| 61.5100.0018 | right | -                | <b>√</b>           | <b>√</b>          | -                   | <b>√</b>      | -        | <b>√</b> | -        |
| 61.5100.0023 | left  | -                | -                  | <b>√</b>          | -                   | -             | -        | <b>√</b> | <b>√</b> |
| 61.5100.0033 | right | -                | -                  | <b>√</b>          | -                   | ✓             | -        | <b>√</b> | √        |



#### TECHNICAL DRAWING ASSEMBLY









Safety device







inner release













#### **TO KNOW**

Our robust 5101 series is particularly ergonomic due to its tube connection. The driver can conveniently unlock the latch via the release handle integrated in the rectangular tube.

We already offer a variety of different standard tube lengths, but can also produce individual tube lengths on request. If required, these latches can be supplied with an internal safety device.

#### DISTANCE TO INTERNAL RELEASE

All rectangular tubes have the same cut-out for the release handle, which is not variable. The distance from the latch housing to the release handle is always 138.40 mm.

For a higher flexibility in tube shapes and positioning of the release handle, we also offer round tube solutions as an alternative. The distance between the release handle and the latch is flexible and depends on your requirements.



61.5101.0001 With cover



61.5101.0009 Release handle



61.5101.0027 With safety device



61.5101.0045 Without tube



61.5101.0079 Round tube



61.5101.0097 **Curved round tube** 



61.5101.0113 **Basic latch** 

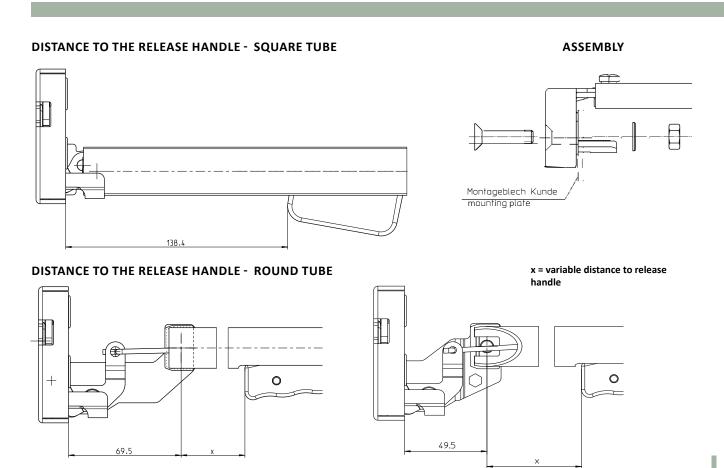


61.5101.0139 Square tube

#### **EXAMPLES OF ARTICLES**

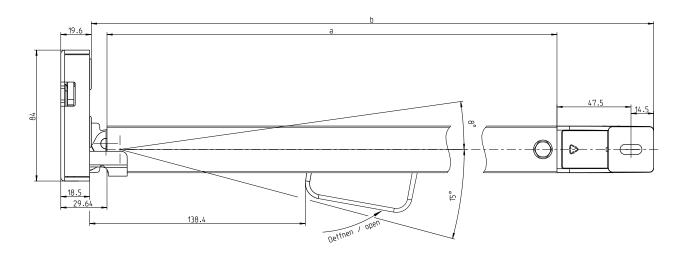
| Part number  | Direct release outside | Direct release | Indirect re- | Indirect re- | Cover        | Without<br>tube | Round<br>tube | Square<br>tube | Total<br>length |
|--------------|------------------------|----------------|--------------|--------------|--------------|-----------------|---------------|----------------|-----------------|
| 61.5101.0001 | √ √                    | -              | -            | √            | <b>√</b>     | -               | -             | √              | 591,60          |
| 61.5101.0009 | <b>√</b>               | -              | -            | - √          | · √          | -               | -             | <i>√</i>       | 691,60          |
| 61.5101.0011 | <b>√</b>               | -              | -            | <b>√</b>     | <b>√</b>     | -               | -             | <b>√</b>       | 921,60          |
| 61.5101.0027 | <b>√</b>               | -              | -            | <b>√</b>     | √            | -               | -             | <b>√</b>       | 541,60          |
| 61.5101.0045 | -                      | <b>√</b>       | √            | -            | -            | <b>√</b>        | -             | -              | -               |
| 61.5101.0069 | -                      | <b>√</b>       | -            | -            | √            | $\checkmark$    | -             | -              | -               |
| 61.5101.0079 | ✓                      | -              | -            | $\checkmark$ | $\checkmark$ | -               | $\checkmark$  | -              | 600,00          |
| 61.5101.0088 | ✓                      | -              | -            | <b>√</b>     | -            | -               | $\checkmark$  | -              | 548,20          |
| 61.5101.0093 | ✓                      | -              | -            | <b>√</b>     | -            | -               | <b>√</b>      | -              | 600,00          |
| 61.5101.0097 | √                      | -              | -            | <b>√</b>     | -            | -               | √             | -              | 497,80          |
| 61.5101.0113 | <b>√</b>               | -              | -            | <b>√</b>     | -            | -               | -             | -              | -               |
| 61.5101.0139 | <b>√</b>               | -              | -            | <b>√</b>     | -            | -               | -             | <b>√</b>       | 375,50          |





### SQUARE TUBE - OVERVIEW

| Part number  | Mirror       | Safety<br>device | Direct release<br>outside | Direct release inside | Indirect re- | Cover        | (a) Tube | (b) Tube | Total<br>length |
|--------------|--------------|------------------|---------------------------|-----------------------|--------------|--------------|----------|----------|-----------------|
| 61.5101.0055 | 61.5101.0056 | -                | <b>√</b>                  | -                     | -            | <b>√</b>     | 229,50   | 301,50   | 321,10          |
| 61.5101.0029 | 61.5101.0030 | -                | ✓                         | -                     | -            | <b>√</b>     | 233,00   | 305,00   | 324,60          |
| 61.5101.0063 | 61.5101.0062 | -                | ✓                         | -                     | -            | ✓            | 233,00   | 305,00   | 324,60          |
| 61.5101.0135 | 61.5101.0136 | <b>√</b>         | <b>√</b>                  | -                     | -            | ✓            | 233,00   | 355,90   | 375,50          |
| 61.5101.0139 | 61.5101.0140 | -                | ✓                         | -                     | -            | -            | 233,00   | 355,90   | 375,50          |
| 61.5101.0060 | - 1          | -                | <b>√</b>                  | <b>√</b>              | <b>√</b>     | <b>√</b>     | 240,00   | 507,00   | 526,60          |
| 61.5101.0035 | 61.5101.0036 | √                | ✓                         | <b>√</b>              | $\checkmark$ | √            | 300,00   | 372,00   | 391,60          |
| 61.5101.0081 | 61.5101.0082 | -                | ✓                         | <b>√</b>              | <b>√</b>     | <b>√</b>     | 300,00   | 672,00   | 691,60          |
| 61.5101.0059 | 61.5101.0058 | -                | ✓                         | <b>√</b>              | $\checkmark$ | √            | 330,00   | 402,00   | 421,60          |
| 61.5101.0037 | 61.5101.0038 | -                | √                         | <b>√</b>              | <b>√</b>     | $\checkmark$ | 380,00   | 452,00   | 471,60          |
| 61.5101.0005 | 61.5101.0006 | -                | ✓                         | <b>√</b>              | $\checkmark$ | $\checkmark$ | 435,00   | 507,00   | 526,60          |
| 61.5101.0027 | 61.5101.0028 | $\checkmark$     | √                         | <b>√</b>              | <b>√</b>     | $\checkmark$ | 450,00   | 522,00   | 541,60          |
| 61.5101.0049 | 61.5101.0050 | -                | ✓                         | <b>√</b>              | <b>√</b>     | $\checkmark$ | 450,00   | 522,00   | 541,60          |
| 61.5101.0015 | 61.5101.0016 | -                | ✓                         | -                     | -            | <b>√</b>     | 490,00   | 562,00   | 581,60          |
| 61.5101.0137 | 61.5101.0138 | -                | √                         | -                     | -            | -            | 490,00   | 612,90   | 632,50          |
| 61.5101.0001 | 61.5101.0002 | -                | ✓                         | <b>√</b>              | <b>√</b>     | <b>√</b>     | 500,00   | 572,00   | 591,60          |
| 61.5101.0003 | 61.5101.0004 | $\checkmark$     | √                         | <b>√</b>              | <b>√</b>     | ✓            | 500,00   | 572,00   | 591,60          |
| 61.5101.0115 | 61.5101.0116 | -                | ✓                         | <b>√</b>              | <b>√</b>     | <b>√</b>     | 500,00   | 510,00   | 529,60          |
| 61.5101.0047 | 61.5101.0048 | -                | ✓                         | -                     | -            | -            | 530,00   | 305,00   | 324,60          |
| 61.5101.0145 | 61.5101.0146 | -                | ✓                         | <b>√</b>              | <b>√</b>     | <b>√</b>     | 530,00   | 602,00   | 621,60          |
| 61.5101.0119 | -            | -                | ✓                         | <b>√</b>              | <b>√</b>     | ✓            | 580,00   | 652,00   | 671,60          |
| 61.5101.0009 | 61.5101.0010 | -                | ✓                         | <b>√</b>              | <b>√</b>     | <b>√</b>     | 600,00   | 672,00   | 691,60          |
| 61.5101.0043 | 61.5101.0044 | $\checkmark$     | ✓                         | -                     | -            | $\checkmark$ | 600,00   | 672,00   | 691,60          |
| 61.5101.0017 | 61.5101.0018 | $\checkmark$     | ✓                         | <b>√</b>              | <b>√</b>     | $\checkmark$ | 680,00   | 752,00   | 771,60          |
| 61.5101.0019 | 61.5101.0020 | -                | ✓                         | $\checkmark$          | ✓            | ✓            | 700,00   | 772,00   | 791,60          |
| 61.5101.0041 | 61.5101.0042 | $\checkmark$     | ✓                         | <b>√</b>              | <b>√</b>     | $\checkmark$ | 700,00   | 772,00   | 791,60          |
| 61.5101.0071 | -            | -                | ✓                         | <b>√</b>              | <b>√</b>     | $\checkmark$ | 700,00   | 772,00   | 791,60          |
| 61.5101.0072 | - 1          | -                | ✓                         | <b>√</b>              | <b>√</b>     | √            | 700,00   | 772,00   | 791,60          |
| 61.5101.0103 | - 1          | -                | ✓                         | <b>√</b>              | <b>√</b>     | √            | 700,00   | 802,90   | 822,50          |
| 61.5101.0104 | -            | -                | <b>√</b>                  | <b>√</b>              | <b>√</b>     | <b>√</b>     | 700,00   | 672,00   | 722,50          |
| 61.5101.0074 | 61.5101.0073 | -                | ✓                         | <b>√</b>              | <b>√</b>     | $\checkmark$ | 721,00   | 672,00   | 691,60          |
| 61.5101.0033 | -            | -                | √                         | <b>√</b>              | <b>√</b>     | <b>√</b>     | 740,00   | 812,00   | 831,60          |
| 61.5101.0011 | 61.5101.0012 | -                | √                         | <b>√</b>              | <b>√</b>     | <b>√</b>     | 830,00   | 902,00   | 921,60          |
| 61.5101.0061 | - 1          | -                | ✓                         | -                     | -            | -            | 830,00   | 902,00   | 921,60          |
| 61.5101.0039 | 61.5101.0040 | -                | ✓                         | -                     | -            | √            | 950,00   | 1022,00  | 1041,60         |

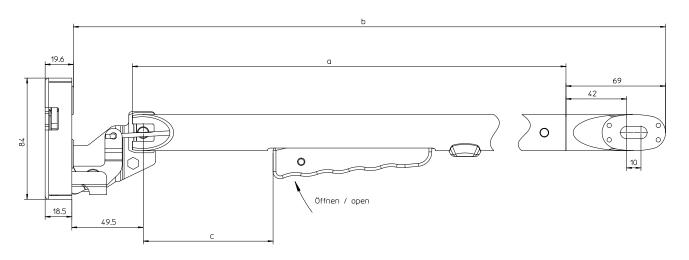




### **ROUND TUBE - OVERVIEW**

| Part number  | Mirror       | Direct release |         | Latch box short | ( , ,    | (b) Tube | (c) Distance   | Total  |
|--------------|--------------|----------------|---------|-----------------|----------|----------|----------------|--------|
|              |              | outside        | outside | 49,50           | assembly | assembly | release handle | length |
| 61.5101.0090 | -            | ✓              | -       | $\checkmark$    | 275,50   | 385,40   | 90,00          | 405,00 |
| 61.5101.0141 | -            | ✓              | -       | -               | 285,00   | 414,90   | 70,00          | 434,50 |
| 61.5101.0079 | 61.5101.0080 | ✓              | -       | -               | 450,50   | 580,40   | 250,00         | 600,00 |
| 61.5101.0093 | -            | √              | -       | ✓               | 470,50   | 580,40   | 90,00          | 600,00 |
| 61.5101.0102 | -            | ✓              | -       | ✓               | 470,50   | 580,40   | 90,00          | 600,00 |
| 61.5101.0107 | -            | ✓              | -       | ✓               | 470,50   | 580,40   | 90,00          | 600,00 |
| 61.5101.0148 | -            | √              | ✓       | ✓               | 470,50   | 600,40   | 90,00          | 620,00 |
| 61.5101.0144 | -            | √              | -       | -               | 508,00   | 637,90   | 248,50         | 657,50 |
| 61.5101.0123 | -            | √              | -       | -               | 552,50   | 682,40   | 315,00         | 702,00 |
| 61.5101.0152 | 61.5101.0153 | ✓              | -       | ✓               | 643,20   | 753,10   | 438,10         | 772,70 |
| 61.5101.0153 | 61.5101.0152 | √              | -       | √               | 643,20   | 753,10   | 438,10         | 772,70 |
| 61.5101.0109 | -            | √              | -       | -               | 675,00   | 804,90   | 250,00         | 824,50 |

#### **TECHNICAL DRAWING ROUND TUBE**





### **CURVED TUBE - OVERVIEW**

| Part number  | Mirror       | Latch box short<br>49,50 mm | (a) Tube | (b) Total<br>tube assembly | (c) Distance to release handle | Total length latch with tube |
|--------------|--------------|-----------------------------|----------|----------------------------|--------------------------------|------------------------------|
| 61.5101.0088 | 61.5101.0089 | ✓                           | 418,70   | 528,60                     | 90,00                          | 548,20                       |
| 61.5101.0089 | 61.5101.0088 | ✓                           | 418,70   | 528,60                     | 90,00                          | 548,20                       |
| 61.5101.0097 | -            | √                           | 368,30   | 478,20                     | 90,00                          | 497,80                       |
| 61.5101.0111 | -            | ✓                           | 418,70   | 528,60                     | 90,00                          | 548,20                       |





### Key concepts for doors from the market leader

#### TO KNOW

Our double rotor latch of the 5200 series can be used for door and hood application. All latches generally have the two rotor latch positions of main and secondary lock (when used in flaps and hoods its available with only one main lock position). They are mounted with two screws.

This series is characterized by its durability and robustness. Heavy loads, vibrations and high cycles are no challenge for our top sellers. In order to meet our customers' requirements, and the individual installation situations, we offer a particularly large range of variants. Due to a close cooperation between our customers and our development department, some of our latches are customer-specific and therefore not available for free sale.

On the following pages we will show some of these variants as examples. On request, we also offer this latch series with special rotors with +/- 2 mm tolerance compensation and with Antifricor coated rotors and pawls.

Should you require a remote control key for your locking system, these latches are also offered with a microswitch to ensure lockout protection. In addition, we always ensure that our remote control key provides mechanical emergency locking and unlocking in the event of a power failure.

Of course, our systems are capable of central locking and can be supplied for 12V or 24V vehicle electrical systems.







Our latches 61.5200.0167/0168 can be supplied with cover as a compact assembly.

#### **AVAILABLE ACCESSORIES**











Striker bolt



61.5200.0001



61.5200.0005



61.5200.0009



61.5200.0011



61.5200.0019



61.5200.0039



61.5200.0045



61.5200.0078





Variants with this symbol are customer-specific and are not freely available. We will be glad to offer you similar products. We are looking forward to your inquiry!











61.5200.0174

61.5200.0185

61.5200.0214







61.5200.0225 61.5200.0238

61.5200.0241

61.5200.0245











### **Customized locking systems**

for the commercial vehicle industry

#### **EQUIPMENT OPTIONS**

Our double latch is a versatile product. It can be adapted in all functional areas. Due to the high number of variants, we can certainly offer you a latch made of standard products. If this is not possible, we will develop an individual product for you.



#### **ROTORS**



Standard rotors "without secondary lock" made for hoods and flaps



Standard rotors with Antifricor coated rotors and pawls



Special rotors with +/- 2mm tolerance compension and Antifricor coated rotors and pawls



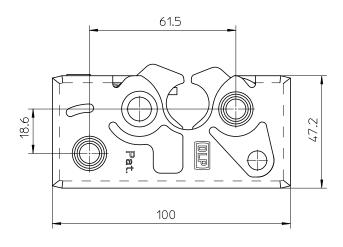
Special rotors with +/- 2mm tolerance compensation (oval hole/smaller bolt)

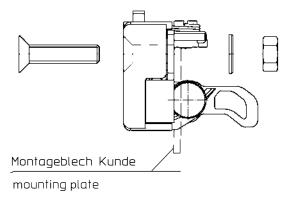
SPECIAL ROTORS WITH TOLERANCE COMPENSATION: Compensation option for poorly adjusted (hanging) doors

#### **ANTIFRICOR** COATED ROTORS:

Less friction, therefore particularly low maintenance and no greasing necessary

#### TECHNICAL DRAWING ASSEMBLY





| Tightening torque | 25 Nm                   |
|-------------------|-------------------------|
| Screw             | DIN ISO 10642<br>M8 8.8 |

### **SAMPLES**

| Part number  | Side  | Striker | Special rotors | Antifricor coating | One-piece latch cover plate | Latch cover | Latch case opened | Latch case<br>closed | Special latch case |
|--------------|-------|---------|----------------|--------------------|-----------------------------|-------------|-------------------|----------------------|--------------------|
| 61.5200.0001 | left  | 17,13   | -              | -                  | <i>√</i>                    | -           | -                 | <b>√</b>             | -                  |
| 61.5200.0005 | left  | 17,13   | -              | -                  | √                           | -           | -                 | ✓                    | -                  |
| 61.5200.0009 | left  | 17,13   | -              | -                  | $\checkmark$                | -           | -                 | ✓                    | -                  |
| 61.5200.0011 | left  | 17,13   | -              | -                  | -                           | ✓           | -                 | <b>√</b>             | -                  |
| 61.5200.0019 | left  | 17,13   | -              | -                  | -                           | <b>√</b>    | -                 | <b>√</b>             | -                  |
| 61.5200.0039 | left  | 17,13   | -              | -                  | ✓                           | -           | -                 | <b>√</b>             | -                  |
| 61.5200.0045 | left  | 17,13   | -              | -                  | -                           | <b>√</b>    | -                 | <b>√</b>             | -                  |
| 61.5200.0078 | right | 17,13   | -              | -                  | ✓                           | -           | -                 | <b>√</b>             | -                  |
| 61.5200.0079 | right | 17,13   | -              | -                  | ✓                           | -           | -                 | <b>√</b>             | -                  |
| 61.5200.0084 | left  | 17,13   | -              | -                  | √                           | -           | <b>√</b>          | -                    | <b>√</b>           |
| 61.5200.0087 | left  | 17,13   | -              | -                  | <b>√</b>                    | -           | -                 | <b>√</b>             | <b>√</b>           |
| 61.5200.0104 | right | 17,13   | -              | <b>√</b>           | -                           | <b>√</b>    | √                 | -                    | -                  |
| 61.5200.0113 | left  | 17,13   | -              | _                  | -                           | √           | -                 | <b>√</b>             | _                  |
| 61.5200.0115 | left  | 17,13   | -              | _                  | 1                           | -           | _                 | <i></i>              | _                  |
| 61.5200.0121 | left  | 13,75   | <b>√</b>       | <b>√</b>           | -                           | <b>√</b>    | _                 | _                    | <b>\</b>           |
| 61.5200.0123 | left  | 13,75   | \ \ \          | \ \ \              | _                           | \ \ \       | _                 | _                    | \ \ \              |
| 61.5200.0127 | left  | 17,13   | -              | _                  | _                           | <b>√</b>    | _                 | <b>√</b>             | _                  |
| 61.5200.0127 | left  | 13,75   | 1              |                    | -                           | <b>√</b>    | _                 | <b>√</b>             | _                  |
| 61.5200.0133 | left  |         |                |                    |                             | <b>√</b>    |                   | \ \ \ \              |                    |
| 61.5200.0143 |       | 17,13   | -              | -                  | - /                         | _           | -<br>√            |                      | -                  |
|              | right | 17,13   | -              | -                  | V                           |             |                   | -                    | <b> </b>           |
| 61.5200.0154 | right | 10,00   | -              | -                  | -                           | √           | √                 | -                    | -                  |
| 61.5200.0159 | left  | 17,13   | -              | -                  | <b>√</b>                    | -           | -                 | <b>√</b>             | <b>√</b>           |
| 61.5200.0165 | left  | 13,75   | <b>√</b>       | -                  | -                           | <b>√</b>    | -                 | √<br>/               | -                  |
| 61.5200.0167 | left  | 17,13   | -              | -                  | -                           | √<br>,      | -                 | <b>√</b>             | -                  |
| 61.5200.0171 | left  | 17,13   | -              | - /                | -                           | <b>√</b>    | -                 | <b>√</b>             | -                  |
| 61.5200.0174 | right | 17,13   | -              | \ \ \              | <b>√</b>                    | -           | -                 | <b>√</b>             | -                  |
| 61.5200.0185 | left  | 17,13   | -              | -                  | <b>√</b>                    | -           | <b>√</b>          | -                    | <b> </b>           |
| 61.5200.0214 | right | 17,13   | -              | -                  | -                           | <b>√</b>    | -                 | <b>√</b>             | -                  |
| 61.5200.0225 | left  | 17,13   | -              | -                  | <b>√</b>                    | -           | √                 | <b>√</b>             | -                  |
| 61.5200.0238 | right | 17,13   | -              | -                  | <b>√</b>                    | -           | -                 | <b>√</b>             | -                  |
| 61.5200.0241 | left  | 17,13   | -              | -                  | -                           | <b>√</b>    | -                 | <b>√</b>             | -                  |
| 61.5200.0245 | left  | 17,13   | -              | -                  | -                           | <b>√</b>    | -                 | <b>√</b>             | -                  |
| 61.5200.0251 | left  | 17,13   | -              | -                  | -                           | √           | -                 | <b>√</b>             | -                  |
| 61.5200.0283 | left  | 17,13   | -              | -                  | -                           | ✓           | -                 | <b>√</b>             | -                  |
| 61.5200.0296 | right | 17,13   | -              | -                  | √                           | -           | -                 | -                    | <b>√</b>           |
| 61.5200.0299 | left  | 17,13   | -              | -                  | -                           | ✓           | -                 | <b>√</b>             | -                  |
| 61.5200.0303 | left  | 13,75   | ✓              | ✓                  | -                           | √           | √                 | -                    | -                  |
| 61.5200.0307 | left  | 17,13   | -              | -                  | ✓                           | -           | ✓                 | -                    | ✓                  |
| 61.5200.0328 | right | 17,13   | -              | -                  | ✓                           | -           | -                 | ✓                    | -                  |
| 61.5200.0336 | right | 17,13   | -              | -                  | -                           | ✓           | -                 | √                    | -                  |
| 61.5200.0337 | left  | 17,13   | -              | -                  | -                           | ✓           | -                 | $\checkmark$         | -                  |
| 61.5200.0341 | left  | 17,13   | -              | -                  | -                           | ✓           | -                 | $\checkmark$         | -                  |
| 61.5200.0347 | left  | 17,13   | -              | -                  | -                           | √           | $\checkmark$      | -                    | -                  |
| 61.5200.0349 | left  | 17,13   | -              | -                  | ✓                           | -           | -                 | ✓                    | -                  |
| 61.5200.0356 | right | 17,13   | -              | -                  | ✓                           | -           | -                 | <b>√</b>             | -                  |
| 61.5200.0366 | right | 17,13   | -              | -                  | ✓                           | -           | -                 | -                    | <b>√</b>           |
| 61.5200.0369 | left  | 13,75   | <b>√</b>       | -                  | -                           | <b>√</b>    | -                 | <b>√</b>             | -                  |
| 61.5200.0370 | right | 17,13   | -              | -                  | -                           | <b>√</b>    | -                 | <b>√</b>             | -                  |
| 61.5200.0376 | right | 17,13   | -              | <b>√</b>           | -                           | √           | <b>√</b>          | -                    | -                  |
| 61.5200.0404 | right | 17,13   | -              | -                  | -                           | <i></i>     | -                 | <b>√</b>             | -                  |
| 61.5200.0405 | left  | 17,13   | -              | _                  | -                           | <b>√</b>    | <b>√</b>          | -                    | -                  |
| 61.5200.0425 | left  | 13,75   | <b>√</b>       | <b>\</b>           | -                           | <i></i>     | <b>√</b>          | -                    | -                  |

