## ■ COMUNELO



## $100 \%$ Made in Comunello Made in Italy



## Automation for now and for the

## FUTURE

The Comunello Group is built on a solid, reliable, well-structured manufacturing base. The group comprises 5 divisions in which all the products of each division are 100\% designed and produced at company headquarters in Italy. This total control over manufacturing processes guarantees the highest levels of quality. Comunello was founded in 1965 and today exports to more than 105 countries worldwide

A company with more than 50 years of manufacturing experience, a clear international vision based on the quality of our design, our groundbreaking technology, the solidity of our production, and our commitment to technical service and customer care.


MADE IN COMUNELLO


## Precisely what you would



With our reputation for mechanical excellence and passion for movement, the Automation project is a natural expression of our company vision. As a result we offer products at a level of quality that is precisely what our clients would expect and deserve. In keeping with the company philosophy for making life easy, all control electronics have been designed to be as clear to use as
possible. Because we have spent more time in the design phase, you will spend less time for installation. All connections are clearly shown on the electronic control unit to facilitate a rapid and efficient set up.

## Mechanical excellence Electrical simplicity




## ■COMUNEШO

FORMATION LAB


## INCREDIBLY

## simple and professional

Pro-setting allows for a fully articulated and detailed set-up. Incredibly easy, intuitive and rapid.

- Select the type of gate being installed
- Auto-set provides a rapid and complete set-up.
- Rapid selection of motor direction/open-close setting.
- 3D visualization with touch screen control of the complete project with accessories visualized
- In Pro-settings all parameters can be fine tuned for every aspect of the set-up.
- In Pro-settings the installer has complete management of up to 400 remote control codes.



# OT) $\underset{\text { TECHOLOOY }}{ }\rangle$ 



## Two voltages, one programming logic

The HP electronic control unit provides a vast range of programming options making it ideal for use with even the most advanced home automation systems. Comunello has two types of unit at 24 V and 230 V . To make life easy the first series of commands is the same for both units, with set up based on a simple,
intuitive program select system using LEDs. And once the programming logic has been learned, it also applies to the other control unit. Life Made Easy!

## 24V HP



## 230V HP



- Easy-to-use multi-level menu with clear LED guide for simple set up
- Motor direction set up
- 24 V \& 230 V warning / working light output
- Control panel protective covering with printed instructions
- Automated travel programming
- Double protection with fuse
- Direct adjustment of Speed (24V) or Force (230V), Slow Down and Sensitivity
- Auxiliary radio control channel
- Direct lock control output
- Photo-test for the photocell sensors
- Opto-isolated inputs
- Removable radio unit
- Back-up battery input (24V)
- Soft-Start \& Soft-Stop
- Manual set up of movement
- Radio-controlled lock
- Simplified movement or schedule set up
- Encoder input
- Removable connectors and simplified layout
- Condominium function
- Gate status light output
- 8 k 2 security input


## EUROPEAN STANDARDS

## Comunello Group is at your side:

## 1. To inform:

a. What are the current regulations?

EN 12453:2017 standards specifes compliance and safety requirements for automated locking that may come into contact with people, allowing you to define all the technical solutions necessary for the safety of the user.
b. What are the contexts required by European standards?

| Type of control |  | Hold to run | Impulse located in sight of gate | Impulse not located in sight of gate (radio control) | Automatic (Impulse) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exemples |  | switch or key operated switch | switch or key operated switch | Radio control unit | Operating cycle |
| Conditions of use | no public present TRAINED User | A | C | C | C + D |
|  | no public present UNTRAINED User | C | C | C + D | C + D |
|  | public may be present TRAINED User | B | C | C + D | C + D |
|  | public may be present UNTRAINED User | - | C + D | C + D | C + D |

c. What are the required safety devices?
a Operator Presence (continuous pressure required).
в Operator Presence (continuous pressure not required).
c Mechanical (sensitive edges) and electronic devices. You need to check whether the maximum impact forces are in line with the values required by the standards.
d Photocells, to allow detection of the presence of an obstacle in the automation operational area.

## EN 12453:2017

## 2. To offer "turnkey solution" :

## a. COMUNELLO certifies the products are in compliance with the standards.

When a gate, a door or other type of opening is automated, it becomes a a machinery which may involve risks. These are of different types:
1- Crushing
2- Shearing
3- Lifting (in case of barrier with a vertical movement)
4- Conveying

b. provides complete solution in order to certify the installation.
the wide range of automation for slide and swing gates, barriers and garage doors has been developed and produced conforming to the security European Norms. Such automations allow the installer to certify his installation. For further details please contact our tech support.
technical_assistance@comunello.it

Sliding and cantilever gates


FORT | pag. 18


FORT 2500 | pag. 28


FORT 3500 | pag. 30

Swinging gates |ll|


EAGLE | pag. 34



RAM | pag. 66


MY2021 Accessories | pag. 102


## FORT $_{\text {tesmanateneme }}$

## ■COMUNELO

Release for manual

## DIMENSION (mm)

FORT 400-500:
$A=325-B=237$
FORT 600-800-1000-1500
$A=345-B=285$


## GENERAL FEATURES

Performance: Mechanical performance and lubrication tested and guaranteed even at low temperatures
Speed: Nominal speed and slowdown adjustable up to $0.28 \mathrm{~m} / \mathrm{s}$
Obstacle detection: Obstacle detection by current absorption or encoder
Intensive use: 24 vdc version for intensive use

