VISOFLEX
Installation Manual
VFX ZIP

FAST DOORS
VFX ZIP

Dimensions*
Max length: 4.00m
Max height: 4.00m
*others available upon request

Speed
Adjustable opening and closing via frequency inverter, reaching up to 2.0m/s.

Panel (PVC):
Colored: 1.0mm and 1.6mm
Transparent: 1.0MM

1 ZIPPER-type guides system
Ensures max insulation and zero maintenance costs.

2 Communication IHM
Reduces the time and requirement of tools for adjustments and diagnoses.

3 100% Inferior Insulation
Flexible inferior bar with a reversion sensor upon contact with the operator or any object

4 Embedded Photoelectric Sensor
Prevents collisions and misalignment, hence ensuring proper functioning and safety for the operator.

SUMMARY

How to use this manual

The information herein will enable you to install, operate and maintain your Visoflex VFX ZIP door in a way to help ensure max service life and a problem-free free operation.

If any unauthorized modifications are made to the process, or if the steps described in this manual are not followed, the warranty shall be automatically void. In case of modifications on the functional parts, assemblies or specifications in writing that are not authorized by Visoflex, that warranty may also be void. The responsibility for a successful operation and its performance is held by the proprietor of the door.

DO NOT INSTALL, OPERATE OR EXECUTE ANY MAINTENANCE SERVICES BEFORE READING AND UNDERSTANDING THE INSTRUCTIONS CONTAINED IN THIS MANUAL.

If any doubts remain, contact a Visoflex representative or call the Visoflex Customer Service Department + 55 (19) 3936 8100. Always check the serial number (OS) of the door while contacting the representative or Customer Service.

Throughout this manual, the following keywords are used to alert the reader about potentially hazardous situations or ones where additional information to successfully perform the procedure is presented:

WARNING

WARNING is used to indicate the potential of personal injuries within the procedure to be performed.

CAUTION

CAUTION is used to indicate the potential of damage to the product or property damages if the process is not followed as described.

IMPORTANT

IMPORTANT is used to convey critical information to conclude the procedure.

NOTA

used to provide additional information to assist in performing the procedure or door operation, but not necessarily associated to safety.

ABOUT THE MANUFACTURER

VISOFLEX PORTAS E PORTÕES LLC.
Legal Entity No.: 07.205.402/0001-71
Responsible engineer: Roberto Basso: CREA-SP: 5068915660

www.visoflex.com.br
Phone No.: (19) 3936 8100
Email: vendas@visoflex.com.br
R. André Adolfo Ferrari, 104 - Dist. Ind. Nova Era, Indaiatuba - SP - Brasil

Technical Information

Equipment: High speed industrial door for internal and external applications with high flow of forklifts, pallet trucks and other machinery.

Model: VFX ZIP

Detailed description: Door panel with 1.00mm and 1.6mm in width, no hard profiles, photoelectric sensor on the base and the superior part, control board with speed control (controlled opening and closure).

Intended use: Indoor or outdoor environments, according to the design and customer's request. Use not intended for potentially explosive environments.

Door designed for very high daily cycling.

Harsh weather conditions: Resistant to wind loads of up to 40 Km/h.
　　· **Working temperature:** minimum of 05°C and maximum of 70°C.

Weight: Approximately 25Kg/m.

Dimensions: According to the project, limited to 4.0m x 4.0m.

Geared motor set:

Power: 0.75HP
Voltage: Single-phase 220v or Three-phase: 220v, 380v and 440v
Motor protection level: IP65
Max opening frequency (inverter settings): 60Hz
Max closing frequency (inverter settings): 30Hz
Controlled opening and closing speed (via frequency inverter): from 0.3 to 2.0 m/s

VCODER:
Supply voltage: 24Vdc
Consumption (at 24Vdc): 92.5mA Communication protocol: RS-485
Communication speed: 19.200 baud
Battery type: Two CR123 batteries
Protection level: IP 65

Structure and Insulation:

· Side columns with painted steel carbon, with polyurethane-based painting (shaft without paint), or natural stainless steel.
· Intermediary band with a transparent display.
· Total side, inferior and superior insulation.

Door Overview

This illustration should be used for reference only, NOT as part of the installation instructions.

ROLL COVER

TOP INSULATION BRUSH

MOTOR REDUCER

VCODER

MOTOR

COLUMN

CONTROL PANEL
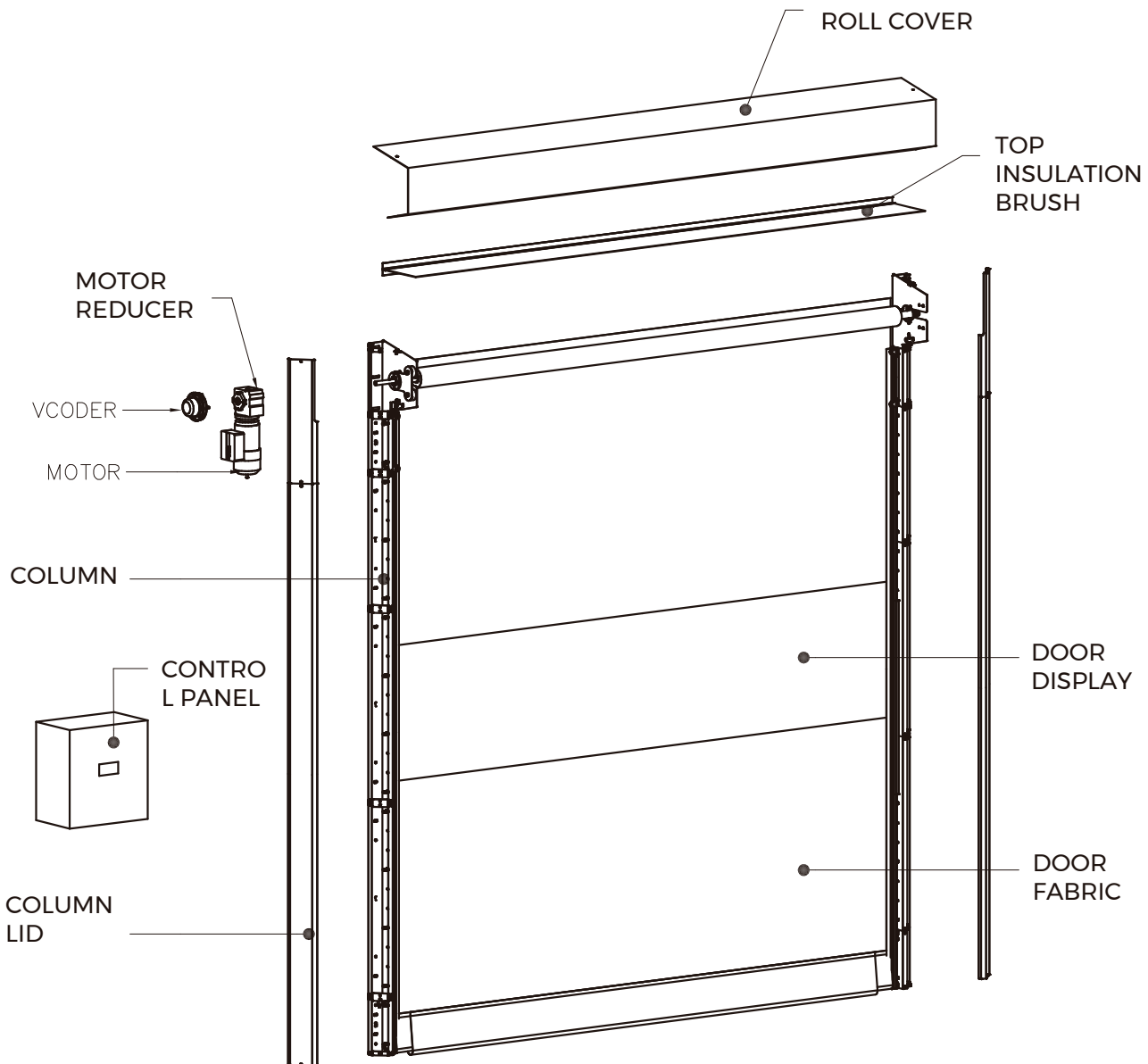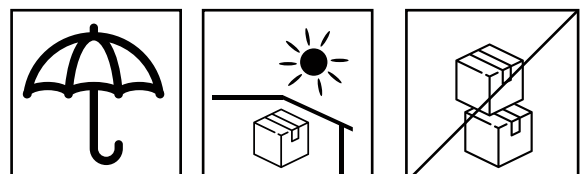
DOOR DISPLAY

COLUMN LID

DOOR FABRIC

Image 1 - Illustrative image of the door components.

⚠ CAUTION

The product is packed at the factory with wooden crates.
Before the door is installed, keep the package in a dry environment, protected from rain and direct sunlight, and do not use it to stack other materials.

INSTALLATION

MECHANICAL INSTALLATION

In order to ensure the proper functioning of your door and the validity of the product's warranty terms, we recommend that the fixing and mechanical and electrical installation be made by Visoflex certified technicians.

BASIC REQUIREMENTS

· A forklift should be provided by the customer, retailer or installer.
· The presence of at least 02 (two) installers is mandatory.

📝 **NOTE**   The installer should be a qualified electrician and all the electrical work should observe the applicable codes. If the installer does not have the proper qualification, an electrician should be present during the installation.

The customer should ensure 100% access for opening the gap during the installation.
· No traffic should be permitted during this stage.

📝 **NOTE**   The following instructions show the front of the door. Left and right sides of the motor are determined by viewing the front part of the door.
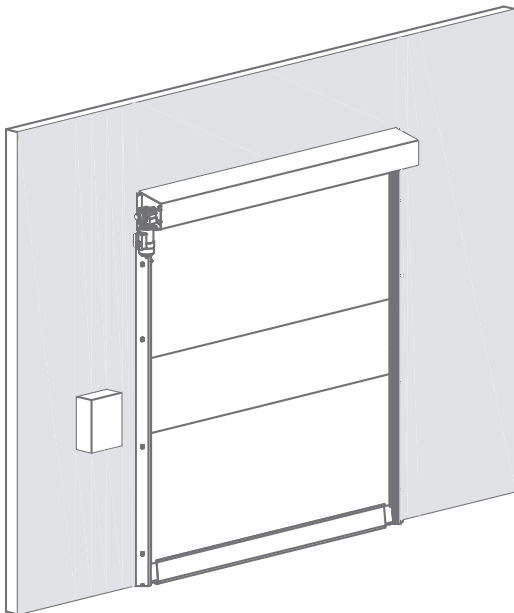

Image 2 - Left motor door
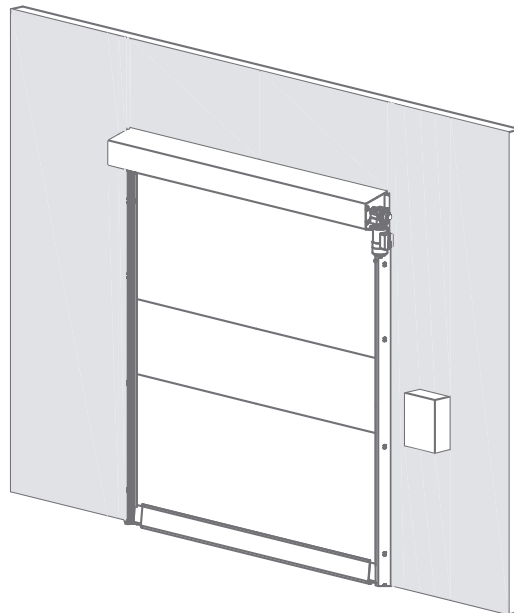
Image 3 - Right motor door

REQUIRED TOOLS

1. Laser Level or level hose
2. Laser level or wall plumb
3. Tape measure
4. Punch
5. ¼" Phillips screwdriver
6. 2.5 mm screwdriver (for terminals)
7. Fixed wrench set from 8 to 22 mm
8. Allen wrench set
9. Grip wrench
10. Needle-nose pliers
11. Side cutter
12. Crimp wrench (for 0.5 to 2,5 mm cables)
13. Hammer drill
14. Professional drill
15. ¼" minimum parabolt steel anchor bolts and respective glass drill (for fixing in masonry)
16. 5/16" threaded bar (length according to wall width) with 02 tinker-type flat nuts and washers (for fixing to panels or walls without structure).

NOTE Refer to the section "Diagrams" for the reference and technical drawings and electrical diagrams.

FIXING METHOD

The surface where the door is to be installed should be strong enough to support the weight of the door, and its components, such as bushings and anchor bolts, should be firmly secured to the surface.

The images show the fixing methods for several types of surfaces. Use the most suitable method for your installation site.