### **SAMPLES**

# Series 5200

| Part number  | Safety<br>device | Direct<br>release<br>outside | Direct<br>release<br>inside | Indirect<br>release<br>outside | Inner handle<br>(Indirect<br>release) | Microswitch | Door         | Hood      | Customized |
|--------------|------------------|------------------------------|-----------------------------|--------------------------------|---------------------------------------|-------------|--------------|-----------|------------|
| 61.5200.0001 | -                | √ √                          | √                           | -                              | -                                     | -           | <b>√</b>     | _         | <b>√</b>   |
| 61.5200.0005 | <b>√</b>         |                              | · √                         | _                              | -                                     | -           |              |           |            |
| 61.5200.0009 | -                | -                            | -                           | <b>1</b>                       | <b>√</b>                              | _           | -            | <b>│</b>  | -          |
| 61.5200.0003 |                  | 1                            | _                           | -                              | <b>√</b>                              | _           |              | _         |            |
|              |                  | \ \ \ \ \                    |                             |                                |                                       | -           |              |           |            |
| 61.5200.0019 | -                |                              | ✓ ✓                         | -                              | -                                     | -           |              | -         | -          |
| 61.5200.0039 | -                | -                            |                             | -                              | -                                     | -           | -            | <b>√</b>  | -          |
| 61.5200.0045 | -                | <b>√</b>                     | <b>√</b>                    | -                              | √<br>                                 | -           | <u>/</u>     | -         | -          |
| 61.5200.0078 | -                | -                            | -                           | <b>√</b>                       | <b>√</b>                              | -           | <u>√</u>     | -         | -          |
| 61.5200.0079 | -                | -                            | <b>√</b>                    | -                              | -                                     | -           | √            | -         | <b>√</b>   |
| 61.5200.0084 | -                | <b>√</b>                     | -                           | -                              | -                                     | -           | -            | <b>√</b>  | -          |
| 61.5200.0087 | -                | -                            | √                           | √                              | <b>√</b>                              | -           | √            | -         | √          |
| 61.5200.0104 |                  | ✓                            | ✓                           | -                              | -                                     | -           |              | -         | ✓          |
| 61.5200.0113 | -                | -                            | √                           | √                              | √                                     | √           | ✓            | -         | -          |
| 61.5200.0115 | -                | -                            | √                           | ✓                              | ✓                                     | -           | ✓            | -         | -          |
| 61.5200.0121 | -                | ✓                            | -                           | -                              | ✓                                     | -           | $\checkmark$ | -         | ✓          |
| 61.5200.0123 | -                | $\checkmark$                 | $\checkmark$                | -                              | -                                     | -           | $\checkmark$ | -         | ✓          |
| 61.5200.0127 | √                | ✓                            | ✓                           | -                              | -                                     | -           | <b>√</b>     | -         | ✓          |
| 61.5200.0139 | -                | -                            | -                           | √                              | ✓                                     | -           | -            | √         | -          |
| 61.5200.0143 | -                | <b>√</b>                     | <b>√</b>                    | -                              | -                                     | -           | <b>√</b>     | -         | -          |
| 61.5200.0150 | -                | <b>√</b>                     | -                           | -                              | -                                     | -           | -            | ✓         | -          |
| 61.5200.0154 | -                | -                            | -                           | <b>√</b>                       | <b>√</b>                              | -           | -            | <b>√</b>  | -          |
| 61.5200.0159 | -                | -                            | -                           | 1                              | 1                                     | - 1         |              | <b>1</b>  | -          |
| 61.5200.0165 | -                | <b>/</b>                     | _                           | \ \ \                          |                                       | -           |              | \ \       | -          |
| 61.5200.0167 | _                | \ \ \ \                      | _                           | -                              | -                                     | _           |              | _         | _          |
| 61.5200.0171 | -                | \ \ \ \ \                    | <b>√</b>                    | _                              | _                                     | -           |              | _         | -          |
| 61.5200.0174 |                  | \ \ \ \                      | \ \ \ \ \                   | _                              | _                                     | _           |              | _         | \ \ \ \    |
| 61.5200.0174 |                  |                              | \ \ \ \ \                   |                                |                                       | _           |              | \ \ \     | -          |
|              |                  | -                            |                             | -                              | - /                                   |             |              | \ \ \ \   |            |
| 61.5200.0214 | -                | <b> </b>                     | -                           | \ \ \ \                        |                                       | -           |              | \ \ \ \ \ | -          |
| 61.5200.0225 | -                | -                            | -                           |                                | <b>√</b>                              | -           | <b>√</b>     | 1         | -          |
| 61.5200.0238 | -                | -                            | -                           | <b>√</b>                       | <b>√</b>                              | <b>√</b>    |              | -         | -          |
| 61.5200.0241 | -                | -                            | -                           | <b>√</b>                       | √<br>                                 | -           | <b>√</b>     | <b>√</b>  | -          |
| 61.5200.0245 | -                | -                            | <b>√</b>                    | <b> </b>                       | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | -           | <u>√</u>     | -         | -          |
| 61.5200.0251 | -                | <b>√</b>                     | -                           | -                              | <b>√</b>                              | <b>√</b>    |              | <b> </b>  | -          |
| 61.5200.0283 | -                | -                            | √                           | <b>√</b>                       | <b>√</b>                              | -           | <b>√</b>     | -         | -          |
| 61.5200.0296 | -                | <b>√</b>                     | -                           | -                              | -                                     | -           | -            | <b>√</b>  | -          |
| 61.5200.0299 | -                | -                            | <b>√</b>                    | <b>√</b>                       | <b>√</b>                              | -           |              | <b>√</b>  | -          |
| 61.5200.0303 | -                | -                            | √                           | √                              | ✓                                     | -           |              | -         | -          |
| 61.5200.0307 | -                | <b>√</b>                     | -                           | -                              | -                                     | -           | -            | <b>√</b>  | -          |
| 61.5200.0328 | -                | -                            | -                           | ✓                              | <b>√</b>                              | -           | √            | √         | √          |
| 61.5200.0336 | -                | ✓                            | ✓                           | -                              | -                                     | -           | ✓            | ✓         | -          |
| 61.5200.0337 | -                | ✓                            | ✓                           | -                              | -                                     | -           | √            | -         | -          |
| 61.5200.0341 | -                | $\checkmark$                 | ✓                           | ✓                              | ✓                                     | -           | $\checkmark$ | -         | -          |
| 61.5200.0347 | -                | -                            | √                           | -                              | -                                     | -           | √            | √         | -          |
| 61.5200.0349 | -                | -                            | <b>√</b>                    | -                              | -                                     | <b>√</b>    | <b>√</b>     | -         | -          |
| 61.5200.0356 | -                | -                            | -                           | √                              | <b>√</b>                              | <b>√</b>    | <b>√</b>     | -         | -          |
| 61.5200.0366 | -                | <b>√</b>                     | -                           | -                              | -                                     | -           | -            | <b>√</b>  | -          |
| 61.5200.0369 | -                | <b>√</b>                     | <b>√</b>                    | -                              | -                                     | <b>√</b>    | <b>√</b>     | -         | <b>√</b>   |
| 61.5200.0370 | -                |                              | <b>√</b>                    | -                              | -                                     | -           |              | -         | -          |
| 61.5200.0376 | -                | <b>√</b>                     | -                           | -                              | <b>√</b>                              | <b>√</b>    |              | <b>√</b>  | _          |
| 61.5200.0404 |                  | \ \ \ \                      | _                           | 1                              | <b>√</b> √                            | <b>√</b>    |              | -         |            |
| 61.5200.0404 | -                | \ \ \ \                      |                             | -                              | -                                     | -           |              | -         | -          |
| 01.0200.0400 |                  | V                            | V                           |                                |                                       |             | V            |           |            |



#### **TO KNOW**

The 5201 series is based on the 5200 latch, which is equipped with a round tube. Our double rotor latches with round tube are equipped with a fully integrated release handle, which can be flexibly positioned for your application and therefore optimally adapts to the conditions in your cabin. The round tubes have a standard diameter of 25,00 mm and can also be individually designed.

If desired, you can also connect your own tube to the double rotor latch. The connection between the latch and the internal actuation is made by cable, rod or Bowden cable. The round tubes are offered with different tube endings and if required, a mounting option for your gas spring.

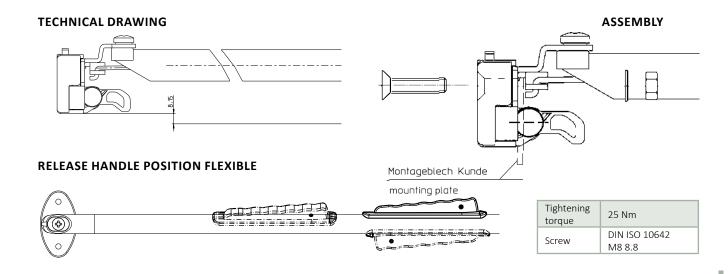


#### **SAMPLES**

| Part number  | Side  | Tube straight | Tube with angle | Foamed<br>tube | Direct release outside | Indirect<br>release | Microswitch | Release han-<br>dle clipsable | Total<br>length |
|--------------|-------|---------------|-----------------|----------------|------------------------|---------------------|-------------|-------------------------------|-----------------|
| 61.5201.0127 | left  | ✓             | -               | -              | $\checkmark$           | ✓                   | -           | ✓                             | 290,90          |
| 61.5201.0253 | left  | ✓             | -               | -              | -                      | ✓                   | -           | ✓                             | 366,30          |
| 61.5201.0011 | left  | -             | -               | -              | -                      | ✓                   | -           | -                             | 413,20          |
| 61.5201.0226 | right | ✓             | -               | -              | √                      | -                   | -           | <b>√</b>                      | 431,90          |
| 61.5201.0205 | left  | -             | -               | ✓              | √                      | -                   | -           | <b>√</b>                      | 489,50          |
| 61.5201.0185 | left  | ✓             | -               | -              | ✓                      | -                   | -           | <b>√</b>                      | 544,00          |
| 61.5201.0219 | left  | ✓             | -               | ✓              | √                      | -                   | -           | -                             | 610,00          |
| 61.5201.0031 | left  | -             | -               | <b>√</b>       | ✓                      | -                   | -           | - 1                           | 650,90          |
| 61.5201.0026 | right | -             | -               | -              | <b>√</b>               | -                   | <b>√</b>    | -                             | 682,00          |
| 61.5201.0121 | left  | <b>√</b>      | $\checkmark$    | -              | <b>√</b>               | -                   | -           | -                             | 715,80          |
| 61.5201.0025 | left  | <b>√</b>      | -               | -              | -                      | ✓                   | -           | -                             | 830,30          |
| 61.5201.0019 | left  | <b>√</b>      | -               | √              | <b>√</b>               | -                   | -           | -                             | 908,00          |

#### **AVAILABLE ACCESSORIES**





#### **VERSATILE PRODUCTS**

We also offer a selection of release handle variants and plastic covers for the latch as standard, which harmoniously completes the overall appearance.

We will be happy to create a set for you that includes all the necessary accessories, such as locking bolts, deflector brackets and also threaded plates and washers depending on your needs.

As a luxury option, you can choose a fully foamed version with integrated armrest. In the event of a collision, the completely foam covered tube provides higher safety for the operator or driver and also increases comfort, as you can rest your forearm on the foamed armrest.

#### **RELEASE HANDLE**



Clipsable Release handle 41.5211.3501



Screwable release handle, adjustable 41.5201.0701



Release handle adjustable 41.5201.1803



Release handle - Lower release force required 41.5215.4401

#### **INDIVIDUAL TUBE DESIGN**



Tube end metal



Tube end (glass installation)



Tube end (metal installation)



Tube end with thread



Gas spring connection



Tube end with support bracket



Tube with additional thread



Open tube end

#### **COVER**



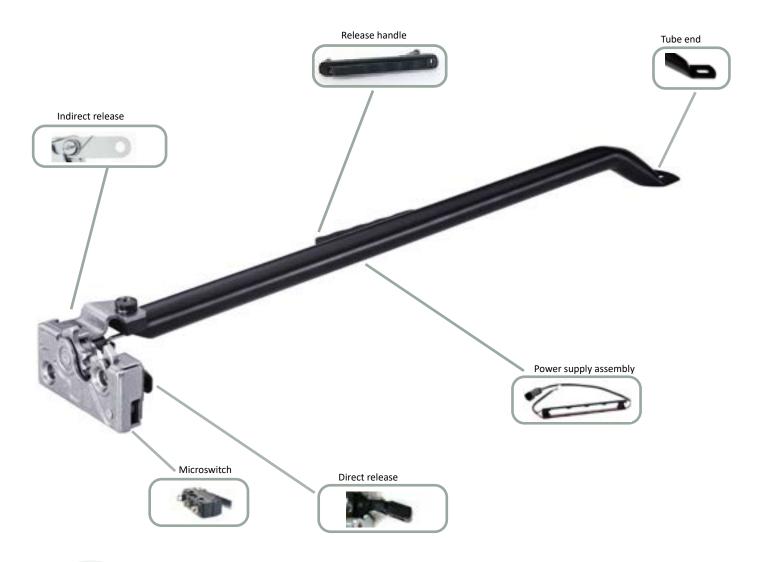
Big cover



Small cover



Integrated cap for latch cover





We understand the wishes of our customers and convince with **excellent solutions** 

#### **ELECTRONIC COMPONENTS FOR MORE FUNCTIONS**

For several years we have been supplying our double rotor latches to many customers in versions with remote control key. You can purchase our latches with microswitches which provide lockout protection in combination with the remote control key and central locking system.

In addition, we ensure that a mechanical emergency release is provided with our remote control key in the event of a power failure. Of course our components can be combined with a central locking system (12 or 24 volt).

**—** 9

CDL-motor

Logic box Remote control key



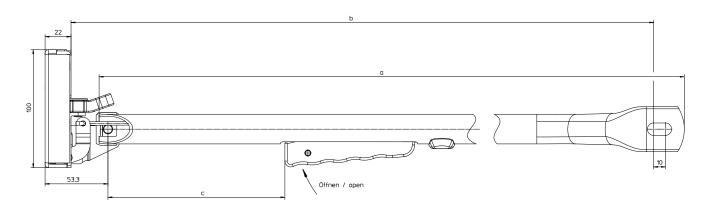






| Part number  | Direct release | Indirect     | Microswitch | Release han-  | Tube end     | (a) Tube | (b) Tube | (c) Screw | Total  |
|--------------|----------------|--------------|-------------|---------------|--------------|----------|----------|-----------|--------|
|              | outside        | release      |             | dle clipsable | glass        | length   | assembly | to RH¹    | length |
| 61.5201.0127 | ✓              | $\checkmark$ | -           | ✓             | -            | 245,10   | 237,60   | 49,50     | 290,90 |
| 61.5201.0253 | -              | $\checkmark$ | -           | ✓             | -            | 251,50   | 286,00   | 63,00     | 366,30 |
| 61.5201.0256 | ✓              | -            | -           | ✓             | $\checkmark$ | 285,00   | 324,50   | 65,00     | 385,00 |
| 61.5201.0226 | √              | -            | -           | ✓             | -            | 386,10   | 378,60   | 180,90    | 431,90 |
| 61.5201.0234 | ✓              | -            | -           | -             | -            | 391,50   | 426,00   | 178,70    | 506,30 |
| 61.5201.0254 | -              | $\checkmark$ | -           | ✓             | -            | 426,50   | 461,00   | 181,00    | 541,30 |
| 61.5201.0185 | ✓              | -            | -           | ✓             | ✓            | 451,20   | 490,70   | 254,90    | 544,00 |
| 61.5201.0054 | ✓              | -            | -           | -             | -            | 496,50   | 531,00   | 276,90    | 584,30 |
| 61.5201.0095 | ✓              | -            | -           | -             | -            | 496,50   | 531,00   | 276,90    | 584,30 |
| 61.5201.0176 | -              | $\checkmark$ | -           | -             | -            | 485,60   | 520,10   | 278,10    | 600,40 |
| 61.5201.0191 | √              | -            |             | -             | -            | 496,50   | 531,00   | 276,90    | 611,30 |
| 61.5201.0239 | -              | $\checkmark$ | √           | -             | -            | 496,50   | 531,00   | 212,50    | 611,30 |
| 61.5201.0121 | √              | -            | -           | -             | -            | 670,00   | 625,00   | 182,50    | 715,80 |
| 61.5201.0222 | -              | $\checkmark$ | -           | -             | -            | 750,00   | 686,00   | 150,00    | 739,30 |
| 61.5201.0001 | √              | -            | -           | -             | -            | 694,50   | 661,00   | 212,50    | 740,30 |
| 61.5201.0030 | ✓              | -            | -           | -             | -            | 718,50   | 685,00   | 277,00    | 754,30 |
| 61.5201.0025 | -              | √            | -           | -             | -            | 768,50   | 761,00   | 330,00    | 830,30 |

#### TECHNICAL DRAWING STRAIGHT ROUND TUBE



<sup>1</sup>RH- release handle



#### **CURVED ROUND TUBE - OVERVIEW**

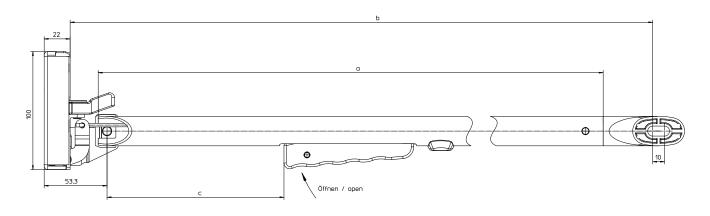
| Part number  | Direct release outside | Indirect<br>release | Microswitch | Release han-<br>dle clipsable | Tube end glass | (a) Tube<br>length | (b) Tube<br>assembly | (c) Screw to | Total<br>length |
|--------------|------------------------|---------------------|-------------|-------------------------------|----------------|--------------------|----------------------|--------------|-----------------|
| 61.5201.0011 | -                      | $\checkmark$        | -           | -                             | -              | 467,40             | 359,90               | 184,00       | 413,20          |
| 61.5201.0026 | <b>√</b>               | -                   | <b>√</b>    | -                             | -              | 630,20             | 612,70               | 90,00        | 682,00          |
| 61.5201.0168 | ✓                      | -                   | -           | ✓                             | -              | 642,60             | 668,40               | 194,70       | 732,90          |
| 61.5201.0035 | ✓                      | -                   | -           | -                             | $\checkmark$   | 615,10             | 662,50               | 276,90       | 734,10          |
| 61.5201.0169 | -                      | $\checkmark$        | ✓           | -                             | -              | 827,30             | 797,00               | 166,20       | 850,30          |
| 61.5201.0040 | -                      | $\checkmark$        | -           | -                             | -              | 494,70             | 821,00               | 601,90       | 874,30          |
| 61.5201.0259 | ✓                      | -                   | -           | -                             | -              | 912,10             | 904,60               | 213,60       | 983,90          |



#### **FOAMED ROUND TUBE - OVERVIEW**

| Part number  | Tube straight | Release han-<br>dle clipsable | Cover<br>assembly | Tube end glass | (a) Tube<br>length | (b) Tube<br>assembly | (c) Screw to | Total<br>length |
|--------------|---------------|-------------------------------|-------------------|----------------|--------------------|----------------------|--------------|-----------------|
| 61.5201.0205 | -             | $\checkmark$                  | -                 | $\checkmark$   | 385,30             | 369,00               | 135,60       | 489,50          |
| 61.5201.0219 | ✓             | -                             | -                 | $\checkmark$   | 515,50             | 555,00               | 277,60       | 610,00          |
| 61.5201.0031 | -             | -                             | -                 | -              | 598,10             | 597,88               | 209,40       | 650,90          |
| 61.5201.0077 | ✓             | -                             | $\checkmark$      | $\checkmark$   | 437,60             | 678,10               | 276,90       | 731,40          |
| 61.5201.0007 | -             | -                             | -                 | -              | 667,50             | 693,40               | 276,00       | 746,70          |
| 61.5201.0019 | ✓             | -                             | $\checkmark$      | -              | 836,20             | 833,70               | 276,90       | 908,00          |

#### TECHNICAL DRAWING WITH SEPARATE TUBE END



<sup>1</sup>RH- release handle





Direct release





Inner handle



Main and secondary lock



Main lock



Hood installation



Door installation









#### **TO KNOW**

The 5300 rotary latch can be installed in an extremely space-saving manner. It is suitable for small doors as well as flaps. Its low weight is a convincing feature.

This new generation of latches is the result of scientific development in cooperation with the University of Wuppertal in order to meet changing market requirements. The calculations and designs were based on optimizing the interaction of all individual parts.

Both rotor latches are blocked by a separate pawl which results, among other things, in extremely low release forces. The special feature of this latch is its symmetrical design: elimination of the distinction between left and right.

The assembly is particularly user-friendly with only two screws. In addition, this series only needs to be cleaned and not greased.



61.5300.0001

Direct release outside



61.5300.0002

Direct release inside



61.5300.0003
Indirect release outside



Hood latch



61.5300.0005 Inner handle



61.5300.0006 **Door latch** 



61.5300.0008
Release lever short



61.5300.0009

Latch with deflection

#### **SAMPLES**

| Part number  | Direct<br>release<br>outside | Indirect<br>release<br>outside | Direct<br>release<br>inside | Inner handle<br>(Indirect<br>release | Internal<br>handle | Door | Hood/<br>Flap | *\bar{\tau}* Customized |
|--------------|------------------------------|--------------------------------|-----------------------------|--------------------------------------|--------------------|------|---------------|-------------------------|
| 61.5300.0001 | $\checkmark$                 | -                              | -                           | -                                    | -                  | ✓    | $\checkmark$  | -                       |
| 61.5300.0002 | -                            | -                              | ✓                           | -                                    | -                  | ✓    | -             | -                       |
| 61.5300.0003 | -                            | ✓                              | -                           | ✓                                    | -                  | ✓    | -             | -                       |
| 61.5300.0004 | ✓                            | -                              | -                           | -                                    | -                  | ✓    | ✓             | -                       |
| 61.5300.0005 | -                            | -                              | ✓                           | -                                    | $\checkmark$       | ✓    | -             | -                       |
| 61.5300.0006 | ✓                            | -                              | -                           | ✓                                    | -                  | ✓    | -             | -                       |
| 61.5300.0007 | $\checkmark$                 | ✓                              | -                           | ✓                                    | -                  | ✓    | $\checkmark$  | -                       |
| 61.5300.0008 | ✓                            | -                              | -                           | -                                    | -                  | ✓    | -             | -                       |
| 61.5300.0009 | -                            | $\checkmark$                   | -                           | -                                    | -                  | ✓    | -             | -                       |
| 61.5300.0010 | -                            | -                              | ✓                           | -                                    | -                  | ✓    | -             | <b>√</b>                |

#### **AVAILABLE ACCESSORIES**





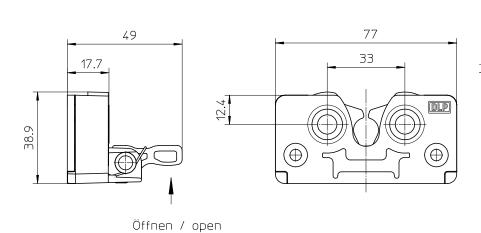


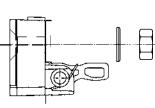
nner handle



Our latch 61.5300.0002 can be used with cover 26.5300.0700 as a compact assembly for doors.

#### **TECHNICAL DRAWING**





**ASSEMBLY** 

Montageblech Kunde / mounting plate

| Tightening<br>torque | 25 Nm                   |
|----------------------|-------------------------|
| Screw                | DIN ISO 10642<br>M8 8.8 |



#### **BENEFITS AT A GLANCE**



**Symmetrical design** (elimination of left/right distinction)



Simple mounting (two M8 screws, DIN EN ISO 10642)





#### **MODULAR PRINCIPLE**

In this product series, the basic bodies remains unchanged. By adding different release mechanisms, the basic body can be completed into an independent latch concept by applying the modular principle. This allows the body of the basic latch to be produced on a fully automated line to meet today's high quality standards.

No matter whether it's a requirement of a customer or our own idea, we are continuously working on additional variants to make this series even more flexible for you. Currently we have two different basic latch bodies. Our rotor latches are available with main and secondary lock for doors or only with a main lock for flaps and hoods.

We will be happy to advise you and find the right product for your individual application.

#### **ROTOR VARIANTS**



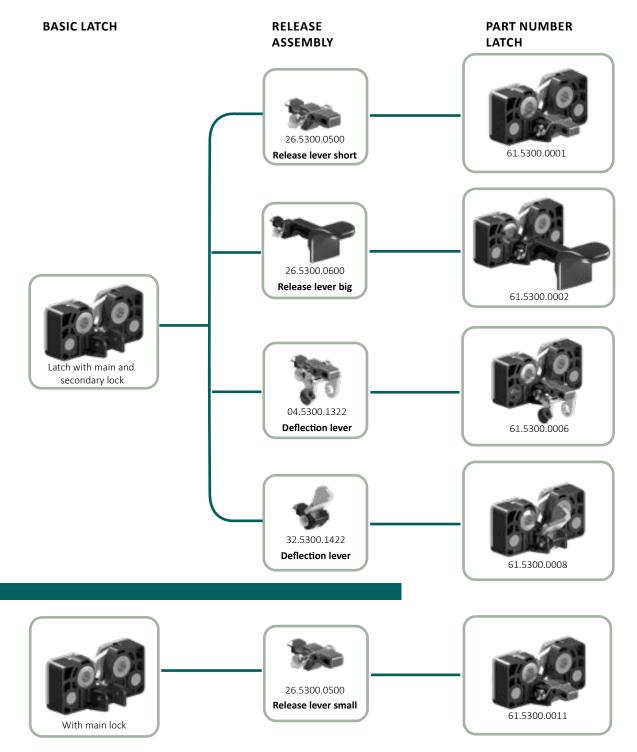
Rotors with main and secondary-lock suitable for doors and hoods.



Rotors with main lock only suitable for hoods and flaps.



Detailed view

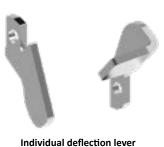


#### **MODULAR PRINCIPLE**

For new release variants according to individual customer requirements, the standard products (basic latch and release lever) are used, so only the reversing lever has to be adapted to your needs.



Basic latch with release lever







Direct release









Rotors with Antifricor coating



Door installation



Screw connection M8



Cover



Tube



Microswitch



Remote control



U-bolt

#### **TO KNOW**

This new generation of latches is the result of scientific collaboration with the University of Wuppertal. When the door is hanging or poorly adjusted, the guiding wedge of the striker guides the latch onto the ramp of the plastic housing into an optimal locking position.

Another advantage is the resulting reduced wear of the rotors and the u-bolt. This improves the opening and closing of the door and increases the service life of the locking components. This series also impresses with its low maintenance requirement as only cleaning is required and no subsequent greasing.