TECHNICAL FEATURES

|  | FORT 400 24V FORT 400 ONE | FORT 500 230V | FORT 600 24V FORT 600 ONE | FORT 800 24V FORT 800 ONE | $\begin{gathered} \text { FORT } 800 \\ 230 \mathrm{~V} \end{gathered}$ | FORT 1000 24V FORT 1000 ONE | $\begin{gathered} \text { FORT } 1000 \\ 230 \mathrm{~V} \end{gathered}$ | $\begin{gathered} \text { FORT } 1500 \\ 230 \mathrm{~V} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Voltage | 230 VAC 50 Hz | 230 VAC 50 Hz | 230 VAC 50 Hz | 230 VAC 50 Hz | 230 VAC 50 Hz | 230 VAC 50 Hz | 230 VAC 50 Hz | 230 VAC 50 Hz |
| Operating power supply | 24 VDC | 230 VAC | 24 VDC | 24 VDC | 230 VAC | 24 VDC | 230 VAC | 230 VAC |
| Power consumption | 70 W | 280 W | 110 W | 150 W | 320 W | 150 W | 340 W | 460 W |
| Max. absorption | $3,0 \mathrm{~A}$ | 1,2 A | 5,0 A | 5,6 A | 1,4 A | 6,2 A | 1,5 A | 2,0 A |
| Internal gear | Nylon | Nylon | Nylon | Bronze | Bronze | Bronze | Bronze | Bronze |
| Max. thrust | 350 N | 450 N | 550 N | 750 N | 750 N | 900 N | 900 N | 1400 N |
| Duty cycle | Intensive use | 30\% | Intensive use | 30\% | 30\% | Intensive use | 30\% | 30\% |
| Protection degree ( $(\mathbb{P})$ | \|P44 | \|P44 | \|P44 | \|P44 | \|P44 | IP44 | IP44 | \|P44 |
| Insulation class | 2 | 1 (earthing) | 2 | 2 | 1 (earthing) | 2 | 1 (earthing) | 1 (earthing) |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |
| Max. gate weight | 400 Kg | 500 Kg | 600 Kg | 800 Kg | 800 Kg | 1000 Kg | 1000 Kg | 1500 Kg |
| Rack module | M4 | M4 | M4 | M4 | M4 | M4 | M4 | M4 |
| Speed | 0,26 m/s | 0,17 m/s | 0,28 m/s | 0,28 m/s | 0,17 m/s | 0,21 m/s | 0,17 m/s | 0,17 m/s |
| Weight | $8,9 \mathrm{Kg}$ | 9,9 Kg | 10,6 Kg | 12 Kg | 12 Kg | 12 Kg | $12,4 \mathrm{Kg}$ | $12,6 \mathrm{Kg}$ |

## ■





Mechanical limit switch version


Magnetic limit switch version

Ball bearings with artic
grease
(FORT 800-1000-1500)


AUTOMATION

## $\square \bigcirc$ ONE Bus

Automation for sliding gates
24 Vdc－ONE TECHNOLOGY

24 Vdc motor，with built－in encoder and electronics，for sliding gates up to 1000 kg

| 妞 | 4 | 010 | Max．leaf weight | 监 | $(1 p)$ | O\％ | Fixing KIT＊ $\mathrm{KIT}^{*}$ | K0 | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FORT 400 ONE | 24 Vdc | G1F040MELOB00A | 400 kg | CU ONE 1M | － | － | － | 8，9 kg | 30 |
| FORT 600 ONE | 24 Vdc | G1F060MELOB00A | 600 kg | CU ONE 1M | － | － | － | 10，6 kg | 30 |
| Fort 800 ONE | 24 Vdc | G1F080MEL0B00A | 800 kg | CU ONE 1M | － | － | － | 12 kg | 30 |
| FORT 1000 ONE | 24 Vdc | G1F100MELOB00A | 1000 kg | CU ONE 1M | － | － | － | 12 kg | 30 |

＊Electromechanical limit switch included，available with magnetical limit switch version

Accessories compatibles with ONE TECHNOLOGY serie

| $\square$ | \＃ | 㖀 | 010 | ＊ | Kg |
| :---: | :---: | :---: | :---: | :---: | :---: |



G1BATTERLOGOO 1
$1,3 \mathrm{~kg}$


I／O ONE
Interface board I／O ONE
G1INTERFLOB00
$0,5 \mathrm{~kg}$


AC－35
Signal amplifier for 433 MHz remote controls
GAMPLANTLOGOO
1
0，2 kg

K－ONE
Wi－Fi connection key，One Technology
G1KEYWIFLOGOO
0，02 kg

## FORT ONE WI KIT system

Complete kits for sliding gates, 24 Vdc , up to 1500 kg

| 可 | KIT System | 0100 | K(0) | N |
| :---: | :---: | :---: | :---: | :---: |
| Fort 400 ONE |  | GK1F040MLB000A | 9,5 kg | 30 |
| Fort 600 ONE |  | GK1F060MLB000A | $11,2 \mathrm{~kg}$ | 30 |
| Fort 800 ONE |  | GK1F080MLB000A | 13 kg | 30 |
| Fort 1000 24V ONE |  | GK1F100MLB000A | 13 kg | 30 |



KIT System


## 【 COMUNELO

AUTOMATION

## FORT

Automation for sliding gates
24 Vdc and 230 Vac with encoder－mechanical and magnetic limit switch


24 Vdc and 230 Vac motor with built－in electronics for sliding gates up to 1500 kg

| 妞 | 4－ | 0100 | Max．leaf weight | 渻 | （ p ） | $\begin{aligned} & 91001 \\ & \hline 10017 \\ & \hline 0010 \end{aligned}$ | 苟： | ${ }^{4}$ | Fixing kit $^{*}$ | K0 | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FORT 400 | 24 Vdc | GFT040MELOB00A | 400 kg | CU 24V HP | $\bullet$ | $\bullet$ | $\bullet$ |  | $\bullet$ | 8，9 kg | 30 |
| FORT 600 | 24 Vdc | GFT060MELOB00A | 600 kg | CU 24V HP | $\bullet$ | － | － |  | － | 10，6 kg | 30 |
| FORT 800 | 24 Vdc | GFT080MELOB00A | 800 kg | CU 24V HP | $\bullet$ | － | $\bullet$ |  | － | 11，6 kg | 30 |
| FORT 1000 | 24 Vdc | GFT100MCLOB00A | 1000 kg | CU 24V HP | － | － | － |  | － | 12 kg | 30 |
| FORT 1000 | 24 Vdc | GFT100GCLOB00A | 1000 kg | CU 24V HP | $\bullet$ | － |  | － | － | 12 kg | 30 |
| FORT 500 | 230 Vac | GFT050MEHOB00A | 500 kg | CU 230V HP | － | － | － |  | － | 9，9 kg | 30 |
| FORT 800 | 230 Vac | GFT080MEH0B00A | 800 kg | CU 230V HP | $\bullet$ | － | － |  | － | 11，6 kg | 30 |
| FORT 1000 | 230 Vac | GFT100MEH0B00A | 1000 kg | CU 230V HP | － | － | － |  | － | $12,4 \mathrm{~kg}$ | 30 |
| FORT 1000 | 230 Vac | GFT100GCH0B00A | 1000 kg | CU 230V HP | $\bullet$ | － |  | － | － | 12，4 kg | 30 |
| FORT 1000 | 230 Vac | GFT100GOH0B00A | 1000 kg | － | － | － |  | － | － | 12，4 kg | 30 |
| FORT 1500 | 230 Vac | GFT150MHH0B00A | 1500 kg | CU 230V HP | － | － | － |  | － | 12，6 kg | 30 |
| FORT 1500 | 230 Vac | GFT150GCH0B00A | 1500 kg | CU 230V HP | － | － |  | － | － | 12，6 kg | 30 |

