



B680H

Hybrid Hydraulic + brushless VDC motor automated technology barrier for continuous heavy duty use.



No major maintenance is required up to 2 million cycles. The system is suitable for vehicular and pedestrian access because it features an adjustable electronic anti-crushing safety, a device that guarantees reversing on obstacle detection, stopping and locking of the beam in any position, and a convenient manual release for use in case of black-out or inefficiency in addition to an optional battery backup. One single model covers the range of 1 to 8,3 meters beam and left/right hand installation, with high selectable opening speed from 1,5 seconds for 2m beams to less than 6 seconds for 8m beams. The switching power supply and the power management grant a high energy efficient system.



B680H ITEMS OF SPECIFICATIONS:

The automated system consists of

1. A strong steel centerpiece, "H" shaped, bearing the barrier load and equipped with hydraulic pump, motor, pistons, electronic board, absolute encoder, shaft, spring.
2. a removable external case acts as a cover, equipped with optional integrated semaphoric (red/green) flashing lamp
3. A white aluminum beam with optional reflectors, equipped with a rubber profile on the bottom and a red plastic cover on the top, able to accept an optional red led strip.

Operator:

- The centerpiece consists of the upright profile, made in steel HE UNI 5397 - 160 A Series treated with Epoxy Zinc Primer FZ, with a hydraulic unit and two plunging pistons attached to it.
- Hydraulic unit is made by hydraulic pump with an oil immersed brushless DC motor.
- Pistons are connected to a balancing lever keeping the pistons and beam balanced thanks to a balance spring fitted on one of the two plunging pistons.
- The balancing lever with two models of springs can balance beams from 1 meter up to 8,3 meters in length.
- Springs are designed to have an expected life up to 2.000.000 cycles for beams up to 5 meters and 500.000 cycles for beam from 6 to 8 meters.
- The electronic control equipment is also assembled on the upper side of the upright profile inside an airtight housing, and the entire unit is protected by the external covering compartment.
- All is powered by the high efficiency switching power supply that is on the top part of the centerpiece. The maximum power needed to achieve its performances is 240W.
- A DIN bar, for external accessories mounting, is also attached to the centerpiece.

External cabinet

- Resistance: very suitable for harsh environments, external case is made in steel treated with Epoxy Zinc Primer 60-100 microns and painted.
- It acts as a cover and therefore it is easy and inexpensive to change in case of damage without affecting the barrier structure.
- External case is available in four different colors RED RAL 3020, BLUE RAL 5011, GREY RAL 9006, WHITE RAL 9010 and in optional stainless steel AISI 316L version.
- It can be equipped with an integrated, not protruding, bi-color (traffic lights, red/green) flashing lamp
- It is pre-drilled to allow accessory (e.g. photocells) easy mounting; the holes are not visible because are covered by aesthetic aluminum bars.



Arm

- White aluminum beam with optional reflectors, equipped with a rubber profile that runs along the underside and a red plastic cover that runs along the upper side of the arm, able to accept an optional red led strip;
- Beam profiles are round up to 5,3m and elliptical from 5,3 up to 8,3m in length.
- Beams from 5 meters up to 8,3 meters are obtained by the conjunction of two pieces of the same section to facilitate transport;
- The beams may be easily modified in the field by cutting to a shorter length
- The joint is internal and, once mounted, is invisible
- Optionally the beam could be pivoting or articulated.

Motor

- 36V DC brushless motor, 200W @ 6.000Rpm, in oil bath.
- Absolute encoder driven: mounted directly on the shaft grants optimal control in any position
- Flexible acceleration and deceleration
- Adjustable opening/closing time
- No thermal issues.
- No electrical limit switches.

Barrier Operational Features:

- Hybrid Hydraulic + 36V Electrical Brushless Motor for vehicular and pedestrian accesses
- 100% frequency use - no limitations on number of operations per hour with "Endless Duration Springs".
- No major maintenance required up to 2 million cycles.
- Electronically Adjustable opening and closing speed
- Only one barrier model reaching 1,5 seconds opening and closing speed for 2 meters beam and less than 6 seconds for 8,3 meters beam.
- Only one barrier model for all beam lengths from 1 to 8,3 meters.
- Only one barrier model for both left and right hand applications.
- Instant obstacle detection and inversion possible by integrated absolute encoder and control board for additional safety.
- Automatic Electronic deceleration, based on the chosen speed, before reaching fully opened and closed positions.
- LED strip, running along the beam flashing during movement.
- Flashing bicolor not protruding (red – green) LEDs lamp, integrated into the top of barrier body signaling opening and closing movements.
- Back Up battery compatible for emergency operations.
- Double channel, high sensibility, built in loop detector.
- Multiple interfaces: BUS, G-COM and NET-COM for network connectivity.
- Switching power supply: 100 – 240 VAC 50/60Hz, 240W.
- Removable cover in 4 colors +
- Optional stainless steel INOX AISI 316L



Barrier specifications	
Power supply voltage	100÷240 Vac 50 (60) Hz
Electric motor	Brushless 36Vdc
Absorbed power	240 W
Absorbed current	1,1 A (a 230V)
Motor rotation speed	1000÷6000 rpm
Pump flow rate	3,2 l/min (max)
Electronic deceleration	Absolute Encoder
Operating ambient temperature	-20 + 55°C
Weight	85Kg (65Kg centerpiece + 20Kg cabinet)
Type of oil	FAAC HP OIL
Barrier body treatment	EP SL LF PRIMER ZINC 60-100 MICRONS + Painting
Protection class	IP44
Type of beam	Round or elliptical profile with rubber and predisposition for lights
Dimensions (L x D x H) in mm	469x279x1100

Control Board Operational Characteristics:

Programmable solid state control unit with 2 digits LCD display, to provide reliable and complete choice of control and support for all available access control systems, local or remote push buttons, vehicle ID Systems, remote transmitter units.

Control board is integrated with an absolute encoder mounted directly on the shaft allowing perfect control of the beam in any position and ensuring high accuracy in obstacle detection and inversion response, according to the current European safety standards.

Control board supports PC and MAC computer systems interface through USB port, allowing for updates of the firmware when new versions are released.

Control board provides

- Auto setup for an easy installation.
 - Double channel built-in high sensibility metal mass detector.
 - Three programming levels for greater configuration flexibility of use.
 - Four programmable outputs in 18 different functions.
 - Absolute encoder providing deceleration management, and obstacle detection.
 - 2-Easy BUS port technology for up to 16 pairs of photo cells and other BUS accessories
 - Programmable pause time (from 0 seconds to 4 minutes)
 - Programmable Motor power on 50 levels.
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- Programmable Motor speed on 10 levels.
- Programmable sensitivity for obstacle detection.
- Simple Master/Slave connection for two faced barriers.
- 16-pin connector for G-COM, NET-COM optional boards to allow Ethernet and GSM connectivity for remote barrier control.
- External Battery connector
- Cycles counter and remote request for easy maintenance.
- USB connector for PC communications