61.5400.0001 Basic latch



61.5400.0002

Direct release inside/outside



61.5400.0003 Microswitch on both sides



Indirect release inside/outside



61.5400.0006

Basic latch with microswitch



61.5400.0007

Basic latch with microswitch



61.5400.0008

Microswitch + direct release

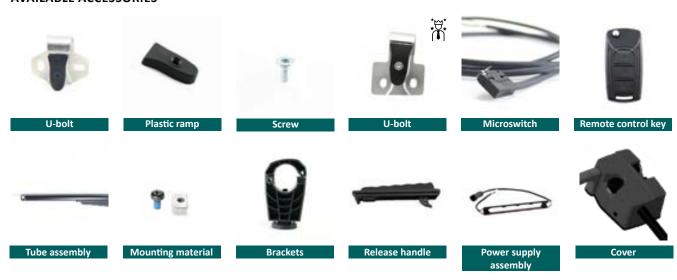


Microswitch + direct release

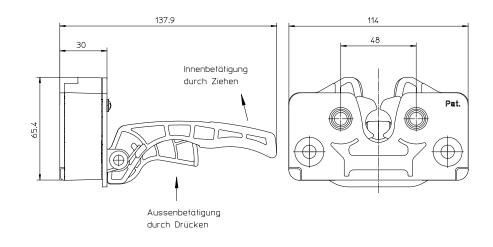
#### **SAMPLES**

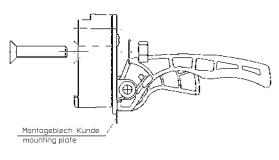
| Part number  | Basic<br>body | Direct-<br>release<br>inside | Direct<br>release<br>outside | Indirect<br>release<br>inside | Indirect<br>release<br>outside | Closure<br>with<br>motor | Release<br>lever<br>assembly | Micro-<br>switch | Tube         | Customized   |
|--------------|---------------|------------------------------|------------------------------|-------------------------------|--------------------------------|--------------------------|------------------------------|------------------|--------------|--------------|
| 61.5400.0001 | √             | -                            | -                            | -                             | -                              | -                        | -                            | -                | -            | -            |
| 61.5400.0002 |               | ✓                            | √                            | -                             | -                              | -                        | √                            | -                | -            | -            |
| 61.5400.0003 | $\checkmark$  | -                            | -                            | -                             | -                              | -                        | -                            | ✓                | -            | -            |
| 61.5400.0004 | -             | -                            | -                            | √                             | √                              | ✓                        | -                            | $\checkmark$     | -            | ✓            |
| 61.5400.0005 | -             | -                            | -                            | √                             | √                              | √                        | -                            | $\checkmark$     | -            | $\checkmark$ |
| 61.5400.0006 | $\checkmark$  | -                            | -                            | -                             | -                              | -                        | -                            | $\checkmark$     | -            | -            |
| 61.5400.0007 | $\checkmark$  | -                            | -                            | -                             | -                              | -                        | -                            | $\checkmark$     | -            | -            |
| 61.5400.0008 | -             | ✓                            | $\checkmark$                 | -                             | -                              | -                        | ✓                            | $\checkmark$     | -            | -            |
| 61.5400.0009 | -             | ✓                            | $\checkmark$                 | -                             | -                              | -                        | ✓                            | $\checkmark$     | -            | -            |
| 61.5400.0010 | -             | -                            | √                            | $\checkmark$                  | -                              | -                        | -                            | -                | ✓            | -            |
| 61.5400.0011 | -             | -                            | $\checkmark$                 | $\checkmark$                  | -                              | -                        | -                            | $\checkmark$     | $\checkmark$ | -            |
| 61.5400.0012 | -             | -                            | √                            | ✓                             | -                              | -                        | -                            | √                | √            | -            |

#### **AVAILABLE ACCESSORIES**



#### TECHNICAL DRAWING ASSEMBLY





| Tightening<br>torque | 25 Nm                    |
|----------------------|--------------------------|
| Screw                | DIN ISO 10642<br>M8 10.9 |

#### **FUNCTIONAL REPRESENTATION**



1. The door starts to be lifted onto the ramp of the latch when it meets the guiding wedge of the closing bracket.



2. The guiding wedge brings the latch over the ramp of the plastic housing into an optimal locking position. This movement is supported by a rolling locking bolt sleeve which allows an easy run-in.



3. An ideal engagement of the latch bolt and latch rotors is achieved by the leading and lifting action.



4. The latch can be opened very easily due to the optimum pivot points, leverage and symmetrical design. The closing bracket and latch ramp absorb the weight of the door and therefore prevent the rotors and pawls from jamming.

#### **MANY ADVANTAGES AT A GLANCE**



Internationally patented new development of an extremely resilient double rotar latch (Designed & Made in Germany)



**Symmetrical design** (elimination of left/right distinction)



Fulfils all **current standards** (M1, ECER11, SAEJ839, FMVSS 206, etc.)



Easy mounting (two M8 screws, DIN EN ISO10642)



Replacement of the plastic guide wedge possible after several 100.000 cycles (**low effort/low costs**)



**High tolerance** compensation in the area of the locking bolt intake



**Chrome VI free** 



Low release force

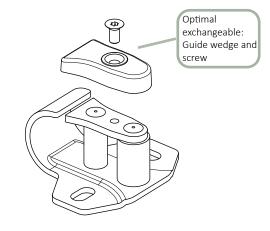
#### **SPARE PART**

In case of a hanging or poorly adjusted door, the guide wedge guides the lock up the ramp of the plastic housing into an optimal run-in position (less wear on rotors/bolts). Replacing the guide wedge involves little effort and low costs.









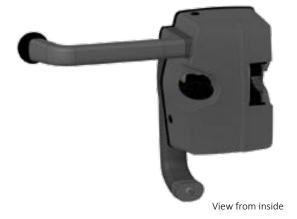


#### **COMPLETE LOCKING SYSTEM**

The market shows us that our customers want a proven overall concept. With the new system, we offer you an attractive cover for your door.

The concept shows a latch with a direct thumb operation, which convinces by it's very comfortable handling. The outside handle unlocks the latch through a rod.

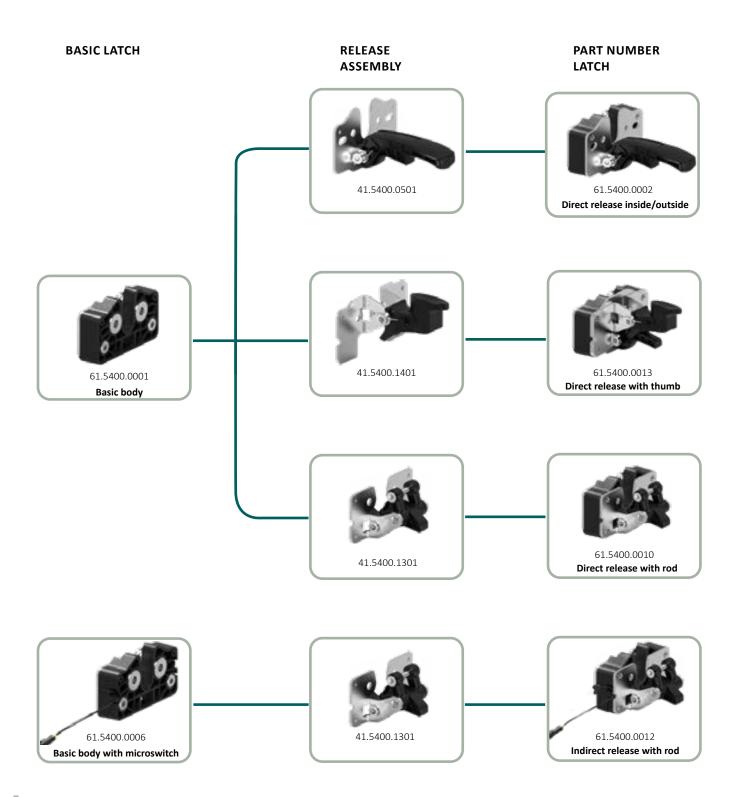


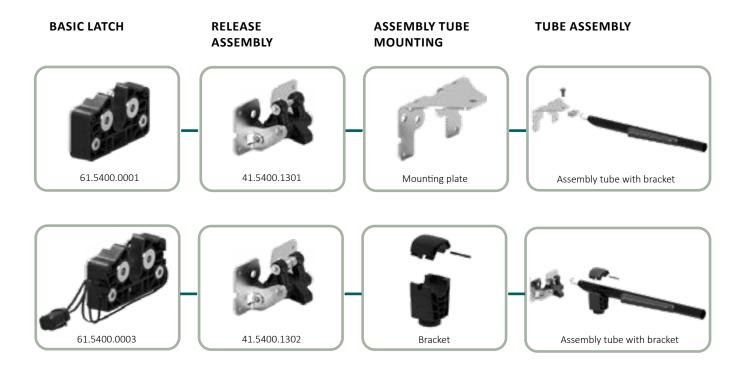


#### **MODULAR PRINCIPLE**

Modern latches must be flexible enough to be adapted to different customer requirements. For this reason, we are constantly working on additional variants and options, either at the request of customers or based on our own ideas.

The basic latch body always remains unchanged and can be supplemented by adapting various components into a modular system. This means that the basic body can be produced fully automatically to a high quality standard.





#### **TO KNOW**

The 5400 latch is prepared for a connection to a round tube. Our double rotor latch with round tube is equipped with a fully integrated internal release that can be flexibly positioned for your application and therefore optimally adapted to the conditions in your cabin. The round tubes have a standard diameter of 25,00 mm and can also be customized.

If desired, you can also connect your own tube to the double rotor latch. The connection between the latch and the internal release lever is made through a rod.

The tube is attached to the latch either by an adapter, an plate or our tube connector at your site. The scope of delivery therefore includes the desired basic latch with the internal release (mounted) and the tube assembly with the corresponding screws etc.

The round tubes are offered with different endings. We also offer a selection of internal release variants as standard. We will be glad to create a set for you that includes the required accessories according to your needs.

















Screw connetcion EJOT











#### **TO KNOW**

This latch has an integrated motor that enables the cabin door to be closed electrically. Depending on the settings, the closing process takes about 5 seconds.

Our 5500 series is particularly compact compared to our competitors products, as all components are perfectly matched to each other and therefore only a small installation space is required.

The latch must be equipped with an additional lever. This serves as an internal release, so that the latch can be unlocked manually. Alternatively, the electric opening motor ("Open Support") or a mechanical inside and outside actuation is connected to this release lever.

By using a CDL motor, additional features can be programmed.



61.5500.0001

#### **SYSTEM REQUIREMENTS**

Voltage:
Power consumption:
Comfort function:
Normal pressure:
Electronic function:
Temperature range:
Control unit (logic box):

13,5 Volt
3,5 A
ca. 5 sec
appr. 200N
appr. 80.000 cycles
-10°/+70°
needed

#### **FUNCTIONAL DISPLAY OF ACTUATION POSSIBILITIES**

## Series 5500

RELEASE WITH DOOR HANDLE Direct release from the outside



RELEASE WITH RELEASE HANDLE Indirect release from the inside



2. The latch is opened via an interior release in the tube and an additional release lever on the latch.

**RELEASE WITH OS MOTOR** Electronic release



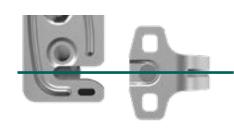
3. The Open-support motor is controlled by the remote control key or the electronic door sensor so that the latch is opened.

1. By operating the handle from

outside, a lever is pressed to release

#### **CATCH AND ENTRY AREA**

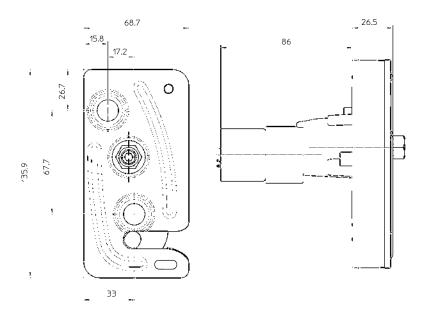
the latch.



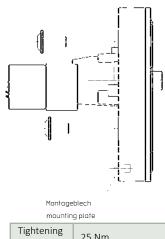
To ensure a perfect run-in, the latch must be installed parallel to the striker. The striker can be adjusted.

During installing, please ensure that the striker and the latch are well alligned to each other.

#### **TECHNICAL DRAWING**



#### **ASSEMBLY**



| Tightening torque | 25 Nm |
|-------------------|-------|
| Screw             | M8    |

#### **FUNCTION REPRESENTATION PULL**

#### STANDARD FUNCTION

The latch can close the door mechanically without using the electronic function.

#### COMFORT FUNCTION

The latch can close the door electronically.

# MECHANICALLY

- 1. The striker and the latch are separate. The door is open.
- 2. The striker locates into the 3. The striker is in the secondcatch and entry area. The user closes the door.
  - ary lock position. The mechanism in the latch recognizes the status and closes the door electrically.
- 4. The electronic locking mechanism is now complete. The striker is caught in the main lock. The door is completely closed.

#### MANY ADVANTAGES AT A GLANCE



Internationally patented new development of a latch closing aid (Designed & Made in Germany)



**Compact** assembly (latch and motor are one unit)



Precision components made from state-of-the-art materials



**Slow closing** of the door due to high power transmission



More security and convenience by querying the microswitch (for 100% locked state feedback)



Quiet closing function



Equipped with a planetary gear for power transmission



Controlled air displacement from the cabin (Overcoming the air cushion)



Chrome-VI-free surfaces



LIN-/CAN-Bus integration



**Easy construction** 



Premium function possible (fully automatic closing of the door)

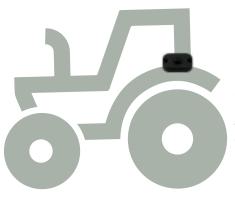
#### **LUXURY VARIANT: DOOR OPENING**

With our external door sensor, the vehicle door can be opened without operating the door handle. After this has been paired with the logic box, the door sensor can be positioned flexibly for your application on the outside at any location. Press the button by hand and the latch opens.

★ The door swings open with the help of a gas pressure spring or an electronic spindle drive.

For example the door sensor is used in the sprayer market. The advantage here is that the driver does not have to touch the door handle, which may be contaminated with chemicals, to open the door.

Another application is for door handles that are difficult to reach. It makes it easier for the driver to enter the cabin when the door is already open.





1. Unlock or open the door with the remote control key ★ (double-click lowest button) or unlock the door with a mechanical key.



2. Operate the external door sensor (when the locking system is unlocked) by pressing button and trigger the opening mechanism.



3. The latch is opened by using an additional motor. This supports the opening of the door and









#### **COMPONENTS OVERVIEW**

Electronic latch products









Release lever

Striker bolt

Additional application products





Logic box





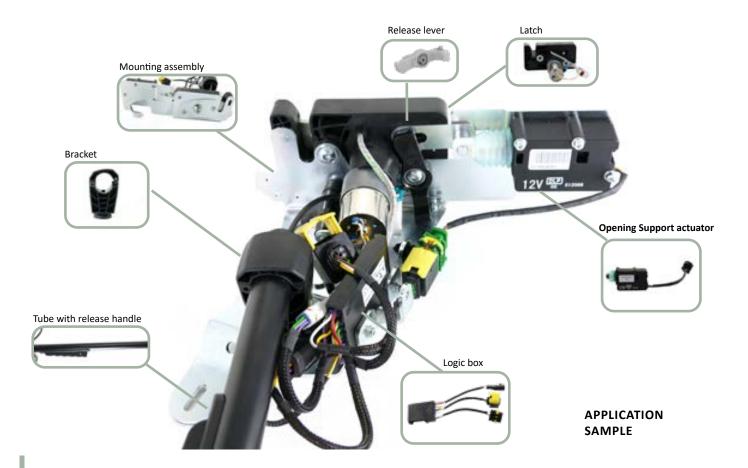
**External door button** 

Motor

Remote control key

Gas spring/spindle drive
External product





#### **COMPONENTS OVERVIEW**

Central door locking products







Remote control key



Central-door-locking motor



**Actuator central locking** 

Further products



**Tube assembly** 



Mounting plate



Gasket



End cap

#### **FUNCTIONAL DESCRIPTION**

The electronic latch with closing function is a comfort enhancement for your vehicle. Our latch already has an electric motor that can pull the door closed. The process of pulling the door closed takes about 5 seconds, depending on the setting. The latch is made up of different components.

A logic box is required for each latch to control the electronic functions. The assembly of an additional lever, which triggers the latch mechanically or electronically, is necessary.

The specially developed striker is an indispensable additional part for the electronic latch. Our open-support actuator operates the electronic opening of the latch.

The connection of a central locking system is a further expansion stage. The CDL motor assembly locks and unlocks the door handle. With the remote control key, you cannot only unlock the door, but also other features can be used.

We offer you a luxury variant with our external door sensor. This can be attached to any external position on the vehicle. With the help of a gas spring or an electronic spindle drive, the door opens at the push of a button.

Other products, that complete the electric door closing mechanism, are both the push-button handle and the assembly mounting plate or a sealing to protect the glass pane.

Our premium variant is the absolute highlight for your vehicle: the electronic closing of the door by remote control key. We offer you a closing of the door at the push of a button. A spindle drive, which you can purchase from many manufacturers, enables this function. The impulse needed for this can be given by our remote control key. Since our components are compatible with other products, we can offer you automotive luxury.















#### **TO KNOW**

Our extremely resilient 5005 series latch for medium and heavy flaps or hoods is available in both right and left hand version without safety device. In combination with the flap handles of the 4713 series and our 7003 series interior release, you have a proven concept that is also used in a very similar form in the automotive industry.



61.5005.0001

OFL Fe/Zn X DS up to 240 hours salt spray resistance



61.5005.0002

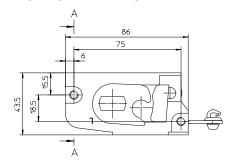
OFL Fe/Zn X DS up to 240 hours
salt spray resistance

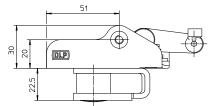
## CORRESPONDING STRIKER BOLT



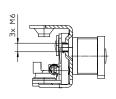
44.5005.1002

#### **TECHNICAL DRAWING**





#### **ASSEMBLY**



| Tightening<br>torque | 10 Nm  |
|----------------------|--------|
| Screw                | M6 8.8 |











#### **TO KNOW**

These latches are purely door latches, which you can obtain with internal security or even lock-out protection (61.5005.0101). The striker bolt with guide wedge was designed to match.

It is a durable latch concept that can withstand high loads. Opening the latch requires very low release forces even at high counter pressures.



61.5005.0017 **Safety device** 



61.5005.0018 Lock-out protection

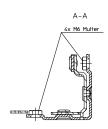


61.5005.0019 Direct release



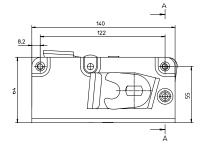
61.5005.0020 up to 240 hours salt spray resistance

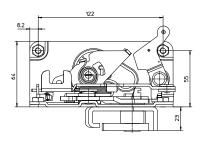
#### **ASSEMBLY**



| Tightening torque | 10 Nm  |
|-------------------|--------|
| Screw             | M6 8.8 |

#### **TECHNICAL DRAWING**





#### CORRESPONDING STRIKER BOLT



44.5005.1005



44.5005.1006





Safety device







installation



Screw fixing M6



#### **TO KNOW**

The latch variants shown here are perfectly suitable for small doors. The latch can be locked and unlocked from the inside and offer a lock-out protection. To open the latch from the inside, an interior release mechanism must be added.

You can combine the latch with all our handles. The striker bolt with guide wedge was designed to match.



61.5005.0103 Left version



61.5005.0104 **Right version** 



61.5005.0111 Left version



61.5005.0112 **Right version** 

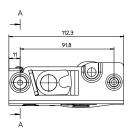
#### **CORRESPONDING STRIKER BOLT**

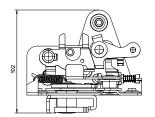


44.5005.1003

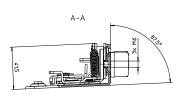


#### **TECHNICAL DRAWING**





#### **ASSEMBLY**



| Tightening torque | 10 Nm  |
|-------------------|--------|
| Screw             | M6 8.8 |











#### **TO KNOW**

Our extremely resilient 5006 series hood latch can be used in all hood types, but can only be installed in combination with the 44.5006.1001 striker bolt. It is characterized by its durability even under high loads.

The latch is operated from the inside via an indirect release. This locking system is a proven concept that is also used in the automotive industry.

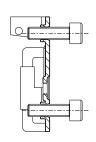


61.5006.0001 Indirect release inside



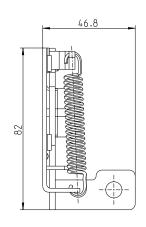
61.5006.0003 With riveted lug

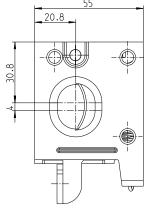
#### **ASSEMBLY**



| Tightening<br>torque | 10 Nm  |
|----------------------|--------|
| Screw                | M6 8.8 |

#### **TECHNICAL DRAWING**





#### CORRESPONDING STRIKER BOLT



44.5006.1001







Main lock



installation



Screw fixing M8



U-bolt 7,08 mm or 8,90 mm

#### **TO KNOW**

Our 5035 series latches have been specially developed for the side flaps of harvesting machines such as combines, forage harvesters or balers. They meet the requirements of the ISO/TS 28923 standard, which states that no additional opening mechanisms such as handles or knobs are required to unlock these products from the outside. You can operate these flap latch with a simple tool.

The US variants of this series are available with an additional release knob. The flap latches with M6 threads with the hexagon on can be operated with a release knob.

This series is of course also suitable for other flaps, hoods or service hatches. The items in this series do not have a secondary lock so they should not be used in doors. Various u-bolts are available as corresponding products for this latch.



61.5035.0001

Hexagon made of stainless steel



61.5035.0002 Rotor 8,00 mm



US-variant release knob



61.5035.0004

Open with tool M6



61.5035.0006 Hexagon length 40,00 mm



61.5035.0007 Rotor 9,00 mm



Open with hexagon key



61.5035.0012

Open with tool or coin

#### **SAMPLES**

| Part number  | Rotor in mm | Open with a coin | Open with tool M6 | Length hexago-<br>nal in mm | Release knob<br>available |
|--------------|-------------|------------------|-------------------|-----------------------------|---------------------------|
| 61.5035.0001 | 9,00        | √                | -                 | 11,00                       | -                         |
| 61.5035.0002 | 8,00        | ✓                | -                 | 11,00                       | -                         |
| 61.5035.0003 | 8,00        | -                | ✓                 | 21,50                       | ✓                         |
| 61.5035.0004 | 8,00        | -                | ✓                 | 21,50                       | -                         |
| 61.5035.0006 | 9,00        | ✓                | ✓                 | 40,00                       | -                         |
| 61.5035.0007 | 9,00        | ✓                | ✓                 | 40,00                       | -                         |
| 61.5035.0008 | 8,00        | -                | -                 | 40,00                       | -                         |
| 61.5035.0009 | 9,00        | -                | -                 | 11,00                       | -                         |
| 61.5035.0011 | 8,00        | -                | -                 | 11,00                       | -                         |
| 61.5035.0012 | 9,00        | √                | √                 | 16,00                       | -                         |
| 61.5035.0013 | 8,00        | -                | -                 | 26,00                       | -                         |





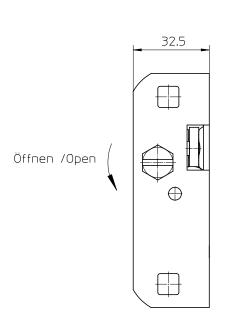


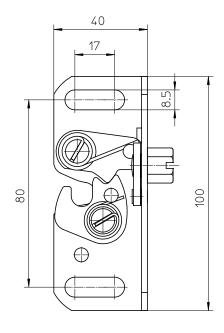




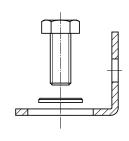


#### **TECHNICAL DRAWING**





#### **ASSEMBLY**



| Tightening torque | 25 Nm  |
|-------------------|--------|
| Screw             | M8-8.8 |











Screw fixing M8



U-bolt 8,00 mm



#### **TO KNOW**

Our 5036 latch series is used in hoods, flaps or hatches. Thanks to the use of large material thickness and the best steel qualities, it is characterized by its extreme load-bearing capacity. This series is ideally suited for installation in difficult applications, as it requires very little installation space.

The adjustment of these latches is facilitated by the slotted mounting holes.

The unlocking is done from the outside by using one of our push buttons, handles or, as also practiced by some customers, by a simple hole in the metal plate, so that it can be unlocked by hand.

Some variants have a bracket guide in the latch sheet, so that tolerant or shaky applications can be safely guided into the latch. In combination with our 4706 and 4709 flap handles, you get a very stable and compact overall solution.



