



# Electric window lifters and door hinges for armoured vehicles



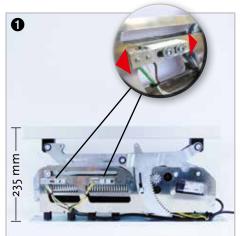


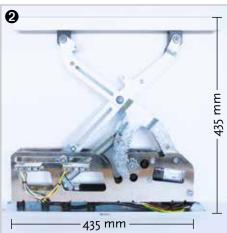




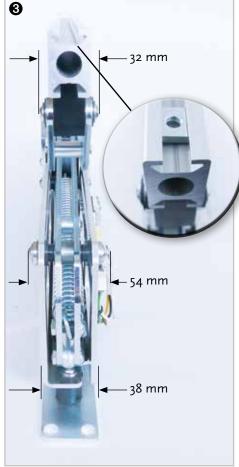


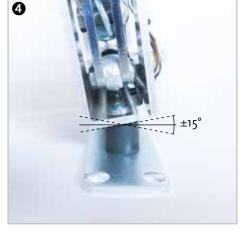
## Electric window lifters











The electrical window lifters we produce feature a compact design (low installed depth) while offering high strength and a short closing time. The open/closed window position can be adjusted to any position using movable terminal switches ①. All

bearing points run "dry", meaning no lubrication is required. The lifting mechanism is fitted with rubber elements onto the doorside fastening rail ②. These have a shock-absorbing effect and also allow tilts to be compensated. On the window-side fastening, push-

in slot nuts **3** allow easy installation of the window pane. The frame size is unaffected by the lifting force and does not change even with heavy window panes. To check the installation situation, 3-D models are available in neutral data format.

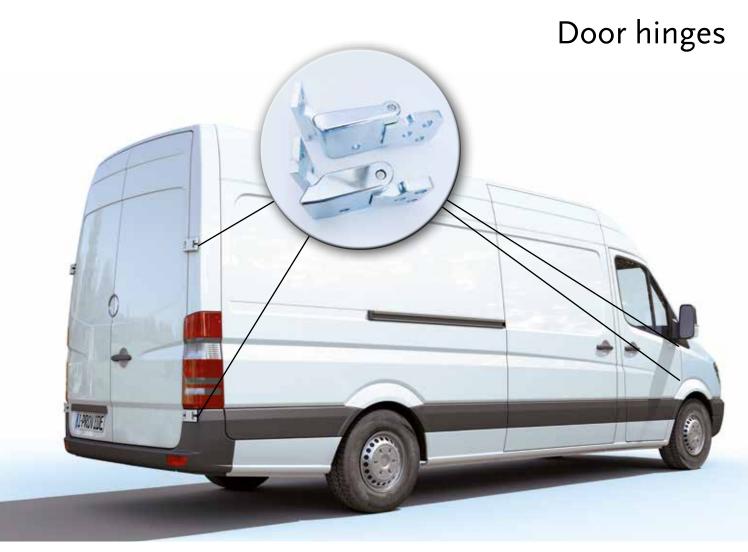
#### Technical data

Window lowering:	200 mm
Closing time with the window fully open:	2.5 S
Window pane weight:	up to 80 kg
Net weight:	4.8 kg
Connection voltage:	12 V/24 V
Window lifter protection class:	IP44
Control box protection class:	IP66
Control box made from cast aluminium (L $\times$ W $\times$ H):	100×65×35×mm

#### Advantages

- Simple assembly
- Compact dimensions
- Powerful
- Robust construction
- Short window closing time
- Adjustable terminal switches
- Maintenance-free
- Quiet operation
- Tried and tested hundreds of times over







The hinges we produce are made from high-strength steels and effectively protected from corrosion with a galvanic coating. The pivot points have plain bearings and are maintenance-free.

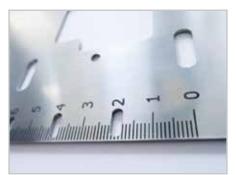


Using 3-D CAD data ①, the hinges can be precisely adapted to the installation space available. In addition to our standard range, we also develop and produce to order in accordance with customer specifications.

### Standard range

- Toyota LC76/LC78/LC79/LC200
- Toyota Hilux
- Toyota Avalon
- Mercedes Benz Sprinter front/ rear doors, 180° opening angle













# i-provide – Your supplier of mechanical components based on drawings, samples and 3-D data models.

As well as producing components/ assemblies for the armoured vehicle sector, our company also focuses on the production of machine-manufactured precision parts. We supply quantities of products ranging from single pieces to medium-sized series of several thousand pieces. Depend on a versatile and reliable partner for whom cost-effective production strategies, product quality and adherence to deadlines are the number one priority. Extensive production capacities, a modern fleet of machinery and CAD/CAM integration throughout

mean that we can respond quickly to customers' demands, even urgent ones.

Put us to the test. We look forward to hearing from you!

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#### Our services at a glance:

CNC turned parts, CNC milled parts, 3-D milled parts, metal and plastic prototypes, laser welded parts, bevelling parts, weld designs, laser cuts, flamecut parts, sheet metal parts and rapid prototyping parts, laser sintered parts

(SLS), stereolithography parts (STL), vacuum moulded parts, wire and sink erosion parts, injection moulded parts, pressure cast parts made from aluminium, galvanising, chrome plating, anodising, powder coating, painting, curing, hard anodising, hard chrome plating, etc.