${ }_{01010}^{10100}=$ Encoder $-{ }^{2010}=$ Mechanical endstops
＊＝Magnetic endstops
＊Electromechanical limit switch included，available with magnetical limit switch version


KIT System

ENTRY KIT


LIGHT KIT


FULL KIT


## FORT KIT System



Complete kits for sliding gates, with encoder, 24 Vdc and 230 Vac, up to 1500 kg with electromechanical limit switch

| 目 |  | KIT System | 010 | 囫 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\sum_{\substack{\text { Fort } 400 \\ L_{24 V}}}$ | ENTRY | E. III | GKFT040ELB930A | $9,1 \mathrm{~kg}$ | 30 |
|  | LIGHT | - $11.11 \cdot$ | GkFto40elbg20A | 9,3 kg | 30 |
|  | FULL | $\text { E. } 11 \cdot 111 \text { \\|. }$ | GKFT040ELBOOOA | $9,5 \mathrm{~kg}$ | 30 |
|  | ENTRY | -11. | GKFT060ELB930A | 10,8 kg | 30 |
|  | LIGHT | E. III III | GkFT060ELB920A | 10,9 kg | 30 |
|  | FULL | $\text { II } 11 \cdot\\|\cdot\\|$ | GkFT060ELB000A | 11,2 kg | 30 |
|  | ENTRY | - 111 | GKFT080ELB930A | 11.8 kg | 30 |
|  | LIGHT | $\text { B. } 11 \cdot 11 \cdot$ | GkFT080ELB920A | 11,9 kg | 30 |
|  | FULL | $\square \cdot\\|1\\| \cdot \\| \cdot$ | GkFT080ELB000A | 12, 2 kg | 30 |
|  | ENTRY | $\text { 1. } 11 \cdot$ | GkFT100ELB930A | 12,7kg | 30 |
|  | LIGHT | - 11.11 . | GKFT100ELB920A | 12,8 kg | 30 |
|  | FULL |  | GkFT100ELB000A | 13 kg | 30 |
|  | ENTRY | $\text { B. } 11 \cdot$ | GKFT050EHB930A | 10,1 kg | 30 |
|  | LIGHT | $\text { 1. } 11 \cdot 11 \cdot$ | GKFT050EHB920A | 10,3 kg | 30 |
|  | FULL | $\mathbf{\\| I} \cdot \mathbf{I I} \cdot \\| \cdot$ | GKFT050EHB000A | 10,5 kg | 30 |
|  | ENTRY | - 11. | GKFT080EHB930A | 11,8 kg | 30 |
|  | LIGHT | $11 \cdot 111 \cdot$ | GKFT080EHB920A | $11,9 \mathrm{~kg}$ | 30 |
|  | FULL | $\text { E. } 11 \cdot 111 \text { \\|. }$ | GKFT080EHB000A | 12,2 kg | 30 |
|  | ENTRY | E. II. | GKFT100EHB930A | 12,7kg | 30 |
|  | LIGHT | $\text { E. } 11 \cdot 11 \cdot=$ | GKFT100EHB920A | 12,8 kg | 30 |
|  | FULL | $\text { B. } 11 \cdot 111 \text { II. }$ | GKFT100EHB000A | 13 kg | 30 |
| Fort 1000 DUAL KIT* ${ }^{\text {2300 }}$ | FULL | $\square \square \cdot 11 \cdot 11 \cdot 11 \cdot$ | GKFT100DHBOOOA | $25,5 \mathrm{~kg}$ | 18 |
|  | ENTRY | $\text { 4. II }=$ | GKFT150EHB930A | 13,3 kg | 30 |
|  | LIGHT | $11 \cdot 11 \cdot$ | GKFT150EHB920A | $13,4 \mathrm{~kg}$ | 30 |
|  | FULL | $\mathbf{1 1} \cdot \mathbf{1 1} \cdot \\| \cdot=$ | GKFT150EHB000A | 13,6 kg | 30 |

AUTOMATION

## FORT Accessories



| $\square$ | 國 | 包 | 010 | ¢ | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | AC－220 | Fixing support for sliding actuator | GFT001AANOG00A | 1 | $1,8 \mathrm{~kg}$ |
|  | AC－250 | No． 6 M10 anchors fixing kit | GROD4M10NOG00 | 1 | $0,98 \mathrm{~kg}$ |
|  | AC－200 | Magnetic limit switches kit | GFT001FINOGOO | 1 | 0，8 kg |
|  | AC－205 | Magnetic sensor | GFTOO2FINOGOO | 1 | $0,12 \mathrm{~kg}$ |
|  | AC－206 | Electromechanical limit switch with extended spring（for Fort 400／500／600／800／1000／1500 with Integrator opening system，Mini and Piccolo version） | GFINECORNOOPO | 1 | 0，11 kg |
|  | AC－261 | 1 m M 4 Nylon rack with iron core and 6 fixing points | GACCGT1F00008 | 1 | $0,90 \mathrm{~kg}$ |

AG－260－2M
Galvanised iron rack $M=4$ ；$A . B=22$ ；$L=2000$
GACCGT1F00002
6，2 kg

AG－260－1M
Galvanised iron rack M＝6；A．B＝30；L＝1000
GACCGT1F00003
1
6，0 kg


AG－KIT 262
Galvanised rack to be screwed $30 \times 8 \times 1 \mathrm{M}$ with spacers

GACCGT1F00005
1
$1,6 \mathrm{~kg}$


AG－KIT 262
Galvanised rack to be screwed $30 \times 12 \times 1 \mathrm{M}$ with spacers

GACCGT1F00006
1
$2,4 \mathrm{~kg}$


AG－KIT 262
Galvanised rack to be screwed $30 \times 12 \times 2 \mathrm{M}$ with spacers

