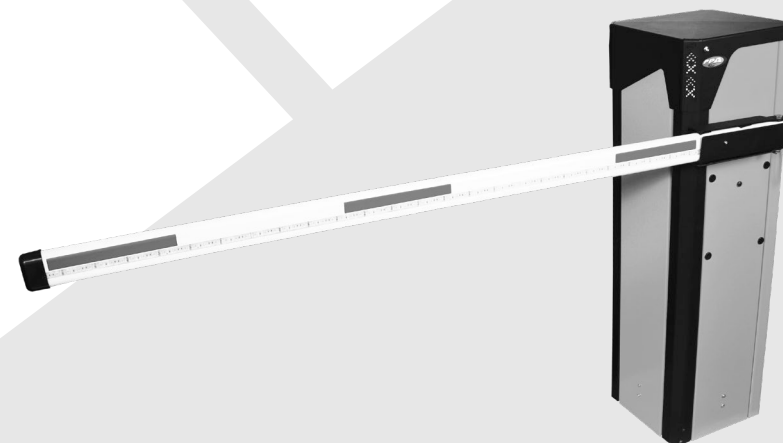




K10 BARRIER

Technical Manual



All images in this manual are for illustrative purposes only.



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ATTENTION:

Do not use this equipment without first reading the User's Manual.

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INSTALLATION PLACE

First, analyze where the barrier will be installed, checking the entire local structure, the floor conditions, the electrical network, the passageway width, ceiling height (if there is one), vehicle flow, and the need for optional accessories.

After that, choose the barrier that best satisfies the needs of the place.

✍ **NOTE:** In places with low ceilings, we recommend using articulated barriers. In this case, contact the factory so it can supply the barrier with the appropriate size to be installed in the specific place.

⚠ IMPORTANT

Make sure there are no obstacles interfering with the barrier opening and closing. If there are any, they will jeopardize the barrier installation and require repairs on the place's infrastructure. Choose the barrier model carefully according to its technical features and the site it will be installed. Check for the need for optional accessories. Calculate the flow of vehicles in the area.

✍ **NOTE:** If the floor does not meet the previous specifications, provide a concrete base to install the cabinet, paying attention to the cabinet base measurements. The concrete base must be 100 mm above the floor level.

Preparing the place:

1. Run a 3/4" pipe through the concrete floor or base from the center of the base to the circuit breaker box installed on site, from where the electrical power to the barrier will come out.
2. Run the power supply and push-button cables through this pipe to where the barrier will be operated. Refer to the table below to choose the wires according to the NBR 5410 standard.

Operator power supply	Cable type and gauge
110V	1 PP cable - 3 x 2.5 mm
220V	1 PP cable - 3 x 2.5 mm

☑ **NOTE:** If using accessories, provide piping and cables as needed. Provide a grounding rod that will be fixed next to the barrier body.

GENERAL FEATURES

- A universal cabinet that allows installing the barrier on any gate side.
- Concealment system for manual unlocking (up to 4.5 m).
- Electronic control board with a frequency inverter.
- Height mechanical stop.
- Activation through mechanical levers (rods).
- Galvanized steel cabinet with anti-corrosion treatment and electrostatic painting that guarantee excellent resistance against weather conditions.
- Limit switch system with encoder.
- Electronic brake.
- Allows installing various accessories (inductive loop, traffic light, photocell, pushbutton, etc.).