The material required for the installation is the responsibility of the door proprietor or the installer hired. If any doubts remain, call a Visoflex representative or the Visoflex Customer Service Department **+55 (19) 3936 8103.**
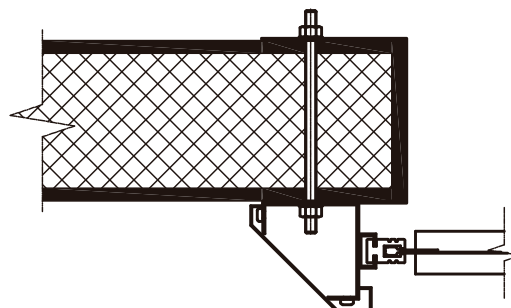

Image 4 – Fixing on an INSULATION PANEL structure
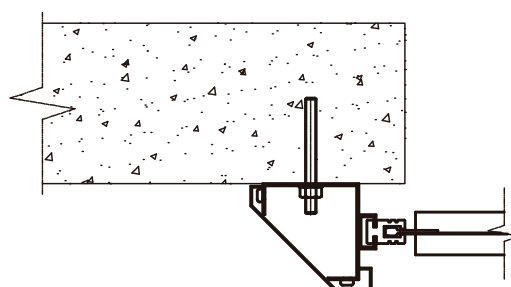

Image 5 – Fixing on a MASONRY structure

⚠ CAUTION

It is not recommended to install the column and the door headers with self-drilling or self-tapping bolts on metallic profiles.
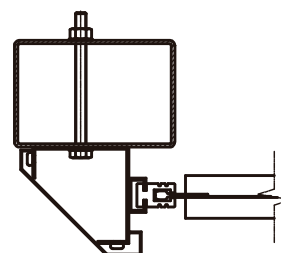

Image 6 – Fixing on a METALLIC structure

GAP DIMENSION CHECKING

1.In order to check the gap measurements, verify the following measurements: AA=BB and CC=DD (image 7).
Compare these with the door manufacturing information found in the tag (image 8) fixed on the door/column. The manufacturing measurement is on the field "measurement (mm)", and the measurement is considered LxH (Length of the gap x Height of the gap).
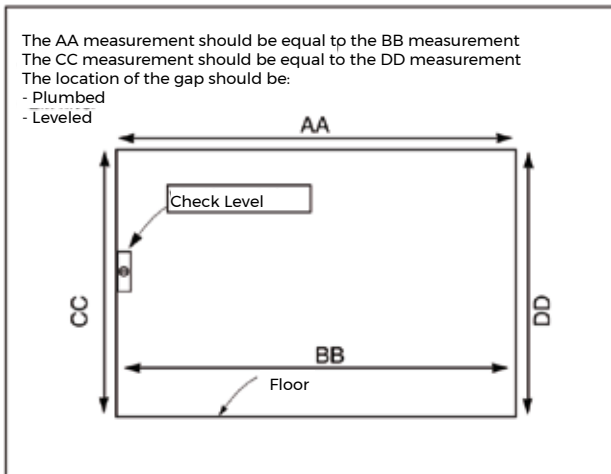

The AA measurement should be equal to the BB measurement
The CC measurement should be equal to the DD measurement
The location of the gap should be:
- Plumbed
- Leveled

AA

Check Level

CC

BB

DD

Floor

Image 7 – Checking the gap measurements

VISOFLEX

Fabricante: VISOFLEX Portas e Portões LTDA.

CNPJ: 07.205.402/0001-71

Email: Rua André Adolfo Ferrari,104 - Indaiatuba - SP

Eng. Responsável: CREA:

Tipo: Porta Rápida Industrial   Modelo:

Nº de Série (OS)   Fabricação.:

Medida (LxA):   Peso aprox.:

Quantidade:

Cliente:

Image 8 – Tag with door information

2. Verify the floor with a level on both sides of the door's opening.
If one side of the opening is larger than the other, it will be necessary to use a stopper below the column in order to level it. Suggestions of methods to ensure leveled columns (with the use of a stopper and a level hose) are illustrated in images 9 and 10.

NOTE   Contact the Visoflex Service Center if the floor has over 25mm of a gap.

Level Line

This dimension should be equal on both sides of the door opening.

Stopper (if required)
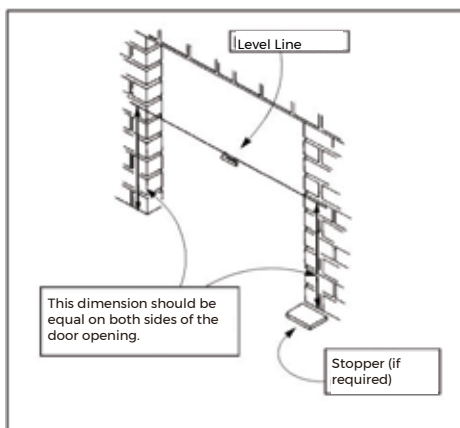
Image 9 - Checking the floor with a level line

This Dimension should be equal on both sides of the door opening.

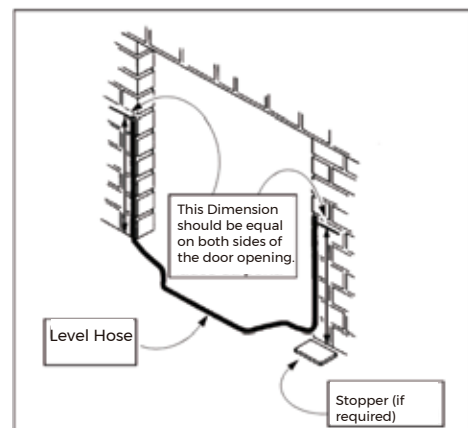Level Hose

Stopper (if required)

Image 10 – Checking the floor with a level hose

COLUMN INSTALLATION

1. The column fixing should be made with the use of a wall plumb and a level hose.

⚲ WARNING

Be particularly cautions while fixing the columns.
Verify if the blocks are filled with concrete for a safe and firm attachment.

⚠ CAUTION

The distance between the columns (image 11) should be in accordance with the measurement specified on the tag with the serial number located on the door panel.

Door GAP

HORIZONTAL ALIGNMENT
NO SCALE
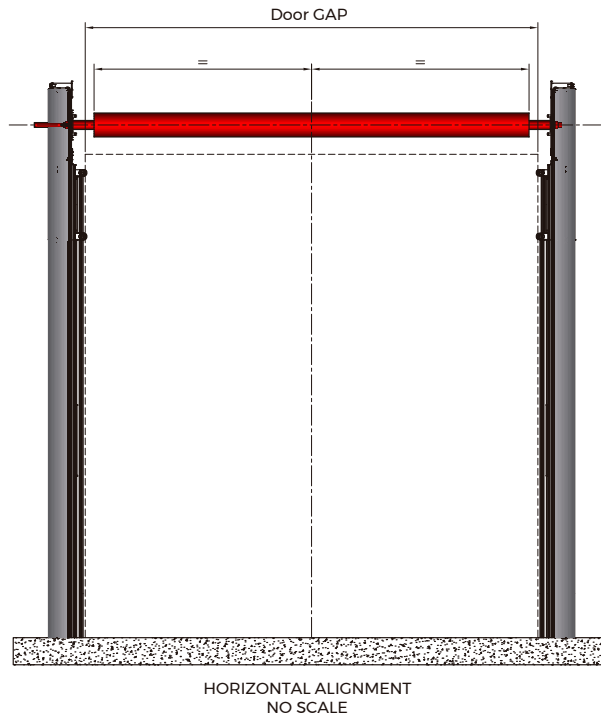
(Image 11)

2. Once the side column is positioned properly, fix it to the wall suitably (refer to the topic "Fixing Methods"). The three anchor points of the headers must be fixed and each column should have at least 5 fixers. (image 13).

3. Assemble the other side of the column, fixing it to its wall as was described for the first side.

📝 NOTE

Use proper washers for the bolts so the columns are secured and do not present looseness or noise over time. Use a tape measure to ensure that the alignment and length are maintained between the columns and on the superior and inferior ends of each column.

PLUMB THE ENTIRE SET

SIDE ALIGNMENT
NO SCALE
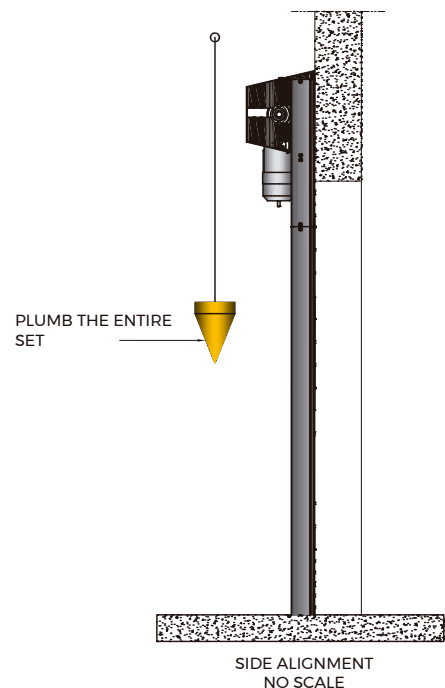
(Image 12)

SHAFT HOISTING

⚠ **CAUTION**

Be careful while handling the shaft!
While using the forklift, tie it to the pallet. In the event of a collapse, the material may be severely damaged.

(Image 13)

Raise the door by using a forklift or a hoist up to the fixing position.
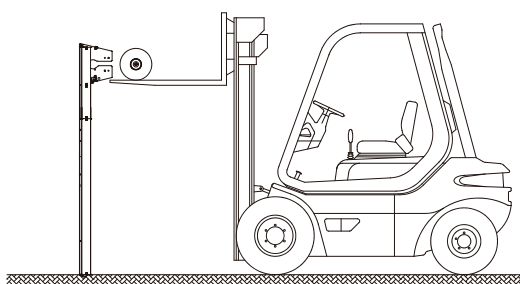
(Image 14)

Fit the shaft on the header housing.
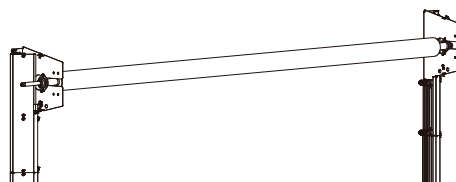
(Image 15)

Centralize the shaft in a way that the gaps on the sides (X) have the same distance.

Door GAP

HORIZONTAL ALIGNMENT
NO SCALE
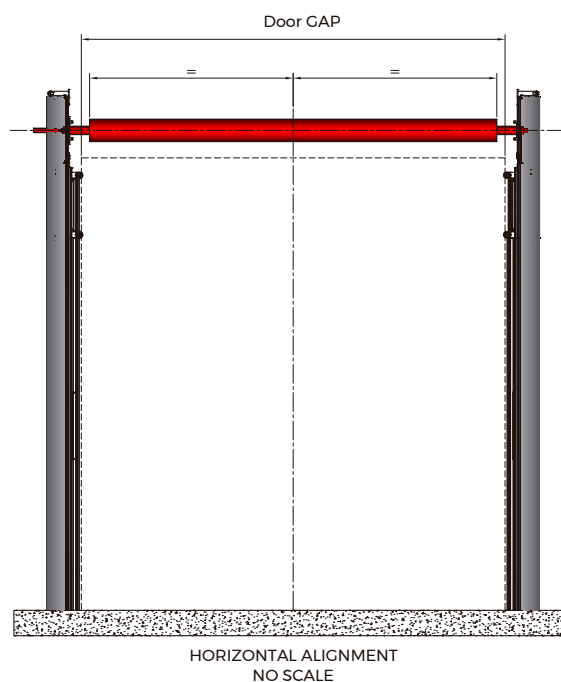
(Image 16)

Verify if the shaft is duly centered and install the bearings and the rollers (refer to diagram "Door Shafts Installation").

BEARING — INNER FACE OF THE HEADER

ROLLER COLLAR

ROLLER

INNER FACE OF THE HEADER

SHAFT/ROLL

TIP LIMITER REST IN RELATION TO THE ROLLER.

(Image 18)

📝 NOTE

Place the shaft roller with the side where the locking collar fits on the outside (image 18).

💡 WARNING

Ensure that the bolts are firmly secured. Failing to check this may bring problems in the future.
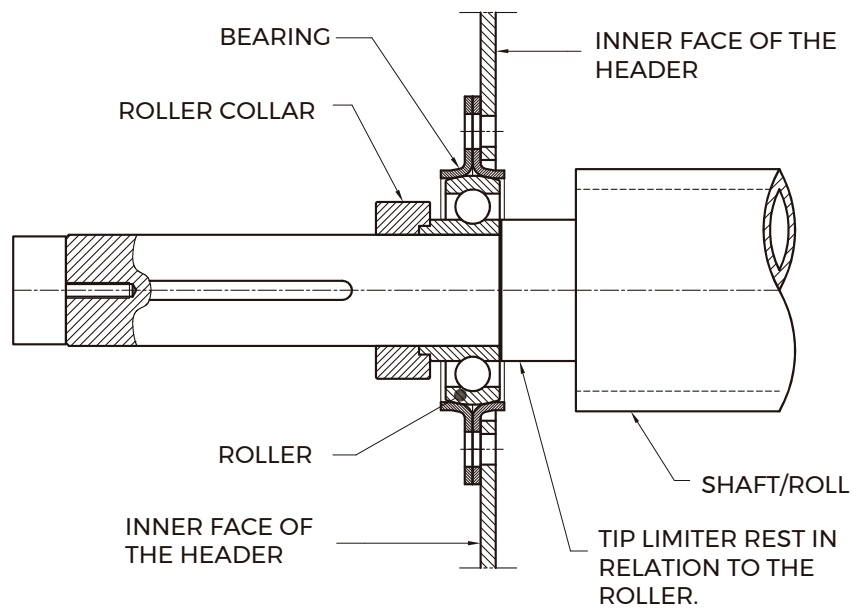
After centralizing the shaft and leaving a gap on the sides, tighten the locking collars clockwise.

(Image 19)

Tap it with a punch on the collar's blind hole until it locks.
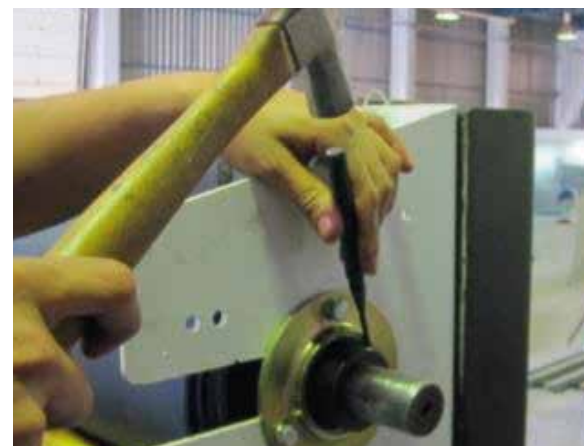
(Image 20)

Tighten the collar bolt with the allen wrench.