GACCGT1F00007
1
4，9 kgArticle
4．Voltage
䌃 $\begin{gathered}\text { Contro } \\ \text { unit }\end{gathered}$
ontrol
1010
10010
0010
Encoder
$((p))$ Radio
Kㅇ․ Weight
Quantity
per pallet
Quantity
per box
€ $\begin{gathered}\text { Product } \\ \text { price }\end{gathered}$

## FORT 2500

## CONTROL BOARDS

## CU INDUSTRY 230V

QUAD 230V INVERTER FORT 2500/3500

## MAIN FEATURES

- Speed: thanks to the integrated inverter it is possible to adjust the nominal and slow-down speeds while maintaining high levels of force and smooth movement.
- Acceleration: The control unit allows to manage and adjust the acceleration and deceleration ramps
- Security: The control unit is able to manage, through dedicated inputs, N.C. or 8 K 2 sensitive edges and photocells.
- Diagnostics: The control unit is able to perform real-time diagnostics using dedicated LEDs and display anomalies.
- Commands: The control unit manages the commands: "only opening", "only closing", "step-by-step" and "Pedestrian".
- Sensitivity: The control unit allows to adjust the sensitivity for obstacle detection.


## CU INDUSTRY 380V

QUAD 380V FORT 2500/3500

## MAIN FEATURES

- Sensitivity: The control unit allows to adjust the sensitivity for obstacle detection.
- Commands: The control unit manages the commands: "only opening", "only closing", "step-by-step" and "Pedestrian".
- Diagnostics: The control unit is able to perform real-time diagnostics using dedicated LEDs.
- Security: The control unit is able to manage, through dedicated inputs, NC/8K2 sensitive edges and photocells.
- Simple: The main functions can be easily activated using 10 dipswitches.


## DIMENSIONS (mm)



AUTOMATION


## Technical features

Every single product is duly tested at the end of each assembly line

## *

Actuator dedicated to the Ranger telescopic sliding system

|  | FORT 2500 380V STD FE | FORT 2500 230V INV FE | FORT 2500-S 230V INV FE * |
| :---: | :---: | :---: | :---: |
| Power supply | 380 V 50 Hz | 230 V 50 Hz | 230 V 50 Hz |
| Operating power supply | 380 V | 230V3 ~ | 230V3 ~ |
| Power consumption | 0,37 KW | 0,37 KW | 0,37 KW |
| Max. absorption | 1,11 A | 1,92 A | 1,92 A |
| Max. thrust | 2000 N | 2000 N | 2000 N |
| Duty cycle | Intensive use | Intensive use | Intensive use |
| Protection degree (IP) | \|P44 | IP44 | \|P44 |
| Insulation class | 1 (earthing) | 1 (earthing) | 1 (earthing) |
| Working temperature | $-20^{\circ} /+50^{\circ}$ | $-20^{\circ} /+50^{\circ}$ | $-20^{\circ} /+50^{\circ}$ |
| Max. gate weight | 2500 Kg | 2500 Kg | 2500 Kg |
| Rack module | M4 | M4 | M4 |
| Speed | $0,17 \mathrm{~m} / \mathrm{s}$ | Up to 0,38 m/s | Up to 0,19 m/s |
| Gear ratio | 1:50 | 1:50 | 1:100 |
| Weight | 35 Kg | 37 Kg | 37 Kg |
| Control board | CU INDUSTRY 380V | CUINDUSTRY 230 V | CU INDUSTRY 230 V |

## FORT 3500

Fast, Safe, Reliable, Simple Obstacle sensitive, Speed reduction management

## CONTROL BOARDS

## CU INDUSTRY 230V

QUAD 230V INVERTER FORT 2500/3500

## MAIN FEATURES

- Speed: thanks to the integrated inverter it is possible to adjust the nominal and slow-down speeds while maintaining high levels of force and smooth movement.
- Acceleration: The control unit allows to manage and adjust the acceleration and deceleration ramps
- Security: The control unit is able to manage, through dedicated inputs, N.C. or 8K2 sensitive edges and photocells.
- Diagnostics: The control unit is able to perform real-time diagnostics using dedicated LEDs and display anomalies.
- Commands: The control unit manages the commands: "only opening", "only closing", "step-by-step" and "Pedestrian".
- Sensitivity: The control unit allows to adjust the sensitivity for obstacle detection.


## CU INDUSTRY 380V

QUAD 380V FORT 2500/3500

## MAIN FEATURES

- Sensitivity: The control unit allows to adjust the sensitivity for obstacle detection.
- Commands: The control unit manages the commands: "only opening", "only closing", "step-by-step" and "Pedestrian".
- Diagnostics: The control unit is able to perform real-time diagnostics using dedicated LEDs.
- Security: The control unit is able to manage, through dedicated inputs, NC/8K2 sensitive edges and photocells.
- Simple: The main functions can be easily activated using 10 dipswitches.


## DIMENSIONS (mm)



AUTOMATION


Technical features

|  | FORT 3500380 S STD FE | FORT 3500 230V INV FE | FORT 3500-S 230 V INV FE X |
| :---: | :---: | :---: | :---: |
| Power supply | 380 V 50 Hz | 230 V 50 Hz | 230 V 50 Hz |
| Operating power supply | 380 V | $230 \vee 3 \sim$ | $230 \mathrm{~V} 3 \sim$ |
| Power consumption | 0,75 KW | 0,75 KW | 0,75 KW |
| Max. absorption | 1,9 A | 3,29 A | 3,29 A |
| Max. thrust | 3000 N | 3000 N | 3000 N |
| Duty cycle | Intensive use | Intensive use | Intensive use |
| Protection degree (IP) | IP44 | IP44 | IP44 |
| Insulation class | 1 (earthing) | 1 (earthing) | 1 (earthing) |
| Working temperature | $-20^{\circ} /+50^{\circ}$ | $-20^{\circ} /+50^{\circ}$ | $-20^{\circ} /+50^{\circ}$ |
| Max. gate weight | 3500 Kg | 3500 Kg | 3500 Kg |
| Rack module | M6 | M6 | M4 |
| Speed | 0,17 m/s | Up to 0,38 m/s | Up to 0,19 m/s |
| Gear ratio | 1:50 | 1:50 | 1:100 |
| Weight | 46 Kg | 48 Kg | 48 Kg |
| Control board | CU INDUSTRY 380V | CUINDUSTRY 230 V | CU INDUSTRY 230V |