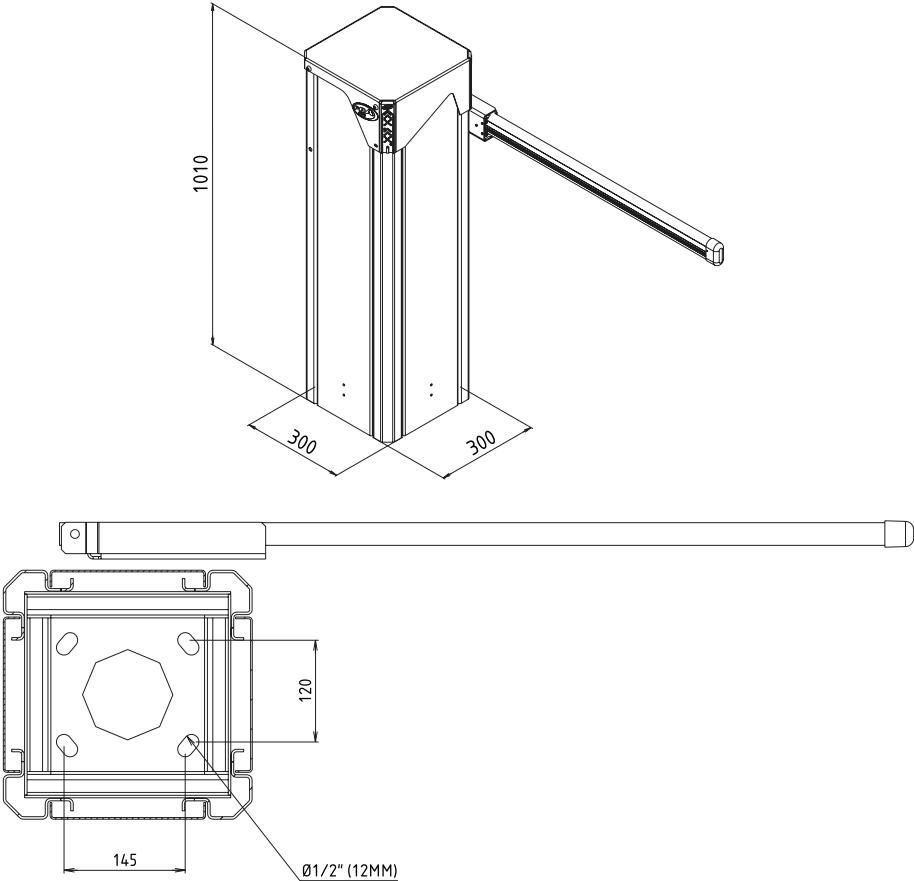
☑ **NOTE:** This product requires installation by an authorized and qualified PPA professional.

TECHNICAL SPECIFICATIONS

K10 BLDC 24V BARRIER

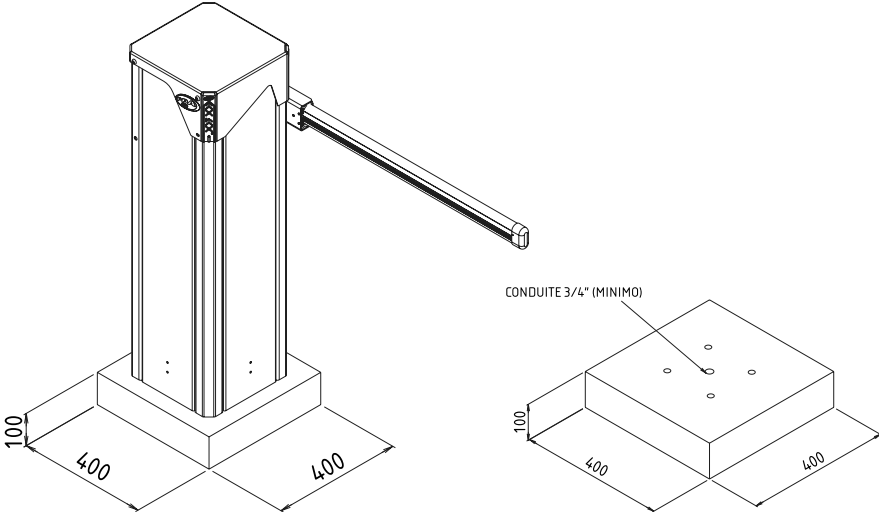
Power	Barrier length	Cycles/hour	Opening and Closing Time (adjustable)	Voltage
45W	2.5 to 4.5 m	Continuous	from 3 to 4 seconds	127 and 220 V

EQUIPMENT DIMENSIONS



BASE CONSTRUCTION TO INSTALL THE CABINET

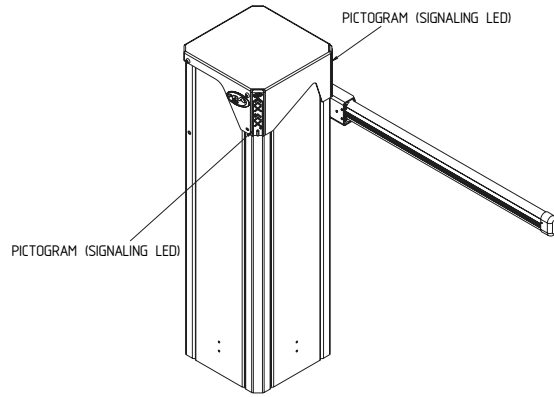
Build a concrete base according to the suggested dimensions.



