BARRIER GATE FOR LEVEL CROSSING ENY-1761

The ENY-1761 barrier has been designed to be used as an entrance and exit barrier in a Level Crossing System. In the absence of energy and depending on the level crossing configuration (entry or exit barriers), the barriers can open/close under the sole effect of gravity.

Its main characteristics are:

- Combination of a motor, with positive electric brake of low consumption, and a compact reversible reducer coupled to the shaft.
- Manual control by removable crank drive, which allows positioning the barrier in the opposite state to that caused by the action of gravity.
- Working mode selector has three positions: AUTOMATIC-CLOSE-HANDLE.
- Adjustable automatic control.
- Opening drive: 6 to 15 seconds.
- Closing drive: 7 to 10 seconds.
- It incorporates a Braking Resistor that allows the soft positioning of the boom in its closed position (entrance barrier) and open position (exit barrier).
- Speed Change Resistor that allows opening/closing time regulation.
- Interlock, in its final positions, by positive brake.
- In case of collision with the boom causing a twist higher than 20 °, it causes breakage of the fusible screws and falls preventing damage to the barrier.
- Over-speed protection, given the characteristics of the reducer, which prevents damage to the barrier components when the system is unbalanced, for example in the event of the loss of the boom.
- Pen integrity check signal.
- System of adjustable cams, mounted on the shaft, which control and monitor the barrier positions (open, closed and intermediate) by means of limit switches with dry contacts.
- Electrical interconnection strip with the Control System of the Level Crossing.
- Easy access to the internal elements that make up the barrier (reducer, motor, cams, limit switches, Resistors, etc.).
- Very low maintenance

REGULATIONS AND TESTS

The ENY-1761 barrier complies with the regulation RENFE/ADIF ET 03.36.529:1996

- ***Electrical Safety:***
  - UNE EN 50124-1:2001 /A1:2003 / A2:2005 / CORR: 2010
- ***Electromagnetic compatibility:***
  - ENE 50121-4: 2015
- ***Climatic tests:***
  - EN 60068-2-1:2007
  - EN 60068-2-78:2013
- ***External protection:***
  - EN60529:1991/A1:2000/A2:2013
  - UNE 20324:93 + E: 2004 + 1M: 2000 + 2M: 2014
- ***Salty fog:***
  - UNE-EN 60068-2-11:2000
  - UNE-EN 9227: 2012
  - UNE-EN 4628
  - UNE-EN 10289
- ***Mechanics (vibration and shock)***
  - EN 60068-2-6:2008
  - EN 60068-2-27:2011

Electrical Characteristics

- Nominal control and power supply voltage: 24 Vdc.
- Command and power operation voltage (± 20%): 19.2 - 28.8 Vdc.
- Operating intensity at nominal voltage, depending on the length of the boom, 10 A maximum.
- Low consumption in idle state (less than 5W).
- Motor of 220W of direct current.
- Activation of limit switches (for opening, closing, speed change) through adjustable cams mounted on the shaft.
- Interconnection terminal: for external control (motor supply control voltage) and barrier status (open, closed, broken boom).

Mechanical Characteristics

- The support column can be supplied in hot-galvanized sheet, using DC01 steel or AISI 304 stainless steel. Both solutions finished in electrostatic polyester paint and RAL 7000 colour (other available upon request).
- Penholder arm and counterweights supplied hot dip galvanized.
- The ENY-1761 can act on booms up to 10 meters length.
- The moment of force on the crank, which is necessary for the manual action of the drive, is 2,66 Nm.
- The barrier, in its final positions ("open" and "closed") is locked by means of a brake and supported by a corresponding stop.
- Working temperatures from -20 ° to 70 ° C.
- Relative humidity from 0% to 90%.
- Protection Degree IP54.
- Dimensions (boom excluded): 500 x 450 x 1050 mm.
- Weight (counterweights and boom holders excluded): 115 Kg.
- Counterweight System allows multiple configurations for the balanced barrier operation (entrance and / or exit), with different lengths of boom and minimum energy consumption.
- Reinforced fiberglass boom with reflective band.
- The barrier´s boom can be optionally equipped with high visibility LEDs, for closed and moving barrier.