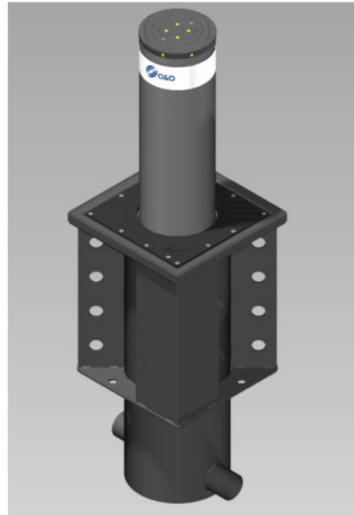




ANTI-TERROR AUTOMATIC HYDRAULIC BOLLARD OAK 800.4



- **K4 equivalent**, based on FEM simulation by accredited third-party Laboratory according to PAS68:2010 7500/50/N2, including ASTM2656:2007 M30 (**ex K4, SINGLE bollard**) and IWA14-1:2013 Blocker V/7200[N2A]/48/90
- **Anti-terrorism protection with SINGLE bollard**
- Independent hydraulic pump for each bollard: in case of pump failure, the other bollards keep working
- Easy access to hydraulic pump for simplified servicing, protected with anti-tampering switch sensor (option)
- Easy removal of complete internal structure
- Impact resistance: up to **730 000 J** (calculated)
- Standard rise time: \leq **7.0 s**
- Lowering time: typ **4.0 s**
- Max operating frequency: up to **2 000 op./day**
- MCBF: **3 000 000** cycles
- Sensors for bollard positions: fully up (CDS-K) and fully retracted (CDS, CDS-K)
- Obstacle sensing, configurable (with/without movement inversion)
- Bollard top cover with LED lights and buzzer
- Interfaces for remote control (CDS-K)
- Available in two versions:
 - **Standard**: bollard will open in case of power loss
 - **Security SCT**: bollard will stay up even in case of power loss. It is possible to lower the bollard by means of a security mechanical key.

MECHANICAL	
External diameter, nominal	275 mm
Bollard height	800 mm
Max underground depth	1140 mm
Bollard tube material	S355 (Fe510) or AISI 304/316
Bollard tube thickness	10 mm
Total bollard weight	~260 kg
Finishing	Cataphoresis, powder paint or stainless steel ¹
Colour	Blue grey RAL7031 standard, other colours on request
Foundation	Reinforced concrete, ~1000x1000x1400mm
Flange	Cast iron, cataphoreris black
Top cover	Cast iron, cataphoreris black, with LED lights and buzzer

ENVIRONMENTAL	
Operating ambient temperature	-20 °C .. +60 °C (down to -40 °C ²)
Operating humidity	up to 100%
IP grade	IP67
Salty mist resistance	480h (ISO 9227:2012); 1000h (ISO 9227:2012) option AISI316

ELECTRICAL	
Control unit	CDS or CDS-K
Power	1-phase 230 VAC +- 10%, 50-60 Hz
No. of controllable bollards	Max. 4 for each control unit (CDS), max. 6 (CDS-K). Parallel control wiring possible for driving many groups of bollards or by RS485/TCP/IP (option)
Power consumption	0.55 kW for each bollard (CDS: max 2.10 kW, CDS-K: max 3.10 kW)
Local/Remote control	<ul style="list-style-type: none"> Digital inputs Radio remote control RS485, TCP/IP (option, CDS-K only)
Signalling	LED lights and buzzer on top, programmable digital outputs
Sensors	Open passage, Close passage (CDS-K), Overpressure/Obstacle, Anti-tampering switch (option)
IP grade	IP54
Operating ambient temperature	-20 °C .. +60 °C
Operating humidity	up to 95%, non condensing

OTHER	
Applicable norms	PAS68:2010 7500/50/N2 IWA14-1:2013 Blocker V/7200[N2A]/48/90 ASTM2656:2007 M30 (replaces DoS/DoD K4) European Machine Directive/European Low Voltage Directive/ European EMC Directive

¹ option, AISI304 or AISI316

² with integrated TERMON heater