## © COMUNELO

## AUTOMATION

## FORT 2500

Automation for sliding gates 230 Vac and 380 Vac

230 Vac and 380 Vac three-phase motors with built-in electronics for sliding gates up to 2500 kg

| \# | - | 010 | Max. leaf weight | Inverter | $(1 p)$ | Gear ratio | K0 | $\cdots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FORT 2500* | 230 Vac | GFT250MXF2B00 | 2500 kg | - | - | 01:50 | 38 kg | 5 |
| FORT 2500 * | 400 Vac | GFT250MXGOB00 | 2500 kg |  | - | 01:50 | 39 kg | 5 |



Electromechanical limit switch included, available with magnetical limit switch version


Electromechanical limit switch included, available with magnetical limit switch version
** Compatible with Comunello RANGER system

Accessoires


## FORT 3500

## Automation for sliding gates

230 Vac and 380 Vac


230 Vac and 380 Vac three－phase motors with built－in electronics for sliding gates up to 3500 kg

| 可 | －4＝ | 010 | Max．leaf weight | Inverter | （pp） | Gear ratio | K0 | $\cdots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FORT 3500 ＊ | 230 Vac | GFT350MXF0B00 | 3500 kg | － | － | 01：50 | $53,5 \mathrm{~kg}$ | 5 |
| FORT 3500＊ | 400 Vac | GFT350MXG0B00 | 3500 kg |  | － | 01：50 | 54 kg | 5 |



Electromechanical limit switch included，available with magnetical limit switch version


Electromechanical limit switch included，available with magnetical limit switch version
＊＊Compatible with Comunello RANGER system

Accessoires

| $\square$ | 㕩 | 㕩 | 010 | $\theta$ | K9 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $11$ | AC－210 | Pignon module 6 | GFT001CRNOG00 | 1 | 0，4 kg |
|  | AC－250 | No． 6 M10 anchors fixing kit | GROD4M10N0G00 | 1 | 0，98 kg |
|  | AC－207 | Long levarage for electromechanical limit switch （for Fort 2500／3500 with Integrator opening system，Grande version） | GFINECORNOOGO | 1 | 0，05 kg |

## EAGLE畀

Underground electromechanical actuators for residential swing gates. For leaves up to 3.5 m .


LEVERAGE INCLUDED


COMPATIBLE ACCESSORIES


AC-190
External limit switches kit

AC-170
Unlocking system without cylinder


TECHNICAL FEATURES

|  | EAGLE 350 - ONE | EAGLE 350 | ENCODER EAGLE 350 | EAGLE 350 | ENCODER EAGLE 350 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Operating power supply | 24 V | 24 V | 24 V | 230 V ~ 50Hz | $230 \mathrm{~V} \sim 50 \mathrm{~Hz}$ |
| Power consumption | 150 W | 150 W | 150 W | 280 W | 280 W |
| Absorption | 6.5 A | 6.5 A | 6.5 A | 1.2 A | 1.2 A |
| Maximum torque | 220 Nm | 220 Nm | 220 Nm | 300 Nm | 300 Nm |
| Duty cycle | Intensive use | Intensive use | Intensive use | 50,00\% | 50,00\% |
| Protection rating | IP67 | IP67 | IP67 | IP67 | IP67 |
| Insulation class | 3 (selv) | 3 (selv) | 3 (selv) | 1 (earthing) | 1 (earthing) |
| Operating temp. | from $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$ | from $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$ | from $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$ | from $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$ | from $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$ |
| Minimum time of opening to $90^{\circ}$ (without slowdowns) | $\sim 12 \mathrm{sec}$ (adjustable) | $\sim 12 \mathrm{sec}$ (adjustable) | $\sim 12 \mathrm{sec}$ (adjustable) | $\sim 19 \mathrm{sec}$ | $\sim 19 \mathrm{sec}$ |
| Motor mass | 11.3 Kg | 11.3 Kg | 11.3 Kg | 11.6 Kg | 11.6 Kg |

Everysingle product is regularly tested at the end of the assembly line

EAGLE: ACCURATE SILENT AND RELIABLE


MAIN FEATURES

Performance: Mechanical performance and lubrication tested and guaranteed even at low temperatures
Speed: Nominal speed and adjustable slowdown
Obstacle detection: Obstacle detection by current absorption or by encoder
Protection: IP67 Degree of protection tested and guaranteed thanks to the particularly effective gasket between the 2 bases. Stainless steel screws.

LIMITS OF USE


DIMENSIONS (mm)


# EAGLE BOX 

Foundation box for EAGLE underground actuator


EAGLE BOX
Black cataphoresis with galvanized cover


EAGLE BOX-INOX
Stainless steel


EAGLE BOX-HG
Hot-dip galvanized foundation box for greater
corrosion resistance. A minimum thickness of 60 microns is guaranteed as required by the UNI EN ISO 1461 standard. Cover in AISI 316L stainless steel

INCLUDED ACCESSORIES


## AC-160 AC-170

The new built-in lever device makes manual release simple and easy to activate.


The shape and size of the handle ensure easy manual release.



Manual release with cylinder and key


AC-170
Manual release without cylinder

## © COMUNELO

AUTOMATION

## ＝A C D E ONE Bus

Automation for swinging gates
24 Vdc－ONE TECHNOLOGY


24 Vdc underground actuator，with built－in encoder，for leaves up to 3.5 m

| 官 | 4－ | 010 | K0］ | N |
| :---: | :---: | :---: | :---: | :---: |
| Eagle 350－ONE | 24 Vdc | G1E0350EL1G00A | 12.8 kg | 60 |

Accessories included：


## ㅌAGLE ONF w KIT System

Automation for swinging gates
24 Vdc－ONE TECHNOLOGY


Complete kit with underground actuators for swinging gates， 24 Vdc actuators up to 3.5 m leaf
目 凅 國