61.5036.0001 Length of lever 36,70 mm



61.5036.0002 Length of lever 22,50 mm



61.5036.0007 **Rotor 8,90 mm** 



61.5036.0008 Curved lever



61.5036.0201 For flat handle 4709



61.5036.0203 For handle 4706



58.4706.0203

Latch with flat handle



58.4709.0201

Latch with flat handle

#### **SAMPLES**

| Part number  | Rotor in mm | Safety<br>device | Lever<br>36,7 mm | Lever<br>22,5 mm | Curved<br>lever | Lever with    | for 4706     | for 4709 |
|--------------|-------------|------------------|------------------|------------------|-----------------|---------------|--------------|----------|
| C1 5005 0001 | 0.00        | uevice           |                  | 22,3 111111      | ievei           | illier nanule |              |          |
| 61.5036.0001 | 8,00        | -                | √                | -                | -               | -             | -            | -        |
| 61.5036.0002 | 8,00        | -                | -                | ✓                | -               | -             | -            | -        |
| 61.5036.0004 | 8,90        | -                | -                | ✓                | -               | -             | -            | -        |
| 61.5036.0006 | 8,90        | -                | -                | ✓                | -               | -             | -            | -        |
| 61.5036.0007 | 8,90        | -                | -                | ✓                | -               | -             | -            | -        |
| 61.5036.0008 | 8,90        | -                | -                | -                | $\checkmark$    | -             | -            | -        |
| 61.5036.0009 | 8,90        | -                | -                | ✓                | -               | -             | -            | -        |
| 61.5036.0010 | 8,00        | -                | $\checkmark$     | -                | -               | -             | -            | -        |
| 61.5036.0011 | 8,90        | -                | -                | -                | ✓               | -             | -            | -        |
| 61.5036.0013 | 8,90        | -                | -                | -                | ✓               | -             | -            | -        |
| 61.5036.0201 | 8,00        | -                | -                | ✓                | -               | -             | -            | <b>√</b> |
| 61.5036.0203 | 8,00        | ✓                | -                | -                | ✓               | ✓             | $\checkmark$ | -        |

#### **AVAILABLE ACCESSORIES**



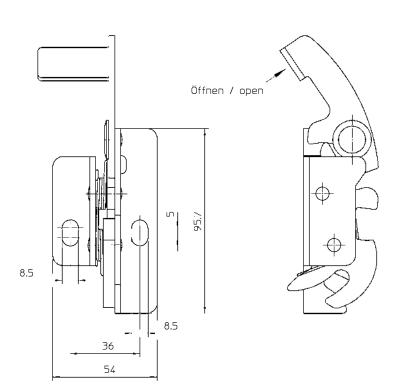




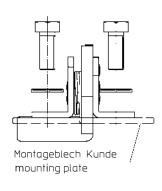
58.4709.0201

58.4706.0203

#### **TECHNICAL DRAWING**



#### **ASSEMBLY**



| Tightening<br>torque | 25 Nm  |
|----------------------|--------|
| Screw                | M8-8.8 |



























#### **TO KNOW**

The latches of the 5039 series are extremely resilient single rotor latches for the heaviest applications. With this product you can choose from different rotors and surface coatings. We can define the latch depending on your individual application. We offer rotors with a possible capture diameter for striker or u-bolt striker in 8,00 mm. 12,00 mm or 22,00 mm.

There are also special customer requirements that are necessary in certain individual cases. For example, it was important for a well-known forklift manufacturer that the latch withstands higher vibrations. A forklift does not drive in premises only, but is also sometimes transported to work site by truck at speeds of over 50km/h. The solution is a latch with a hardened and tempered pawl and rotors, so that the locking parts are more robust than the standard parts due to the special hardening process.

Small installation dimensions allow these hood latches to be installed in applications with limited space. In the agricultural industry, you will find this type of latch in almost every tractor hood. In the construction machinery and industrial vehicle sector, well-known manufacturers such as Caterpillar, Claas, CNH, JCB, Linde, Still and Terex use our 5039 latch series.

We have already realized projects with this type of latch in which a sliding window or door can be operated. In a more advanced version, you can get our 5039 series latch equipped with a microswitch. With our remote control key and a control element/motor the hood or flap can be unlocked.

We understand the wishes of our customers and convince with excellent solutions.



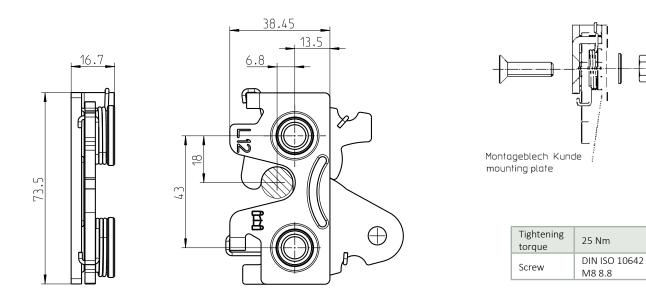




#### **AVAILABLE ACCESSORIES**



#### TECHNICAL DRAWING ASSEMBLY





61.5039.0001 Indirect release rotor 12,00 mm



61.5039.0003 Indirect releaserotor 8,00 mm



61.5039.0007 Indirect release with clip mounted in front



61.5039.0010
Indirect release with clip mounted in front



61.5039.0012 Indirect release with clip backwards mounted



61.5039.0018 Special design locking parts tempered



61.5039.0020 Direct release rotor 8,00 mm



61.5039.0025

Direct release
rotor 12,00 mm

### Our 5039 is the Levis 501 under the hood latches - The **Original**



61.5039.0027

Direct release by lever



61.5039.0029
Direct release
offset lever



61.5039.0032

Direct release

offset lever



61.5039.0033

Direct release

offset lever



61.5039.0040

Direct release by inner handle



61.5039.0046

Direct release by lever



Indirect release with special locking parts



Special design locking parts tempered

With secondary lock



Direct release by lever

#### **SAMPLES**

Direct release

| Part number  | Striker Ø | Rod clip<br>3,00 mm | Inner<br>handle | Direct<br>release | Indirect<br>release | Micro-<br>switch | Main<br>lock | Rotor<br>hardened |
|--------------|-----------|---------------------|-----------------|-------------------|---------------------|------------------|--------------|-------------------|
| 61.5039.0001 | 12,00     | -                   | -               | -                 | <b>√</b>            | -                | -            | -                 |
| 61.5039.0003 | 8,00      | -                   | -               | -                 | <b>√</b>            | -                | -            | -                 |
| 61.5039.0007 | 8,00      | <b>√</b>            | -               | -                 | $\checkmark$        | -                | -            | -                 |
| 61.5039.0010 | 12,00     | <b>√</b>            | -               | -                 | $\checkmark$        | -                | -            | -                 |
| 61.5039.0012 | 12,00     | ✓                   | -               | -                 | √                   | -                | -            | -                 |
| 61.5039.0018 | 12,00     | ✓                   | -               | -                 | √                   | -                | -            | √                 |
| 61.5039.0020 | 8,00      | -                   | -               | √                 | -                   | -                | -            | -                 |
| 61.5039.0025 | 12,00     | -                   | -               | √                 | -                   | -                | -            | -                 |
| 61.5039.0027 | 12,00     | -                   | ✓               | ✓                 | -                   | -                | -            | -                 |
| 61.5039.0029 | 12,00     | -                   | -               | √                 | -                   | -                | -            | -                 |
| 61.5039.0032 | 12,00     | ✓                   | -               | ✓                 | -                   | -                | -            | -                 |
| 61.5039.0033 | 12,00     | -                   | -               | $\checkmark$      | -                   | -                | -            | -                 |
| 61.5039.0040 | 8,00      | -                   | $\checkmark$    | ✓                 | -                   | -                | -            | -                 |
| 61.5039.0046 | 12,00     | -                   | ✓               | ✓                 | -                   | -                | -            | -                 |
| 61.5039.0048 | 12,00     | ✓                   | -               | -                 | $\checkmark$        | -                | -            | -                 |
| 61.5039.0051 | 22,00     | -                   | -               | $\checkmark$      | -                   | -                | -            | ✓                 |
| 61.5039.0052 | 12,00     | -                   | $\checkmark$    | $\checkmark$      | -                   | -                | -            | -                 |
| 61.5039.0060 | 8,00      | -                   | -               | $\checkmark$      | -                   | $\checkmark$     | -            | -                 |
| 61.5039.0065 | 12,00     | -                   | -               | ✓                 | -                   | -                | -            | -                 |
| 61.5039.0066 | 12,00     | -                   | ✓               | ✓                 | -                   | -                |              | -                 |
| 61.5039.0073 | 8,90      | -                   | -               | ✓                 | -                   | -                | -            | -                 |
| 61.5039.0087 | 8,00      | -                   | -               | -                 | ✓                   | -                | -            | -                 |
| 61.5039.0100 | 8,00      | -                   | ✓               | ✓                 | -                   | -                | -            | -                 |
| 61.5039.0103 | 12,00     | -                   | -               | -                 | ✓                   | -                | ✓            | -                 |

Direct release







Indirect release







Hood installation



installation





Inner handle



Screw fixing М6



8,00 mm



#### **TO KNOW**

Our 5030 series door holdback is made for the heaviest doors. Especially when the doors are exposed to high vibrations, such as tracked vehicles, this holdback is characterized by its stability. The installation of this door holdback should preferably be in metal. For an application in glass, our door holdbacks of the 5034 and 5044 are better suited.

Due to the many variants of this product and with the different release levers, this latch is of course also suitable for use in heavy hoods or flaps.

The holdback can be released either directly with an inside handle or remotely with a Bowden cable.



66.5030.0001 Inner handle



66.5030.0002 With cable



66.5030.0006 **Hood latch** 



66.5030.0007 Indirect release



66.5030.0008 Variable lever length



66.5030.0014 Rotor 9,00 mm



66.5030.0018 Rotor 8,00 mm



66.5030.0020 Direct release

#### **SAMPLES**

| Part number  | Rotor Ø in mm | Internal<br>handle | Direct<br>release | Indirect<br>release | Wire with rope |
|--------------|---------------|--------------------|-------------------|---------------------|----------------|
| 66.5030.0001 | 8,00          | √                  | ✓                 | -                   | -              |
| 66.5030.0002 | 8,00          | -                  | -                 | √                   | ✓              |
| 66.5030.0006 | 8,00          | -                  | ✓                 | -                   | -              |
| 66.5030.0007 | 8,00          | -                  | -                 | √                   | -              |
| 66.5030.0008 | 8,00          | -                  | -                 | √                   | -              |
| 66.5030.0014 | 9,00          | -                  | -                 | √                   | -              |
| 66.5030.0018 | 9,00          | -                  | -                 | √                   | -              |
| 66.5030.0020 | 8,00          | ✓                  | ✓                 | -                   | -              |
| 66.5030.0021 | 8,00          | -                  | -                 | √                   | -              |
| 66.5030.0023 | 8,00          | ✓                  | ✓                 | -                   | -              |
| 66.5030.0026 | 8,00          | -                  | -                 | √                   | ✓              |
| 66.5030.0027 | 8,00          | ✓                  | ✓                 | -                   | -              |









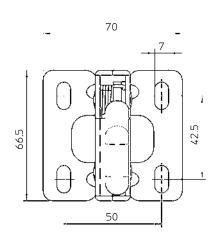
U-bolt

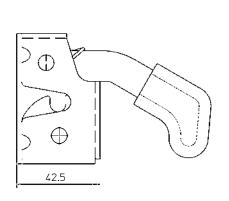


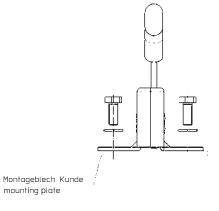
Inner handle



#### TECHNICAL DRAWING ASSEMBLY







| Tightening torque | 10 Nm      |
|-------------------|------------|
| Screw             | 4 x M6 8.8 |











Hood installation





Metal installation



Screw fixing M6



U-bolt 8,00 mm



U-bolt 7,08 mm

#### **TO KNOW**

This door holdback has been designed for installation in metal and withstands high vibrations. Our 5034 and 5044 series are suitable for the glass installation. Due to the available variants with different release handles, this series is also suitable for use in heavy hoods or flaps.

Some variants of this series are delivered directly mounted with the necessary Bowden cable or connecting rod. This reduces the installation time in your production and additionally saves you time-consuming adjustment.

Of course, we also provide you with all the necessary accessories. You can also choose from our range of strikers and u-bolts to suit your installation.



66.5032.0001
Wire with sheath



66.5032.0002 Direct release



66.5032.0003
Rod connection



66.5032.0007 **Connecting rod** 



66.5032.0009 Indirect release



66.5032.0010
Indirect release rod

#### **SAMPLES**

| Part number  | Direct<br>release | Indirect<br>release | Wire with sheath | Connecting rod | Door         | Hood |
|--------------|-------------------|---------------------|------------------|----------------|--------------|------|
| 66.5032.0001 | -                 | ✓                   | ✓                | -              | $\checkmark$ | ✓    |
| 66.5032.0002 | ✓                 | -                   | -                | -              | ✓            | √    |
| 66.5032.0003 | -                 | √                   | -                | -              | ✓            | ✓    |
| 66.5032.0004 | -                 | ✓                   | -                | ✓              | ✓            | √    |
| 66.5032.0005 | -                 | ✓                   | -                | -              | ✓            | ✓    |
| 66.5032.0006 | -                 | ✓                   | ✓                | -              | ✓            | ✓    |
| 66.5032.0007 | -                 | ✓                   | -                | ✓              | ✓            | ✓    |
| 66.5032.0008 | -                 | ✓                   | -                | ✓              | √            | √    |
| 66.5032.0009 | -                 | ✓                   | -                | -              | ✓            | ✓    |
| 66.5032.0010 | -                 | ✓                   | -                | ✓              | √            | ✓    |

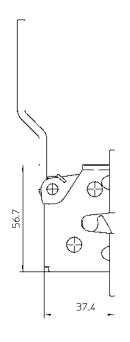
#### **AVAILABLE ACCESSORIES**

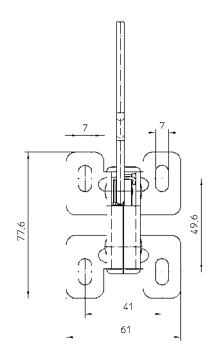


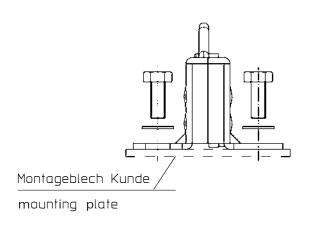




#### TECHNICAL DRAWING ASSEMBLY







| Tightening<br>torque | 10 Nm      |
|----------------------|------------|
| Screw                | 4 x M6 8.8 |



#### **TO KNOW**

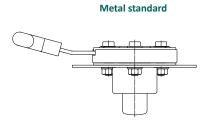
The 5034 series door holdback is optimally used for small to medium metal or glass doors. The system is opened by pressing the button or triggering an additional lever. We offer several different variants.

The installation of this product is very user-friendly via three screws for the metal type or a hexagonal nut for the glass variant. We also have a large selection and variants of the corresponding locking bolts with rubber buffers, which will exactly fit your installation.

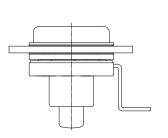


### **INSTALLATION VARIANTS**

# Series 5034







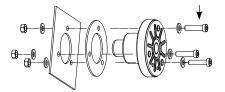
**GLASS INSTALLATION** 

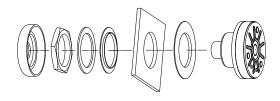
**Glass special** 

The **special glass version** includes a longer locking bolt with the advantage to add an internal indirect release for your application if required.



Screws are not included





### **SAMPLES**

| Part number  | Side  | Direct<br>release | Indirect release | Metal        | Glass        | Lever    | Lever straight | Curved lever | Inner handle |
|--------------|-------|-------------------|------------------|--------------|--------------|----------|----------------|--------------|--------------|
| 66.5034.0002 | right | -                 | -                | $\checkmark$ | -            | -        | -              | -            | -            |
| 66.5034.0004 | right | <b>√</b>          | -                | $\checkmark$ | -            | ✓        | -              | $\checkmark$ | $\checkmark$ |
| 66.5034.0005 | left  | $\checkmark$      | -                | $\checkmark$ | -            | ✓        | $\checkmark$   | -            | -            |
| 66.5034.0008 | right | -                 | -                | -            | $\checkmark$ | -        | -              | -            | -            |
| 66.5034.0009 | left  | <b>√</b>          | $\checkmark$     | $\checkmark$ | -            | ✓        | -              | $\checkmark$ | -            |
| 66.5034.0019 | left  | ✓                 | -                | -            | <b>√</b>     | ✓        | -              | $\checkmark$ | -            |
| 66.5034.0020 | right | <b>√</b>          | -                | -            | <b>√</b>     | <b>√</b> | -              | <b>√</b>     | -            |
| 66.5034.0058 | right | <b>√</b>          | -                | <b>√</b>     | -            | <b>√</b> | <b>√</b>       | -            | -            |

### **AVAILABLE ACCESSORIES**











**Closing bolt** 

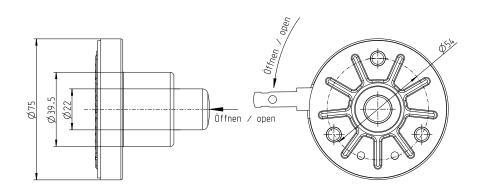
Closing bolt

Inner handle

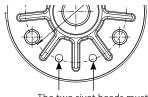
Gasket

Direct pull handle

### **TECHNICAL DRAWING**



### **ASSEMBLY**



The two rivet heads must be at the bottom.

| Tightening torque | 10-12 Nm |
|-------------------|----------|
| Screw             | M6       |

# Series 5044















#### **TO KNOW**

Our 5044 series door holdback is based on a consequent further development over the last few years of the 5034 series. The holdback and locking bolt do not have to be installed in a defined manner relative to each other, but can rotate 360° without impairing the function.

The system is released by pressing a button on both sides, i.e. both the hold-open device and the bolt can unlock the system. At the customer's request, we have developed a non-functional locking bolt so that the 66.5044.0001 holdback can only be released on one side.

This is similar to the principle of the 5034 series, but meets higher quality requirements in terms of protection and flexibility.

Of course this new product meets all modern specifications. In addition, this system is splash-proof and dust-proof according to IP 54. Optimally, this product is used for small to medium-sized metal or glass doors.



66.5044.0001

Door hold back



44.5044.1001 Striker straight



44.5044.1002 Angled striker



67.5044.9001

Door hold back set



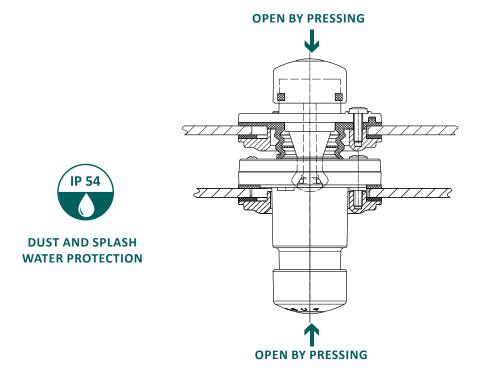
67.5044.9002 **Door hold back set** 



67.5044.9004 Striker set



67.5044.9003 Striker set

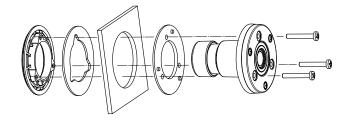


Series 5044

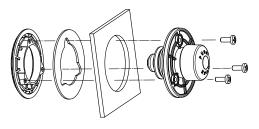


**ASSEMBLE** 

### **INSTALLATION DOOR HOLD BACK**



### **INSTALLATION STRIKER**



### **AVAILABLE ACCESSORIES**







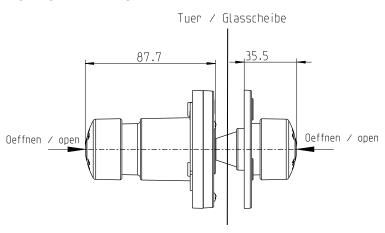




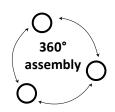
Screwing plate

Rubber gasket Rubber gasket

### **TECHNICAL DRAWING**



### **ASSEMBLY**



| Tightening<br>torque | 2 Nm  |
|----------------------|---|
| Screw                | EJOT-PT-Schraube<br>KA 50x25 oder KA<br>50x16 WN-1411 |

### Striker bolts

### **RANGE OF APPLICATION**

| Series   |
|--|
| 5035, 5036                                     |
| 4600, 5000, 5002, 5003, 5004, 5100, 5101, 5300 |
| 5005, 5039                                     |
| 5200, 5201                                     |
| 5201, 5200                                     |
| 5400   |
| 5035   |
| 5036, 5039                                     |
| 5039   |
|  |



#### **TO KNOW**

We have a wide range of different striker bolts suitable for your application. Our wide range offers you particularly high quality.

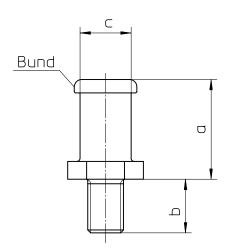
Unfortunately, the quality and dimensions of the required elements are very often and completely unjustifiably underestimated. Our striker bolts in combination with our locking components are simply unbeatable. The right accessories are an essential prerequisite for long-lasting products.

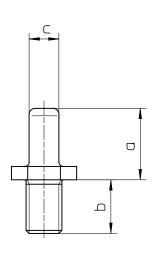
We offer competitively priced cold-formed parts if large quantities are ordered. For smaller order quantities, we use material that is suitable for the turning process.

If you do not find the suitable striker bolt for your application in this catalogue, please do not hesitate to contact us.



### **TECHNICAL DRAWING**





### LEGEND

a = Length of pin

b = Length of thread

c = Outer diameter

As a rule, striker bolts with a collar are always used on access doors. Striker bolts without a collar are often used on flaps or hoods.

The tightening torque for hardened and tempered striker bolts must not exceed 90 Nm (for M12x1 thread), and must always be considered in relation to the corresponding materials that they are being secured into.

# Striker bolts

### **SAMPLES**

| Part number  | Length of pin<br>in mm (a) | Length of thread<br>in mm (b) | Striker Ø<br>in mm (c) | Total length<br>in mm | Collar   |
|--------------|----------------------------|-------------------------------|------------------------|-----------------------|----------|
| 05.0025.4022 | 45,00                      | 23,00                         | 8,90                   | 68,00                 |          |
| 05.0005.4022 | 24,00                      | 8,00                          | 10,00                  | 32,00                 |          |
| 05.0004.4022 | 24,00                      | 13,00                         | 10,00                  | 37,00                 | <b>√</b> |
| 05.0014.4022 | 27,50                      | 13,00                         | 10,00                  | 40,50                 |          |
| 05.0016.4022 | 27,50                      | 13,00                         | 10,00                  | 40,50                 | -        |
| 05.0001.4022 | 24,00                      | 18,00                         | 10,00                  | 42,00                 |          |
| 05.0002.4022 | 24,00                      | 18,00                         | 10,00                  | 42,00                 | -        |
| 05.0023.4022 | 24,00                      | 18,00                         | 10,00                  | 42,00                 |          |
| 05.0063.4022 | 24,00                      | 18,00                         | 10,00                  | 42,00                 |          |
| 05.0010.4022 | 24,00                      | 21,00                         | 10,00                  | 45,00                 |          |
| 05.0017.4022 | 27,50                      | 18,00                         | 10,00                  | 45,50                 | -        |
| 05.0021.4022 | 27,50                      | 18,00                         | 10,00                  | 45,50                 |          |
| 05.0071.4022 | 27,50                      | 18,00                         | 10,00                  | 45,50                 | <b>√</b> |
| 05.0067.4022 | 24,00                      | 24,00                         | 10,00                  | 48,00                 |          |
| 05.0067.4022 | 27,00                      | 22,00                         | 10,00                  | 49,00                 |          |
| 05.0069.4022 | 29,00                      | 24,00                         | 10,00                  | 53,00                 |          |
| 05.0074.4022 | 29,00                      | 24,00                         | 10,00                  | 53,00                 |          |
| 05.0055.4022 | 35,50                      | 18,00                         | 10,00                  | 53,50                 |          |
| 05.0033.4022 | 29,00                      | 18,00                         | 11,00                  | 47,00                 |          |
|              |                            |                               |                        |                       |          |
| 05.0033.4022 | 26,00                      | 18,00                         | 11,80                  | 44,00                 | -        |
| 05.0045.4022 | 31,00                      | 18,00                         | 11,80                  | 49,00                 | -        |
| 05.0076.4022 | 31,00                      | 18,00                         | 11,80                  | 49,00                 |          |
| 05.0046.4022 | 27,00                      | 33,00                         | 11,80                  | 60,00                 |          |
| 05.0083.4022 | 44,45                      | 19,05                         | 11,80                  | 63,50                 | -        |
| 05.0077.4022 | 52,50                      | 18,00                         | 11,80                  | 70,50                 |          |
| 05.0054.4022 | 33,50                      | 11,50                         | 13,75                  | 45,00                 |          |
| 05.0064.4022 | 33,50                      | 18,00                         | 13,75                  | 51,50                 |          |
| 05.0066.4022 | 30,50                      | 18,00                         | 13,75                  | 48,50                 |          |
| 05.0057.4022 | 33,50                      | 18,00                         | 13,75                  | 51,50                 |          |
| 05.0070.4022 | 33,50                      | 18,00                         | 13,75                  | 51,50                 |          |
| 05.0078.4022 | 26,50                      | 13,00                         | 17,13                  | 39,50                 |          |
| 05.0034.4022 | 22,00                      | 22,00                         | 17,13                  | 44,00                 | -        |
| 05.0081.4022 | 22,00                      | 22,00                         | 17,13                  | 44,00                 | -        |
| 05.0027.4022 | 33,50                      | 11,50                         | 17,13                  | 45,00                 |          |
| 05.0084.4022 | 30,00                      | 15,00                         | 17,13                  | 45,00                 | -        |
| 05.0056.4021 | 26,50                      | 24,00                         | 17,13                  | 50,50                 |          |
| 05.0020.4022 | 33,50                      | 18,00                         | 17,13                  | 51,50                 |          |
| 05.0036.4022 | 33,50                      | 18,00                         | 17,13                  | 51,50                 |          |
| 05.0065.4022 | 31.00                      | 18,00                         | 17,13                  | 49,00                 |          |
| 05.0024.4021 | 33,50                      | 23,00                         | 17,13                  | 56,50                 | <u>√</u> |
| 05.0024.4022 | 33,50                      | 23,00                         | 17,13                  | 56,50                 |          |
| 05.0059.4022 | 30,00                      | 26,50                         | 17,13                  | 56,50                 | -        |
| 05.0060.4022 | 33,50                      | 23,00                         | 17,13                  | 56,50                 | ✓        |
| 05.0072.4022 | 33,50                      | 23,00                         | 17,13                  | 56,50                 | √        |
| 05.0047.4022 | 42,50                      | 20,00                         | 17,13                  | 62,50                 | -        |
| 05.0031.4022 | 33,50                      | 33,00                         | 17,13                  | 66,50                 | ✓        |
| 05.0061.4022 | 56,00                      | 20,00                         | 17,13                  | 76,00                 | -        |

# Striker guards



#### TO KNOW

Our striker guards, in combination with our striker bolts, serve as anti-trap protection. This additional protection is intended to prevent accidental entrapment or, for example, your coat getting caught when entering the respective vehicle. We have a large selection available.

