

Elkosta offers from its bollard product family a wide range of solutions for entries, where pedestrians may enter unhindered but vehicle traffic is to be stopped. Due to their attractive designs the bollards can be used in inner city surroundings for city security and traffic management. Applications can range from temporary closing of city centres, but still allowing vehicles with permission to pass, to real estate properties with high security needs. Elkosta products are widely used for military sites, government buildings, embassies, banks and city centres.

## "Different Types And Many Features"

The crash bollard M30 is designed for high security applications and has a height of 1000 mm. All Elkosta motorised bollards can be supplied with different control features or can be integrated into existing security systems. For user safety, optical and acoustic warning devices as well as induction loops and photo beam systems are available.

Crash bollards share a rigid steel tube as a blocking element and are available in different sizes. The lowered bollards adhere to bridge class 60, so even the heaviest wheeled vehicles can drive over them safely. All movable bollards are equipped with an integrated hydraulic drive. The advantages of this drive technology are maximum power transmission and working reliability under most adverse weather conditions. During power failure the bollards can be lowered manually. The blocking width can be varied by the number of bollards in a row. Up to five bollards can be operated with one common control unit.

## AT A GLANCE

- Vehicle crash-tested to internationally accepted standards
- Robust construction with heavy gauge material and high tensile steel
  Fast operating times
- Easy installation due to ready-to-install
- bollard unit and separate control box
   Shallow foundation
- Optional Emergency Fast Operation (EFO)
  Installation in all climate zones possible
- Reliable operation and low maintenance
- Operation of up to five bollards with one
- common control unit
- Traversable in lowered position according to bridge class SLW 6
- ▶ Blocking element with optional top
- ▶ lighting
- Override facility for manual lowering.
- Optional accumulator for emergency operation during power failure











STANDARD TECHNICAL SPECIFICATIONS			
Design	High security bollard in compact style with integrated hydraulic aggregate and separate control unit for up to five bollard units.	Control Box	Control unit configuration Standard/Plus:  HxWxD = 400x400x200 mm, IP 66 (for single bollard unit)  HxWxD = 600x400x200 mm, IP 66 (for double and triple bollard unit)  HxWxD = 600x600x200 mm, IP 66 (for quadruple and penta bollard unit)  Control unit configuration Vario:  HxWxD = 600x400x200 mm, IP 66 (for single and double bollard unit)  HxWxD = 600x600x200 mm, IP 66 (for triple up to penta bollard unit)  Control unit configuration Vario RO 1:  HxWxD = 800x400x300 mm, IP 66 (for single and double bollard unit)
Impact Load	667 kJ (7.5 t @ 48 km/h) Crash test certified according to PAS 68:2013 V/7500[N2]/48/90:0.0/0.0 IWA 14-1:2013 V/7200[N2A]/48/90:0.4	Control Cabinet (Optional)	HxWxD = 800x600x200 mm, IP 66 (for triple up to penta bollard unit)  Control box installed in outdoor control cabinet complete with rain cover, hygrostat, thermostat, heater and outdoor coating  HxWxD = 1000x800x400 mm + 200 mm socket (for control unit configuration Vario)  HxWxD = 1200x1200x400 mm + 200 mm socket (for control unit configuration Vario)
Blocking Element	Diameter: 355 mm, 16 mm wall thickness with screwed on top plate	Weight	Approx. 870 kg incl. Metal housing
Blocking Height	1000 mm above finished floor level	Colour (Standard)	Blocking element: RAL 6005, 7016, 7030, 7035 or 9010. Bollard top plate: galvanised finish. Cover plate: galvanised finish. Metal housing: galvanised finish. Metal housing frame: galvanised finish. Installation frame: galvanised finish
Emergency Operation	Bollard remains in the raised position during power failure and can be lowered manually. Accumulator and rechargeable battery pack for one raising movement (RO 1) with charged accumulator (optional)	Colour (Optional)	Blocking element other RAL colour Bollard top plate in RAL colour of blocking element Cover plate in RAL colour of blocking element
Operating Times	Raising: approx. 5-6 seconds Lowering: approx. 3-4 seconds Emergency fast operation (EFO): approx. 2-3 seconds raising (with optional accumulator)	Optional Finish	Blocking element with stainless steel sleeve and stainless steel top plate
Wheel Load	100 kN according to SLW60 – DIN 1072	Temperature Range	-20°C – 65°C Optional: Heating for up to -30°C
Drive	1.4 kW nominal power, 400 Volt AC, three phase, 50 Hz		
Hydraulic Fluid	Mineral oil HLP 22 or biodegradable oil Plantohyd 22 S, non-hazardous to water		
Control Unit	PLC in control box for wall installation inside a building, control voltage 24 V max. Distance between bollard Control unit: 50 m		











## STANDARD TECHNICAL DRAWING