Eagle 24V ONE



## EAGLE KIT system




## © COMUNELO

AUTOMATION

## EAGLE

Automation for swinging gates
24 Vdc and 230 Vac


24 Vdc and 230 Vac underground actuators for swinging gates up to 3,5 m length

| 島 | 4- | 0100 | 900 <br> 1090 <br> 0010 | (0): | K0 | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eagle 350 | 24 Vdc | GEE03500L1G00A |  | - | $13,2 \mathrm{~kg}$ | 60 |
| Eagle 350 | 24 Vdc | GEE0350EL1G00A | - | - | 12.7 kg | 60 |
| Eagle 350 | 230 Vac | GEE03500H1G00A |  | - | $13,5 \mathrm{~kg}$ | 60 |
| Eagle 350 | 230 Vac | GEEO350EH1G00A | - | - | $13,4 \mathrm{~kg}$ | 60 |

ENTRY KIT



KIT System

LIGHT KIT


FULL KIT


## EAGLE KIT System



4 V Complete kits with underground actuators for swinging gates， 24 Vdc ，up to 3.5 m leaf

| $4=$ | 官 | KIT System | 010 | 罭 |  | K0 | \％ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ENTRY |  | GKEE035EL0930A | $\begin{gathered} \text { QUAD } \\ 24 \mathrm{~V}-\mathrm{HP} \end{gathered}$ | － | 28 kg | 12 |
|  | LIGHT |  | GKEE035EL0920A | $\begin{gathered} \text { QUAD } \\ \text { 24V-HP } \end{gathered}$ | － | 28 kg | 12 |
|  | FULL |  | GKEE035EL0900A | $\begin{aligned} & \text { QUAD } \\ & 24 \mathrm{~V}-\mathrm{HP} \end{aligned}$ | － | 28 kg | 12 |

Versions with 10 m cable included

230 V Complete kits with underground actuators for swinging gates， 230 Vac，up to 3.5 m leaf

| 45 | 島 | KIT System | 010 | 箵 | 9190 10010 | Kg | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

ENTRY



[^0]
## ■ COMUNELO

AUTOMATION

## EAGLE вох




## EAGLE Accessories



| $\square$ | 包 | 包 | 010 | $\uparrow$ | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: |

AC-160
Unlocking system with lever and key
GEE002SBNOGOOA
$1,20 \mathrm{~kg}$
$1,20 \mathrm{~kg}$
Unlocking system with lever $\quad$ GEEOO3SBNOGOOA $\quad 1,10 \mathrm{~kg} \quad 1,10 \mathrm{~kg}$



## CONDOR 220/350

Technical features


up to $3,5 \mathrm{~m}$

DIMENSIONS (mm)


| $\mathbf{A}^{\circ}$ | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{Z}$ | $\mathbf{W}$ |
| :---: | :--- | :--- | :--- | :--- |
| $90^{\circ}$ | 205 | 0 | 415 | 209 |
| $90^{\circ}$ | 190 | 50 | 415 | 135 |
| $90^{\circ}$ | 185 | 100 | 395 | 159,5 |
| $90^{\circ}$ | 170 | 150 | 372 | 278 |
| $110^{\circ}$ | 250 | 0 | 365 | 287 |

OPERATING LIMITS CONDOR 220


TECHNICAL FEATURES

|  | CONDOR 22024 V | CONDOR 220230 V | CONDOR 350 24V |
| :---: | :---: | :---: | :---: |
| Power supply | $230 \sim 50 \mathrm{~Hz}$ |  |  |
| Operator power supply | $\begin{gathered} 24 \mathrm{~V}== \\ \text { ONE } 24 \mathrm{~V}== \end{gathered}$ | 230V ~ | $\begin{gathered} 24 \mathrm{~V}=-= \\ \text { ONE } 24 \mathrm{~V}== \end{gathered}$ |
| Power consumption | 110 W | 280 W | 150 W |
| Current input | 5 A | 1,2 A | 6,5 A |
| Torque | 150 Nm | 250 Nm | 200 Nm |
| Duty cycle | Intensive use | 30\% | Intensive use |
| Protection rating | IP 44 |  |  |
| Insulation class | 2 earth | 1 earth | 2 |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |  |  |
| Speed | 0,10 rad/s |  |  |
| Weight | 10 Kg | 10 Kg | 10 Kg |



## CONDOR 500

Technical features


DIMENSIONS (mm)


| $\boldsymbol{X}$ | $\boldsymbol{Z}$ | $\mathbf{Y}$ |
| :--- | :--- | :--- |
| 50 | 554 | 535 |
| 100 | 555 | 635 |
| 150 | 555 | 535 |
| 200 | 555 | 690 |



## AC-102-103-104

Ambidextrous arms in painted steel with locking system


Technical features

|  | CONDOR 500 24V | CONDOR 500 230V |
| :--- | :---: | :---: |
| Voltage | 24 VDC | 230 VAC 50 Hz |
| Power consumption | 150 W | 280 W |
| Max. absorption | $6,5 \mathrm{~A}$ | $1,2 \mathrm{~A}$ |
| Max. thrust | 330 Nm | 440 Nm |
| Duty cycle | Intensive use | $50 \%$ |
| Protection degree $(\mathbb{P})$ | $\mathbb{P P} 44$ | $\mathbb{P 4} 4$ |
| Insulation class | 2 | $1($ earthing |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |
| No-load speed | $0,15 \mathrm{rad} / \mathrm{sec}$ | $0,1 \mathrm{rad} / \mathrm{sec}$ |
| Weight | 12 kg | 12 kg |


$\mathrm{L}=238 \mathrm{~mm}+620 \mathrm{~mm}$

## CONDOR 500 S

Technical features


DIMENSIONS (mm)


OPERATING LIMITS CONDOR 500 S


Technical features

|  | CONDOR 500 S 24V | CONDOR 500 S 230V |
| :--- | :---: | :---: |
| Voltage | 24 VDC | 230 VAC 50 Hz |
| Power consumption | 150 W | 280 W |
| Max. absorption | $6,5 \mathrm{~A}$ | $1,2 \mathrm{~A}$ |
| Max. thrust | 330 Nm | 440 Nm |
| Duty cycle | Intensive use | $40 \%$ |
| Protection degree (IP) | $\mathrm{IP44}$ | $\mathrm{IP44}$ |
| Insulation class | $1($ (earthing | $1($ earthing $)$ |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |
| No-load speed | $0,15 \mathrm{rad} / \mathrm{sec}$ | $0,1 \mathrm{rad} / \mathrm{sec}$ |
| Weight | 12 kg | $15,7 \mathrm{~kg}$ |