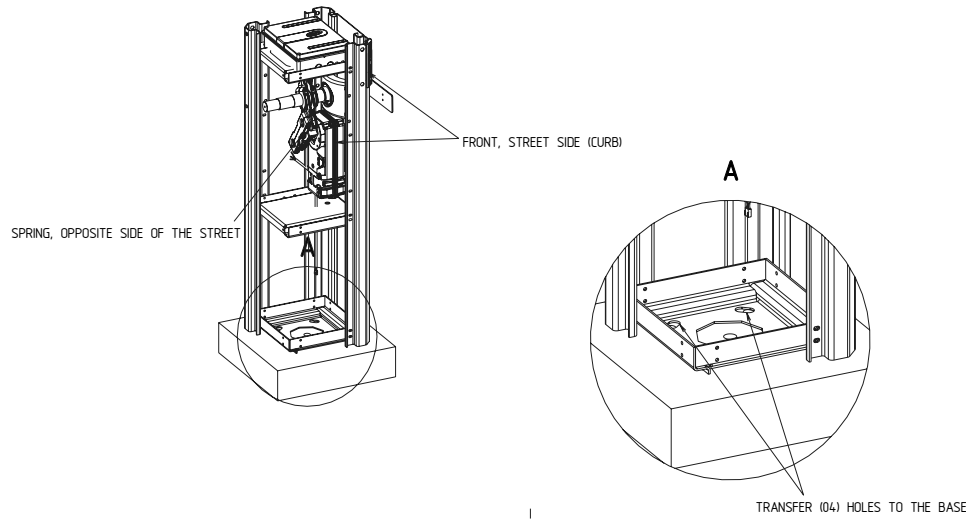
Note: Measurements are in mm. The base must be level to allow better performance and operation for the barrier.

BARRIER INSTALLATION

1. When installing the barrier, note that the pictogram (signaling LED) must be facing the side of the track or where vehicles pass.



2. Position / align the cabinet on the base and mark the holes so that the barrier front (pictogram / signaling LED) faces the curb (street, vehicle crossing).

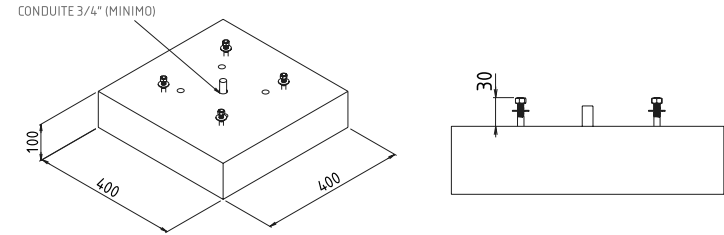


3. Remove the cabinet from the base and drill the holes previously marked.

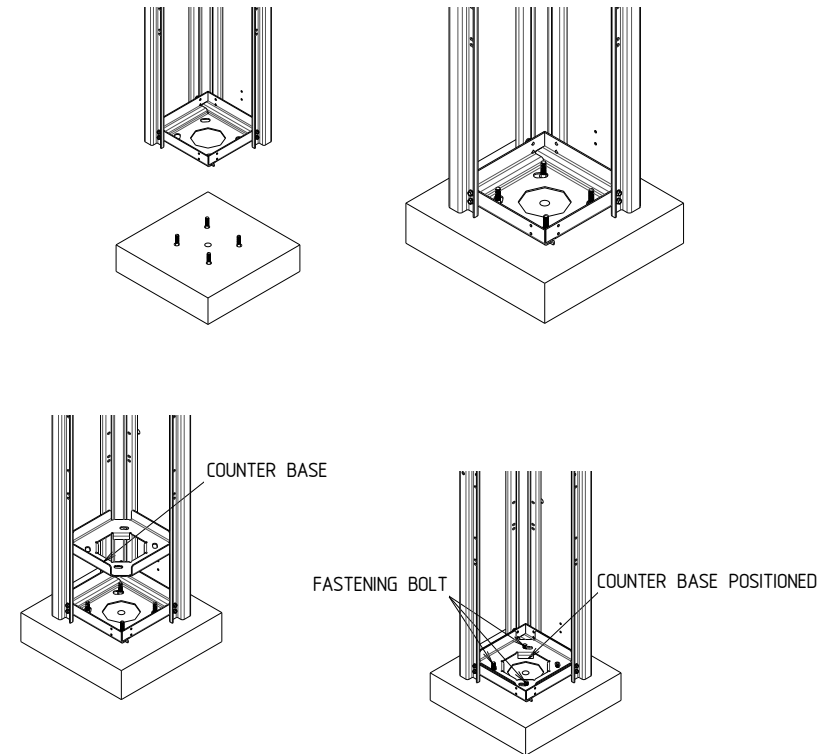
Note: Drill 4 holes with a Ø10-mm drill and at least 80-mm deep.

