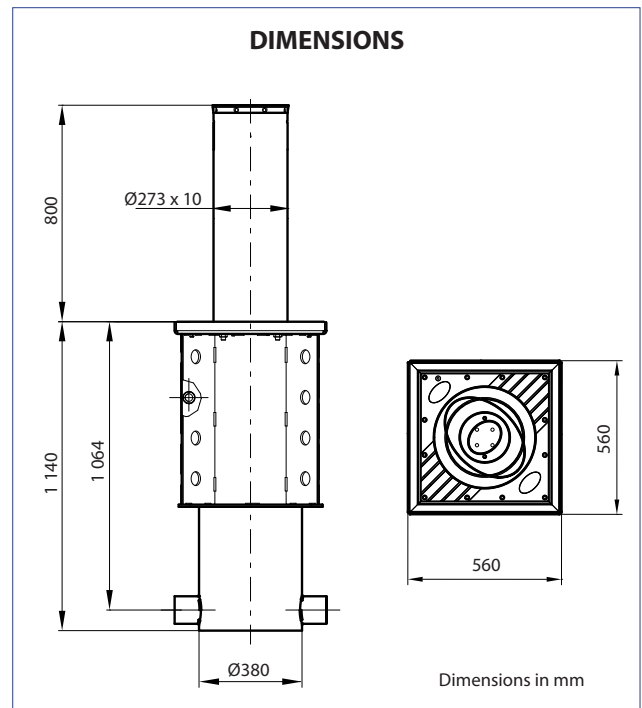


PRODUCT DATASHEET

OAK 800.4

Anti-terrorism automatic hydraulic bollard

Crash-tested and certified by accredited third-party Laboratory according to IWA14-1:2013 with rating V/7200 [N2A]/48/90:5.5, equivalent to PAS68:2013 with rating V/7500 [N2]/48/90:5.2



• Automatic hydraulic bollard with certified anti-terrorism protection

- Independent hydraulic pump for each bollard, access for simplified servicing, anti-tampering sensor (optional)
- Break-in resistance: **800 000 J**
- Impact resistance: **150 000 J**
- Work time: rise time: **≤ 7.0 s**; lowering time: **~ 4.0 s**
- Max operating frequency: up to **2 000 op./day**
- MCBF: **3 000 000 cycles**
- Sensors for bollard positions: fully up and fully retracted
- Obstacle sensing, configurable (with/without movement inversion)
- Bollard top cover, cast iron. LED lights and buzzer (optional)
- Interfaces for remote control (RS485 - TCP/IP, optional)
- In case of power loss:
 - Standard version STD: bollard goes down
 - Security version SCT: bollard stays up, bollard can be lowered by means of a mechanical key accessible through the ground flange.

REFERENCE STANDARDS

IWA14-1:2013 with rating V/7200 [N2A]/48/90:5.5 / PAS68:2013 with rating V/7500 [N2]/48/90:5.2

2006/42/CEE (EN60204-1 (2006)) • Machinery directive

2006/95/CEE; 93/68/CEE (EN60204-1 (2006)) • Low voltage

2004/108/CEE; 93/68/CEE (EN61000-6-3 (2003); EN61000-6-2 (2003)) • Electromagnetic Compatibility

99/5/CEE (ETSI EN 301 489-3 (2002) + ETSI EN 301 498-1 (2005); ETSI EN 300 220-2 (2006) • Radio set

(tested with the electronic control unit CDS-K)

TECHNICAL-ENVIRONMENTAL MAIN FEATURES

Tube height	Ø273 x h.800 mm (± 3 mm) x th. 10mm, steel Fe 510 (S 335 JR) *
Buried structure	560 x 560 x h.1 140 mm (excluded pump)
Foundation	Reinforced concrete
Excavation pit	1 500x1 500x1 400mm
Break-in resistance	800 000 J
Impact resistance	150 000 J
Tube treatment	Cataphoresis and coating RAL7031 standard, other colour on request
Passive visibility	Reflective film H=100 mm **
Flange	Cast iron, cataphoresis black
Top cover	Cast iron, cataphoresis black
Actuator	Hydraulic, biodegradable oil
Power	230 Vac ±10%, 50-60 Hz
Working time	rise time: ≤ 7.0 s (50 Hz); lowering time: ~ 4.0 s
Working temperature	-40°C *** +60°C
Operating humidity	up to 100%
IP grade	IP67
Manual operation	During power failure: - Standard version STD: bollard goes down. - Security version SCT: bollard stays up, bollard can be lowered by means of a mechanical key accessible through the ground flange.
Net weight	250 kg
Gross weight	260 kg

* option, AISI304 or AISI316

** Customizable (optional)

*** With integrated heater active

ELECTRICAL FEATURES

Control unit	CDS-K
Power	1-phase 230 Vac ±10%, 50-60 Hz (115 Vac with optional adapter)
IP grade	IP54
Working temperature	-40°C +60°C
Operating humidity	up to 95%, non condensing
Bollard driven	Max. 4 for each control unit. Parallel control wiring possible for driving many groups of bollards.
Power consumption, max	0.55 kW for each bollard
Power consumption, idle	28 W
Signalling	On the top with high intensity LEDs, and buzzer
Sensors	Open passage/bollard down, closed passage/bollard up, Overpressure/Obstacle, antitampering switch (optional)
Local/Remote control	- Digital inputs - Radio remote control (receiver included, transmitter optional) - RS485, TCP/IP (optional)

For system composition and installation refer to the regulations in force in the country where the system is being installed.

ITEM SPECIFICATION

Anti-terror automatic hydraulic bollard. Crash-tested and certified by accredited third-party Laboratory according to IWA14-1:2013 with rating V/7200 [N2A]/48/90:5.5, equivalent to PAS68:2013 with rating V/7500 [N2]/48/90:5.2. Rod dimensions: Ø273x800xth.10mm, steel Fe 510 (S 335 JR). Break-in resistance up to 800 000 Joules. Standard rise time ≤7.0 s. Lowering time ~ 4.0 s. IP67. Operating ambient temperature up to -40°C +60°C. Power supply 1-phase 230 VAC ± 10%, 50-60 Hz. Control unit compatible with RS485 and TCP/IP. Max. 4 bollard for each control unit, with possibility of parallel control wiring to drive many groups of bollards. Max power consumption 0.55kW for each bollard. Independent hydraulic pump for each bollard: in case of pump failure, the other bollards keep working. Easy access to hydraulic pump for simplified service. Obstacle detection, configurable (with/without movement inversion). Available in two versions:

- 1) Standard: bollard goes down in case of power loss;
- 2) Security: bollard stays up even in case of power loss. It is possible to lower the bollard in emergency by means of a mechanical key, through the ground flange.



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