## AC-102-103-104



$\mathrm{L}=385 \mathrm{~mm}+330 \mathrm{~mm}$


$\mathrm{L}=503 \mathrm{~mm}+430 \mathrm{~mm}$

$\mathrm{L}=238 \mathrm{~mm}+620 \mathrm{~mm}$

## © COMUNELO

AUTOMATION

## CONDOR 뚜․

Automation for swinging gates
24 Vdc - ONE TECHNOLOGY


24 Vdc articulated arm actuators, with built-in encoder and mechanical stops, for leaves up to 5 m length*

|  | 丰 | 45 | 010 | Max. leaf length* | K0] | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CONDOR 220-ONE | 24 Vdc | G1C220MEL0B00 | 2,2 m | 10,0 kg | 40 |
| $3$ | CONDOR 220-S/C - ONE | 24 Vdc | G1C220M1LOB00 | 2,2 m | 10,0 kg | 40 |
|  | CONDOR 350-ONE | 24 Vdc | G1C350MELOB00 | 3,5 m | $12,0 \mathrm{~kg}$ | 40 |
| 5 | CONDOR 350-S/C - ONE | 24 Vdc | G1C350M1LOB00 | 3,5 m | $12,0 \mathrm{~kg}$ | 40 |

$S / C=$ without control unit
Accessories included:


## CONDOR ONE Eus KIT System



Complete kits with articulated arm actuators for swinging gates, 24 Vdc , with BUS accessories up to 5 m length
KKIT System


KIT System


Condor 500 ONE TECHNOLOGY KIT


## 【 COMUNELO

AUTOMATION

## CONDOR

Automation for swinging gates
24 Vdc and 230 Vac －electronic limit switch plus encoder


24 Vdc and 230 Vac articulated arm actuators for swining gates up to 5 m length＊

|  | 丰 | 4E | 0100 | Max．leaf length＊ | $3$ | $\begin{aligned} & 9190 \\ & 01010 \\ & 01010 \end{aligned}$ | 鄁 | K0 | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CONDOR 220 | 24 Vdc | GCR220EELOB00 | 2，2m | $\bullet$ | － | － | 10 kg | 45 |
|  | CONDOR 220－S／C | 24 Vdc | GCR220E1LOB00 | 2，2 m | － | － |  | 10 kg | 45 |
|  | CONDOR 220 | 230 Vac | GCR220EEH0B00 | 2，2m | － | － | － | 10 kg | 45 |
|  | CONDOR 220－S／C | 230 Vac | GCR220E1H0B00 | 2，2 m | － | － |  | 10 kg | 45 |
|  | CONDOR 350 | 24 Vdc | GCR350EELOB00 | 3，5m | － | － | － | 12 kg | 45 |
|  | CONDOR 350－S／C | 24 Vdc | GCR350E1LOB00 | 3，5 m | － | － |  | 12 kg | 45 |
|  | CONDOR 500－S／C | 24 Vdc | GCR500E1LOB00 | 5，0 m | － | － |  | 12 kg | 50 |
|  | CONDOR 500－S／C | 230 Vac | GCR500E1H0B00 | 5，0 m | － | － |  | 11，3 kg | 50 |
|  | CONDOR 500S | 24 Vdc | GCR50SEELOG00 | 2，5m | － | － | － | 10 kg | 36 |
|  | CONDOR 500S－S／C | 24 Vdc | GCR50SE1LOG00 | $2,5 \mathrm{~m}$ | － | － |  | 10 kg | 36 |
|  | CONDOR 500S | 230 Vac | GCR50SEEH0G00 | 2，5m | － | － | － | 10 kg | 36 |
|  | CONDOR 500S－S／C | 230 Vac | GCR50SE1H0G00 | 2，5m | － | － |  | 10 kg | 36 |

$S / C=$ without control unit
Accessories included：


ENTRY KIT



KIT System

## LIGHT KIT



FULL KIT


Complete kits with articulated arm actuators for swinging gates, 24 Vdc , up to 5 m length





*Condor 500 Accessories included 2 ambidextrous articulated arm AC-100:

## © COMUNELO

AUTOMATION

## CONDOR KIT System



230 V Complete kits with articulated arm actuators for swinging gates, 230 Vac, up to 5 m length

| 010 | KIT System |  | 0100 | 3) | $\begin{aligned} & 1000 \\ & 10010 \\ & \hline 0010 \end{aligned}$ | 滥 | K0] | $\bigcirc$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ENTRY | $1{ }^{1}$ | GKCR220LHB930 | - | - | $\begin{gathered} C U \\ 230 \mathrm{VPP} \end{gathered}$ | 19,2 kg | 16 |
|  | LIGHT |  | GKCR220LHB900 | - | - | $\begin{gathered} \mathrm{CU} \\ 230 \mathrm{HP} \end{gathered}$ | $19,4 \mathrm{~kg}$ | 16 |
|  | FULL |  | GKCR220LHB903 | - | - | $\begin{gathered} \mathrm{CU} \\ 230 \mathrm{VPP} \end{gathered}$ | 19,6 kg | 16 |
| Condor 500 | ENTRY |  | GKCR500LHB930 | - | - | $\begin{aligned} & \text { QUAD } \\ & 230 \mathrm{VHP} \end{aligned}$ | $25,8 \mathrm{~kg}$ | 8 |
|  | LIGHT |  | GKCR500LHB920 | - | - | $\begin{aligned} & \text { QUAD } \\ & \text { 230V HP } \end{aligned}$ | 26 kg | 8 |
|  | FULL |  | GKCR500EHB903 | - | - | $\begin{aligned} & \text { QUAD } \\ & \text { 230V HP } \end{aligned}$ | 26,2 kg | 8 |
| Condor 500S | ENTRY |  | GKCR050SEH930 | - | - | $\begin{gathered} \mathrm{CU} \\ 230 \mathrm{HP} \end{gathered}$ | 23 kg | 10 |
|  | LIGHT |  | GKCR050SEH920 | - | - | $\begin{gathered} \mathrm{CU} \\ 230 \mathrm{HP} \end{gathered}$ | 23 kg | 10 |
|  | FULL | - | GKCR050SEH900 | - | - | $\begin{gathered} \mathrm{CU} \\ 230 \mathrm{HP} \end{gathered}$ | 23 kg | 10 |