(Image 21)

ASSEMBLY OF THE DRIVE SET

FITTING THE MOTOR ON THE SHAFT

💡 **WARNING**

If required, before starting the installation procedure, remove the burrs by mechanically adjusting the shaft end and the set's cotter with an abrasion tool.

Use grease that comes with the drive set. Adjust and lubricate in a way that the set smoothly fits the shaft (refer to images 22 to 24).

(Image 22)

(Image 23)

Motor cotter
8x8x110mm
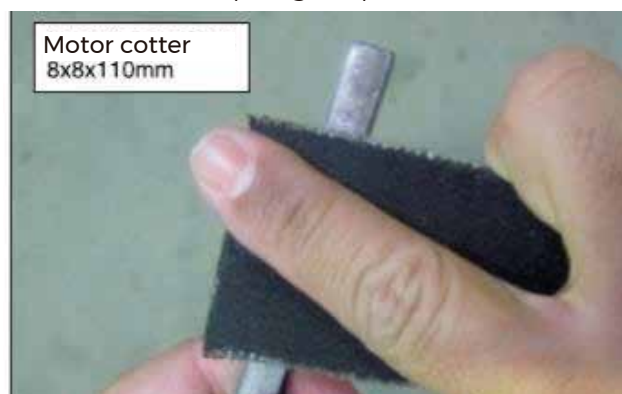
(Image 24)

Install the pads and the bracket on the respective header on the right side of the motor.

📝 NOTE

DO NOT make the final tightening of the nuts.
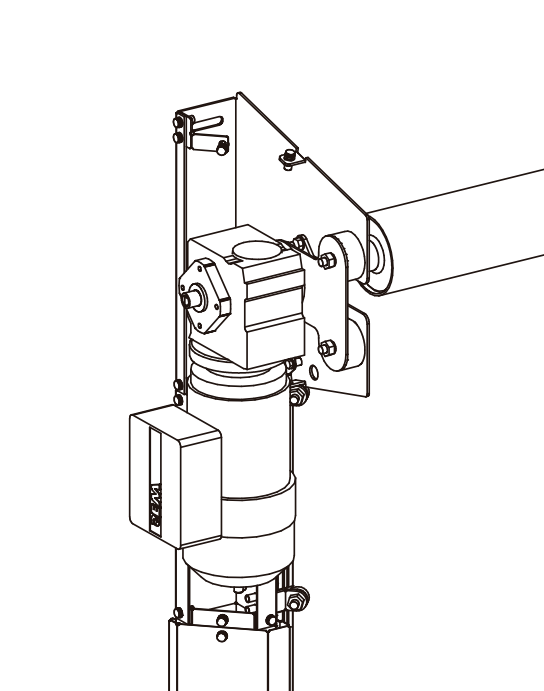
(Image 25)

Fit the drive set without the VCODER on the cottered shaft of the door.
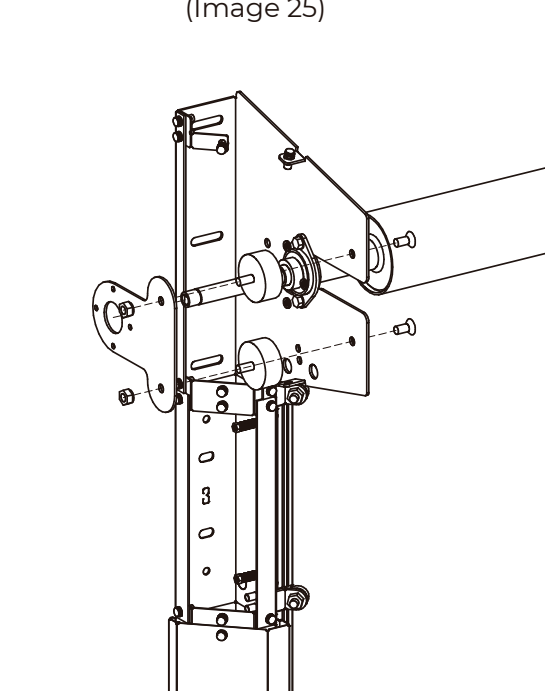
(Image 26)

After fitting the drive set, make sure the outside of the reducer is aligned with the shaft recess.

20

VCODER ADAPTATION FLANGE
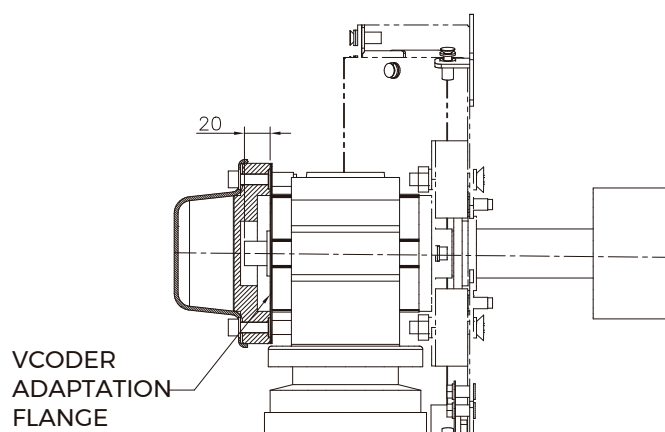
(Image 27)

The VCODER is an electronic position scanning device that monitors the door on any point of its stroke. This device replaces the end-of-stroke sensor and does not require mechanical adjustment to position the door; all the positioning and saving (door open, door closed, speed reduction point, etc.) are made by the VisoIHM on the Visoflex fast doors. It uses an RS485 serial communication and a DIN connector for fast installation and replacement when required.

VCODER Set

The VCODER set is made up of a communication cable with a DIN connector, one tip, bolts and the device (VCODER).

Image 28 - VCODER set: communication cable, tip and device

📝 **NOTE**   It is not necessary to dismantle anything on the VCODER set to perform the installation.

Parts List

1. M8x35 cylinder head allen wrench
2. VCODER
3. Geared Motor
4. Aluminum tip
5. M8x6 headless allen wrench

Step-by-Step

Fit the aluminum tip (4) on the door shaft, using the headless allen wrench (5) to lock it on the shaft.
Fit the geared motor (3) on the door shaft, and install the VCODER (2) using the cylinder hear bolts (1) to fix it on the geared motor set reducer.
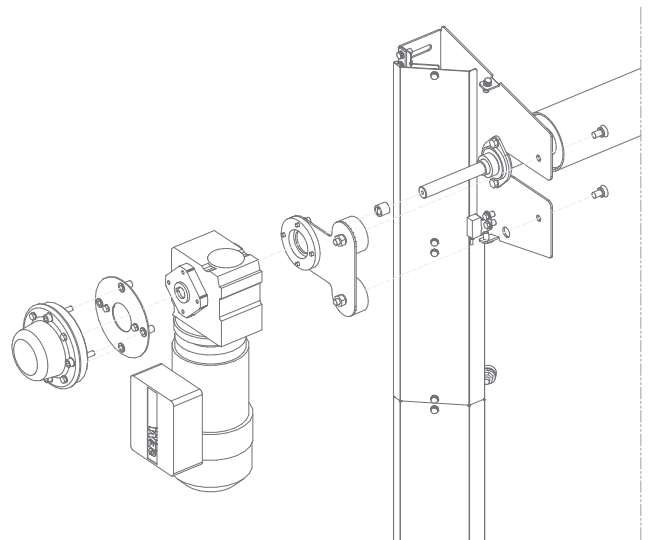
(Image 29)

Always align the recess present on the aluminum tip with the locking bolt for better attachment.

👆 IMPORTANT

The aluminum tip (4) should be as close as possible to the VCODER base as shown by distance D (refer to figure 3). Setting that distance may be done with the oblongs located in the geared motor bracket.
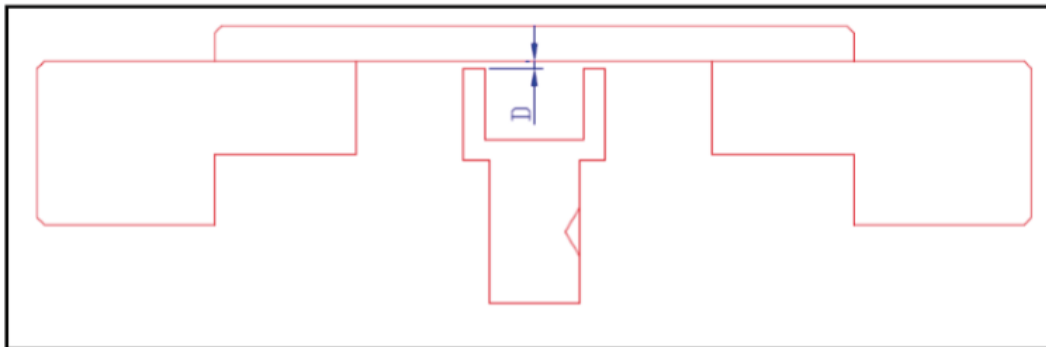
Image 30 – Overhead view and distance indication

Communication Cable

The correct installation of the communication cable is very important, since the electrical supply of the device is made through it, and the data is sent to the control board.

The connector only fits a single position. The fitting should be done smoothly (without forcing it). If you find any trouble while fitting, check the pins' position to see if they are properly aligned.

(Image 31)

After fitting, the lock washer should be rotated clockwise so it may lock the connector on the VCODER, preventing it from coming off during vibrations.

(Image 32)

(Image 33)

📝 **NOTE**

This cable should be seamless. It should be routed on a single cable from the motor to the panel and, if required, replaced by a cable according to Visoflex' specifications. If the cable is replaced by a non-standard cable, communication failure may occur.

👆 **IMPORTANT**

The motor and the control panel should be earthed for a proper functioning of the circuit.

Settings

The VCODER is a passive device, it only sends data to the main control board. Therefore, there is no setting required. All settings and end-of-stroke adjustments should be made via the control board on which it is installed (EB 11.0 or later).

PLACEMENT OF THE LIDS ON THE COLUMNS AND ROLL COVER

The roll cover should be placed and bolted over the shaft flanges (refer to image 35).

(Image 34)

SECURE THE ANGLE BRACKETS WITH A PLASTIC BUSHING

ALIGN THE INSULATION BRUSH WITH THE TOP PART OF THE ROLL

ROLL
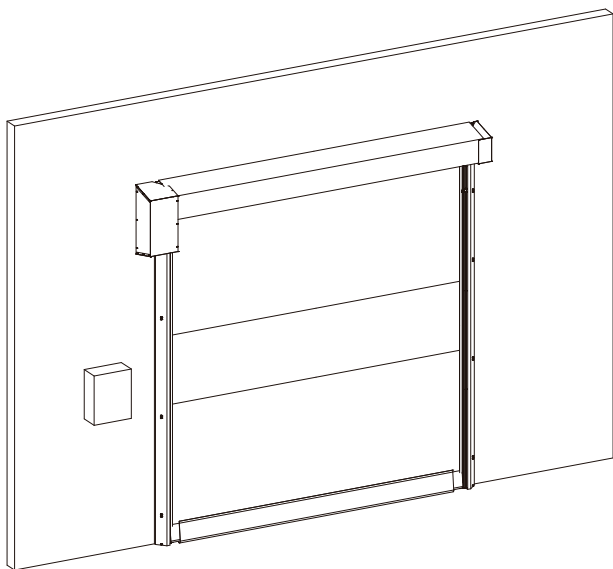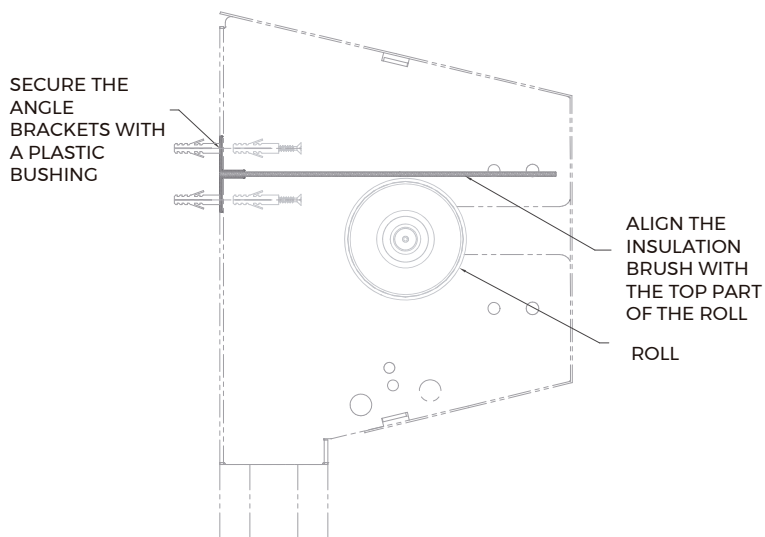
(Image 35)

NOTE The lid of the motor and opposite shaft are optional and should be purchased separately.

FIXING THE PHOTOELECTRIC SENSOR

WARNING

Align the transmitter and receptor for a proper functioning of the photoelectric sensor.

CAUTION

Be careful while tightening the lock rings to prevent damage to the parts.

Position the transmitter and receiver 15cm from the floor

(Image 36)

M6x12 HEX BOLT + FLAT WASHER

90o PHOTO SENSOR, 20 m.

PHOTOCELL BRACKET

M6x12 HEX BOLT + FLAT WASHER

90o PHOTO SENSOR, 20 m.