4. Insert the anchor bolts into the base holes, as shown below.

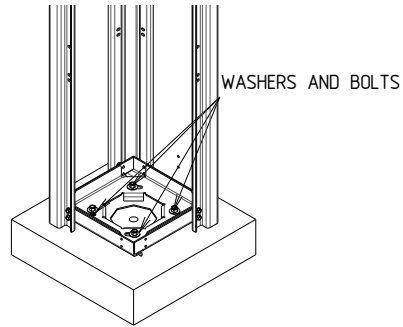
Note: Do not insert the anchor bolts completely; they must be more or less 30 mm above the base.



5. 1. Position the cabinet on the base, and fit the cabinet holes on the anchor bolts.

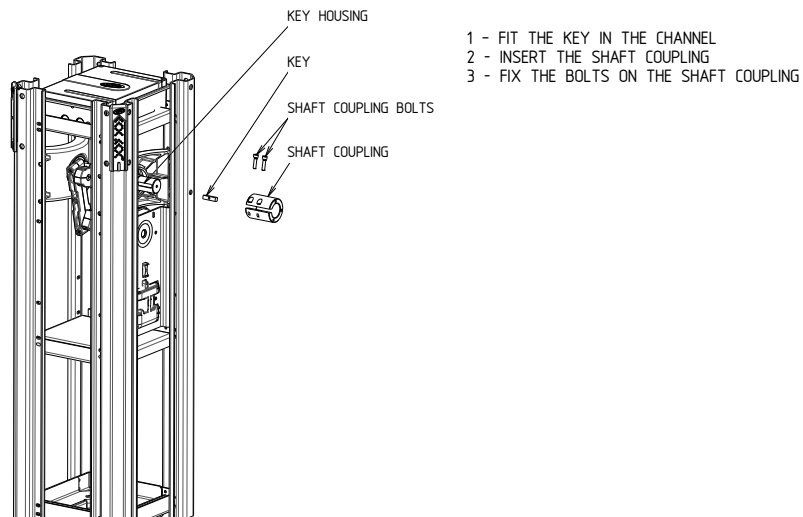


6. 1. Insert the washers and the nuts to fix the cabinet definitely.