### **U-bolts**



#### **TO KNOW**

U-bolts are used whenever the use of normal striker bolts is not possible. In combination with our latches, they offer a high level of security and, depending on the design, our locking brackets are perfectly adjustable.

Our u-bolts are unbeatable in combination with our locking components. The right accessories are an important prerequisite for durable products.

### Threaded plates and washers



### TO KNOW

Our washers and threaded plates complete our range of accessories for striker bolts, u-bolts and striker guards. Everything you need for the assembly of our main

components can be purchased entirely from us. Of course, we can also offer sets, so that you only have to manage one part number for the complete assembly.

# Locking bolts for door hold back 5034

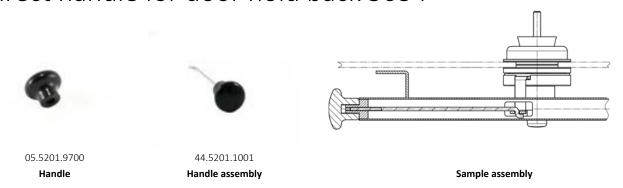


### TO KNOW

Our 5034 series locking bolts are available in a wide variety of designs and lengths to suit your individual needs or installation situation. As usual we differentiate according to the area of application, because for installation in metal applications and those in glass, we also differentiate the bolts.



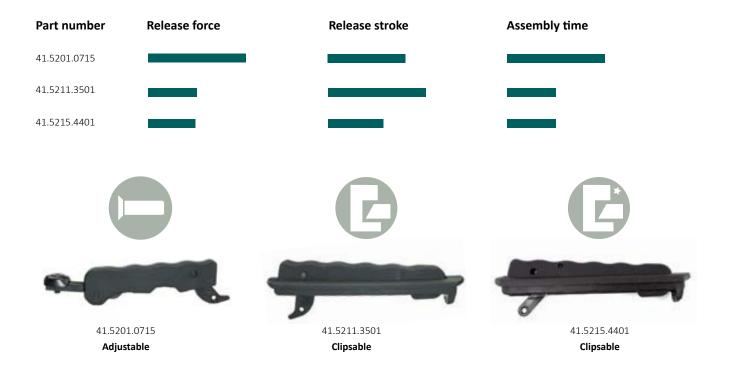
### Direct handle for door hold back 5034



### TO KNOW

This handle is used as direct actuation. Pulling the knob opens the door hold back via a connecting rod. We are happy to offer you a compact set with all the required items.

### Release handle



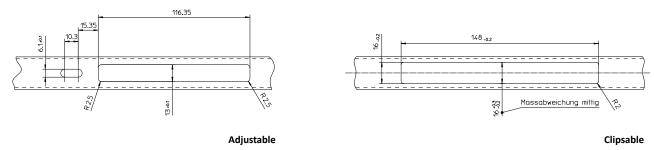
### TO KNOW

Our release handles are installed in 25.00 mm or 32.00 mm round tubes. They are either clipped in or screwed in with an adjustment facility.

This product range can be operated with a Bowden cable or connecting rod. Also the colour can be flexibly adapted to your requirements.

The 41.5215.4401 variant has an even more comfortable release due to the lower release force.

### **TUBE CUTOUT**



The basic difference between a screwable and clipsable release handle ist that two long holes must be impletented into the tube for the screwable version. The second hole provides an adjustment possibility after installation.

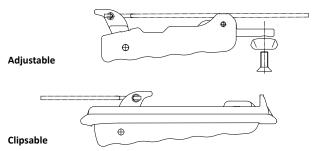
With the clipsable release handle, a long hole is milled into the pipe for mounting. When clipsed in, the position is fixed and the connection to the latch cannot be adjusted.

### **COLOUR VARIANTS**



### **ASSEMBLY OPTIONS**

#### Variants with rod connection

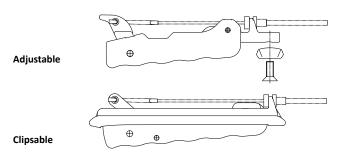


### Flexible installation in tube

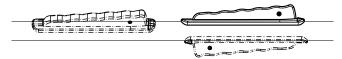
The release handles can be mounted flexibly into the tube depending on your installation situation. The internal release should be mounted on the underside of the tube to prevent unintentional actuation. The plastic lever on the release can be mounted in both directions.

We will be happy to assist you in selecting the right product.

#### Variant with Bowden cable connection



### Assembly sample



### Cable bracket





### TO KNOW

If cable lines are pulled through the pipe, the lines may be damaged by the indirect release.

To avoid this problem, a cable holder is adapted to the pipe or to the indirect release, which guides the cables around the indirect release.

### **Bushings**



67.1884.9001 **Black** 



67.1884.900x **Blue** 



05.0967.0100 **Gasket** 



34.1747.0103 **Toggle** 

#### TO KNOW

Our bushings serve as protection for your screwed connections or as visual enhancement for external screwed connections.

We offer our bushings for M6 or M8 screws or hexagon nuts and in your colour (RAL) upon request.

### **Brackets**



9



Garnitur Rohrhalterung set tube bracket 67.1883.9001 Unterteil base

67.1883.9001

67.1883.9002

Bracket for 3,00 mm steel thickness

Bracket for 4,00 mm steel thickness

**Product example** 

Assembly

#### **TO KNOW**

Our 1883 series bracket is one of our newer products which can be used with 5201, 5400 and also 5500 series round tube latches.

You can request the complete assembly instructions from us.

## Tube endings









67.1885.9001

Tube end for glass installation

67.1885.9002

Tube end for metal installation

26.1886.0100 Screw cover cap for tube end

Product example

#### **TO KNOW**

Our round tube end pieces for 25,00 mm round tubes form a perfect finish for your locking system application.

You can combine our round tube end pieces with our 5101 or 5201 latch series. Here too, we differentiate between applications in glass or metal doors.

## Bracket for gas spring



67.5201.9054

Bracket for gas spring



67.5201.9072 Bracket for gas spring



ng Product example



Sample application

### TO KNOW

Our die-cast zinc bracket can be used to mount our 5201 round tube latches to another tube, or as a gas spring adaptor to easily mount your gas spring to our or your own round tube.

## Connecting rods





### TO KNOW

More and more applications require solutions that connect complex configurations. Our connecting rods are rigid and are used in our standard latches with tube 5101 and 5201.

When the connections become more complicated, we usually offer our connecting rods with aluminium sheath (for more stability). We also offer stainless steel rods made of solid material on request.

# Wire ropes





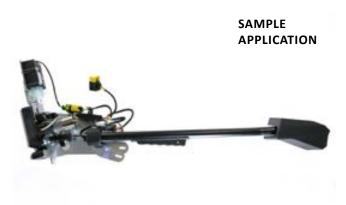
### TO KNOW

If the connections are not straight, we use coated wire ropes. These are flexible and are often used in bent round tubes.

In the illustration on the left, we show you different options for rope connections.

### Bowden cables





### TO KNOW

When the connections become more complicated, we offer our Bowden cables to get into the most twisted corner.

Bowden cables are very flexible. The Bowden cable sheath serves as a guide for the cable and can therefore redirect it.

### Inner handles



### TO KNOW

Our inner handles come in a wide variety of shapes. However, all variants have one thing in common, they are functional and cost-effective. Different internal recesses for different lever thicknesses as well as different lengths or colours can be individually combined with our latches or direct releases depending on the application.

We have developed variants that can be pressed together and are particularly suitable for narrow installation spaces. The particular advantage with these items is that they can be easily installed by hand after installation but cannot be removed after this process. This allows you to avoid damage to the visible inner handle to the end user during installation.



Pre-assembly or with tool/jig



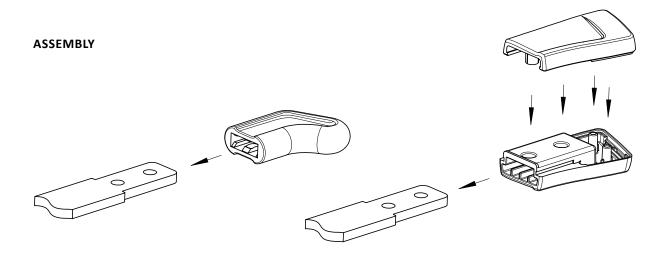
00

Manual assembly

As a rule, these variants are delivered pre-assembled. Subsequent assembly on site is possible with special tool or device.

These inner handles are designed for assembly after installation. They are particularly suitable for tight installation spaces and can be mounted without additional tools.





### Covers



26.5201.3300 For series **5201** 



36.5201.2302 For series **5201** 



26.5201.2400 For series **5201** 



26.5300.0700 For series **5300** 

### **TO KNOW**

Our plastic covers create a beautiful finish when assembling your door. We have several covers in our program, which correspond to the various technical and optical conditions

of modern cabin concepts. In addition, the cover protects against dust and dirt.

### Interior release mechanisms



56.7003.0012 Release right without security device



70.7003.0005 Release left with security device



70.7003.0001
Recess for interior release



70.7003.0002

Interior release

### TO KNOW

Our interior releases are frequently used in areas where ergonomic opening of the door from the inside is a top priority. We offer a wide variety of solutions here, all of which ultimately integrate excellently with your door trim.

In conjunction with our Bowden cables or connecting rods, we will be happy to lay out the right design for you, so that you can be sure that everything works perfectly.

# Fixing plate



32.5040.1137



32.5212.0522



42.5042.2202

Fastener set

### **TO KNOW**

Our mounting plates are used for direct release. The plate creates a direct connection from the latch to the handle. Many of our customers make their own plates, which then

in combination with our products become a fully functional complete product. The latch assembly is equipped with motor so that the door can be controlled electronically.



know how to open the world

### Key and cylinder system



### **DLP KEYS AND CYLINDERS**

Security that inspires

### IN-HOUSE PRODUCTION DEPTH

A major advantage of our high in-house production is clearly our wide product range of cylinders and keys.

### VARIETY OF KEY CODES

Depending on the product, you can freely choose the key code, because you can be sure that we already manufacture the necessary standard product. Almost all locking options are possible in our final products. In our production of keys and cylinders we use only the best and highest quality materials.

### QUALITY

Our keys convince by their durability, torsional stiffness and their weather resistance.

### ONE KEY SYSTEM

Our key and cylinder systems allow you to have a One Key System. A heavy bunch of keys is a thing of the past. With only one key you can open all handles on the vehicle (e.g. doors, flaps, hood and tank).

### INDIVIDUALIZATION

Combined with the possibility of generating your own key head by integrating your logo, this product also provides you with a high degree of individuality down to the smallest detail.

### **ELECTRONICS**

Our new key and cylinder system, as well as the extension of the mechanical locking systems with our remote control key or keyless entry system, enables you to step into the future of security systems. Benefit from our many years of knowhow.









# The new **luxury** is personalization!



# Key and cylinder systems



## S-Profile key









Key code 1001-1050

Key code 5401-5450

Key code 7701-7750

### TO KNOW

Our nickel silver keys are available in three locking variants (1001s, 5401s, 7701s).

You can get the key with a plastic head or in nickel silver variant with our DLP lettering.

# Reversible key



44.0611.1303 Reversible key 14603



Coloured head



44.0613.1101

Key with dust protection



44.0652.0101

Customized head



44.0613.1606 Head with logo



44.0611.1101



44.0606.0101 **Customized head** 



44.0665.8888

Reversible key 201-250 Reversible key 8888-8920

### **TO KNOW**

Reversible keys are well-known. Almost all of our handles have this locking option. So it is possible to operate all locking components on the vehicle with this key.

In addition, we can also offer a dust-protection cap. You can integrate your own logo on the plastic key head or even create your own key head.

# DLP key



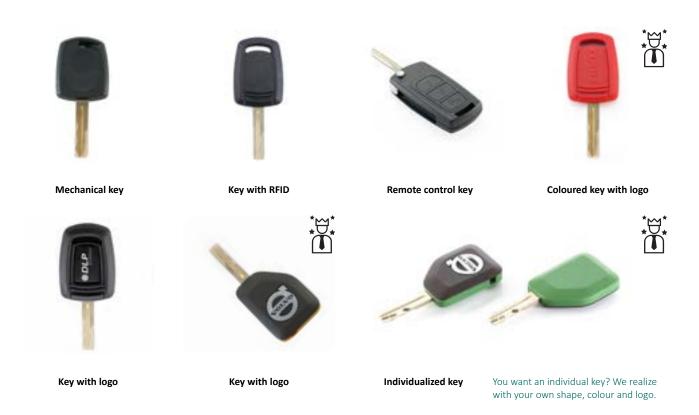
### TO KNOW

This key is made of the highest quality materials and milled by using the Quattrocode process. This key corresponds to the level of automotive locking systems.

Due to a large variety of key codes, we can guarantee a high level of security. With this key and cylinder system, we offer you a modern One Key System for your vehicle. Of course, we can also tailor this key to your needs by integrating your own logo.

The matching cylinder also meets the highest requirements, such as splash water and dust protection classified according to IP 54. Furthermore, by integrating a passive RFID crypt transponder into the key, we can integrate additional functions that go beyond mechanical security, such as an immobilizer at the most technically secure level currently available.

Our remote control key is equipped with an emergency unlocking system (foldable mechanic key) so that your vehicle can also be opened manually in case of emergency.



## Cylinder



**Mounted** < 30 key codes



**Clipsable** < 1.000 key codes IP 54 conformable



Clipsable > 1.000 key codes (compliance with the standard ECE-R116, IP65)



Reversible cylinder



DLP standard cylinder



DLP premium cylinder

#### TO KNOW

The reversible cylinders are only delivered pre-assembled. Subsequent mounting is not possible.

Our DLP cylinder is subsequently clipped into the handle.

The advantage is that the key code of the vehicle can be flexibly selected at the dealer or at the end of the assembly line.

You can buy a set of cylinders for the door handle, ignition starter lock, flap lock or more with the corresponding keys.

## Cylinderdummies



For handles 4576/4577



For filler caps 4479



Transport protection



Application example

#### TO KNOW

Our cylinder dummies complete the key system. The dummies can carry out the respective locking mechanism. This gives you the opportunity to test the function of the handles. A big advantage is the universal use in the production and the decision to choose the desired key code at the end of the assembly line.

We manufacture the dummies from plastic or zinc die-casting. Our plastic product is a cost-effective alternative to the long-lasting zinc die-cast dummy. For numerous functional tests on your own assembly line, we therefore recommend our robust zinc die-cast product.

### Remote control key



#### TO KNOW

For several years we have been supplying our locking systems to various customers in the expansion stage with remote control key. For example, our double rotor latch can be purchased with microswitches that ensure lockout protection in conjunction with the remote control key. In addition, with our remote control key we always ensure that there is a mechanical emergency release in the event of a power failure.

Of course our systems are central locking capable and can be delivered for 12V or 24V on-board networks. With full integration of our system into your vehicle electronics (CAN bus system) further functions (light signals etc.) can be adapted. We are happy to supply you with a fully integrated immobilizer.

By adding a passive RFID crypt transponder into the key and providing the reading unit and the immobilizer, we go far beyond the security possibilities of a purely mechanical locking system.

Our further expansion stages include even more electronic know-how. From the keyless entry variant to the keyless go system, we can offer you further convenience functions. You can find information on this in our electronics section on page 164.



### DLP remote control key - more than a simple door opener

### **IMMOBILIZER**



### **KEYLESS-ENTRY**



LIGHTING



### **SENSOR TECHNOLOGY**



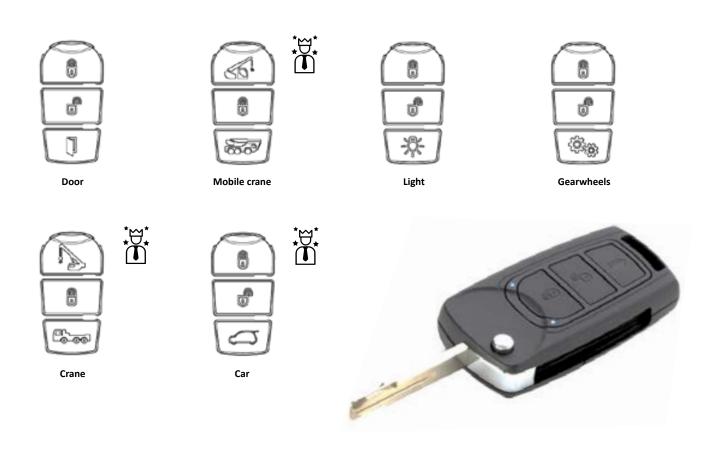
For more information to our remote control keys, please refer to page 156.

### Customizable functions

### **TO KNOW**

The new generation of remote control keys are equipped with three buttons that can be programmed with up to 8 operating commands. The keys can be equipped with customer-specific key symbols.

The driver can receive feedback via two RGB multicolour LEDs. For example, the green lights can be programmed for opening and the red LED's for closing the vehicle. There are almost no limits for the individualization of your key.





### TO KNOW

For your vehicle either choose the remote control key as hand transmitter without locking function or our folding key. The key is only needed as an emergency release if there is an interruption in the power supply and the electronic unlocking is no longer guaranteed.

On the back of the key we can integrate your own logo, either as a raised lettering or as a colourful adhesive logo.



### TO KNOW

Our DLP key and cylinder system combines form, function and feel at the highest level and is characterized in particular by the fact that you can clip it into almost all DLP products. This gives you the advantage of having an individual key and cylinder kit for every machine.

Clip in the cylinders at end-of-line or even when selling the respective vehicle. We distinguish between a standard and premium automotive (DLP) system. The Premium system has an even greater variety of lock codes and therefore offers greater security as well as compliance with ECE-R116 standard.

- DLP supplies to different manufacturers of cabin, tanks, hoods etc.
- DLP supplies the original equipment manufacturers

### ONE KEY CODE FOR THE ENTIRE VEHICLE!



### **KEYS AND CYLINDER SETS**

2x Vehicle keys 1x Cylinder dummy 2x Cylinder for cabin fitting 1x Cylinder for hood fitting 1x Cylinder for fuel filler cab (optional) plus a transport plug

### HANDLES FOR CLIPSABLE CYLINDER

- Handle for door
- Push button for hood
- Filler cab for tank (also Ad-Blue)

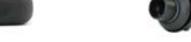
# DLP locking system

### **HANDLE WITHOUT CYLINDER**

### **PUSH BUTTON WITHOUT CYLINDER**

### **FILLER CAB WITHOUT CYLINDER**







**CABIN** 

HOOD

**TANK** 











### SUBSEQUENT ASSEMBLY

**Variant 1)** The cylinders are clipped into the handles at the end of the assembly line. Therefore the vehicle receives its own key code and can be delivered to the customer.

**Variant 2)** Dealers receive the key and cylinder kits separately according to customer requirements. The vehicle is not fitted with its individual key code (one-key-system) until it is sold.



We have various locking systems in our program. With the Merit or DLP key code locking we offer you a One Key System for your vehicle.

With only one key you can open all doors and flaps.



# know how to



# open the world



know how to open the world

### **HANDLES**







**DLP HANDLES**Quality that exceeds your expectations

#### **GENERAL**

Our handles are divided into push button handles, grip handles, push buttons and cylinder locks. We have a wide variety of product series with a large number of standard options available. If you wish, some of our handles can be combined as a whole with a latch including a microswitch and a remote control key. In the following chapter you can convince yourself of our diverse selection.

### **INDIVIDUALITY**

To ensure that you receive a product that is right for you, your individual requirements and applications are our top priority. We offer you different variants for use in metal or glass doors and can provide you with comprehensive advice on your optimal individual solution.

#### **FEATURES**

We have different key and cylinder systems such as reversible and DLP key code. Some of our products are non-lockable (without cylinder) upon customer request, allowing the fastest possible access. Additional comfort is offered by our radio remote control system.

#### QUALITY

Our handles meet both design and technical requirements. All variants follow pragmatic criteria such as load, durability, splash and dust protection, functionality and easy handling. We rely on high quality materials and for this reason our plastic exterior handles are colourfast despite ozone exposure.

#### ONE KEY SYSTEM

Our exterior handles offer you the possibility to use a One Key System on your machine. You only need one key to operate the entire vehicle, even to start the engine. We can respond to your wishes regarding the optimal locking solution.

# KNOW HOW TO OPEN THE WORLD We know exactly what we are doing,

because we have been manufacturing latches and handles for almost 160 years. We have a profound know-how and for this reason we are one of the market leaders. Due to our high in-house production share of 85%, we can influence the quality of our products to the maximum and respond to your wishes.









### Push button handles



Based on our many years of cooperation with the major brands in the off-highway industry, we have developed a comprehensive selection of exterior handles that meet the highest demands in terms of design and functionality.

As with all DLP products, durability under extreme conditions plays a paramount role. For this reason, for example, we use only the highest quality plastics, so that plastic exterior handles from DLP remain permanently colourfast despite ozone exposure. Indispensable for many of our customers: the DLP One Key System.

It enables the use of a single key for all lockable components inside and outside of the vehicle, including the ignition switch. Since we design the cylinders for well-known ignition switch manufacturers, your locking requirements can be optimally considered. Additional comfort is offered by our radio remote control system.

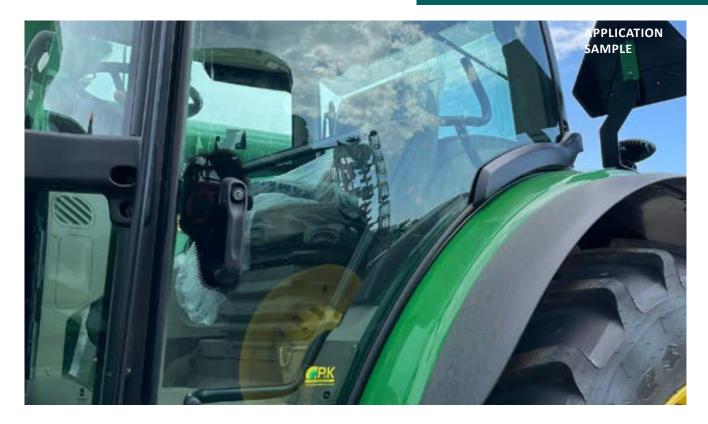
Especially for forklifts and construction machines it is important that no elements protrude the external surface of the vehicle. Numerous handles from DLP fully meet this requirement. In addition, they do not allow splash water or dust into the cabin.

| Features                          | 4526     | 4560     | 4561     | 4562     | 4563     | 4565     | 4570     | 4573     | 4576     | 4577     |
|-----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Lockable                          | <b>√</b> |
| Non-lockable (simple push button) | <b>V</b> | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | √2       | <b>√</b> | -        | <b>√</b> | <b>√</b> |
| Customized key code <sup>1</sup>  | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | ✓        | ✓        | <b>√</b> | <b>√</b> | <b>√</b> |
| DLP-Premium key code clipsable    | -        | -        | √2       | -        | √2       | √2       | -        | -        | √2       | √2       |
| DLP-Standard key code clipsable   | -        | -        | <b>√</b> | -        | <b>√</b> | ✓        | -        | -        | <b>√</b> | <b>√</b> |
| Reversible key code mounted       | <b>√</b> | <b>√</b> | <b>√</b> | ✓        | <b>√</b> | ✓        | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> |
| S-Profile key code mounted        | <b>√</b> | ✓        | ✓        | ✓        | <b>√</b> | ✓        | <b>√</b> | -        | -        | -        |
| Dust and splash-<br>proof         | -        | -        | √        | -        | <b>√</b> | ✓        | -        | -        | <b>√</b> | <b>√</b> |
| Remote control key                | -        | ✓        | -        | -        | -        | -        | -        | -        | <b>√</b> | <b>√</b> |
| Emergency unlocking               | -        | ✓        | -        | -        | -        | -        | -        | -        | <b>√</b> | <b>√</b> |
| Door installation                 | <b>√</b> | ✓        | <b>√</b> | ✓        | <b>√</b> | ✓        | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> |
| Hood installation                 | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | -        | -        | -        | -        | <b>√</b> | <b>√</b> |
| Metal installation                | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | -        | -        | -        | -        | -        | -        |
| Glass installation                | -        | -        | -        | -        | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> |

## Pull handles

| Features                         | 4583<br>Standard    | 4581<br>Premium            |  |  |  |
|----------------------------------|---------------------|----------------------------|--|--|--|
| Reversible key code              | ✓                   | ✓                          |  |  |  |
| DLP-Standard/Premium<br>key code | ✓                   | ✓                          |  |  |  |
| Glass installation               | √ (not recommended) | √ with M28-threaded insert |  |  |  |
| Metal installation               | ✓                   | √ with M6-threaded insert  |  |  |  |
| With sensors                     | -                   | ✓                          |  |  |  |
| Remote control key               | -                   | ✓                          |  |  |  |
| Keyless entry                    | -                   | ✓                          |  |  |  |
| Classification                   | IP66                | IP65                       |  |  |  |





### **CUSTOMIZED PUSH BUTTON HANDLES/PULL HANDLES**



These product lines have been developed specifically for our customers and their needs and are not for sale due to the specialized tooling.

### Flat handles

Thought through! Especially for forklifts and construction machines, it is often important that the elements do not protrude- handles from DLP meet this requirement and also do not allow splash water or dust into your cabin.