PHOTOCELL BRACKET
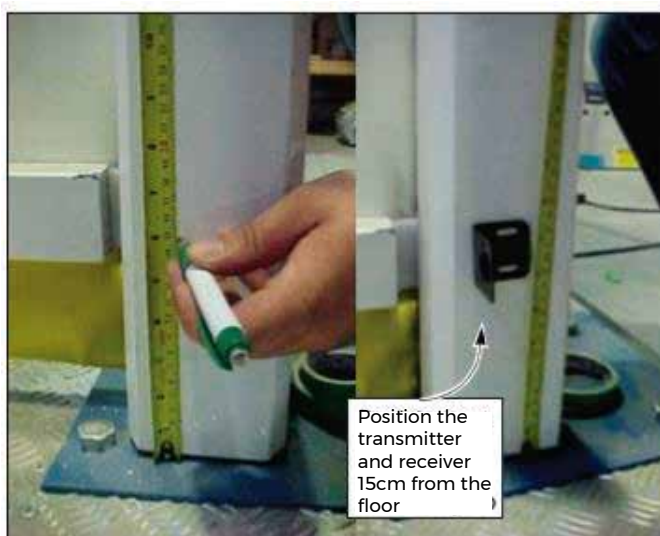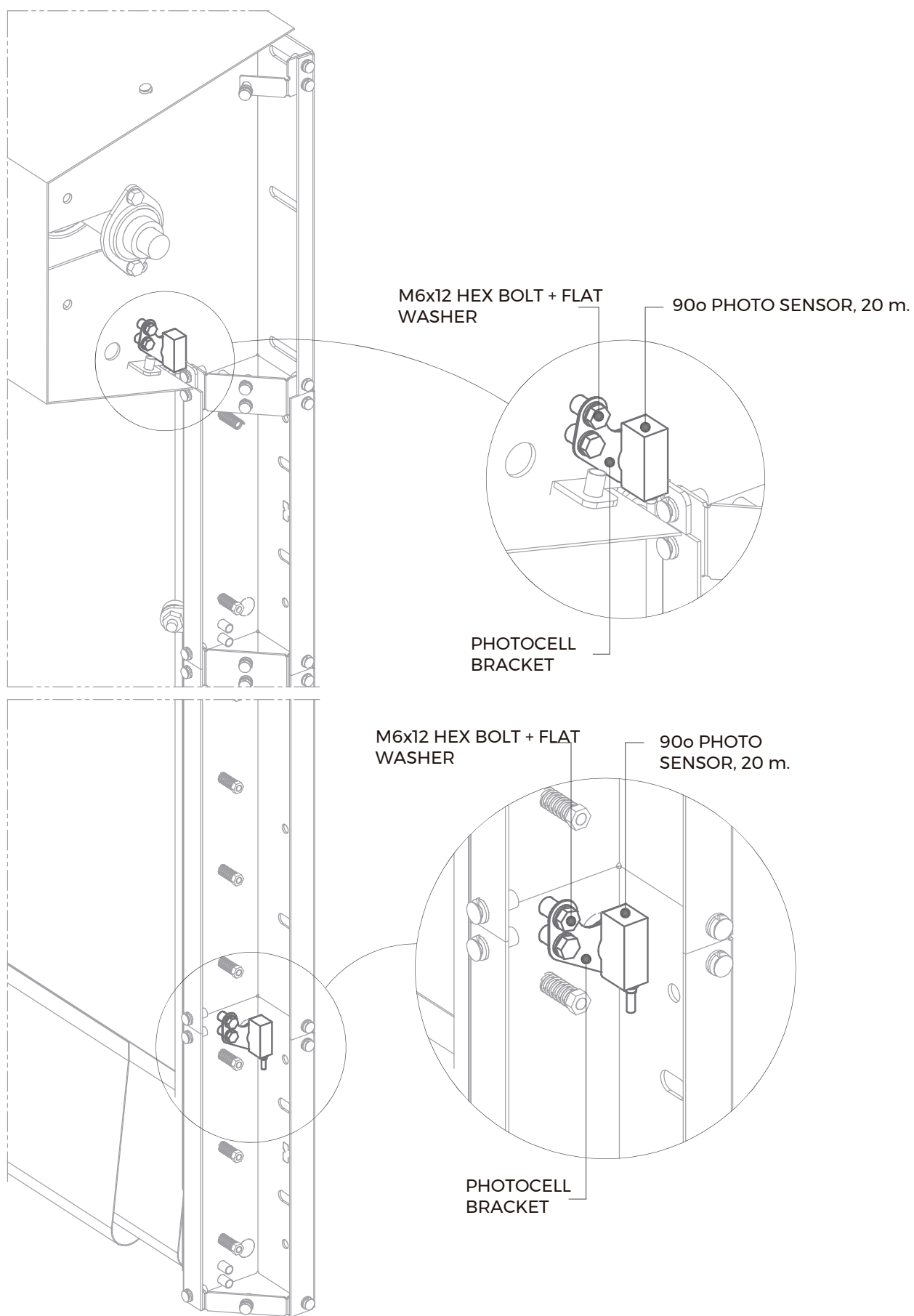
(Image 37)

Electrical Installation

The type and quantity of piping and other materials required are listed in the descriptive table below.

👆 **IMPORTANT**

The power cables (motor, brake and supply) should be on a piping separate from the command cables (VCO-DER, photocells, Pushbuttons, etc.). Failing to observe this procedure may damage the equipment, and such will not be covered by the warranty.

MATERIAL LIST
(estimated for a 3x3m-sized door)

Quantity	Item
03	LR Junction box
03	LL Junction box
04	T Junction Box
03	½" Cable gland
05	Reduction from ¾" to ½"
04	½" Male swivel connector
02	½" Meters of sealtubo
12	Pouch-type clamp ¾"
03	Pouch connector ¾"
150	Meters of flexible cable 0.75mm
15	Meters of flexible cable 2.5mm
15	Meters of medium galvanized tube ¾"

VFX-ZIP ELECTRIC INFRASTRUCTURE
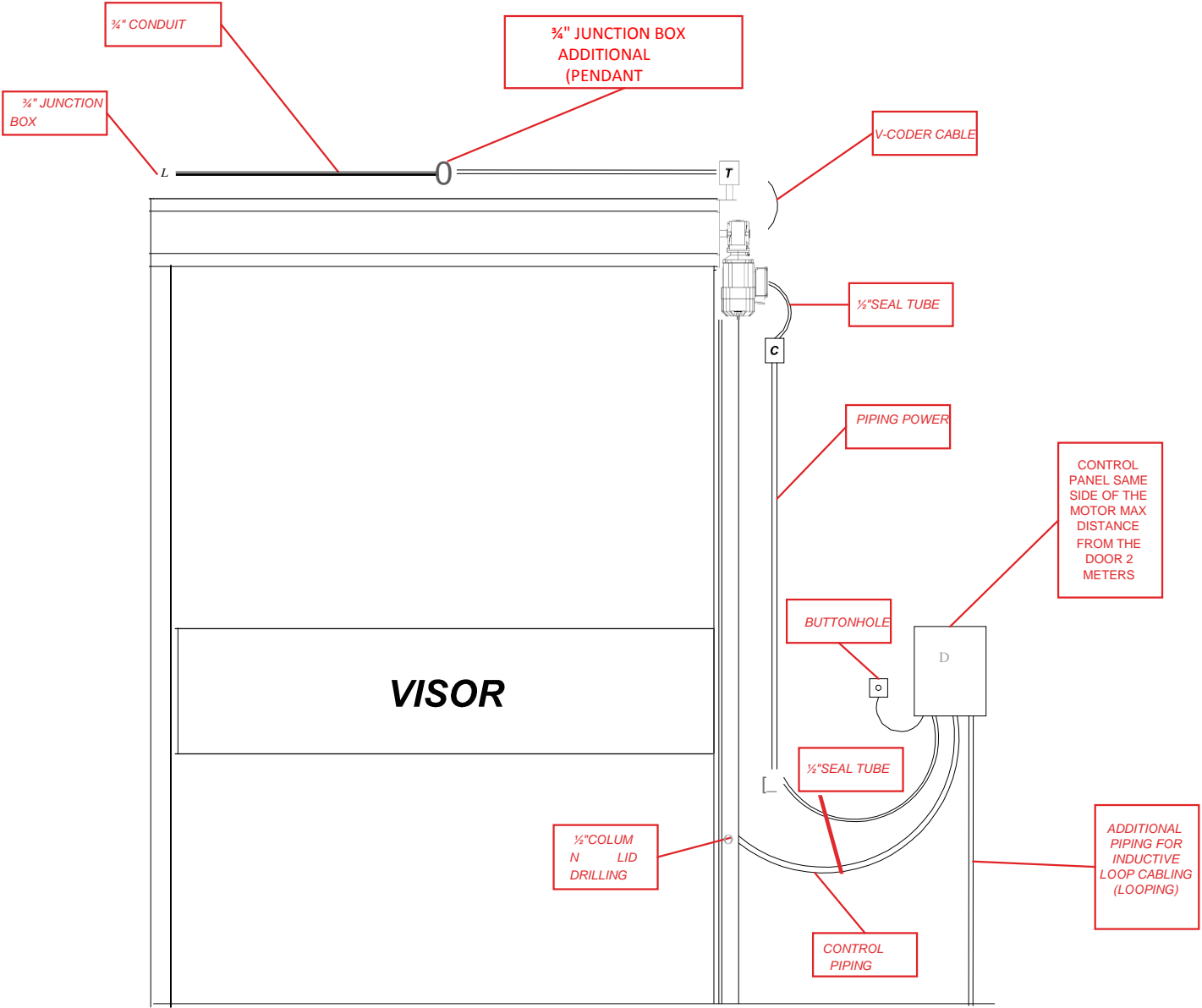
¾" CONDUIT

¾" JUNCTION BOX

¾" JUNCTION BOX ADDITIONAL (PENDANT

V-CODER CABLE

½"SEAL TUBE

PIPING POWER

CONTROL PANEL SAME SIDE OF THE MOTOR MAX DISTANCE FROM THE DOOR 2 METERS

BUTTONHOLE

VISOR

½"SEAL TUBE

½"COLUMN LID DRILLING

ADDITIONAL PIPING FOR INDUCTIVE LOOP CABLING (LOOPING)

CONTROL PIPING

INVERTER
Setting Parameters

PARAMETERS FOR THE CFW 300

Parameter	220v		380v		Function
	0.75HP	1.0HP	0.75HP	1.0HP	
P202	5	5	5	5	Sensorless Vectorial Control
P399	75.4	85.5	75.4	85.5	Motor yield (plaque)
P400	220	220	380	380	Motor rated voltage (plaque)
P401	2.6	3.2	1.51	1.89	Motor rated current (plaque)
P402	1690	1710	1690	1751	Motor rated rotation (plaque)
P403	60	60	60	60	Motor rated frequency (plaque)
P404	4	5	4	5	Motor rated power (plaque)
P407	0.71	0.8	0.71	0.7	Motor power factor (plaque)
P408	1	1	1	1	Self-Setting, wait until concluded (Leave the door closed)
P409	4.4	4.05	13.3	12.1	Stator Resistance
P100	0.8	0.8	0.8	0.8	Acceleration Time
P101	0.4	0.4	0.4	0.4	Deceleration Time (without DI5 enabled, enter 0.7)
P124	60	60	60	60	Opening Speed
P125	30	30	30	30	Closing Speed
P126	10	10	10	10	Opening Reduction Speed
P127	10	10	10	10	Closing Reduction Speed
P134	100	100	100	100	Max Frequency
P151	380	380	380	380	Intermediary Circuit Voltage Setting Drive
P156	3.20	3.90	3.20	3.90	Motor Overload Current (1.2 x P401)
P221	8	8	8	8	Local Speed Reference Selection (E14 is Displayed)
P222	8	8	8	8	Remote Speed Reference Selection (E14 is Displayed)
P223	4	4	4	4	LOC Spin Selection
P224	1	1	1	1	LOC Spin/Stop Selection
P225	2	2	2	2	JOG LOC Selection
P231	1	1	1	1	AI1 Signal Function
P263	4	4	4	4	Digital Function 1 - Advance (E14 is Displayed)
P264	5	5	5	5	Digital Function 2 - Return (E14 is Displayed)
P265	13	13	13	13	Digital Function 3 - Multispeed (E14 is Displayed)
P266	13	13	13	13	Digital Function 4 - Multispeed (E14 is Displayed)
P275	11	11	11	11	For Motor with Brakes (Standard)
P290	2.6	3.2	1.51	1.89	Ix Current

Note: The parameters that are not on this list should remain with their factory values; to return all parameters to the factory value,

set P205 with the value 5 and then set the parameters in accordance with the table above.