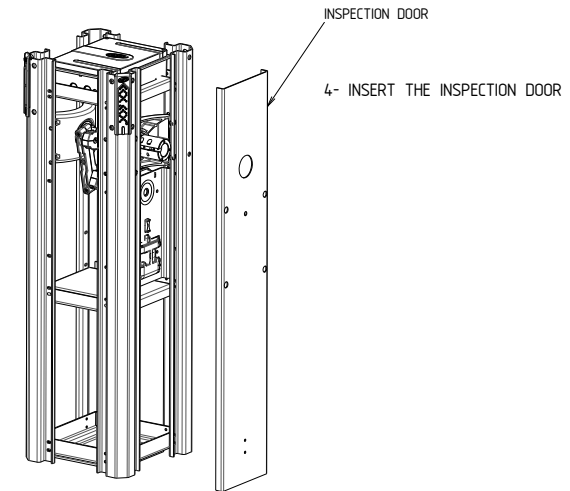


BARRIER FIXATION

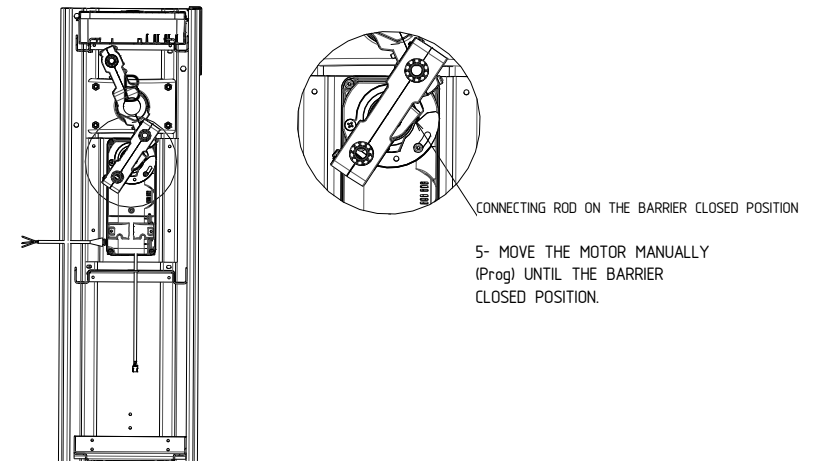
1. Place the key in the channel, insert the shaft coupling, and finally fix the bolts in the shaft coupling.



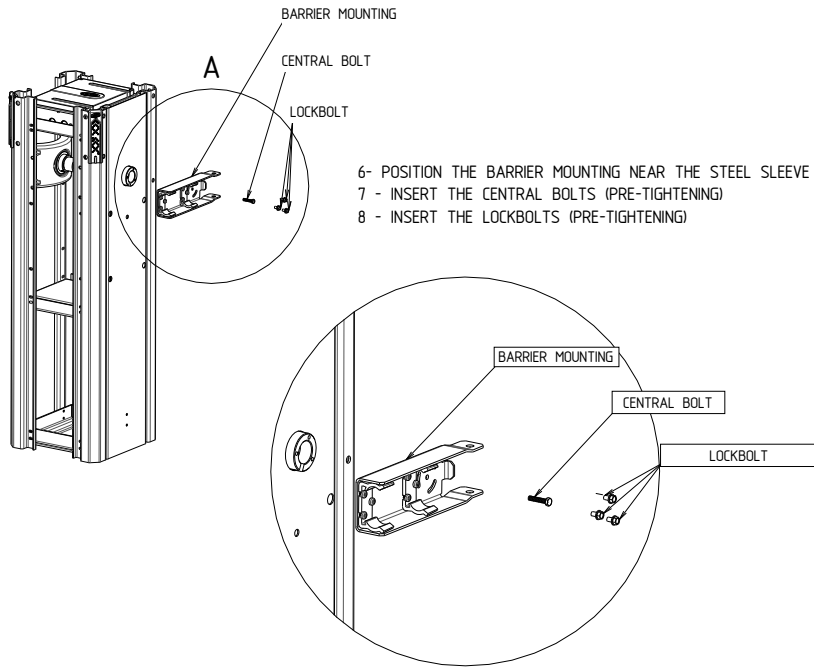
2. Insert the inspection door.



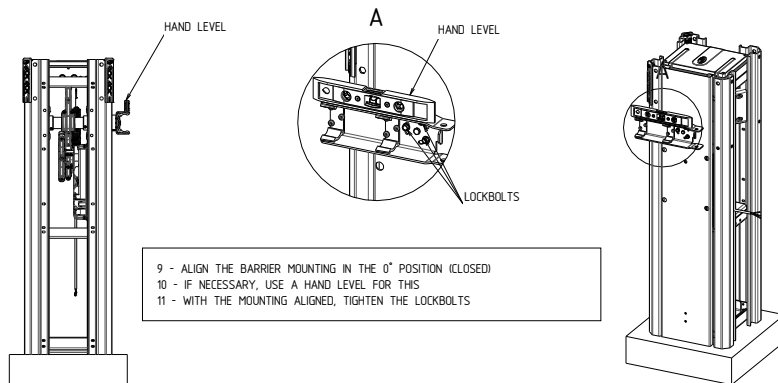
3. 1. Move the barrier manually (PROG) to the barrier closed position.