In the area of handles, we offer a wide range of variants for your individual cabin concepts. Highly functional- the introduction of the gas injection process for even more contemporary requirements.

|          | Features                               | 4701     | 4706     | 4707       | 4709     | 4711     | 4712       | 4713     |
|----------|--|----------|----------|------------|----------|----------|------------|----------|
| <u>A</u> | Lockable                               | √        | <b>√</b> | <b>√</b>   | <b>√</b> | <b>√</b> | <b>√</b>   | <b>√</b> |
| 0        | Non-lockable (sim-<br>ple push button) | √        | <b>√</b> | <b>√</b>   | <b>√</b> | <b>√</b> | -          | -        |
| <b>B</b> | Customized key code <sup>1</sup>       | √        | <b>√</b> | <b>√</b>   | <b>√</b> | <b>√</b> | <b>√</b>   | <b>√</b> |
|          | DLP-Premium key<br>code clipsable      | -        | -        | $\sqrt{2}$ | √2       | √2       | $\sqrt{2}$ | -        |
| 0        | DLP-Standard key<br>code clipsable     | -        | -        | $\sqrt{2}$ | ✓        | ✓        | <b>√</b>   | -        |
| 9        | Reversible key code assembled          | √        | <b>√</b> | <b>√</b>   | <b>√</b> | <b>√</b> | <b>√</b>   | -        |
| 9        | S-Profile key code<br>assembled        | <b>√</b> | ✓        | -          | <b>√</b> | -        | -          | <b>√</b> |
|          | Dust and splash-<br>proof              | -        | -        | <b>√</b>   | <b>√</b> | ✓        | <b>√</b>   | -        |
|          | Remote control key                     | -        | -        | -          | <b>√</b> | -        | <b>√</b>   | <b>√</b> |
|          | Emergency un-<br>locking               | -        | -        | -          | <b>√</b> | -        | <b>√</b>   | -        |
| <u></u>  | Door installation                      | <b>√</b> | <b>√</b> | <b>√</b>   | <b>√</b> | ✓        | <b>√</b>   | <b>√</b> |
|          | Hood installation                      | √        | <b>√</b> | <b>√</b>   | <b>√</b> | <b>√</b> | <b>√</b>   | ✓        |
| M        | Metal installation                     | <b>√</b> | <b>√</b> | <b>√</b>   | <b>√</b> | ✓        | <b>√</b>   | <b>√</b> |
| G        | Glass installation                     | <b>√</b> | <b>√</b> | <b>√</b>   | <b>√</b> | <b>√</b> | <b>√</b>   | <b>√</b> |

### **CUSTOMIZED FLAT HANDLES**



This product range was developed specifically for our customers and their needs and is not freely available due to the customer specialized tooling.

### **Fasteners**



4463



4465







4473

4472

Our fasteners and push buttons are usually used in small flaps, hoods and glove boxes. These products are available in almost all DLP key codes and can be combined with a wide range of locking tabs. In combination with the other locking components around the vehicle, we offer you the use of one single key.

Our DLP key and cylinder system provides you with security at the highest automotive level. These cylinders can be easily clipped-in into our handles at the end of your production line. With a wide range of possible key codes and IP54 classification, we offer you an extensive choice.

|             | Features                               | 0311     | 4463     | 4464     | 4465     | 4471     | 4472     | 4473     |
|-------------|--|----------|----------|----------|----------|----------|----------|----------|
| <b>(</b>    | Lockable                               | √        | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> |
|             | Non-lockable (sim-<br>ple push button) | <b>√</b> | -        | <b>√</b> | -        | -        | -        | <b>√</b> |
| P           | Customized key code                    | √        | ✓        | ✓        | ✓        | ✓        | ✓        | <b>√</b> |
|             | DLP-Premium key code clipsable         | -        | √2       | -        | √2       | -        | √2       | -        |
|             | DLP-Standard key code clipsable        | -        | ✓        | -        | <b>√</b> | -        | <b>√</b> | <b>√</b> |
|             | Reversible key code assembled          | √        | ✓        | ✓        | -        | ✓        | -        | <b>√</b> |
|             | S-Profile key code assembled           | √        | -        | ✓        | -        | -        | -        | -        |
|             | Dust and splash-<br>proof              | -        | ✓        | -        | -        | -        | ✓        | -        |
| <u></u>     | Door installation                      | -        | -        | <b>√</b> | ✓        | -        | -        | -        |
| <b>6</b> -6 | Hood installation                      | √        | √        | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> |
|             | Metal installation                     | <b>√</b> | ✓        | ✓        | ✓        | <b>√</b> | ✓        | <b>√</b> |
| G           | Glass installation                     | -        | -        | ✓        | <b>√</b> | <b>√</b> | <b>√</b> | <b>√</b> |

### **CUSTOMIZED FASTENERS**



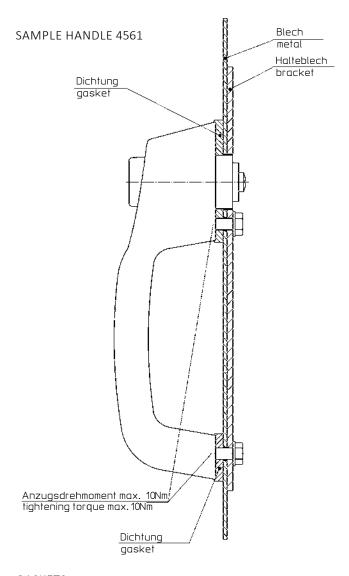


These cylinder latches are customer-specific and are not for sale. We will gladly develop an individual product for you!

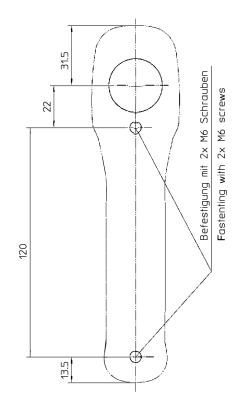
<sup>&</sup>lt;sup>1</sup>non over-the-counter key codes such as Komatsu, Cat, Bobcat and Hitachi



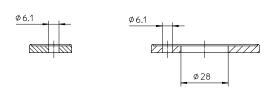
### THIS PRINCIPLE APPLIES TO SERIES 4560, 4561 AND 4562



### MOUNTING



GASKETS



**GASKET EXAMPLES** 

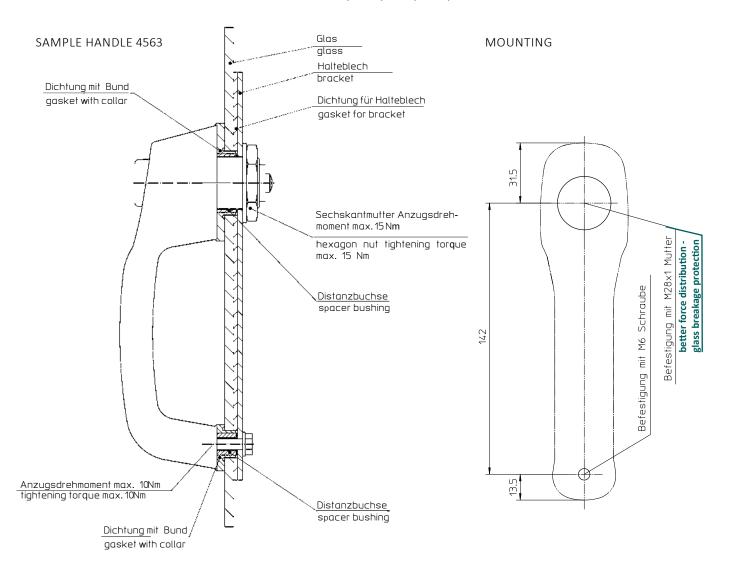


For mounting exterior handles on sheet metal we offer rubber seals, which regulate the contact area. We have a standard range of rubber gaskets available.



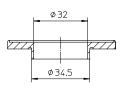
### **GLASS INSTALLATION**

### THIS PRINCIPLE APPLIES TO SERIES 4563, 4565, 4570, 4573, 4576 AND 4577

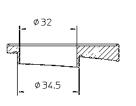


### **GASKET WITH COLLAR**





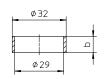
### **GASKET GLASS ADAPTED**





#### SPACERS FOR GLASS SHEET PROTECTION









The rubber gasket for the corresponding handles have a collar (an elevation), which is passed through the glass and prevents the spacer bushing from coming into contact with the glass, therefore protecting the pane.

The spacer bushing are placed in the cut-out of the rubber seal during installation. The spacer bushing minimizes the load on the glass when fixing the handle. On the inside of the glass door a rubber seal and a retaining plate or a deflection is placed.

# Series 4526



### **TO KNOW**

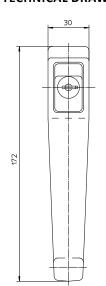
The 4526 series is a handle concept with a simple design for small to medium metal doors. Various cylinder systems can be selected for this handle. Alternatively, this handle can be delivered without a cylinder, so it is triggered only by the push button. The triggering mechanism is made by the mounted locking tabs.

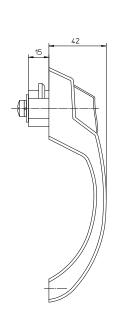
It is possible to attach only a transport lock so that you can position your own release independently behind the handle. This is a proven concept in applications where cost-effective solutions are prioritized. High-quality materials ensure colour durability.

### **AVAILABLE ACCESSORIES**

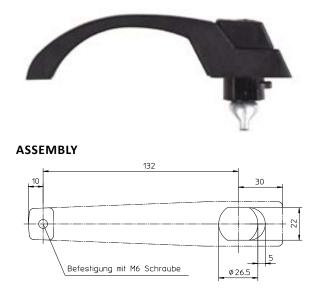


### **TECHNICAL DRAWING**

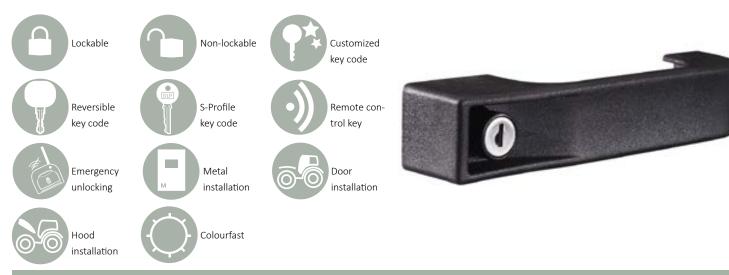




### **SIDE VIEW**



# Series 4560



### **TO KNOW**

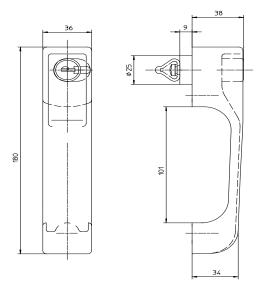
Our 4560 series handles are for small to medium metal doors and are plain in design. There are different locking cylinders selectable with this handle. Alternatively, this handle can also be delivered without a cylinder, so it is triggered only by the push button.

The release mechanism is triggered by our mounted push buttons. It is possible to attach only a transport lock so that you can position your own release independently behind the handle. Even with this historical product, a remote control key can be integrated.

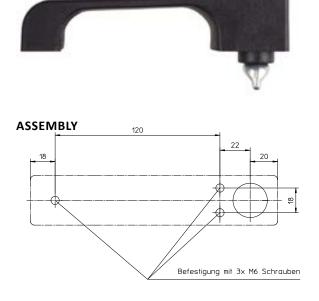
### **AVAILABLE ACCESSORIES**



### **TECHNICAL DRAWING**



### **SIDE VIEW**





### **TO KNOW**

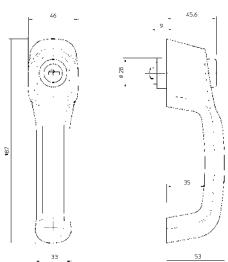
Our 4561 series push button handle is suitable for all metal doors and is a high quality handle concept. Almost all commercially available key codes can be supplied with this handle. The push button cannot be operated in the locked state.

The handle is extremely resilient due to high-quality materials. In connection with our automotive (DLP) cylinder system it is dust and splash-proof according to IP54. Our handle 4561 can also be ordered without cylinder, as a simple version with push button.

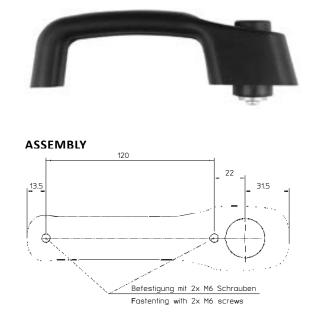
### **AVAILABLE ACCESSORIES**



### **TECHNICAL DRAWING**



### **SIDE VIEW**











**FUNCTIONAL ILLUSTRATION** 

### **TO KNOW**

The handle of the 4562 series differs in a few aspects from the 4561 variant. The push button is not locked but pivoted. The lock is not released when the tab is pressed in the locked state, since the integrated tab agitate past the lock (freewheeling). You will know this feature from the automotive industry.

Hood

installation

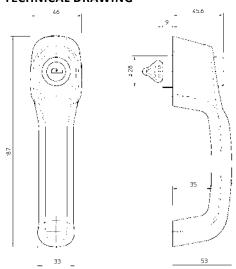
### AVAILABLE ACCESSORIES

Door

installation



### **TECHNICAL DRAWING**









### **TO KNOW**

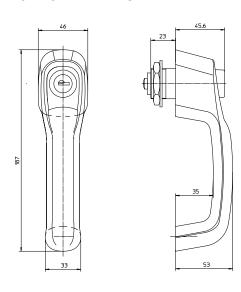
Our high-quality handle concept of the 4563 series is suitable for use in all glass doors (4.00 mm thickness) due to the M28 metal thread. The handle impresses with its ergonomic design with pleasant handling. It is extremely resilient due to high-quality materials.

In combination with our DLP cylinder system, it is dust and splash-proof according to IP 54. This handle can also be delivered without cylinder, as a simple variant with push button.

### **AVAILABLE ACCESSORIES**



### **TECHNICAL DRAWING**









### **TO KNOW**

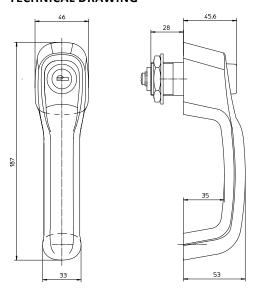
The 4565 series handle differs from the 4563 variant in only In combination with our automotive cylinder system, this hanone aspect. The difference is the extra long M28 thread for use in all glass doors.

dle is dust and splash-proof according to IP 54.

### **AVAILABLE ACCESSORIES**



### **TECHNICAL DRAWING**







### **TO KNOW**

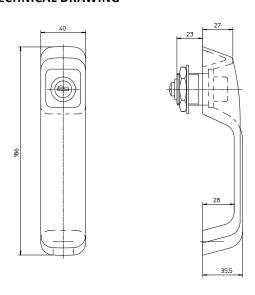
Our 4570 series is best suited for glass doors. Due to the use of high quality materials, this product series is particularly stable and colourfast. It can be delivered with the well-known reversible or DLP cylinder system.

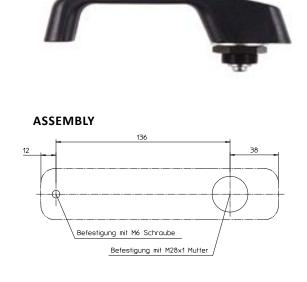
This handle can also be delivered without a cylinder, as a simple variant with push button.

### **AVAILABLE ACCESSORIES**



### **TECHNICAL DRAWING**



















### **TO KNOW**

The 4573 series is a simple handle concept for all glass doors. The handle is highly resilient due to the M28 metal thread. All known reversible key code and cylinder system can be supplied with this handle.

This solid handle is characterized by high quality materials.

### **AVAILABLE ACCESSORIES**

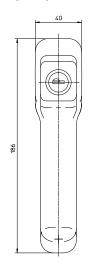


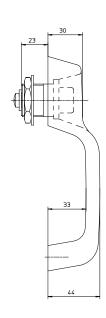




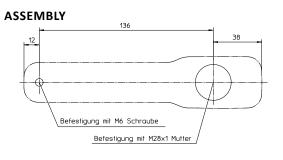


### **TECHNICAL DRAWING**











### **TO KNOW**

Our 4576 series handle is a bestseller on the agricultural machinery market. You can choose between a lockable version or a simple push button (without cylinder). This handle is provided with an M28 thread and is therefore suitable for installation in all glass doors. The design and handling are very important for this series.

In addition, we have integrated our automotive (DLP) cylinder system into this ergonomic handle and can therefore offer a wide range of locking options and security. In conjunction with our automotive cylinder system, these handles are dust and splash-proof according to IP54. The adaptation of our remote control key is possible with this handle model. In principle, we ensure that a mechanical emergency release is provided in the event of a power failure.

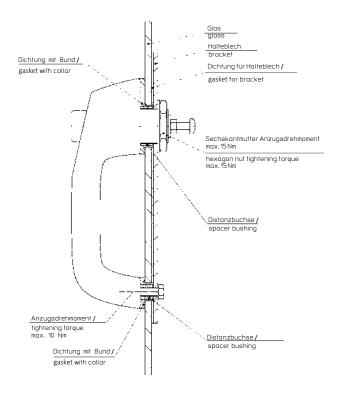
### **AVAILABLE ACCESSORIES**



### ASSEMBLY WITH AUTOMOTIVE CYLINDER SYSTEM



### **GLASS INSTALLATION**

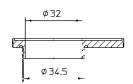


**ASSEMBLY** 

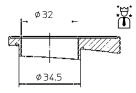


**GASKETS** 





GASKET GLASS ADAPTED

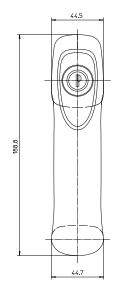


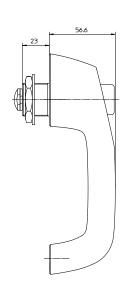
SPACER FOR GLASS PROTECTION



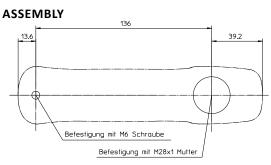


**TECHNICAL DRAWING** 











### **TO KNOW**

The 4577 series was developed 20 years ago and new variants continue to be created to this day. This robust handle is particularly popular with construction equipment manufacturers. It is a very high quality handle concept and due to the M28 thread it is suitable for all glass doors. Almost all DLP cylinders can be supplied with this handle.

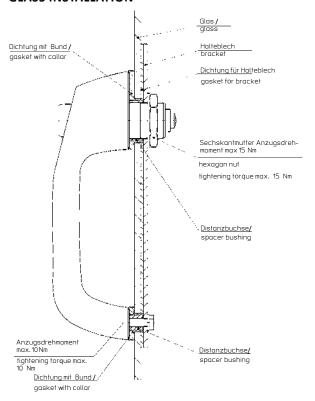
In addition, the handle can also be delivered without a cylinder, as a simple push button. Due to the use of high quality materials and the most modern manufacturing processes (gas injection process) this series is extremely resilient. In combination with our new cylinder system it is dust and splash-proof in accordance with IP54. Furthermore, this handle can be integrated into our radio remote control system.

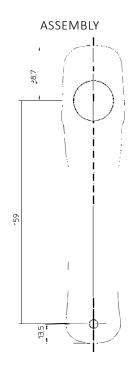
### **AVAILABLE ACCESSORIES**





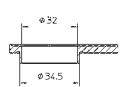
### **GLASS INSTALLATION**



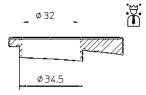


GASKETS





GASKET GLASS ADAPTED

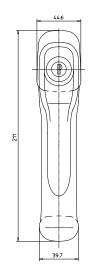


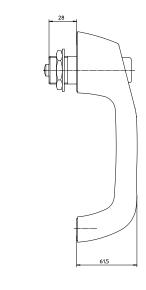
### SPACER FOR GLASS PROTECTION



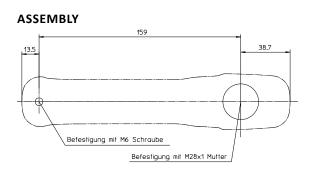


### **TECHNICAL DRAWING**













### TO KNOW

Our high-quality **premium pull handle** concept of the 4581 series is suitable for all glass and metal doors, optionally with M28 or M6 metal thread inserts. The adaptation of our remote control key is possible with this handle model. In principle, we ensure that a mechanical emergency release is provided in the event of a power failure. It is an ergonomic design with particularly comfortable handling.

The pull handle is extremely durable due to high-quality materials and state-of-the-art manufacturing processes. This handle can withstand extreme tensile loads of up to 1,000 kg. The common cylinders can be integrated, so that a **One Key System** is possible for your vehicle.

In combination with our automotive cylinder system, it is dust and splash-proof to IP 65. When locked, the handle of the glass version has a freewheel/idle stroke, just as you would expect in the automotive industry. The integration of electronic options is possible with the premium pull handle.

DLP-Premium

key code

Metal

Remote

control key

Colourfast

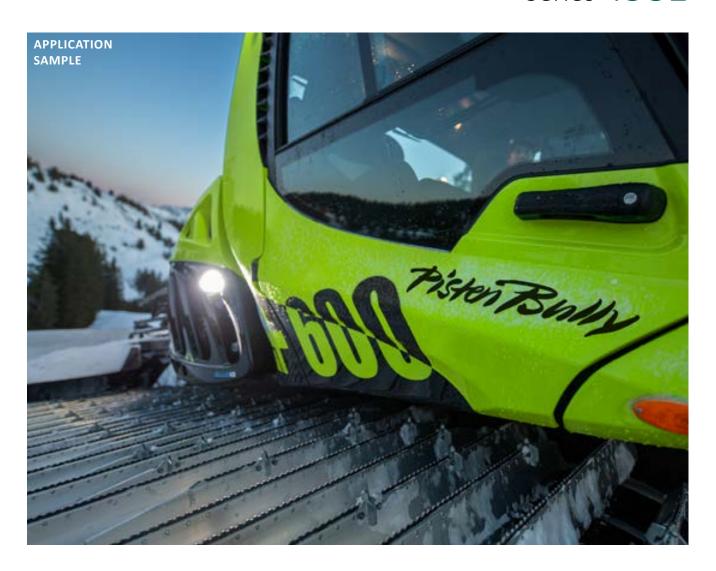
installation

The door is opened via almost invisible soft-touch modules integrated on the inside of the pull handle. Only the remote control key on the person is necessary to open the door (keyless entry).

### **AVAILABLE ACCESSORIES**







### **FEATURES OF DLP-PULL HANDLES**

With freewheel

| Character-<br>istics           | Reversible<br>key code | DLP<br>key code | Glass<br>installation  | Metal<br>installation  | Gauge  | Remote<br>control | Keyless entry | Impermea-<br>bility |
|--------------------------------|------------------------|-----------------|------------------------|------------------------|--------|-------------------|---------------|---------------------|
| 4581 premium without freewheel | ✓                      | <b>√</b>        | √ not recom-<br>mended | <b>√</b>               | 120,00 | -                 | -             | IP65                |
| 4581 premium<br>with freewheel | ✓                      | <b>√</b>        | ✓                      | √ not recom-<br>mended | 159,00 | <b>√</b>          | <b>√</b>      | IP65                |
| 4583<br>Standard               | $\checkmark$           | <b>√</b>        | √ not recom-<br>mended | <b>√</b>               | 120,50 | -                 | -             | IP66                |

**SERIES 4581** 

Without freewheel

**SERIES 4583** 

Without freewheel





### **SPECIAL FEATURES**

### **RADIO REMOTE CONTROL**



### CONTROL FROM DISTANCE

Our remote control key can be used to unlock the premium pull handle. This contains many expandable functions for an intelligent overall concept.

### **SENSORICS**



### **TOUCH DETECTION**

DLP handles contain the future. Our premium pull handle can be equipped with a sensor. When you touch the door handle the door is unlocked and access to the vehicle is granted.

### **KEYLESS ACCESS**



### **KEYLESS ACCESS**

Keyless access to the vehicle is provided. When the vehicle is approached, radio signals unlock the door.

### **LED-LIGHTING**



# OPTIONAL ILLUMINATION Our premium pull handle can be equipped with LED lighting.

### DUST AND SPLASH-PROOF



### IP65

We provide dust and splash-proof protection for our premium pull handles.

### FREEWHEEL FUNCTION



### MODERN HANDLE DESIGN

The glass version with M28 threaded bush has a freewheel/idle stroke when locked. This allows the user to pull the handle without opening the door of the vehicle.

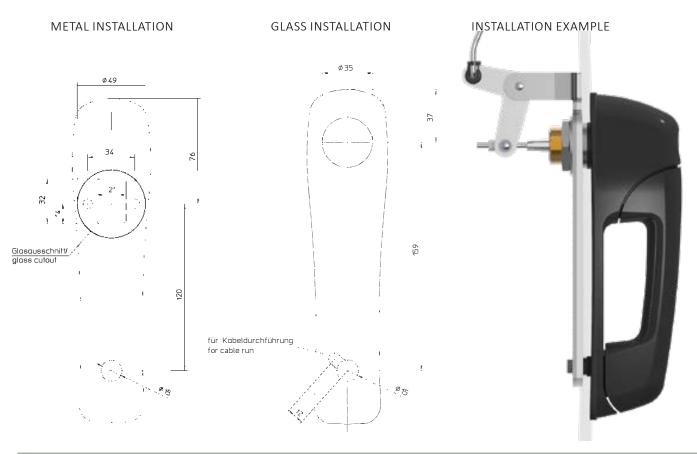


LED-lighting

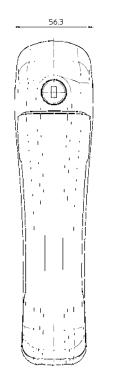


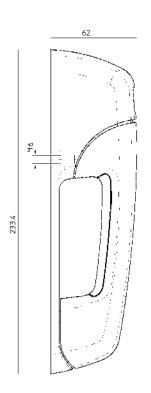
In the closed state, the tab remains in its original position.

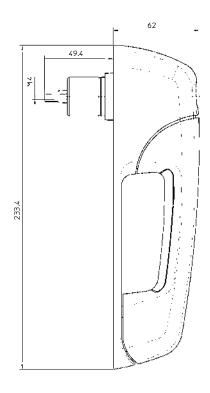
### **GLASS AND METAL INSTALLATION**



### **TECHNICAL DRAWING**













Customized key code



DLP-Premium key code



Reversible key code



Metal installation



Dust and splashproof

Colourfast

key code

DLP-Standard



Door installation



Hood installation

### **TO KNOW**

Pull handles are the trend in the automotive industry (cars and trucks). The standard pull handle is most suitable for installation in metal. The application area of this external handle covers almost all vehicle areas of the off-highway industry. The pull handle, in conjunction with our automotive (DLP) cylinder, is dust and splash-proof according to IP66.