(Image 40)

PARAMETERS FOR THE CFW 500

Parameter	220v				380v				440v				Function
	0.75hp	1.0hp	1.5hp	2.0hp	0.75hp	1.0hp	1.5hp	2.0hp	0.75hp	1.0hp	1.5hp	2.0hp	
P202	5	5	5	5	5	5	5	5	5	5	5	5	Sensorless Vectorial Control
P399	75.4	80.5	82.8	84.3	75.4	80.5	82.8	84.3	75.4	80.5	82.8	84.3	Motor yield (plaque)
P400	220	220	220	220	380	380	380	380	440	440	440	440	Motor rated voltage (plaque)
P401	2.6	3.12	4.4	5.87	1.51	1.81	2.55	3.4	1.3	1.56	2.2	2.93	Motor rated current (plaque)
P402	1690	1710	1730	1710	1690	1710	1730	1710	1690	1710	1730	1710	Motor rated rotation (plaque)
P403	60	60	60	60	60	60	60	60	60	60	60	60	Motor rated frequency (plaque)
P404	4	5	6	7	4	5	6	7	4	5	6	7	Motor rated power (plaque)
P407	0.71	0.8	0.79	0.8	0.71	0.8	0.79	0.8	0.71	0.8	0.79	0.8	Motor power factor (plaque)
P408	1	1	1	1	1	1	1	1	1	1	1	1	Self-Setting, wait until concluded (Leave the door closed)
P409	4.4	4.05	2.1	1.57	13.3	12.1	6.3	2.95	17.6	16.2	8.4	6.3	Stator Resistance
P100	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Acceleration Time
P101	0.7	0.7	0.7	1	0.7	0.7	0.7	1	0.7	0.7	0.7	1	Deceleration Time (without DI5 enabled, enter 0.7)
P124	60	60	60	60	60	60	60	60	60	60	60	60	Opening Speed
P125	30	30	30	30	30	30	30	30	30	30	30	30	Closing Speed
P126	10	10	10	10	10	10	10	10	10	10	10	10	Opening Reduction Speed
P127	10	10	10	10	10	10	10	10	10	10	10	10	Closing Reduction Speed
P134	70	70	70	70	70	70	70	70	70	70	70	70	Max Frequency
P151	410	410	410	410	820	820	820	820	820	820	820	820	Intermediary Circuit Voltage Setting Drive
P156	3.12	3.74	5.28	7.04	1.81	2.17	3.06	4.08	1.56	1.87	2.64	3.52	Motor Overload Current (1.2 x P401)
P221	8	8	8	8	8	8	8	8	8	8	8	8	Local Speed Reference Selection (E14 is Displayed)
P222	8	8	8	8	8	8	8	8	8	8	8	8	Remote Speed Reference Selection (E14 is Displayed)
P223	4	4	4	4	4	4	4	4	4	4	4	4	LOC Spin Selection
P224	1	1	1	1	1	1	1	1	1	1	1	1	LOC Spin/Stop Selection
P225	2	2	2	2	2	2	2	2	2	2	2	2	JOG LOC Selection
P231	1	1	1	1	1	1	1	1	1	1	1	1	AI1 Signal Function
P263	4	4	4	4	4	4	4	4	4	4	4	4	Digital Function 1 - Advance (E14 is Displayed)
P264	5	5	5	5	5	5	5	5	5	5	5	5	Digital Function 2 - Return (E14 is Displayed)
P265	13	13	13	13	13	13	13	13	13	13	13	13	Digital Function 3 - Multispeed (E14 is Displayed)
P266	13	13	13	13	13	13	13	13	13	13	13	13	Digital Function 4 - Multispeed (E14 is Displayed)
P275	11	11	11	11	11	11	11	11	11	11	11	11	For Motor with Brakes (Standard)
P290	2.6	3.12	4.4	5.87	1.51	1.81	2.55	3.4	1.3	1.56	2.2	2.93	Ix Current

Note: The parameters that are not on this list should remain with their factory values; to return all parameters to the factory value, set P205 with the value 5 and then set the parameters in accordance with the table above.

* Parameter is preset upon motor scanning, modifying it is often not required.
** Whenever E14 is displayed on the parameter setting (P221, P222, P263, P264, P265 and P266), just ignore the message and proceed with the adjustment. If E14 is displayed after the self-adjustment, check if the motor connection is correct and if no phase is lacking. After that, redo the parameterization, resetting the factory values, pursuant to the note below.
Note: The parameter that is not in this list should remain with factory values. In order to reset all parameters according to factory settings, set P204 with the value 5 and adjust the parameters according to the table above.

VisoIHM 2.0

VisoIHM 2.0 Manual

1. Introduction

The VisoIHM 2.0 product is a man-machine interface that has been developed by Visoflex so the user/operator does not have any contact with the CLD control board, facilitating installation and setting the Visoflex fast doors.

This interface has RS485 serial communication and an RJ12 connector for quick removal. Also, it is equipped with a voltage regulator to increase the service life of its LCD display and high-yield pushbuttons.

With VisoIHM 2.0 it will be possible to make all adjustments required for the Visoflex doors, such as:

1- Closing time setting;
2- Opening stoppage
3- Closing Stoppage
4- Opening speed reduction setting
5- Closing speed reduction setting

6- Looping sensitivity setting, where applicable
7- Man present command
8- Motor side
9- Timer y/n
10-   Language Eng / Spanish/ Port

Note: The VisoIHM 2.0 board is only available for the EB9.0 or CLD boards.

2. Installation

For the VisoIHM 2.0 installation, just connect the cable with the RJ12 connector **(Figure 1)** on the LCD Display and on its respective CLD control board.

With the cable connected and the control board supplied, the interface will already be functional; if the LCD Display lights up and nothing in writing is shown or a screen with white squares is exhibited, you should set the contrast on the potentiometer (Figure 1) that is found behind the display board. Turn the potentiometer clockwise to increase the contrast and counterclockwise to reduce it.
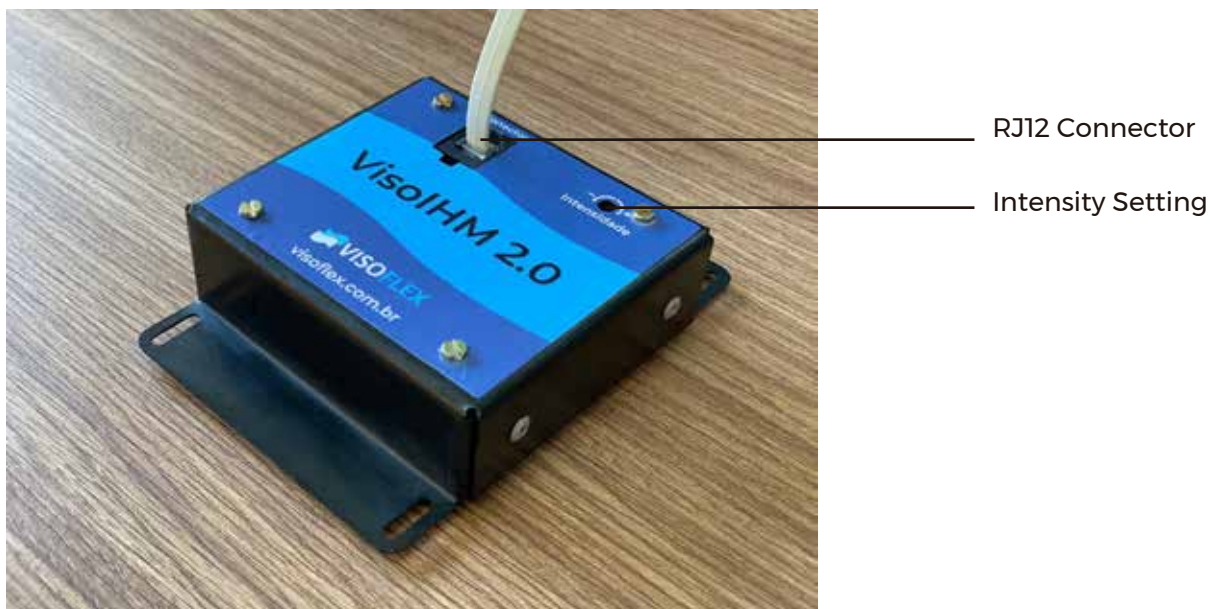

RJ12 Connector

Intensity Setting

Figure 1 - rear view of the VisoIHM 2.0 board

3. Operation

There are 3 pushbuttons to operate the interface, which are: 🔴 , 🔵 and 🔵 according to **Figure 2** below.

Figure 2 - VisolHM 2.0 Front panel

Figure 3 presents the screens of the door in operation, making a full opening and closing cycle. The Cycle is determined by the moment since the door is closed and receives the signal for opening, initiates the opening, reduces the speed of opening, programmed time count (if the timer is enabled), starts closing after the time count and reduces the closing speed until the door is completely closed.
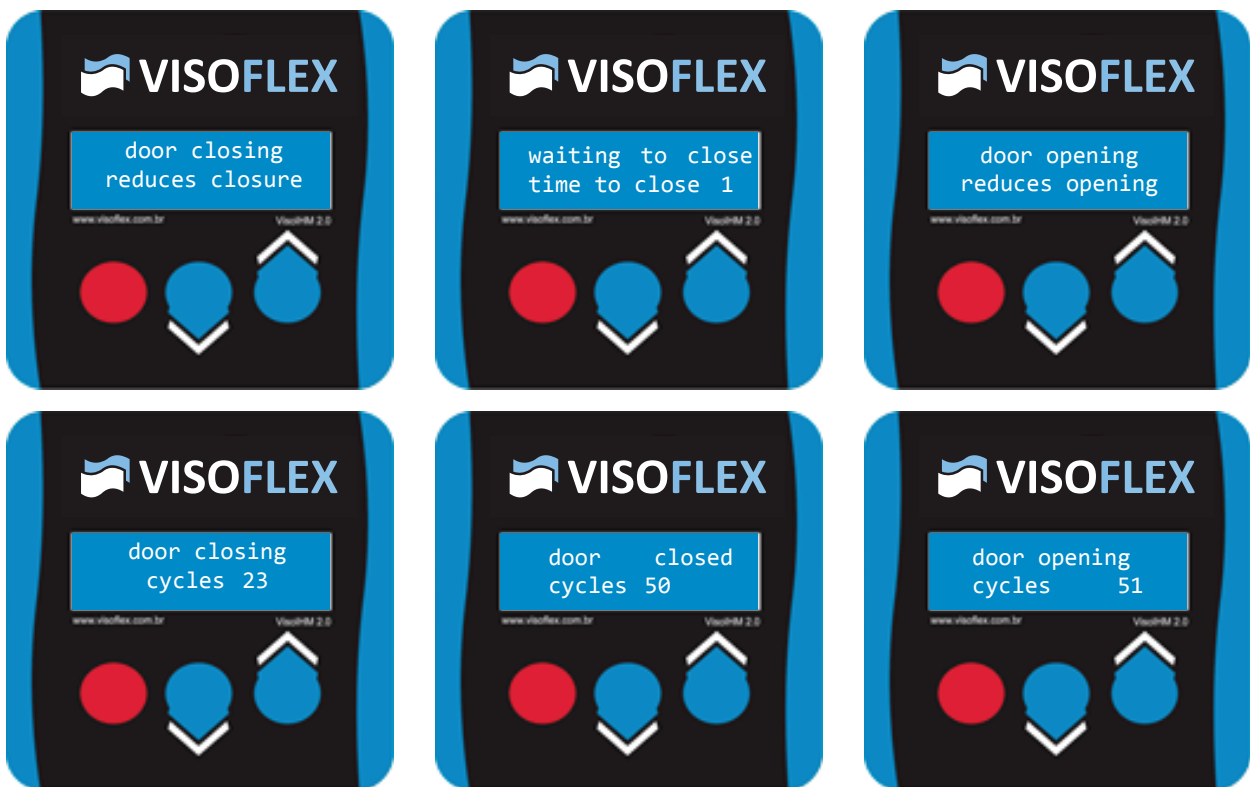

Figure 3 - Screens of the door in operation

Via pushbutton (🔴) it is possible to view all the adjustments performed on screens that toggle according to **Figure 4.**

DO NOT FORGET THAT THE FIRST PARAMETER TO BE SET IS THE SIDE OF THE MOTOR, otherwise the other settings will be compromised
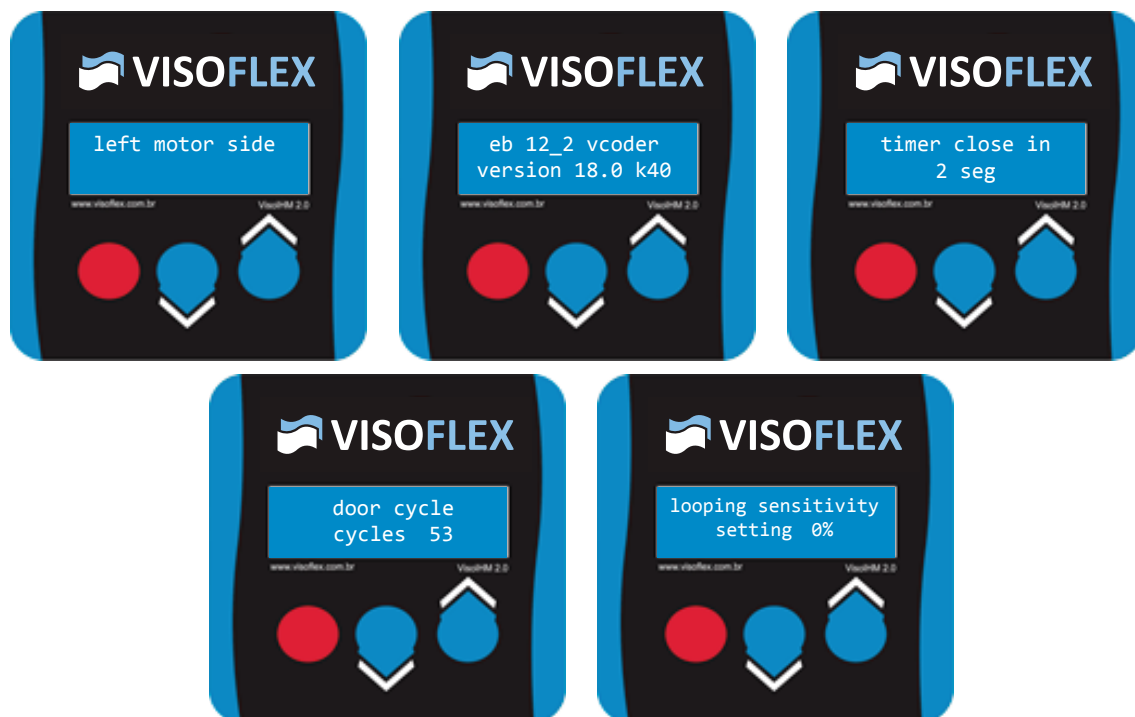
Figure 4 - Settings view screens

4. Door parameter settings

In order to initiate parameter modification, the three pushbuttons (🔴) +(⌃) +(🔵)should be pressed and held for approximately 10 seconds; while pressed, the screens as shown in Figure 5 shall be displayed and toggled, and after the 10 seconds the screen according to Figure 6 will be displayed and the pushbuttons should be released.