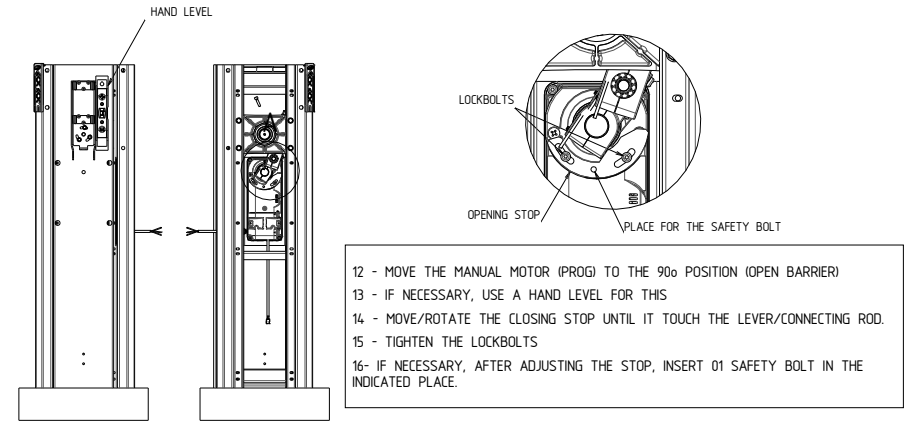
- Position the barrier mounting next to the steel sleeve, insert the central bolt (pre-tightening), then insert the lockbolts.



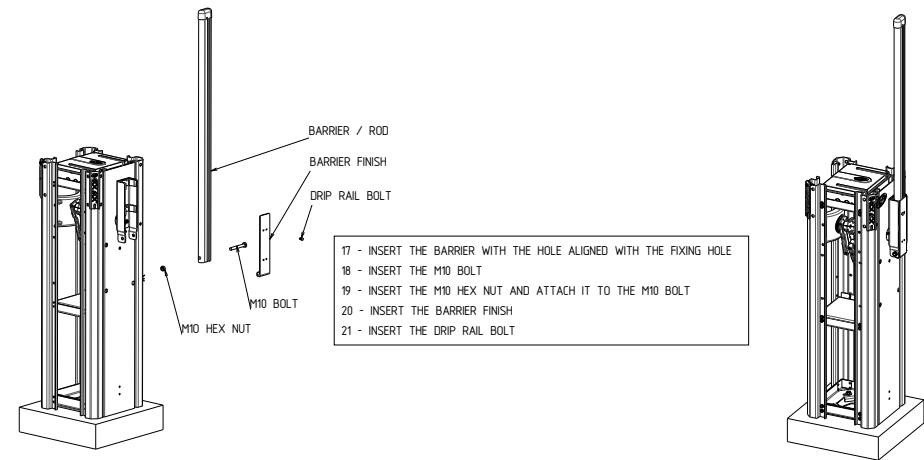
- Align the barrier mounting in the 0° position (closed). If necessary, use a hand level, with the mounting aligned, tighten the lockbolts.



- Move the manual motor (prog) to the 90° position (barrier open), then move/turn the closing stop until it touches the lever/connecting rod, then tighten the lockbolts and finally, if necessary, after adjusting the stop, insert 1 safety bolt in the indicated place.



1. Insert the barrier with the hole aligned with the fixing hole, then insert the M10 bolt, then place the M10 hex nut and fix it on the M10 bolt, then insert the barrier finish, and finally, place the drilling bolt.



8. Power/energize the barrier according to the voltage of the purchased product (127 V or 220 V).

Note: Use 2.50-mm² wires. Use a dedicated circuit breaker, that is, a circuit breaker where only the gate will be connected.

OPERATION

The barrier is operated by a micro-controlled control unit, activated via remote control or any other device that provides a NO (Normally Open) contact.

TRIFLEX CONNECT 24V CONTROL BOARD

The Triflex Connect 24V control board operates with a 32-bit processor with features to control the motor. The processor can manage the entire operator set, such as the motor and encoder, and even receive the code from a radio frequency transmitter (RF). For further information, refer to the TRIFLEX CONNECT 24V control board manual.

TRIFLEX FULL RANGE CONTROL BOARD

The Triflex Full Range control board allows configuring all its parameters through the PROG programmer in three languages (Portuguese, English, or Spanish). It can operate in all PPA operator models with three-phase induction motors.

The control board is also compatible with safe code transmitters with PPA's protocol. For further information, refer to the TRIFLEX FULL RANGE control board manual.

ENCODER SYSTEM (REED SWITCH SYSTEM)

An encoder monitors the barrier position. Also called Digital Signal Angular Positioning Transducer System, precisely controls and monitors the gear reducer's movements.

Therefore, certain positions of the barrier can be recorded in the memory and, from there, enable the control board to control opening and closing. This is done using sensors that inform the movement direction and the barrier position during operation.

Therefore, it is a device responsible for reading, memorizing, and precision of the barrier path.