A particularly interesting feature of these pull handles is that opening the doors with high counter pressures is easier than with the familiar push button handles, since the direction of pull corresponds to the direction in which the door is opened.

The standard pull handle is available in reversible key code or with automotive locking cylinder.

If you want a different design of the pull handle or a freewheel/idle stoke then you can choose our premium variant. The handles are interchangeable, as the installation mounting size was chosen to be the same.

For the latch connection, a deflection is usually used or a Ganter fork head/clevis (external product). We will help you with the design construction of your door.

### **AVAILABLE ACCESSORIES**





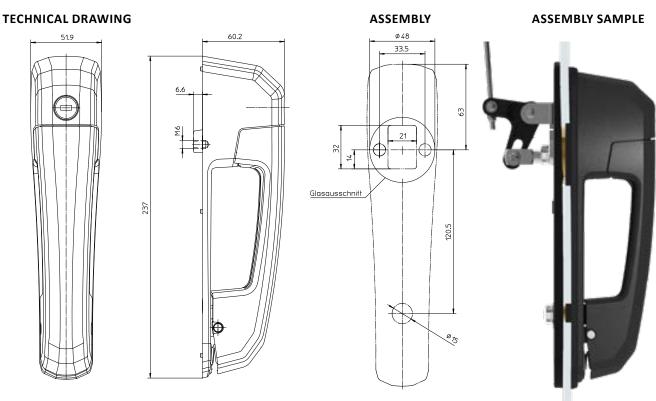






DLP pull handles are proprietary and patented







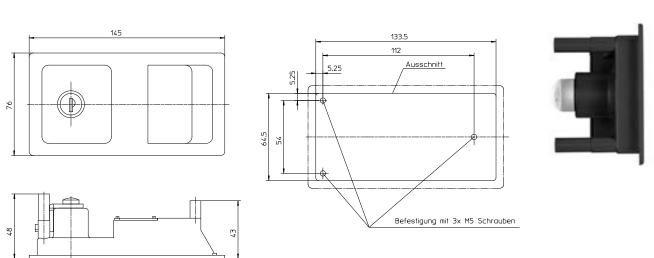
### **TO KNOW**

Our 4701 series handle is made of zinc die-cast. It has a push button and can be supplied either with or without a cylinder. We offer this product in silver colour or black powder coated. The installation depth is controlled by the pin length with thread, which we have available in different lengths. The reversible and automotive key code can be integrated in this handle. This handle is often used for construction machinery.

### **AVAILABLE ACCESSORIES**



# TECHNICAL DRAWING ASSEMBLY SIDE VIEW







### **TO KNOW**

Our 4706 series handle is made of plastic and has a large gripping surface for opening. Thanks to its flat design, it can be integrated into the smallest installation spaces. It's a proven and frequently used concept for construction machinery and forklifts.

There are already many variants of this handle for opening directly onto a latch or for simultaneous release of two latches. In the 58.4706.0201 variant, a flap latch has been integrated in order to offer a compact and very robust overall concept.

### **AVAILABLE ACCESSORIES**



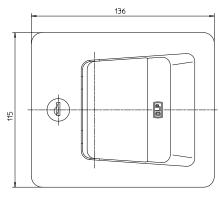


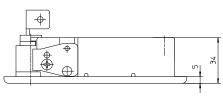


In combination with the 5036 series flap latch, we offer a proven overall concept.

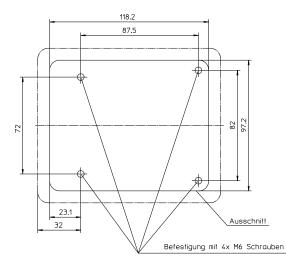


### **TECHNICAL DRAWING**



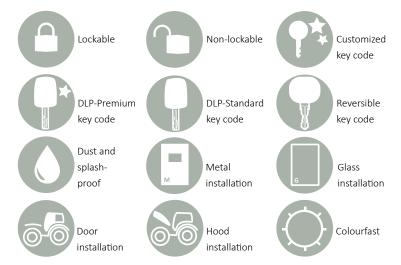


### **ASSEMBLY**









### **TO KNOW**

Our narrow 4707 series handle is ideal for small doors with limited installation space. This concept is often used in forklift trucks. All DLP cylinders can be integrated here and the handle is available with or without a cylinder.

This product is manufactured from high-quality materials using the most modern methods and therefore has an optimum price/performance ratio. In combination with automotive (DLP) locking cylinder, this handle is dust and splash-proof in accordance with IP54.

### **AVAILABLE ACCESSORIES**



# 



### **TO KNOW**

Our 4709 series plastic handle shell can be excellently integrated into modern, attractive cabin concepts. It features a pleasant gripping surface due to its large recess. A wide variety of applications are possible by integrating various deflection. It is available with or without a cylinder.

This product is manufactured using the highest quality materials and the most modern methods. In addition, this handle is splash-proof and dust-proof. In the case of the 58.4709.0201 variant, a flap latch from the 5036 series has been integrated to offer a compact and very robust overall concept.

### **AVAILABLE ACCESSORIES**







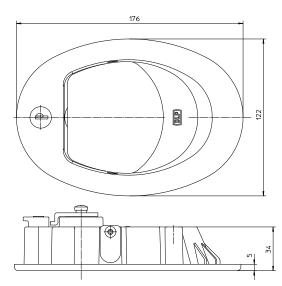




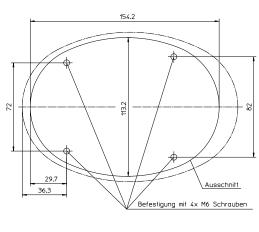
In combination with the flap latch Series 5036, we offer a proven overall concept.



**TECHNICAL DRAWING** 



### **ASSEMBLY**







### **TO KNOW**

The installation dimensions have been kept extremely small for our modern 4711 series drawing handle shell with large gripping surface. This has a very flat construction principle. Our automotive cylinder system can be clipped in (IP54).

Of course, you can also purchase this handle with the well-known reversible key codes. All materials used are of very high quality and thanks to modern manufacturing processes this handle is particularly robust.

### **AVAILABLE ACCESSORIES**



# TECHNICAL DRAWING ASSEMBLY SIDE VIEW 275 Ausschnift Befestigung mil 4x M6 Schrauben



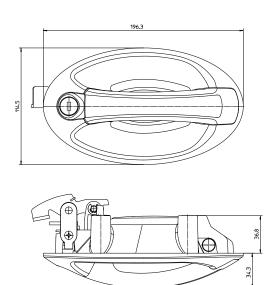
### **TO KNOW**

Our modern 4712 series pull handle has an attractive design and our DLP cylinder system can be clipped in afterwards. Of course you can also order this handle with the well-known reversible key code. In addition to mechanical locking and unlocking, we can also offer this product with remote control key. All materials used are very high quality and thanks to modern manufacturing processes, this handle is very stable.

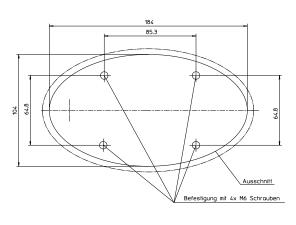
### **AVAILABLE ACCESSORIES**



### **TECHNICAL DRAWING**



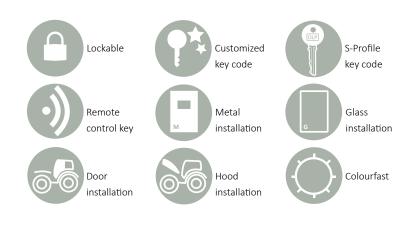
### **ASSEMBLY**



SIDE VIEW







### **TO KNOW**

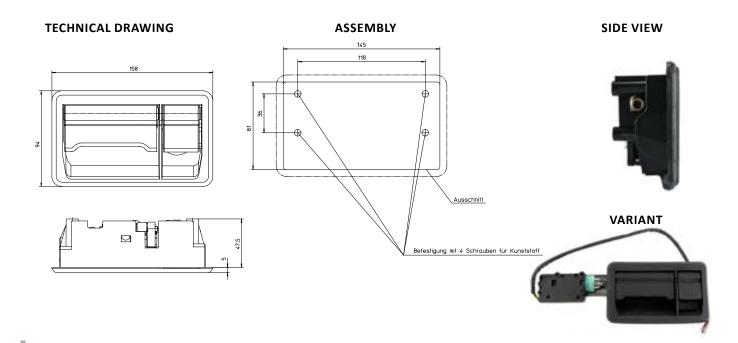
Our high quality 4713 series handle concept is suitable for medium to heavy flaps, hoods or doors. The excellent transmission of the gears ensures low release forces. The cylinders are subsequently clipped in, creating a flexible overall concept. Therefore, our 4713 series is a proven product in the automotive industry. These handles are available in open and closed handle variants. We offer manual, pneumatic or electronic actuation.

### **AVAILABLE ACCESSORIES**



### **AVAILABLE VARIANTS**

| Part number  | Open handle  | Release   |  |  |
|--------------|--------------|-----------|--|--|
| 58.4713.0101 | $\checkmark$ | manually  |  |  |
| 58.4713.0102 | ✓            | pneumatic |  |  |
| 58.4713.0201 | -            | manually  |  |  |
| 58.4713.0205 | -            | Motor 24V |  |  |
| 58.4713.0206 | -            | Motor 12V |  |  |



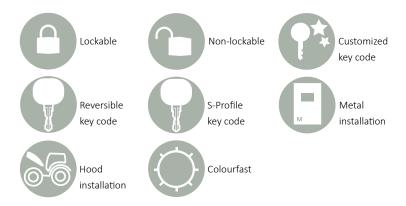
# APPLICATION SAMPLES











### **TO KNOW**

Our 0311 series push buttons are made from die-cast zinc. The closing movement for these products is  $180^\circ$ . In combination with our large selection of release levers, these suit a variety of different applications.

This button is ideal for hoods or small service flaps. Our push buttons are available with or without M28 housing. The scope of delivery includes the hexagon nut and washer for fastening. This product range is also available as a non-lockable version (without cylinder).

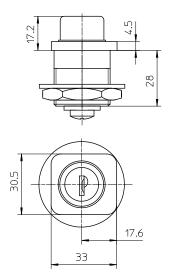
### **AVAILABLE ACCESSORIES**



### **INCLUDED**



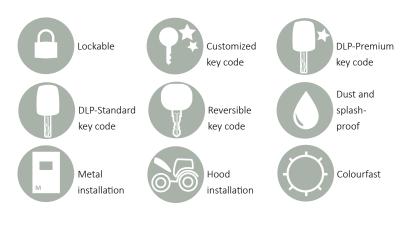
### **TECHNICAL DRAWING**



### **VARIANTS**









### **TO KNOW**

The 4463 push button includes a self-locking mechanism (thus fulfilling the requirements of EU Regs. 167/2013, or  $1322/2014 \S 5.1$ : "The hinged engine hood must only be able to be opened with a tool (...) and must lock itself when closed."

Our push button can be equipped with reversible or DLP key code. The DLP cylinders can be easily clipped in subsequently (e.g. assembly line customer). The key then serves as the necessary tool.

### **AVAILABLE ACCESSORIES**



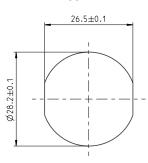




**INCLUDED** 

67.4463.9001

### **ASSEMBLY**



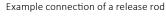
### **FUNCTION OF THE PUSH BUTTON**

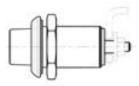
To unlock the push button, turn the key 42° clockwise. Then the push button can be operated with the key. After releasing the key, the push button including the cylinder is returned to its initial position.

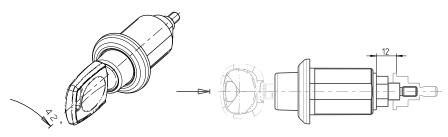
### Open with key

DLP

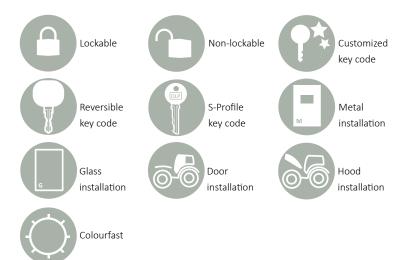












### **TO KNOW**

The 4464 series is made of die-cast zinc. The closing movement for these products is 180°. We offer a wide variety of release mechanisms.

This button is ideal for hoods or small service doors. The push buttons are available with or without M28 housing. This product series is optionally available with or without cylinder.

### **AVAILABLE ACCESSORIES**

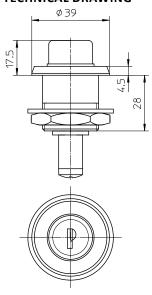


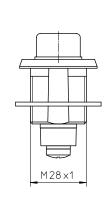


### **INCLUDED**



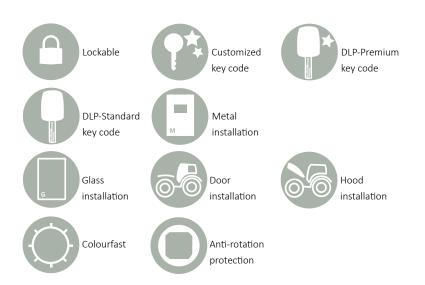
### **TECHNICAL DRAWING**





### **VARIANTS**







### **TO KNOW**

Our push button of the 4465 series is available either in high quality plastic or in zinc die-casting for an even higher stability. The closing movement of these products is 180° and the closing mechanism is very smooth. This push button is ideal for hoods or small service flaps.

Thanks to an injection-molded cylinder bushing, our modern automotive cylinders can subsequently be clipped in. This enables flexible handling. The zinc die-cast version is available with or without anti-twist protection. The cams on the housing hold the push button in position when tightening.

### **AVAILABLE ACCESSORIES**

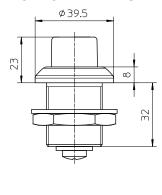


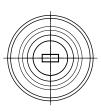
### **INCLUDED**

**VARIANTS** 



### **TECHNICAL DRAWING**





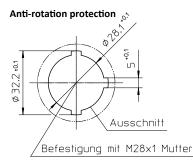
# φ39.5 5.1 M28 ×1





Ausschnitt

Befestigung mit M28x1 Mutter







Colourfast







Glass installation



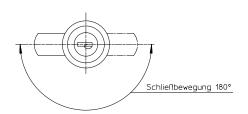
Hood installation

### **TO KNOW**

Our 4471 series cylinder lock are supplied in a chrome-plated finish. The closing movement for these products is 180°. In conjunction with our large selection of push buttons, we offer a variety of release options.

This closure is available in two different housing lengths. Series 4471 is often used as a tool box lock.

### **FUNCTIONAL PRINCIPLE**



### **AVAILABLE ACCESSORIES**



Customized key



Reversible key

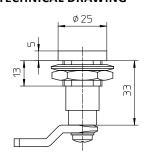


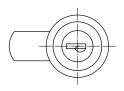
Tab 32.0433.1022



Tab 32.0433.0222

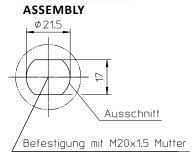
### **TECHNICAL DRAWING**

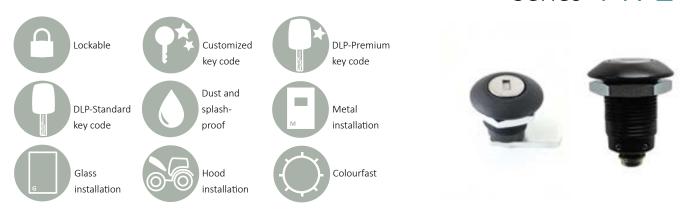




### **VARIANTS**





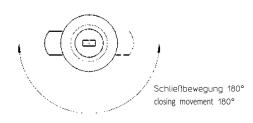


### **TO KNOW**

Our 4472 series cylinder locks are made of either high-quality plastic or die-cast zinc. The locking movement for these products is 180° for the long housings and 90° for the short

Thanks to a injected cylinder bushing, our modern DLP cylinders and keys can subsequently be clipped in. The dust and splash-proofing conforms to IP54.

### **FUNCTIONAL PRINCIPLE**



### **AVAILABLE ACCESSORIES**





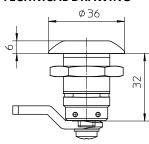


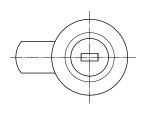






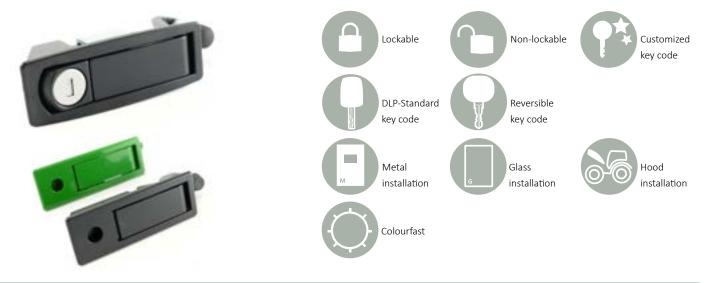
**TECHNICAL DRAWING** 





### **VARIANTS**





### **TO KNOW**

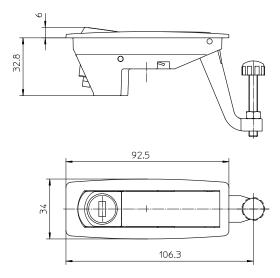
Our pleasing designed and extremely compact 4473 series handle with push button is a proven product in the automotive industry. The flat design makes this handle ideal for integration.

It is a high-quality handle for small flaps or hoods. The opening behaviour is very easy due to the push button. For more security, we also offer the handle with our well-known reversible key code or our automotive cylinders.

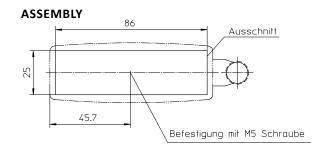
### **AVAILABLE ACCESSORIES**



### **TECHNICAL DRAWING**







# CUSTOMIZED HANDLES



We understand the wishes of our customers and convince with excellent solutions

### **PUSH BUTTON HANDLES/PULL HANDLES**







### **FLAT HANDLES**







### **FASTENERS**





### **TO KNOW**

The products shown are customized and not for free sale. They have been developed specifically for our customers requirements. We offer you the possibility to develop your own product with us and to manufacture it exclusively for you.

We value your individual wishes and give you the opportunity to install a unique product. Your vehicles are our passion and have been for over 160 years.

### Deflection



### TO KNOW

Our deflectors have been developed to match our handles. The external handle can operate a remotely mounted latch with a bell crank/deflector by changing the push button action into that of a pulling action.

This makes it possible to position the handle as desired position without having to mount the outside handle directly behind the latch.

### Gasket

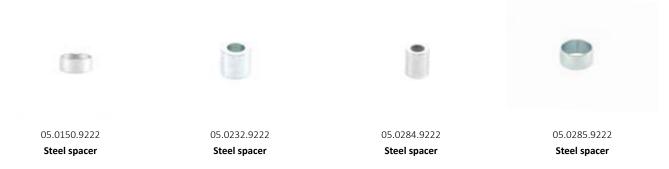


### **TO KNOW**

Our gaskets are basically intended to perform a sealing function, but depending on the area of application they are also used to for the protection of the applications.

We have the right gasket in our program for almost every application. We are constantly expanding our range by fulfilling customer-specific wishes, such as radius adaptations to the disc contour.

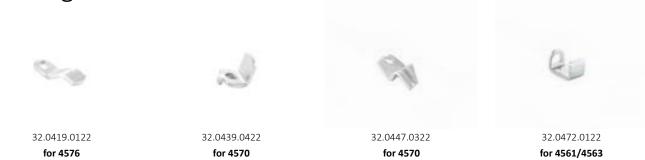
# Steel spacer



### TO KNOW

The steel spacer are used when installing handles to protect the washer. These are inserted into the seal with collar for glass installation. For further explanations on their use, please refer to page 103.

# Locking tab



### TO KNOW

Our range of tabs is very extensive. Depending on the end product, we have over 100 different locking tabs in our program, which, in combination with the handle, establish the connection to the latch and thus guarantee a perfect function.

# Grab handle



### **TO KNOW**

Our grab handles come in a wide variety of lengths, but what Our grab handle of the 4566 series has a fixed mounting of they all have in common is that they are very sturdy and meet your requirements for the longevity of our products.

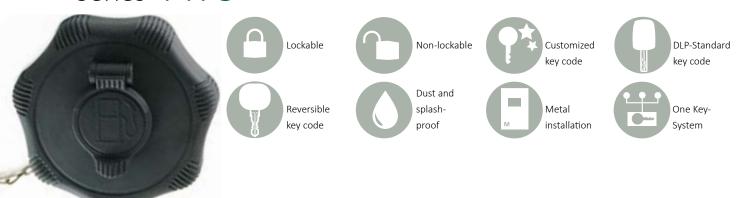
150,00 mm and is price competitive.

# Recessed handle



### **TO KNOW**

Recessed grips are often used for service flaps. Especially when the application does not require a complex external fitting, but a flat design is preferred, our recessed grip is used.



### **TO KNOW**

Our tank caps can be delivered with or without ventilation and with or without cylinder. Almost all DLP key codes integrated into the tank cap by simply clipping them in. We distinguish the tank caps with threaded and with bayonet lock. If required, we can also supply you with AdBlue tank caps.

We can supply different diameters, but a 60,00 mm diameter tank cap is our standard product. We also supply the necessary accessories for our tank caps, such as threaded nozzles and filters.

### **CLOSURE OPTIONS**



Thread lock



**Bayonet lock** 



Diesel



AdBlue

### **SAMPLES**



Diesel reversible key code



Diesel DLP-Standard key code



AdBlue - non-lockable



Lockable

### **SAMPLES**

| Part number  | Thread | Bayonet | Ventilated | Lockable | Key code   | Diameter<br>60,00 mm | Symbol    | Symbol chain |
|--------------|--------|---------|------------|----------|------------|----------------------|-----------|--------------|
| 05.4479.0400 | √      | -       | ✓          | -        | -          | √                    | Diesel    | -            |
| 05.4479.0400 | √      | -       | ✓          | -        | -          | √                    | Diesel    | -            |
| 05.4479.3700 | -      | ✓       | -          | -        | -          | √                    | Adblue    | ✓            |
| 05.4479.3900 | -      | ✓       | ✓          | ✓        | Standard   | √                    | -         | ✓            |
| 05.4479.4300 | ✓      | -       |            | ✓        | Standard   | ✓                    | Diesel    | -            |
| 55.4479.0001 | √      | -       | -          | ✓        | Reversible | √                    | Diesel    | -            |
| 55.4479.0004 | ✓      | -       | ✓          | ✓        | Reversible | ✓                    | Diesel    | -            |
| 55.4479.0007 | ✓      | -       | -          | ✓        | Reversible | ✓                    | Diesel    | -            |
| 55.4479.0012 | ✓      | -       | -          | ✓        | Standard   | √                    | Diesel    | -            |
| 55.4479.0014 | -      | ✓       | ✓          | ✓        | Standard   | -                    | fuel pump | -            |
| 55.4479.0015 | -      | ✓       | -          | √        | Standard   | -                    | fuel pump | -            |

### **AVAILABLE ACCESSORIES**







### **Padlocks**











### TO KNOW

Our product extensions include a selection of padlocks. The products we offer are particularly sturdy and visually very appealing.

In addition, you need the matching cylinder and key so that you have a functional product. Thanks to the interchangeable cylinder, you can combine several DLP products with the same key and only need one key **(thanks to the One Key System)** for your entire vehicle.



### 83WPIB / 53DLP

# FOR HIGH SECURITY REQUIREMENTS - WATER-PROTECTED

Thanks to the plastic-coated lock body made of solid brass and the rust-free shackle made of hardened stainless steel, the lock is extremely resistant to corrosion and weathering.

The cylinder protection with drainage channel, which removes moisture that has penetrated the lock, also makes the ABUS 83WPIB padlock a reliable and durable companion.



83AL / 45 DLP



83AL / 50 DLP

### **LIGHT AND FLEXIBLE**

Padlock 83AL Titalium is very suitable for locking grilles, doors, gates, cabinets, tool boxes, basement windows, switchgears or barriers. The latch body of the 83AL is made of particularly lightweight TITALIUM™ special aluminum, making it as strong and durable as ever.

The shackle is made of hardened special steel with NANO PROTECT™ coating. We offer the lock in different colours and in two sizes (45,00 and 50,00 mm).





# Series 6000





#### TO KNOW

Our window latches are equipped with an intelligent click function that allows a defined engagement without having to keep an eye on the catch. The use of our window latch is extremely easy and by using high quality materials, this is a stable product with a long service life.

The core of our window latch is made of steel, so that even with high loads a good load capacity is achieved. In addition, this product is easy to install and available in many variations.



59.6000.0001

Long version

With srew fixing plate



59.6000.0003

Short version

Without srew fixing plate



Short version
With screw fixing plate

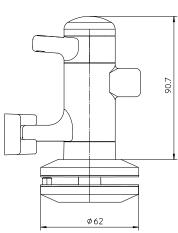


59.6000.0008

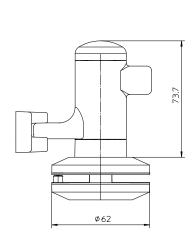
Long version

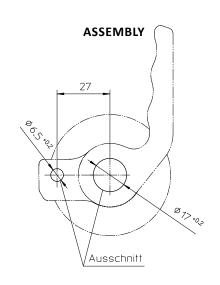
Without screw fixing plate

#### **TECHNICAL DRAWING LONG**



#### **TECHNICAL DRAWING SHORT**





# Series 6001



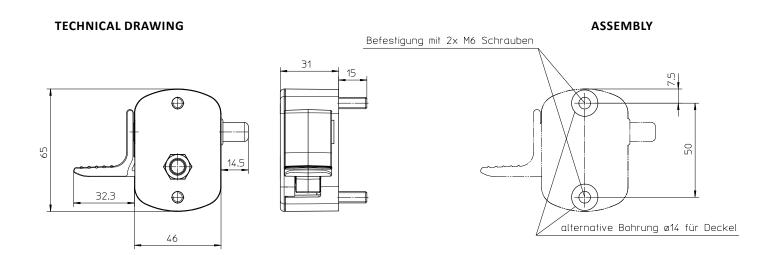


#### TO KNOW

Our window latch is a product designed for front and side windows. The locking bolt is retracted by pressing the operating lever. The window latch is a very compact latch that can be optimally used in the windshield area without impairing the view.