Figure 5 - Three pushbuttons pressed

Figure 6 - Pushbutton release screen

4.1. Parameter unblocking

In order to unblock and enable settings modification, a password must be entered.

In order to enter the password, use pushbuttons (⬆) and (⬇) until the number desired is displayed as shown in Figure 7 and then press pushbutton "Ok" (🔴) to confirm; after confirmation and if the password is correct, a screen will be displayed according to Figure 8, and if incorrect, a screen is displayed according to Figure 9.

Figure 7- Validating the installer passcode   Figure 8 - Screen after unblocking with passcode   Figure 9 - Entering Incorrect Passcode

User settings (Typical Settings)

The user adjustments enable the operator to change the most typical settings, which are the following:
- Looping sensitivity;
- Closing time (if the timer is enabled);
- Manual Control (Man present).
in order to make these adjustments, just enter the passcode 1 3 (⬆)

Installer settings
(Sensitive settings, only for technicians trained by VISOFLEX)

The installer adjustments enable the operator to change the most sensitive settings, which are the following:

- end-of-course position settings (Opening, Closing and speed reductions);
- Option for the setting timer (TPCLOSE) or closing pushbutton;
- Motor side change..
Para fazer estes ajustes, basta digitar a senha **9 9** (⬆)

⚠️ IMPORTANT: The end-user should not have access to the installer settings, because an incorrectly made setting could damage the product irreversibly and such damage is not covered by the warranty.

After entering the correct passcode, to browse between the menus you just need to use pushbuttons (⬆) and (⬇) where ← and → are indicated on the LCD Display, and to enter a menu, you just need to press the button "Yes" (🔴).

⚠️ IMPORTANT: The parameterization should ALWAYS be initiated by choosing the motor side in order to be successful, according to Step 1.

4.2. Parameterization

Step 1 - Motor side setting

The motor side setting is used to identify the side on which the motor is installed on the door, and such setting is extremely important because, if the motor side is selected incorrectly in this setting, the VCODER position count will not be made correctly, preventing the door end-of-course setting.

To set the motor side, just browse between menus using pushbuttons "← " (🔵) or "→" (🔵) until finding the "MOTOR SIDE?" menu, as shown in **Figure 10** and press pushbutton Yes(🔴) to confirm entering the menu.

Figure 10 - Motor side setting Menu

NOTE: To identify the motor side, just look facing the door, and see on which side is the motor.

After the motor side is identified, select the correct side, with left (🔵) = Left Motor and right (🔵) = Right Motor as shown in **Figure 11.**

Figure 11 - Choosing the motor side

IMPORTANT: When the motor is installed in the horizontal position (VFX 500 / VFX 500e / VFX 501) the motor side is inverted, that is, if you are looking to the door, you are seeing the motor on the right side, and the Left option should be chosen on the menu and vice-versa.

When the button corresponding to the desired side is pressed, the screen according to Figure 12 will be displayed to save the chosen option, when the save button is pressed (🔴), the screen according to Figure 13 will appear to confirm the desired option.

Figure 12 - Saving the motor side

Figure 13 - Confirming the desired option

IMPORTANT: After pressing the "Yes" button (🔵) on the confirmation screen, the modification will be saved and it will not be possible to cancel the desired option, and readjusting the parameter will be necessary for proper functioning.

Step 2 - Setting the Open / Close End-of-course

These are the menus that adjust the max opening and closing of the door, that is, when the door is fully open or fully closed.

The set the Open End-of-Course and Close End-of-Course, just browse between menus using pushbuttons " ← " (🔵) or " → " (🔵) until you find the menus "FC OPEN?" or "FC CLOSE?" as shown in **Figure 14** and press press the pushbutton "Yes" (🔴) to confirm entering the menu.

Figure 14 - Open / Close End-of-Course Setting Menu

After entering the End-of-Course menu, it is possible to check on which position it is saved on the memory as shown in **Figure 15**, this position is given by means of a number that is not related to the door height, it is just a reference number to know if the door is going up or down.

Figure 15 - Open position saved

When the "Down" (🔵) or "Up" (🔵) pushbuttons are pressed, the position shown on the display will no longer be that saved on the memory, but the current position at which the door is as shown by the screen in Figure 16.

Figure 16 - Current open position

On the "FC OPEN?" menu, while pressing the "Up" button (🔵), its possible to move the door with reduced speed until it reaches the desired fully open stoppage point and save the Opening End-of Course in accordance with Figure 17 and Figure 18; and on the "FC Close?" menu, while pressing the "Down" pushbutton (🔵), it is possible to move the door with reduced speed until it reaches the desired fully closed stoppage point and save the Closing End-of Course in accordance with **Figure 17** and **Figure 18.**

Figure 17 - Saving the door position   Figure 18 - Confirming the desired option

IMPORTANT: After pressing the "Yes" button (🔵) on the confirmation screen, the modification will be saved and it will not be possible to cancel the desired option, and readjusting the parameter will be necessary for proper functioning.

ATTENTION: The reference number should ALWAYS be growing (increase) while pushing the "Up" button (🔵) and ALWAYS be diminishing (decrease) while pushing the "Down" button (🔵).

TIP: Number - 5 is lower than - 4, as well as 0 (zero) is greater than -1 and so on.

NOTE: If while pushing the "Up" button (🔵) the door starts to go down, you just need to invert the motor phase on the terminal ruler. If while pushing the "Up" button (🔵) the door is going up, but the reference number reduces instead of increasing, change the parameterization of the motor side option (Go back to Step 1).

Step 3 - Reduction of the Open / Close End-of-Course

This is the menu that adjusts the point where the door should start to reduce before reaching the Open / Close End-of-Course, and such setting varies according to the customer's requirement and door size, it is used to assist the braking and fine-tuning the door's end-of-course, because with it the door reaches the end-of-course with reduced speed and generates less inertia.

To set the Open End-of-Course and Close End-of-Course, just browse between menus using pushbuttons " ← " (🔵) or " → " (🔵) until you find the menus "AJ RED VEL AB?" for Opening or "AJ RED VEL FE?" for Closing as shown in **Figure 19** and press the Yes button (🔴) to confirm the input to the menu.

Figure 18 - Open End-of-Course Reduction Setting Menu

After entering the End-of-Course Reduction setting menu, it is possible to check the reduction percentage that is saved as shown in Figure 20, and such percentage can me modified by
pressing the "+" (⌃) and "-" (⌄) pushbuttons to increase or reduce the reduction position. That percentage works in the following manner:

E.g.:
100% - Door will fully open or close in reduced speed;
50% - Door will reduce speed when reaching half of the course; 25% - Door will reduce speed when there is ¼ left to reach the end-of-course;
0% - Door will not reduce speed.

Figure 20 - Opening /Closing reduction percentage

 NOTE: As standard, Visoflex recommends to adjust the reductions in 25% both in opening and closing, which may be changed where required, but we do not recommend to use less than 10%.

Step 4 - Timer (TPCLOSE)

The timer or closing time refers to the time setting for the door automatic closing, i.e. the time the door remains open after it reaches the opening end-of-course until the moment when it starts closing without the need of any drive.

Enabling the Timer

To enable the closing timer function, just browse between menus using pushbuttons "   " (⌄) or "   " (⌃) until you find the "TIMER?" menu as shown in **Figure 21** and press the   Yes button (●) to confirm the input on the menu.

Figure 21 - Timer Setting Menu

Figure 22 - Timer enabling screen

Press "Yes" (⌄) to enable the timer and "No" (⌃) to disable on the screen as shown in **Figure 22.**

Closing time

The closing time menu will only be available if the timer is enabled, otherwise the menu will not be displayed and the closing will occur via the pushbutton or driver installed on the door.

To set the closing timer time, just browse between menus using pushbuttons " ← " (🔵) or " → " (🔵) until finding the "AJ TIME CLOSE?" menu as shown in **Figure 23** and press the Yes pushbutton (🔴) to confirm the input on the menu.

Figure 23 - Timer Setting Menu (TPCLOSE)

With pushbuttons "+" (🔵) and "-" (🔵) the setting of increasing or reducing the closing time is made as shown in **Figure 24**, and that time is always given in seconds, and after concluding the setting, press the "Exit" button (🔴).

Figure 24 - TPCLOSE Setting Menu

After the button "Exit" (🔴) is pressed, the screen as shown in Figure 25 will be displayed to save the chosen option, when the save button (🔴), is pressed, the screen as shown in Figure 26 will be displayed to confirm the desired option.

Figure 25 - Saving the closing time

Figure 26 - Confirming the desired option

⚠️ IMPORTANT: After pressing the "Yes" button (🔵) on the confirmation screen, the modification will be saved and it will not be possible to cancel the desired option, and readjusting the parameter will be necessary for proper functioning.

4.3. Manual Control (Man Present)

The manual control menu (Figure 27) was created to facilitate the installation, adjustment and tests of the door, and with that it is possible to move the door to open and close in reduced speed and hence see if the motor is turning in the proper direction, functioning as the man-present mode (Figure 28).

Note: If the door is half open or the end-of-courses are not properly regulated, that parameter may not function correctly, and in such case, to move the door, use the end-of-course setting menu.

Figure 27 - Manual Control Menu

Figure 28 - Door manual control screen

4.4. Looping sensitivity setting
(Only for doors that come with the looping sensor)

The looping settings menu will be displayed automatically when the Visoflex Looping board is detected at the time of starting up the door (Figure 29), this setting is for the operator to be able to adjust the metallic mass sensor's sensitivity without having to access the internal part of the control panel.

Figure 29 - Looping present screen (Door start up)

To adjust the looping sensitivity, just browse between menus using the buttons " ← " (⬇) or " → " (⬆) until you find the "LOOPING SETTING" menu as shown in **Figure 30** and press the Yes button (🔴) to confirm the input on the menu.

Figure 30 - Looping Sensitivity Setting Menu

On the Looping Sensitivity Setting screen **(Figure 31)**, it is possible to increase or reduce the Looping sensitivity with pushbuttons (⬇) and (⬆).

NOTE: The looping setting is measured in percentage, with 100% as very sensitive and detecting smaller objects and 50% little sensitive detecting larger objects. The standard Setting is 75%.

Figure 31 - Looping Sensitivity Setting

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4.5. Exiting the door parameter setting

To exit the door parameterizing menus, just browse between menus using pushbuttons "←" (🔵) or "→" (🔵) until you find the "Exit?" menu as shown in **Figure 32** and press the Yes button (🔴) to confirm exiting the door parameterizing.

Figure 32 - Door parameterizing exit menu

Note: If the door is half open or the end-of-courses are not properly regulated, that parameter may not function correctly, and in such case, to move the door, use the end-of-course setting menu.

5. Verifying the Inputs and Outputs status

With the purpose of exempting the user/operator from needing to open the control panel to make any adjustment, a screen was created to view the control board's inputs and outputs status.

Press the button (🔵) at any time (provided you are not in the parameters menu) and a screen such as the one in **Figure 33** will be displayed.

Figure 33 - Inputs and outputs status

On this screen we have X2 that corresponds to the relay outputs of the control board, and X1 that corresponds to the digital inputs, in addition to the Looping input.
The "/" bars indicate that the input or output is off and the "|" bars indicate that the input or output is on.

6. CLD 12 output modules

CLD 12 comes prepared to support output modules.

6.1 Relay output modules

The CLD 12 has an input available for 2 relay output modules, and these modules are purchased as optionals for the doors, each having 2 relays which, in turn, have the capability of operating 5A to 250Vac currents, and their functions may be the following:

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- **Interlocking Signal:** When the door is not in the "door closed position", that relay closes so it may interlock with another Visoflex Door or another equipment, e.g. Antechamber Doors - when one opens, the other does not and vice-versa.
- **Air Curtain Signal:** When the door is not in the "door closed" position, this relay closes so it may send a signal to the control panel to turn on the Air Curtain.
- **Door Open Signal:** When the door reaches the Opening End-of-Course position (Fully Open), this relay closes to send a signal to another equipment, e.g. AGV's, robots, conveyor belts, etc.
- **Door Closed Signal:** When the door reaches the Closing End-of-Course position (Fully Closed), this relay closes to send a signal to another equipment, e.g. AGV's, robots, conveyor belts, etc.
- **Safety Enabled Signal:** When the Emergency Command (BE) is enabled (Pressed), the relay opens,
  e.g.: Feedback from the door, safety system enabled.
- **Door Ready for Operation Signal:** When no Sensor or Emergency Command is enabled/obstructed, the relay closes, e.g.: Door free to operate feedback.

In order to program these relays, you should consult the factory and check the possibility.

Note: Doors enabled by a Contactor system only have 2 relays available, since they use 2 relay outputs
to drive the contactors.

6.2 Transistor output modules

The transistor output modules are used to drive the digital inputs of the Frequency inverter.
Both the transistor outputs and the relay outputs may be reprogrammed and customized; check with the factory about the costs and feasibility of your project.

