CAME ÖZAK

HBD HEAVY DUTY BOLLARD TECHNICAL SPECIFICATIONS

CERTIFIED

M50 (K12)
M40 (K8)
ASTM F2656-07

Power : Standard 380V 3-Phase 50/60 Hz2,2-5,5 kW motor (depending on the number of bollards in the set to be fed). Opt. 220V, 110V 1-Phase 50/60 Hz (for some models/sizes only), optionally 24V DC for emergency situations in case of power failure.

Control Pack : 24V DC powered and PLC control unit placed in power unit cabinet. Solenoids 24V DC (Ops.12V DC / 220V AC)

Speed : Standard Operation ~2.5 - 5 sec. (ascend/descend, depending on the number of bollards in the set to be fed).
Emergency raise up by optional hydraulic accumulator ~1,5 sec.

IP Rating : IP 55 - Hydraulic Power Unit,
IP 67 - Electronics (optional), protection with housing/box,
IP 68 - Hydraulic Piston

Crash/Impact Rating : M50 (K-12) & M40 (K-8) crash tested and certified according to ASTM 2656-07 (HBD 275 H 90 only).

Axle Load Resistance : 70T

Hydraulic Cylinder Unit : Heavy duty, double acting 50 mm diameter, honed at H8 quality pipe, dust sealed hydraulic cylinder.

Hydraulic Power Unit : Strengthened industrial pump,
45-60 lt (depending on the number of bollards in the set to be fed) oil tank capacity with magnetic metal collector and particle filter.
Built-in oil level and oil temperature indicators and oil level sensor with low oil level warning.
30-80 Bar pressure (depending on the number of bollards in the set to be fed);
10mt R2 (double wire braided mesh) reinforced hydraulic hose.
Interconnecting hoses for multiple bollard installations will be supplied.

System : Down, Up, Emergency and external sensor inputs/outputs (e.g. Loop Detector, Beam Detector, Signalization, Remote Control, etc.).
System alerts with an audio signal during lowering and raising operation.
A loud siren output in case of alarm or emergency.
Can be lowered or raised automatically in case of emergency (user's preference, optional at no cost), programmed to stop as standard.
Can be lowered and raised manually in case of power failure or during the maintenance service with manual pump and manual discharge feature.
Automatic raise up mode deploys (optionally with synchronized loop detector) the bollard after the vehicle has passed over.

Power Unit : Motor, hydraulic pump and solenoid valves are contained in an easily accessible hot-dip-galvanized and electrostatic powder painted cabinet with a built-in lock lid. (Opt. Stainless Steel Cabinet)
Cabinet Dimensions: 1000 x 570 x 1200mm (WxLxH)

Underground Structure : **Bollard Anchorage Casing:**
Ø338 - 420 mm steel casing hot dip galvanized and structured for maximum strength.
Casing is designed so that no vehicle crashing effect can displace it after embeddedor installed into the ground. Ground assembly is supported with bars.

Hydraulic hose and cable entryopenings enabling to use either of the three directions as per

hyraulic power unit position and site conditons.
Designed for easy access to hydraulic hose and cable connections.
Ground mounting plate with installation holes for bolt type easy ground fixing.
Includes cut-out for connection of submersible pump for rainwater drainage.

Main Housing:
ø324 - 406 mm hot dip galvanised steel, structured to provide main housing for the bollard cylinder.
Bollard cylinder pivoted with and moves through replaceable 5 rails (inner railing) made of special non-metal and positioned with equal distances from each other for maximum rigidity/minimum material fraction.

Contains the hydraulic cylinder lower connection.

Thanks to the bollard anchorage casing, the main housing can be easily replaceable together with the bollard cylinder in case of a damage in any kind.

Above Ground Structure :

Bollard Cylinder (impact blocking unit) :
Ø270 and 324mm hot-dip galvanised steel pipe with 10mm wall thickness and eccentrically 65-90mm solid steel (providing higher resistance compared to pipes with 40mm wall thickness) and composite infilled impact surface, colored with electrostatic powder coating in RAL9006 as standard (other RAL colors are optionally available).
Demountable bollard top plate made of aluminium with360° visible red flashing LED indicators.
Furnished with red, white or yellow reflecting strips compliant to "E" standard.
Special star-formed, vertical 10 mm solid steel infills for evenly distributed impact absorption.
Bollard cylinder pivoted with and moves through replaceable 5 rails (outer railing)made of special non-metal and positioned with equal distances from eachother for maximum rigidity and minimum material fraction.
Contains the hydraulic cylinder upper connection.

Road Surface Plate:
15 mm steel hot-dip galvanised, colored with elctrostatic powdercoating in RAL9006(other RAL colors are optionally available).
Easy disassembly by its bolt type connection.
Dust sealant / wiper seal.

Control System :

Manual Control Button Unit:
Provided with an IP67 CRM yellow box and 10mt cableincluding 3 switches for downwards, upwards, stop (optional emergency operation), equipped with built-in LED visual indications.

Compatibility with Access Control Systems:
Can be utilized through, card reader, finger print, biometric systems and similar any kind of access control systems (by third parties).

Battery back-up for power-off situation :

Battery unit with capacities below when fully charged is optionally available.

Nr. of Bollards per HPU	Minimum Nr. of Movements
1&2	100 (50 deploy / 50 retract)
3	90 (45 deploy / 45 retract)
4	80 (40 deploy / 40 retract)
5	70 (35 deploy / 35 retract)
6	60 (30 deploy / 30 retract)

Optional Features and Accessories :

Traffic Lights (red-green), Traffic Light Pole, Loop Detector (double/single antenna), Beam Detector, 220V, 110V motor, 24V DC for emergency situations in case of power failure, Remote Control (receiver and transmitter are 3 channels), UPS, Photocell Sensor (receiver+ transmitter with 50cm height pole), RBCONT. UNIT.V.001 Control Unit, Intercom, External Buttons, Emergency Submersible Pump,Hydraulic Accumulator for Emergency Fast Raise-up,OilCooler, Oil Heater,Heater for Electronic Components, Powered Audio Signal (siren),PLC Diagnostic Monitor,IP67 box (for PLC, SMPS, connectors etc inside power unit).

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Installation	:	Easy Installation with C30 grade concrete. Possible to install multiple units. In case of multiple unit installation, 1200mm gap between the bollards is recommended for M40 certified installations. For M50 certified installations; minimum 2 bollards shall be installed keeping the gap between bollards at 800mm.

** Design and specifications are subject to change without notice.*

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