With this type of latch, there is no need for an additional striker plate or even a bolt, as a recess in the window frame is all that is needed to engage the locking bolt.

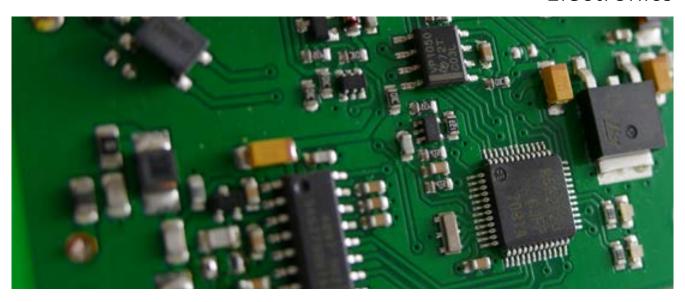






know how to open the world

### Electronics



#### **ELECTRONIC PRODUCTS**

More safety and comfort

#### **TO KNOW**

The industry is developing rapidly. We do the same and tune the development of our locking systems in detail to the needs of our customers. In addition to security, ease of convenience is playing an increasingly more important role. Accordingly, our electronic locking systems can do more than just lock and unlock a vehicle.

#### CAN-BUS

By integrating the latest electronic components, it is now possible to control many elements of the machine by remote control key. As our customer, you can choose from different stages of expansion which can be individually adapted to your vehicles with your desired applications.

#### **SAFETY**

What you can rely on: DLP remote control key today belong to the safest systems available in the automotive industry. The high level of security is achieved, among other things, by bidirectional AES-128 encryption, which ensures correct encryption identification so that only the machine which should be controlled is controlled. Suitable for your areas of application, our systems also have a modern, modular design that is designed to meet the toughest demands of the off-highway market.

#### MULTIPLE FUNCTIONS

A good feeling right from the start: we offer you not only a central locking system, but also solutions for an immobilizer up to a keyless go system. The remote control key will be programmed according to your chosen level of expansion.

#### ALWAYS UP TO DATE

With our long-standing partner for OEM electronics solutions we are always up to date. TeraTron has been operating since 1999 and is the specialist in automotive electronics and therefore a particularly valuable business partner by D. La Porte Söhne GmbH.









## THE KEY IN CHANGE

From the simple key to the electronic Masterpiece







# The new luxury is Personalization!

- Individual solutions
- More flexibility and security
- Combination of mechanical and electronic technologies



## **REMOTE CONTROL KEY**



# Modular key design

- Modern form
- Additional functions can be integrated into the key
- Automotive standards

- AFS encryption
- 128 bit cryptology



control of exterior and interior lighting is possible.



pending on the assignment.

# Series 0663



#### **TO KNOW**

For several years now we have delivered our locking systems with remote control key to various customers within their vehicle development stage. For example, our double rotor latches can be delivered with contact switches, which maintain a locked capability in conjunction with the remote control key.

Furthermore, the system is designed with a mechanical emergency unlocking facility should there be a power failure. Our systems are suitable for central locking and can be supplied in 12 V or 24 V. With full integration of our system into your vehicle electronics (CAN-bus-system) further functions (light signals etc.) can be included.

We are happy to supply you with a full integrated immobilizer. By adding a passive RFID crypt transponder to the key and providing the reader unit as well as the immobilizer, we go far beyond the security possibilities of a purely mechanical locking system, as you can learn on the following pages.

One Key-

System

The new generation of remote control keys are delivered with three buttons, which can be assigned multiple functions in addition to locking and unlocking. If required, we can customize the keys for you with customer-specific key symbols and logos.



# Series 0633



#### **ELECTRONIC EXPANSION LEVELS**

| Features               | Basic | Comfort | Comfort Plus | Premium | Premium Plus |
|------------------------|-------|---------|--------------|---------|--------------|
| Immobilizer            | ✓     | ✓       | <b>√</b>     | ✓       | ✓            |
| Central locking system | -     | ✓       | <b>√</b>     | ✓       | ✓            |
| Lighting               | -     | -       | <b>√</b>     | ✓       | ✓            |
| Open the door/hood     | -     | -       | ✓            | ✓       | ✓            |
| Close function         | -     | -       | -            | ✓       | ✓            |
| Close the door/hood    | -     | -       | -            | ✓       | ✓            |
| Keyless                | -     | -       | -            | -       | ✓            |
| Coming/leaving home    | -     | -       | -            | -       | √            |

Information on the **individualization** of our remote control key can be found on **page 90.** 



44.0663.0101

Handheld transmitter



44.0663.1501
Remote control key



44.0663.0201
Remote control key



44.0663.0901 Remote control key



# Basic.

#### **IMMOBILIZER FUNCTION**

Our DLP key already contains the future!

The function of an immobilizer is becoming more and more important and offers a modern theft protection for your vehicles. We offer this function either in combination with our key insert or in use with an ignition starter switch.

#### MANUAL DOOR UNLOCKING

In this version, access to the cabin is controlled by manual operation of the key. Thanks to the use of our automotive and redesigned cylinders, the security of this contemporary key is also mechanically much higher than with the traditional systems.

#### **KEY WITH RFID CRYPT TRANSPONDER**

Via a magnetic alternating field (CAN transponder reader) the contact-free identification and localization of the crypt transponder is made possible.



#### **LEARNING PROCESS WITH MASTERKEY**

The vehicle keys are taught matched to the immobilizer system by a programmed master key. The process can take place at your factory or even at your end customers. Feel free to look at possibilities of the learning process on page 169.



## More than just standard!

Immobilizer

Manual door unlocking

Starting procedure via immobilizer Key insertion/ ignition starter lock

#### **KEY INSERT**

DLP offers you a key insert as a replacement for a conventional ignition starter lock. It can be used e.g. in the dashboard or centre console in combination with a start/stop button (not supplied by DLP) and offers an immobilizer function. The key insert is available with several plug variants (JST, Tyco) and a bezel. The engine is started when the start/stop button is pressed.





#### **IGNITION STARTER SWITCH**

As an alternative to the key insert, the immobilizer function can be implemented in combination with the ignition starter switch and a ring antenna. The CAN transponder reader is activated by turning the key in the ignition starter switch and reads the transponder in the key.

Starting the vehicle is only possible when the correct key is used. Our systems are compatible with the ignition starter switches from KAT and COBO.

#### **CAN TRANSPONDER READER**

This unit is needed to identify the correct key. The CAN transponder reader is used in the vehicle as a communication interface between the board electronics and the transponder in the key (via a CAN interface).







With central locking, several mechanical and electronic elements work together. The basic function is to unlock all desired locks around your vehicle at the same time. With only one remote control key, several doors or flaps can be controlled from a distance.



By means of a radio pulse (pressing the key buttons), the logic box controls the locking or unlocking of the external handles via the CDL motor. Here, the bi-directional radio communication takes place via 128-bit coding. This AES encryption is very secure. The obligatory use of a latch with microswitch ensures a lock-out protection.

For **information** on customizing our remote control key, please refer to **page 90.** 



#### **LED FEEDBACK**

By installing two LED lights in the remote control key, the driver receives visual feedback on the selected function. When closing the vehicle, they may, for example, light up red if the vehicle could not be locked.





# Do you want some extra comfort?

Immobilizer

Manual door unlocking

Starting procedure via immobilizer Key insertion/ ignition starter lock

Central locking system

Electronic door release

LED feedback



For the use of our remote control key with central locking an external fitting with impulse button (with spring reset) is necessary. Visually, it is indistinguishable from the outside from a classic push button handle.





This is an assembly controlled by the CDL motor that performs the actual locking/unlocking of the exterior hardware. A microswitch in the CDL motor provides a feedback about the current status.



#### LATCH WITH MICROSWITCH

The microswitch reports the status of the latch and thus whether the door is open or closed (ensuring lockout protection).



#### **LOGIC BOX**

The desired functions are programmed on our logic box in coordination with our electronics partner TeraTron. The software can be individually adapted to your requirements. In the Comfort version, the logic box controls the CDL motor or the CDL motors (Central Door Locking) of the assembly latch.

If required, side flaps or service hatches can also be controlled. The logic box is a fully encapsulated system to meet the toughest requirements (impact, dirt and dust as well as water).





# Comfort Plus.

#### **OPEN SUPPORT SYSTEM**

The Open Support System is a convenience function that enables the door to be opened automatically by combining it with a manual gas spring or electric spindle drive (in each case not supplied by DLP).

This guarantees the vehicle user maximum safety when entering cabins that are difficult to reach (e.g. access via ladder). By pressing the lowest button of the remote control key, the latch is unlocked and the door swings open.



#### **OPTIONAL LIGHTING**

With us you can get a selection of handles with optional LED lighting. This visual feedback gives the driver the assurance from a distance that the vehicle is indeed locked. The LED illumination is programmable in all RGB colours.



## Can it be a little more comfort?

Immobilizer

Manual door unlocking

Starting procedure via immobilizer Key insertion/ ignition starter lock

Central locking system

Electronic door release

LED feedback

Open the door by button push

Lighting on outside fitting



#### **OPEN-SUPPORT-MOTOR**

The logic box receives the signals from the remote control key. The open-support motor pulls directly on the latch via a mechanical connection and executes the opening mechanism. This enables contactless entry. This increases safety and the prevention of accidents significantly (e.g.: with large wheel loaders).



If you want your door or flap to open without contact, you will also need a gas pressure spring or a spindle drive. These products must be adapted to the ambient conditions with the respective manufacturer. Often they are already included in the existing cabins or flaps and only need to be used or set differently.

#### **EXTERNAL DOOR SENSOR**

If the locking system is in the unlocked state, the vehicle door can be opened electrically by operating the external door sensor without having to use the remote control key. It can be operated completely independently because it has its own power supply. This is especially useful for particularly large vehicles with steps. Thanks to the extremely high level of dust and water protection (IP67K), the door sensor can be positioned anywhere on the vehicle.





# Premium\_

# ELECTRONIC LATCH WITH PULL CLOSE FUNCTION

The electronic latch with closing function is a comfort enhancement for your vehicle. Particularly in the case of cab concepts that require an enormous overall air tightness , closing a door manually can be extremely difficult and force intensive due to the existing "air cushion". The electronic closing function is started by engaging the latch in the pre-latch position which means that the customer only has to close the door slightly and the electronics do the rest.

The closing process takes about 5 seconds depending on the setting. Of course, the door can still be closed manually without this function. However, this option not only save your power when closing the door, but it is also a high-end luxury function and seen in the premium vehicles of the automotive industry.

#### **ELECTRONIC CLOSING OF THE DOOR**

Our premium variant is the absolute highlight for your vehicle. We offer you electronic closing at the push of a button. The necessary impulse can be given by our radio key or the external door button. An electronic spindle drive, which you can purchase from the well-known manufacturers, enables this function in combination with our products.



# Premium features that inspire.

Immobilizer

Manual door unlocking

Starting procedure via immobilizer Key insertion/ ignition starter lock

Central locking system

Electronic door release

LED feedback

Open the door by button push

Lighting on outside fitting

Electronic latch with pull function

Electronic door closing

#### **5500 LATCH**

Our electronic latch is a particularly compact concept with integrated motor and gearbox. It offers more security and convenience through the interrogation of the microswitches.







The specially developed striker is an indispensable additional part for our electronic latch.



#### **LOGIC BOX**

One logic box is required per lock to control the electronic functions.





# Premium Plus\_

#### **KEYLESS**

Keyless functions are understood to mean locking or unlocking the door when approaching or leaving the vehicle. With the remote control key located in the trouser pocket for example, with the need to be actively operated. Even the starting of the vehicle can be done passively by the use of our key insert in connection with a start/stop button.

Depending on the application and your individual wishes, we offer practical options for integrating keyless functions into your vehicles.



With the **COMING/LEAVING HOME** feature, you can define what should be controlled in your vehicle when locking and unlocking. A practical example of this is light activation on the vehicle for a certain period of time or the sounding of the horn.

**KEYLESS-ENTRY** is another very convenient function that can enable automatic unlocking when the user approaches the machine with the vehicle key.

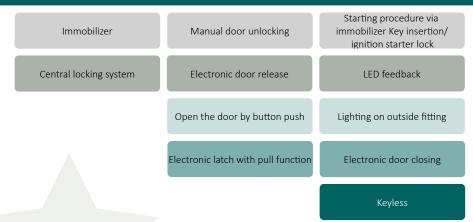
**KEYLESS-START** enables keyless starting of the vehicle engine. To begin the starting process, all you have to do is press the start/stop button (and usually apply the brake at the same time for safety).



**KEYLESS-GO** is the combination of keyless entry and keyless start, which offers you absolute convenience. The vehicle key, depending on programming (automatic locking when removed), only needs to be carried by you and no longer operated by hand.

PREMIUM

## The ultimate- our top functions



If the driver does not think about the key, we have reached our goal. Access to the vehicle is convenient only if the key does not have to be actively operated.

#### START/STOP BUTTON

The start/stop button is necessary for the keyless start function or keyless go function (keyless start + keyless entry).

Since every vehicle interior is different, there is no standard start/stop button. Each product is customized and is usually chosen by the customers themselves.



#### **INDOOR AND OUTDOOR ANTENNAS**

Depending on the application, indoor and outdoor antennas are required. The number of antennas depends on your requirements and the specific vehicle conditions.



#### SENSORS

We currently offer an external fitting with integrated sensor technology. This enables the recognizing of



touches and is therefore essential for the keyless entry function.

When the deer handle is touched, the latch is uplested and ass

When the door handle is touched, the latch is unlocked and access to the vehicle is granted. The application is particularly power-saving- the components only respond when touched and do not permanently search for communication partners.

# Symbol directory



Anti-rotation protection



Can-Bus



Child protection



Clipsable



Colourfast



Customized



Customized key code



Direct release



DLP-Premium key code



DLP-Standard key code



Door installation



Dust and splash-proof



Electronic



Emergency unlocking



Glass installation



Hood installation



Immobilizer



Indirect release



Inner handle



Inner release



Keyless go



Keyless



Latch cover



Lockable



Main lock



Main and secondary lock



Mechanical



Metal installation



Microswitch



Non-lockable



One Key System



Remote control key



Reversible key code



Rotors with Antifricor coating



Safety device



Screw fixing



S-Profile key code



Striker bolts



Tube



U-bolt



U-bolt



128 bit encryption

### DI Pedia - electronics



#### **PAIRING PROCESSES**

Decide for yourself whether you would like to have our electronic products, such as the remote control key, taught or whether this process should take place on during the production process or at the end customer. There are different possibilities to carry out the pairing process between keys and logic box. Depending on your circumstances and your wishes (security aspect and required flexibility), different components are needed. In the following, we will show you two proven processes.

#### PAIRING REMOTE CONTROL KEYS

This process is to be used for locking systems where each vehicle contains its own 128-bit secret key. The central locking components (CDL logic box + remote control key) are paired with a vehicle at the end of the production line. DLP offers special barcode identification tags with a 128 BIT secret key for this process. These are able to cover the radio frequencies used worldwide.

You need a wide barcode reader (90.00 mm) for the pairing process.

Two radio USB sticks are required, which are connected to the PC at the same time. This is done independently of the radio frequency.

For the pairing process, we provide special diagnostic software for the PC which transfers the respective secret key code to the remote control key and save it on the key.

As soon as the pairing software is installed, you can start programming the remote control key (max. 20 pcs./vehicle).





USB-stick

Identification tag

#### PAIRING OF THE IMMOBILIZER

Our master key is used to learn or unlearn the immobilizer on the remote control key or the CDL electronics. The master key can be used for several vehicles and any number of keys. The master key contains a numerical code (secret key) which is individually coded.

This system offers you flexibility and security. Even at the end customer, lost or stolen keys can be deleted of from the vehicle electronics and new keys can be programmed. Your customers does not need to contact a service employee, as he can program a new key on his own.







Master key

Diagnostic software

#### **SERVICE**

Due to our long-term electronics partner we are able to implement a wide range of possibilities in the electronic sector.

#### MOBILE SECURITY

We offer you mobile access to important vehicle functions. You can lock and unlock the vehicle with your own online service or conveniently check the vehicle status via your PC.

#### **UP-TO DATE**

We can implement an update capability so that your software is always up to date. Simple firmware updates via radio enable this function.

### **DLPedia**

#### **A**CTUATOR

We refer to the 12 or 24 volt motors as actuators.

#### **A**NTIFRICOR

Antifricor® is a proven combination system for optimizing friction, wear and lubrication of components moving against each other. It has a positive effect on the service life of the friction parts. Our latches with Antifricor-coated rotors are low-maintenance.

#### **A**NTI-ROTATION PROTECTION

This feature prevents our latches from turning when being fixed into position.

#### **B**OLT ADJUSTMENT

When installing our cabin latches in the door, it is very important to pay attention to the correct position of the striker bolt in the door frame.

#### CAN BUS SYSTEM (CONTROLLER AREA NETWORK)

Bus systems are line systems for data transmission between various components. Electronic systems have to communicate with each other and are networked via control units, e.g. CAN bus systems, in which all components connected with each other.

#### CDL- CENTRAL DOOR LOCKING SYSTEM

The central locking system allows simultaneous locking and unlocking of all doors and usually also of the flaps (tailgate, side flap) of a vehicle by operating one of the latches or by remote control key.

#### CLOSING

Closing means the movement of the open door into closed position until the latch is locked.

#### **C**USTOMIZED

The symbol "King" means that the product was designed individually for a customer and is not free for sale.

#### **C**YLINDER

The cylinder is part of an external fitting into which the key is inserted for locking or unlocking.

#### **D**EFLECTION

The deflection changes the actuating direction of the respective external fitting, e.g. by pressing by using the push button of the external fitting, the deflection pulls on the latch.

#### DIRECT RELEASE

Our locks can be supplied with direct actuation. This means that the outside fitting is placed directly above the latch and when actuated, presses directly on the latches release lever.

#### **D**LP KEY CODE

Our DLP keys are milled from four sides.

#### **D**LP Cylinder System

Our new key generation is milled with an outer track as known in the automotive industry. With this we can offer you a wide range of key codes.

#### **D**URABILITY

We guarantee the longevity of our latches by performing cycle tests.

#### **D**UST PROTECTION

Our fittings are tested against dust penetration according to known standards.

#### **E**MERGENCY UNLOCKING

Emergency unlocking is the mechanical unlocking with the mechanical key in the event of a power failure.

#### **E**XTERIOR FITTINGS

We define all handles that are mounted outside the vehicle as exterior fittings.

#### FREEWHEEL

Freewheeling means that you can operate a handle in the locked state, but the door remains closed.

#### GASKET

Rubber parts used as protection between the handle and the glass pane or door are called gaskets.

#### INNER RELEASE

On latches with direct release, the driver can unlock the latch directly from the inside by pulling the release lever of the latch.

#### IP PROTECTION CLASS

The protection class of mechanical casings and electrical enclosures are defined by the IP symbol and a two-digit code number. The first digit indicates the protection against contact or solid particles (dust), the second digit the protection against liquid ingress.

#### **K**EYLESS SYSTEM

Keyless is a comfort locking system for your vehicle where the key no longer has to be actively operated, e.g. unlocking the door and starting the engine.

#### LOGICBOX

This component is the control centre for all electronic functions.

#### LOCKING

During the locking process, the rotors of the latch are blocked to prevent the door from opening.

#### **M**AIN LOCK

When locked, the latch is located in the main detent.

#### **M**ICROSWITCH

A microswitch is an electrical switch that is used, for example, to check the status of a latch (locked or unlocked) and transmit it to the logic box.

#### **M**OUNTING PLATE

A mounting plate is used to screw our latches and exterior fittings to a door.

#### **O**PEN

We are talking about opening the door after unlocking the latch.

#### **O**NE KEY SYSTEM

Our goal is to be able to operate all lockable components around your vehicle with a single key.

#### **P**AWL

A pawl is a form-fitting counterpart to the rotor, which prevents the rotor from turning back. Releasing the pawl allows the rotor of the latch to move again.

#### REMOTE CONTROL KEY

A key with various functions which can be controlled from a distance via radio.

#### NDIRECT RELEASE

We speak of indirect release when the outside fitting is positioned so far from the latch that it must be released via a rod, cable or Bowden cable.

#### **R**EVERSIBLE KEY

This is a well-known key that has been proven in the construction and agricultural machinery industry for decades. It is a reversible key that offers a limited number of locking variations.

#### **R**FID

The abbreviation stands for radio frequency identification. By integrating an RFID crypt transponder in our key, the transponder reader recognizes whether the key is authorized.

#### ROTOR

A latch is equipped at least one rotor and pawl. The rotors hold the locking bolt in the closed state.

#### SFT

When we speak of a set, we mean the combination of several individual products in one set article number.

#### SECRET KEY

This is a secret key code that can be used to program electronic products. There is usually an individual secret key for each vehicle.

#### **S**ENSOR TECHNOLOGY

Electronic components with touch detection have a sensor that wakes up the electronic to perform the authorization of a key. This reduces power consumption.

#### SECONDARY LOCK

According to the ECE-R11 standard, the additional use of a pre-lock to the main lock in the latch is necessary for the main door latches.

#### **S**AFETY DEVICE

The door can be locked from the inside using the safety device on the latch to prevent unauthorized access from the outside.

#### **S**PACER

For mounting our handles in glass, we have developed spacer bushes which are placed in the cut-out of the rubber gasket during installation. These minimize the load on the glass and protect it from damage.

#### **S**PLASH WATER PROOF

Our fittings are tested against water penetration according to known standards.

#### **S**TRIKER BOLTS

Our accessories include the striker bolts which are installed in the door frame. The rotors of the latch surround the striker bold and hold the latch in position.

#### UNLOCKING

During the unlocking process, the rotors of the latch unblock the striker. The opening of the door is possible afterwards.



# DLP facts and figures



#### **300 EMPLOYEES**

At our site in Wuppertal, we currently employ around 300 people. Of these, 76% are permanent employees.



#### **OUR CUSTOMERS**

DLP operates worldwide and our locking systems are well known. We supply most major manufacturers.



#### **EXPORT**

We export 75% of our goods. Our products are on the roads, on the tracks and also in the air.



#### € 37,6 MILLION IN SALES

Despite the global corona pandemic, we succeeded in making 2021 our most successful year in terms of sales.



#### **OVER 9,100 SHIPMENTS ANNUALLY**

We ship over 13.000 packages containing our products annually. That's almost 36 shipments with an average of 51 packages per day.



#### LOCKING SYSTEMS PER YEAR

We produce 2 million locking systems every year. That's over 7.000 units every day.



#### **1860 FOUNDATION**

Our company was founded in 1860 by Dietrich La Porte in Voerde Germany, and soon specialized in the production of locks and HANDLES for the furniture and construction industry.



#### **COMPANY HEADQUARTERS**

DLP's current headquarters is in Wuppertal, Germany, and we will be expanding in 2022 with the addition of an adjacent building.



#### **ENVIRONMENTAL PROTECTION**

We care about our environment and do our best to protect it and continuously improve our processes for its benefit.





#### **DIN ISO 9001**

DLP has been certified according to DIN ISO 9001 since 1999. This ISO 9001 certificate ensures compliance with the highest quality standards for all processes in production, development, purchasing, sales and distribution and distribution.



#### ÖKOPROFIT

In December 2008 we could make the first step on the way to DIN EN ISO 14001 by achieving the Ökoprofit award. This award was given to us because we contribute to the sustainable preservation of the environment through several measures. Each year, DLP saves 200,000 kWh of electricity and 51 tons of carbon monoxide through these measures. Therefore, we make an important contribution to preserve the environment!



#### **CODE OF CONDUCT**

For many years, we have been living in a constantly changing society. Our corporate guidelines guarantee all our employees, suppliers and customers that we adhere to the guidelines of the "Global Compact" and that equal opportunities, fair dealings, anti-corruption and the protection of our environment are our highest priorities!



#### **DID YOU ALREADY KNOW?**

DLP **promotes the health** of its employees by using job bikes.

We use **sheep** instead of lawnmowers to maintain the surrounding *green spaces*.

Many employees remain loyal to the company throughout their lives - **from training** to retirement.

We are one of the pioneers in heating with wood chips.

Did you know that we were founded in **1860** and at the beginning of our own production we manufactured *furniture latches*?

# Special **Projects**

#### **TO KNOW**

Our products can be used in a variety of ways. There are always exciting projects where DLP is chosen as the specialist for locking components.

Our products are not only suitable for construction and agricultural machinery, but can be used in very everyday areas.

#### Babboe cargo bike

OUR HANDLE OPENS THE HOOD OF THE CARGO BOX

In 2005, Babboe BV was founded in the Netherlands by a group of parents who were looking for a good quality and affordable cargo bike. Together with an engineer, they developed the first Babboe cargo bike: Babboe Big, which was launched two years later.



#### Knot cityroller

THE DLP SYSTEM HOLDS THE SCOOTERS
IN THE DOCKING STATION

Since 2016 we design, produce and install docking stations for scooter services. Our mission is to provide sustainable and accessible sharing and charging infrastructure for micromobility services. You don't have to choose between free-floating and docking based - combine advantages of both.



#### Microlino

OUR LOCKING MECHANISM OPENS THE TAILGATE

On average, a car is occupied by only 1.2 people and driven just 35km per day. This means that normal cars are too big for 95% of their usage. Sounds stupid, right? The Microlino is designed to be ideal for daily use, whether it is commuting to work, visiting friends or going shopping.



















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