Operation

Drive

Visoflex fast doors may be driven by Pushbutton, VMOTE remote control, pendant button, radar or looping sensor (according to prior request and order - refer to image 57). Thus the everyday door open command is made by these drivers, and the interaction with the IHM is not required on the electric panel of the door - except to set or adjust parameters.
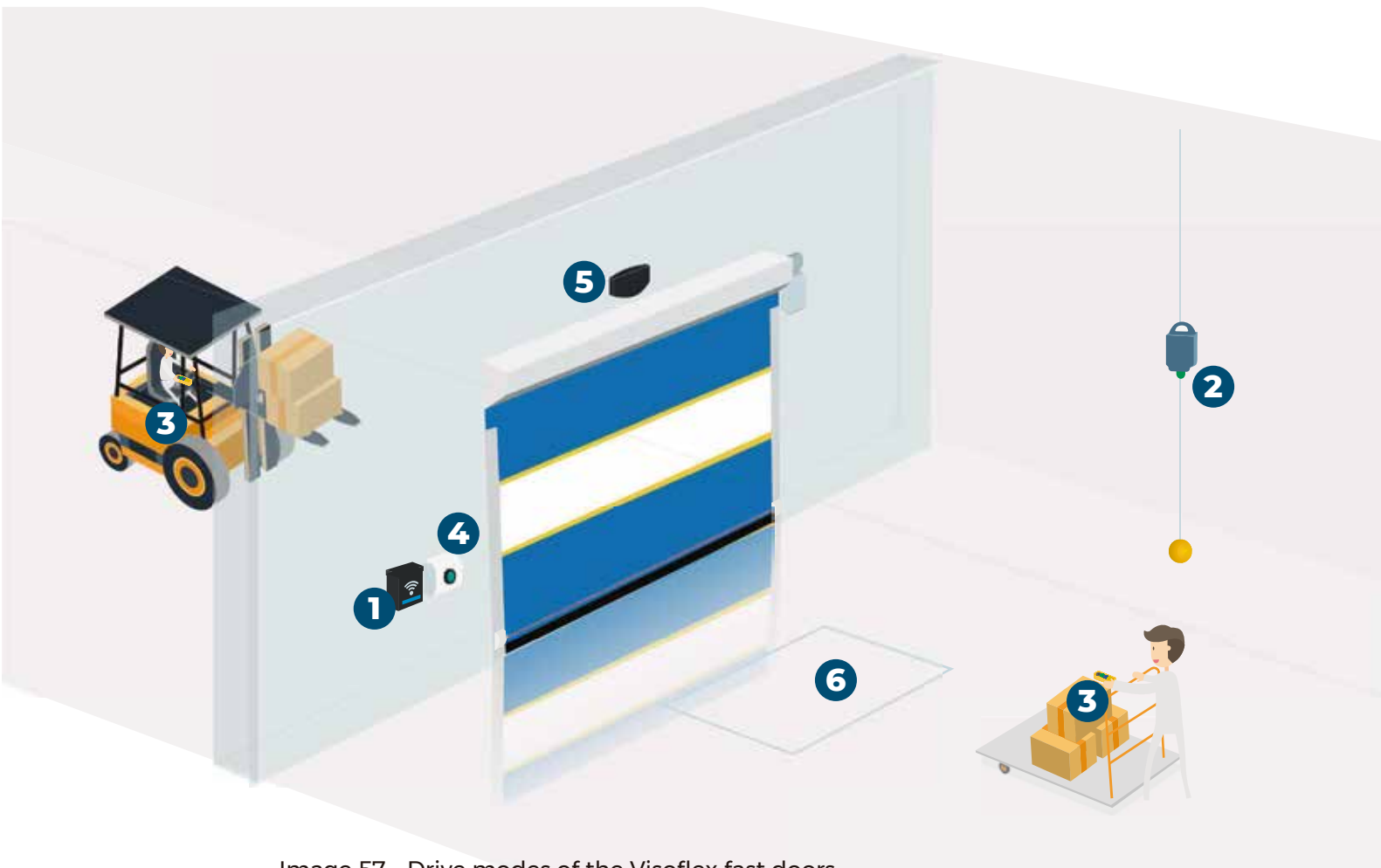
Image 57 – Drive modes of the Visoflex fast doors

1 Vmote Receiver

2 Pendant

3 Vmote Transmitter

4 Vmote Buttonhole

5 Radar

6 Looping

Manual Functioning

In the event of power outage, it is possible to manually open and close the door, just follow the steps below.

⚥WARNING

Before performing the manual drive, make sure the master switch of the control panel is   turned off and blocked.

1. Use the lever at the motor housing

(Image 58)

2. Insert (into the indicated spot) and thread the lever.

(Image 59)

3. Pull the lever down to unlock the brake and hold it in that position.

(Image 60)

4. Fit the crank on the bottom of the motor and move it in the desired direction (opening or closing).

Safety

If a power outage or any other problem that prevents the correct operation of the door occurs, follow the steps below.

DESIGN SAFETY

Visoflex fast doors and their mechanical and electric system are designed and built according to the regulatory and technical standards in effect in Brazil, including NR-10 and NR-12.

VFX ZIP includes devices with the aim for better and safer use of the door, among which:

DUAL PHOTO PROTECT: Protection system via two parallel safety photocells, preventing accidents during door closing.

Automatic Reset: in case of impact with forklifts or other vehicles, the door leaf returns to the guide automatically.

OPERATION SAFETY
(Recommendations)

Visoflex doors are designed to offer the highest level of operation safety. However, we strongly recommend that each employee be responsible for their own safety in their work environment, thus, never go under the door when it is moving, whether opening or closing.

We recommend that the installation, parameter setting, operation and maintenance only be carried out by trained personnel or technicians authorized by Visoflex.

For your safety, in case you have any doubts within any phase of the equipment's life cycle, do not proceed without contacting our Technical Support Department.

In case of accidents that hinder the photoelectric sensor's alignment (such as impacts on the side guides), the door may stop in the open position and not close, or have its operation safety compromised. If that happens, interrupt the use of the door, shut it down and block its power sources until proper maintenance is carried out.

We recommend that regulatory and technical standards in effect, such as NR-10 and NR-12, be observed during the installation and operation of the door in all applicable aspects, including:

- o electric installation (conductors, earthing, etc.);
- o draft and follow a maintenance schedule;
- o signal and delimit the circulation areas around the door;
- o keep the circulation areas unobstructed and free from working material and any other items.

Cleaning
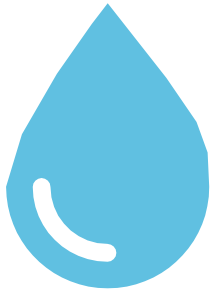
It is recommended to clean the door and its components on a regular basis, because it favors proper functioning and increases the service life.

Use soft cloth or sponges and neutral soap on the door canvas, and only dry cloth or lightly humid on the electric parts.

NEVER use water directly on the electric components (energy framework, motor, VCODER), nor solvents, such as benzine and other oil-derived products on any part/component of the door.

Discarding

At the end of the service life of your Visoflex door and/or individual components that are replaced, such as batteries, cables, etc., we strongly recommend selective discarding in recycling centers or another suitable location. Contributing to environmental protection is a responsibility that involves everyone.

Maintenance

VISO IHM 2.0

Below is a table with some potential errors and their respective solutions.

Diagnosis	Solution
The LCD Display lights up but nothing is displayed on the screen, or white squares are displayed.	Adjust the display's contrast with the potentiometer behind the board.
The looping setting menu is not displayed.	Check if the Visoflex Looping board is installed correctly on the EB board.
In the manual control menu, when the "open" button is pressed the door is closing, and when the "close" button is pressed the door is opening.	One of the motor's supply phases is inverted; turn off the circuit breaker and invert two motor phases (T1, T2, T3).
The display has strange characters or the message "check the RS485 cable" is displayed.	Recycle the system power, and if it doesn't work, replace the RJ12 cable.
The display has strange characters or the message "Check the RS485 cable" is displayed.	Recycle the system power, and if it doesn't work, replace the Display cable.
The display does not light up and the VisoIHM 2.0 buttons do not respond.	Check if the PC or EB board fuse is not disabled by a short-circuit on the 24Vdc output.
Display indicates ERROR 1: Failure in the communication of the VCODER	*Check the fitting of the terminal related to the communication wires on the control board; "Check if the supply/communication cables of the VCODER are connected and installed properly and if the cables are not inverted; *Check if the motor side parameter and opening and closing settings are correct.
Display indicates ERROR 2: Lack of movement from the motor.	*Check if the motor side parameter and opening and closing settings are correct; *Check the magnet fixing on the shaft tip; * Check the VCODER fixing on the geared motor; * Check the cables than run from the control board to the inverter; *Check if the inverter has any error, in which case, check the inverter parameterization according to the table provided by Visoflex.
Lack of accuracy in the door open and door closed stops.	Check the mechanical alignment of the VCODER on the geared motor and the distance to the magnet.
Loss of door stop position setting (door exceeded the end-of-course).	*Check if the magnet is properly secured or has a gap with no more than 5mm; *Check if the VOCODER batteries are charged (by measuring both batteries, which are connected in series, the voltage should be between 5 Volts and 7.2 Volts, the rated voltage of the batteries individually is 3.6 Volts).
Door opened and stopped does not close.	Check if the equipment is powered up or if the emergency button is activated. Read the information that appears on the display. (If the display is not working, contact the Visoflex certified technical support.)
Display indicates F1 activated.	Check alignment and functioning of the photoelectric sensor.
Display informs BR activated. (When a reversion bar is present)	Check setting and functioning of the reversion bar's PST sensor.
Display indicates F2 activated.	Check the functioning of the additional sensor (if any).
Door reverts randomly in the closing cycle. reversion)	Check the alignment of the photoelectric sensor and the additional sensor. Adjust the sensitivity of the PST sensor. (if any)
Display informs BA activated.	Check is there is any opening button activated or damaged (stuck).
Display informs "L".	Check setting and functioning of the Loop opening sensor. (if any)

CFW 300 and CFW 500 INVERTER

Error	Description	Probable Causes
F0021 Undervoltage on the DC busbar	Undervoltage failure of the circuit intermediary	Wrong supply voltage, check if the data on the inverter tag corresponds to the mains supply and the P0296 parameter. Supply voltage is excessively low, causing a lower voltage on the DC busbar than the minimum value (in P0004): Ud < 200 Vdc at 200-240 Vac (P0296=0). Ud < 360 Vdc at 380-480 Vac (P0296=1). Ud < 500 Vdc at 500-600 Vac (P0296=2). Lack of phase on input. Failure on the pre-charge circuit.
F0022 Overvoltage on the DC busbar	Overvoltage failure on the intermediary circuit.	o Wrong supply voltage, check if the data on the inverter tag corresponds to the mains supply and the P0296 parameter. o Supply voltage is excessively high, causing a higher voltage on the DC busbar than the maximum value (in P0004): Ud > 410 Vdc at 200-240 Vac (P0296=0). Ud > 810 Vdc at 380-480 Vac (P0296=1). Ud > 1000 Vdc at 500-600 Vac (P0296=2). o Charge inertia is too high or the deceleration ramp is too fast. o P0151 or P0153 setting is too high.
F0031 Communication failure with the Plug-In module.	Main control cannot establish the communication link with the Plug-In module.	o Plug-In module is damaged. o Plug-In module is poorly connected. o Problem with identifying the Plug-In module, refer
F0033 Self-setting failure of the VVW	Failure in the resistance setting of the P0409 stator	o Statoric resistance value in P0409 does not correspond to the inverter power. o Error in the motor connections, shutdown the supply and check the motor connection box and the connections with the motor terminals. o Motor power is too small or too large in relation to the inverter.
F0048 Overload on the IGBTs	Overload failure on the power Module with the IGBTs (3s in 1.5Inom).	o High current on the inverter
F0051 Overheating on the IGBTs	Overheating failure measured in the power module's temperature sensor (NTC)	o Room temperature around the inverter is high (>50 °C) and there is an elevated output current. o Fan is blocked or malfunctioning. o The dissipater is excessively dirty, preventing air flow.
F0070 Overcurrent/Short circuit	Overcurrent or short circuit on the output, DC busbar or braking resistor.	oShort circuit between two phases of the motor. oShort circuit of the rheostatic braking resistor connection cables. oIGBTs module is shorted or damaged. oStart up with an acceleration ramp that is too short. oStart up with motor running without the flying-start function.
F0072 Motor overload	Motor overload failure (60s at 1.5xInom)	o P0156, P0157 and P0158 setting is too low in relation to the motor operation current. o Motor shaft load is too high.
F0074 Earthing	Overcurrent to earth failure. Note: May be disabled by setting P0343=0.	o Short-circuit to earth on one or more output phases. o Motor cables capacitance is high, causing output
F0078 Motor overheating	Overheating failure measured in the motor temperature sensor (Triple PTC) via analogical input AIx or digital input DIx.	o Motor shaft load is too high. o Load cycle is too high (large number of start ups and shutdowns per minute). o Room temperature is high around the motor; o Poor contact or short-circuit (3k9 < RPTC < 0k1). o Motor thermistor not installed. o Motor shaft jammed.
F0080 CPU failure (Watchdog)	Failure associated to the supervision algorithm of the inverter's main CPU.	o Electric noise. oInverter firmware failure.
F0084 Self-diagnosis failure	Failure associated to the automatic identification algorithm of the inverter hardware and the Plug-In module	o Poor contact in the connections between the main control and the power module. o Hardware does not support the firmware version. o Defect in the inverter's internal circuits.

CONTROL BOARD

With the purpose of exempting the user/operator from needing to open the control panel to make any adjustment nor viewing the LEDs, a screen was created to view the control board's inputs and outputs status. Press the central button at any time (provided you are not in the parameters menu) and a screen such as the one below will be displayed.

On this screen we have X1 that corresponds to the relay outputs of the control board, and X2 that corresponds to the digital inputs. The "/" bars indicate that the input or output is off, and the "|" bars indicate that the input or output is on.

Preventive Maintenance

The preventive maintenance interval is based on the number of cycles resulting from use of the door (one (1) cycle = complete opening and closing movement). The VisoIHM 2.0 display, in normal operation mode, indicates the number of cycles counted as of system initialization.
See the table below for the intervals recommended and the items to be checked:

MAINTENANCE TABLE															
ITEM	INSPECT	INTERVAL (numbers expressed in thousands (cycles)													
		10	20	30	40	50	60	70	75	80	90	100	125	150	200+
END-OF-COURSE	Positioning											O			
SIDE COLUMNS	Fixing	O	O	O	O	O	O		O		O	O	O	O	O
FLANGES AND BEARINGS	Fixing	O	O	O	O	O	O		O		O	O	O	O	O
ROLLER LOCKING COLLAR	Fixing	O	O	O	O	O	O		O		O	O	O	O	O
PHOTOCELL	Alignment			O								O			
ROLLERS AND SHAFTS	Lubrication	O	O	O	O	O	O	O	O	O	O	O		O	O**

* After 200,000 cycles, perform inspection and maintenance after every 50,000 cycles. ** Lubrication of the rollings and shaft should be done every 10,000 cycles.

