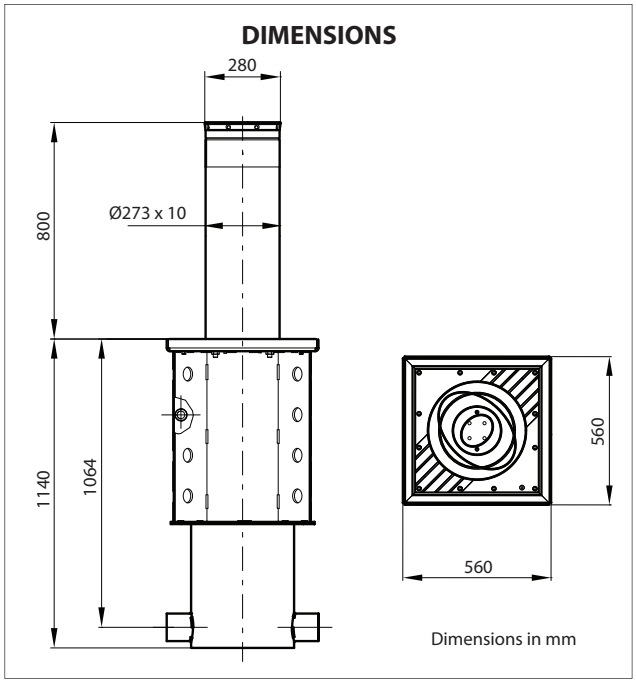
22/10/2019
EN

PRODUCT DATASHEET

QK-CT273800LK4

Anti-terrorism automatic hydraulic bollard

K4 equivalent antiterrorism bollard, based on dynamic simulation carried out by accredited third-party Laboratory to international standards ASTM2656:2007 M30 - PAS68:2010 7500/50/N2



- **Automatic hydraulic bollard with certified anti-terrorism protection**
- Indipendent hydraulic pump for each bollard, access for simplified servicing, anti-tampering sensor (optional)
- Break-in resistance: **800 000 J**
- Impact resistance: **250 000 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)

- In case of power loss: 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*
ASTM2656:2007 M30 (replaces DoS/DoD K4)
2006/42/CEE (EN 60204-1:2006) *Machinery Directive*
2014/35/UE (EN 60335-1:2012; EN 60335-1/A11:2015; EN 60335-2-103:2015) *Low voltage*
2014/30/UE (EN 61000-6-3:2006; EN 61000-6-2:2005; EN 61000-6-3/A1:2013; EN 61000-3-2:2014; 61000-3-3:2013) *Electromagnetic Compatibility*
2014/53/UE (ETSI EN 301 489-3 + ETSI EN 301 489-1; ETSI EN 300 220-2) *Radio Equipment Directive (tested with the electronic control unit QK-CE220CTD)*

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	250 000 J
Tube treatment	Cataphoresis and coating RAL7015 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 *** +70°C
Operating humidity	up to 100%
IP grade	IP67
Manual operation	During power failure: - 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, AISI316
** Customizable (optional)
*** With integrated heater active

ELECTRICAL FEATURES

Control unit	QK-CE220CTD
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)

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, ASTM2656:2007 M30 (replaces DoS/DoD K4). 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 +70°C. Power supply 1-phase 230 VAC ± 10%, 50-60 Hz. 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).

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.