Diagrams

① – MOTOR SHAFT
QTY; 01 PART

② THREADED TIP FOR THE
ENCODER QTY; 01 PART

③ PFL 205 OVAL BEARING QTY;
02 PARTS (ONE ON THE DRIVING SHAFT AND
THE OTHER ON THE OPPOSITE SHAFT)

④ SA 205-16 ROLLER WITH COLLAR QTY; 02
PARTS (ONE ON THE DRIVING SHAFT AND
THE OTHER ON THE OPPOSITE SHAFT)

⑤ SA37 TRAPEZOID PAD BRACKET
QTY; 01 PART

⑥ SPACER PAD BRACKET SA37
QTY; 01 PART

⑦ SA37 GEARED MOTOR - 0.75HP 1:
19 QTY; 01 PART

⑧ @ - ADAPTING FLANGE
OF THE VCODER

⑨ VCODER WITH CABLE AND
CONNECTOR
- QTY; 01 PART

⑩ HEX NUT
QTY; M8x35 04 PARTS

⑪ BOLT ALLEN FLAT
HEAD
M10x 1 6
- QTY; 02 PARTS

⑫ PAD FM M10x 1 8 D60XH25MM S
H 75 QTY; 02 PARTS

⑬ HEX NUT M10 QTY; 02 PARTS

⑭ PHOTOCELL BRACKET VFX ZIP STAINLESS
STEEL QTY; 02 PARTS

⑮ PHOTO SENCOR, 90° 20m QTY; 01 PART

⑯ FLAT WASHER M6 QTY; 02 PARTS

⑰ HEX BOLT M6 x 12 QTY; 02 PARTS

⑱ FLAT WASHER MS QTY; 02 PARTS

⑲ HEX BOLT M8x25 QTY; 02 PARTS

Counter Diagram

Counter Diagram — CLD12 220 Cont. Version, VISOFLEX, Client: VISOFLEX, OS: 0000, REV: F

Labels and text visible in the diagram:

- LCD Intensity Setting (E2)
- VisoIHM 2.0
- RJ-12
- Output 0 Vdc
- Output 24 Vdc
- 10v White
- 10v White
- 4.5v Blue
- 4.5v Blue
- Lopping (Opt.)
- Lopping (Opt.)
- Auxiliary Input (Opt.)
- Photocell 2 (B3 - Opt.)
- Photocell 1 (B2)
- Reversion Bar (B1)
- Interlocking (Opt.)
- Opening Button (BA)
- Closing Button (BF - Opt.)
- Emergency Pushbutton (BE)
- Common
- Modulo 1 (Optional)*** / Modulo 2 (Optional)***
- E1
- Relay Output 2 (Optional) (Air Curtain)
- Auxiliary Input (Optional)
- Looping E3 (Optional)
- Relay Output 1 (Optional) (Interlocking)
- Interlocking Input (Opt.)
- Auxiliary Output
- Jumper (with wire) when B3 is not used
- Jumper (with wire) when B1 is not used
- Acion. Extra (Opc.) B4
- Sinal PNP/NF
- Fotoc. 2 Sup.** B3
- Sinal PNP/NF
- Fotoc. 1 Inf. B2
- Sinal PNP/NF
- Barra Reversao* B1
- Fio Preto+Malha
- Fio Verm. / Fio Azul / Fio Branco — VCODER E3
- BF (Opc.) S3
- BA S2
- BE S1
- Rectifier Bridge of the brake voltage of 220v Coil R1
- E4
- M1
- Three-phase 220v supply (As specified by the customer)
- Neutral
- Earth
- X1
- LIGAÇÃO EM 220V
- Mains: 220v Three-phase - 60Hz
- PE / N / T / S / R
- Q1 / Q2
- K1 Snubber 27 / K2 Snubber 28
- RT1
- T1
- 20Vca / 9Vca
- M1 3~
- VR / IR / AZ / PR — R1

Footnotes:

* B1 - Optional for doors of the VFX 1xx/2xx line (Not Available for VFX Zip and VFX 600)
** B3 - Optional for doors of the VFX 3xx/5xx line
*** The Relay Output modules (3A/250V/Ca) are Optionals that can be purchased and configured via CLD (Contact the factory for more information)
**** R2 - Only for motors with more than 0.75hp

Inverter Diagram

Mains: 220v Three-phase - 60Hz

LCD Intensity Setting

VisoIHM 2.0

Output 0 Vdc
Output 24 Vdc
10v White
10v White
4.5v Blue
4.5v Blue
Looping (Opt.)
Looping (Opt.)
Auxiliary Input (Opt.)
Photocell 2 (B3 - Opt.)
Photocell 1 (B2)
Reversion Bar (B1)
Interlocking (Opt.)
Opening Button (BA)
Closing Button (BF - Opt.)
Emergency Pushbutton (BE)
Commo

27 - Azul
28 - Vermelho
38 - Laranja
29 - Amarelo
30 - Verde

Modulo 1 (Opcional)*** Modulo 2 (Opcional)***

CFW500 Inverter for a 2 HP motor

Snubber
Snubber

Relay Output 4 (Optional) (Door Closed)
Relay Output 3 (Optional) (Door Open)
Relay Output 2 (Optional) (Air Curtain)

Auxiliary Input (Optional)
Looping E3 (Optional)
Relay Output 1 (Optional) (Interlocking)
Interlocking Input (Opt.)
Auxiliary Output

Jumper (with wire) when B3 is not used
Jumper (with wire) when B1 is not used

Acion. Extra (Opc.) B4
Fotoc. 2 Sup.** B3
Sinal PNP/NF
Fotoc. 1 Inf.** B2
Sinal PNP/NF
Barra Reversão¹ B1
Sinal PNP/NF
Fio Preto+Malha
VCODER E3
Fio Vem.
Fio Azul
Fio Branco

BF (Opc.) S3
BA S2
BE S1

Rectifier Bridge of the brake voltage of 220v Coil R1

E4

M1

LIGAÇÃO EM 220v

Alimentação 220v Trifásica
(Conforme especificado pelo cliente)

390hm 200w R2****

Neutro
Terra

VISOFLEX

Version: CLD12 220 IN 3~
Program:
.
OS: 0000
REV: F

Client: VISOFLEX

* B1 - Optional for doors of the VFX 1xx/2xx line (Not Available for VFX Zip and VFX 600)
** B3 - Optional for doors of the VFX 3xx/5xx line
***The Relay Output modules (3A/250VCa) are Optionals that can be purchased and configured via CLD (Contact the factory for more information)
**** R2 - Only for motors with more than 0.75hp

Panel Layout - Model with a Counter

Panel Layout - Model with an Inverter

T1

G1

Q2

K1

SIEMENS

2 4 6

1 3 5

CFW500

E1

ELECTRONIC
BOARD

X1

Shipment list

02 Column with lid

01 Roll Cover (Std.)

01 Roll shaft with tip for the SA37 reducer and PVC 1.6mm

02 Header

Electrics

01   Control panel complete with LCD display and harness

01 SA37 Motor and VCODER End-of-Course

02   PFL205=SA37 bearing pair + SA205-16=SA37 01 Rollers Pad Bracket for the motor: SA37 02 Motor Pad

01   Photocell pair with brackets

01 Motor Crank

02   Mushroom-type green button without lock (with BA plaque)

01 Mushroom-type red button with lock

01 Signaling led and general switch with lock for

a padlock 02 Box with hole for one 22mm-

button

Warranty

The VISOFLEX fast doors you have purchased should not be installed or operated before reading and understanding all manuals--main and of the related products--that explain the equipment installation, operation and maintenance methods.

WARRANTY - Fast doors: 01 (one) year or 100,000 cycles as of the date of the Tax receipt issuance for our manufactured products. For third party products, the warranty will be that of the manufacturer.

WARRANTY COVERAGE - All manufacturing defects shall be repaired by VISOFLEX, observing the term and conditions of this warranty, nonetheless with no prejudice to the payment conditions set out on the sale. As manufacturing defects shall be considered those deriving from noncompliance with the specifications cited in the contract, on our budget estimate, on the approval drawings or order confirmation.

The parts and equipments with manufacturing defects shall be repaired by Visoflex and, if repair is not viable, they shall be replaced, and such decision remains at the sole discretion of Visoflex.

This warranty is limited to the provision of services and materials required to remedy the manufacturing defects, and the expenses of our technicians (travel, stays and meals) shall be borne by the customer.

If shipping the product to our factory is required for inspection, repair or replacement, the expenses resulting from the transport and insurance shall be borne by the customer.

LIMITATIONS OF WARRANTY - Wear and/or problems caused by correct use or accidents are not covered by this warranty. Other examples of situations not covered by the warranty are:

   defects caused natura ear ac of eriodica maintenance ac of urication unautorized modifications faut imrudence neience or sort circuits incorrect settins and mecanica imacts

   eectrica defect suc as resistance urnin motor urnin amon oters

   defects caused unsuitae rovision of suies or materias suc as eectric oer masonr and carentr

   defects caused ars eater suc as umidit rain indstorms foods fire materia coase tat ma cause mecanica imacts it damae to te materias eter tese are itin te or area erimeter instaed or not

   en te instaations are not executed VISOFLE or an accredited team

   if te defect resented is not notified itin te eriod of 05 five das as of its verification

   en reairs or modifications are executed itout autorization or erformed non-accredited ersonne.

Delivery Protocol of the Manual

I, _____, employee of the company _____ with the position of _____ declare to have received the Visoflex door Manual of model _____ serial number _____.

_____, _____ of _____ of 20_____.

Data of your Vsoflex ZIP door

VISOFLEX

Fabricante: | VISOFLEX Portas e Portões LTDA.

CNPJ: | 07.205.402/0001-71

Email: | Rua André Adolfo Ferrari,104 - Indaiatuba - SP

Eng. Responsável: | | CREA: |

Tipo: | Porta Rápida Industrial | Modelo: |

N° de Série (OS) | | Fabricação.: |

Medida (LxA): | | Peso aprox.: |

Quantidade: |

Cliente: |

DADOS DA COMPRA

Data da compra

Data da instalação

Instalador

RG:

Empresa:

CONJUNTO MOTORREDUTOR

Potência | | Tensão: |

INVERSOR CFW 300 e CFW 500

Error	Description	Probable Causes
F0091 External failure	External failure via DIx (option "No External Failure" in P026x).	o Wiring of the DI1 and DI8 open or poorly
F0151 Main Sw version Incomp.	Main Firmware version differs from the Plug-In Module firmware version	o Blank memory in the Plug-In module (1st power up). o Failure in backing up data during power-down.
F0182 Reali. failure of pulses	Failure in the output voltage pulse resupply circuit. Note: it may be turned off in P0397	oFailure in hardware identification, compare P0295 and P0296 with the inverter identification tag. oFailure in the inverter's internal circuits.
F0228 Telegram receiving timeout	Failure that indicates a serial communication failure. Indicates that the equipment has stopped receiving valid serial telegrams for a period longer than that programmed in P0314.	o Check the network installation, ruptured cable or failure/ poor contact on the connections with the mains, earthing. o Ensure that the master always sends telegrams to the equipment in less time than that programmed on the P0314. o Disable that function on the P0314.
F0233 No supply on the CAN interface	Indicates that the CAN interface does not have supply between pins 1 and 5 of the connector.	o Measure if there is voltage within the permitted range between pins 1 and 5 of the CAN interface connector. o Check if the supply cables are not switched or inverted. o Check for contact problems on the cable or connector of the CAN interface.
F0234 Bus Off	Bus off error detected on the CAN interface.	o Check for a short circuit on the transmission cables of the CAN circuit. o Check if the cables are not switched or inverted. o Check if all network devices use the same baud rate. o Check if the termination resistors with correct values have been placed only on the extremities of the main bus. o Check if the CAN network installation has been made properly.
F0236 Master is Idle	Failure that indicates the DeviceNet master is in idle mode.	o Adjust the key that commands the master operation mode to run or the corresponding bit on the configuration word of the master software. If any doubts, check the documentation of the master in use.
F0237 Connection timeout DeviceNet	Failure that indicates that one or more I/O DeviceNet connections have expired.	o Check the network master status. o Check the network installation, ruptured cable or failure/ poor contact on the connections with the network. CFW500
F0238 DP profibus interface in clear mode	Indicates that the inverter received the command from the profibus DP network master to enter into clear mode.	o Check the network master status, ensuring that it is in RUN mode.
F0239 Offline profibus DP Interface	Indicates the interruption in the communication between the profibus DP network master and the inverter. The profibus DP communication interface went offline.	o Check if the network master is set correctly and operating normally. o Check for short-circuit or poor contact in the communication cables o Check if the cables are not switched or inverted. o Check if the termination resistors with correct values have been placed only on the extremities of the main bus. o Check the network installation in general - cable routing, earthing.
F0240 Access error to the profibus DP module	Indicates an access error to the profibus DP communication module data.	o Check if the profibus DP module is properly fitted. o Hardware errors resulting, for example, from incorrect handling or installation of the accessory may cause this error. If possible, run tests replacing the communication accessory.
F0700 Communication failure with the remote HMI	No communication with the remote HMI, but there is a speed command or reference for this source.	o Check if the HMI communication interface is properly set in the P0312 parameter. o Disconnected HMI cable.