## COMDOR Accessories



|  | $\checkmark$ | 丰 | 丰 | 0100 | * | K0] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | AC-101 | Articulated arm for Condor 220/350, $\mathrm{L}=408 \mathrm{~mm}+350 \mathrm{~mm}$ | GCROO4BANOGOO | 1 | 2,9 kg |
|  |  | AC-108 | Slide arm for Condor 220/350, L=652,5 mm | GCR008BAN0B00 | 1 | 5,1 kg |
|  |  | AC-110 | Key operated emergency release | GCR001SCN0G00 | 1 | 1,2 kg |
|  |  | AC-100 | Ambidextrous articulated arm for Condor $\text { 500, } \mathrm{L}=408 \mathrm{~mm}+350 \mathrm{~mm}$ | GCR001BAN0G00 | 1 | 2,9 kg |
|  |  | AC-102 | Locking arm for Condor 500/500S, $\mathrm{L}=385 \mathrm{~mm}+330 \mathrm{~mm}$ | GCR001BANOB00 | 1 | $3,2 \mathrm{~kg}$ |
|  |  | AC-103 | Locking arm for Condor 500/500S $\mathrm{L}=503 \mathrm{~mm}+430 \mathrm{~mm}$ | GCROO2BANOB00 | 1 | $3,7 \mathrm{~kg}$ |
|  |  | AC-104 | Locking arm for Condor 500/500S $\mathrm{L}=238 \mathrm{~mm}+620 \mathrm{~mm}$ | GCR003BANOB00 | 1 | 4,1 kg |
|  |  | AC-110 | Key operated emergency release | GCR001SCN0G00 | 1 | 1,2 kg |



# ABACUS 

Technical features




## ABACUS

Technical features

DIMENSIONS (mm)


Technical features

|  | ABACUS 22024 V | ABACUS 220 230V | ABACUS 30024 V | ABACUS 300 230V | ABACUS 50024 V | ABACUS 500 230V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Voltage | 24 VDC | 230 VAC | 24 VDC | 230 VAC | 24 VDC | 230 VAC |
| Power consumption | 70 W | 180 W | 110 W | 280 W | 110 W | 280 W |
| Max. absorption | 3 A | 0,8 A | 5 A | 1,2 A | 5 A | 1,2 A |
| Max. thrust | 1500 N | 1400 N | 1800 N | 2000 N | 1800 N | 2000 N |
| Standard stroke | 296 mm | 296 mm | 296 mm | 296 mm | 446 mm | 446 mm |
| Duty cycle | Intensive use | 50\% | Intensive use | 50\% | Intensive use | 50\% |
| Protection degree (IP) | IP44 | IP44 | IP44 | IP44 | IP44 | IP44 |
| Insulation class | 2 | 1 (earthing) | 2 | 1 (earthing) | 2 | 1 (earthing) |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |
| No-load speed | $18 \mathrm{~mm} / \mathrm{s}$ | $16 \mathrm{~mm} / \mathrm{s}$ | $21 \mathrm{~mm} / \mathrm{s}$ | $16 \mathrm{~mm} / \mathrm{s}$ | $21 \mathrm{~mm} / \mathrm{s}$ | $16 \mathrm{~mm} / \mathrm{s}$ |
| Weight | 8 kg | 8,6 kg | 10,1 kg | 10,7 kg | $10,7 \mathrm{~kg}$ | $11,2 \mathrm{~kg}$ |



OPERATING LIMITS ABACUS 220


Leaf weight (Kg)

OPERATING LIMITS ABACUS 300

| 3 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2,75 |  |  |  |  |  |  |  |  |  |  |  |
|  | 2,5 |  |  |  |  |  |  |  |  |  |  |
|  | 2,25 |  |  |  |  |  |  |  |  |  |  |
|  | 2 |  |  |  |  |  |  |  |  |  |  |
|  | 1,75 |  |  |  |  |  |  |  |  |  |  |
|  | 1,5 |  |  |  |  |  |  |  |  |  |  |
|  |  | 0 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|  |  |  |  |  |  |  | eight |  |  |  |  |

Leaf weight (Kg)

| AS220 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 80 |  | 100 |  | 120 |  | 140 |  | 160 |  | 180 |  | 200 |  |
| Y | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\max } \end{gathered}$ |  | $\begin{gathered} k \\ a_{\max } \end{gathered}$ |  | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\max } \end{gathered}$ |  | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\max } \end{gathered}$ | $\begin{gathered} \mathrm{Z} \\ \mathrm{C}_{0} \end{gathered}$ | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\max } \end{gathered}$ |  | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\text {max }} \end{gathered}$ | $\begin{aligned} & \mathrm{Z} \\ & \mathrm{C}_{0} \end{aligned}$ | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\text {max }} \end{gathered}$ | $\stackrel{Z}{C_{0}}$ |
| 100 | $\begin{aligned} & 568 \\ & 98^{\circ} \end{aligned}$ | $\begin{array}{r} 55 \\ 648,5 \\ \hline \end{array}$ | $\begin{gathered} 548 \\ 107^{\circ} \\ \hline \end{gathered}$ | $\begin{gathered} 60 \\ 648,5 \\ \hline \end{gathered}$ | $\begin{gathered} 528 \\ 115^{\circ} \\ \hline \end{gathered}$ | $\begin{array}{r} 65 \\ 648,5 \\ \hline \end{array}$ | $\begin{array}{r} 508 \\ 118^{\circ} \\ \hline \end{array}$ | $\begin{gathered} 75 \\ 648,5 \\ \hline \end{gathered}$ | $\begin{gathered} 488 \\ 103^{\circ} \\ \hline \end{gathered}$ | $\begin{gathered} 85 \\ 648,5 \\ \hline \end{gathered}$ | $\begin{aligned} & 468 \\ & 95^{\circ} \end{aligned}$ | $\begin{gathered} 95 \\ 648,5 \\ \hline \end{gathered}$ | $\begin{array}{\|l\|} \hline 448 \\ \hline 90^{\circ} \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 110 \\ \hline 648,5 \\ \hline \end{array}$ |
| 120 | $\begin{aligned} & 567 \\ & 97^{\circ} \\ & \hline \end{aligned}$ | $\begin{gathered} 60 \\ 649 \\ \hline \end{gathered}$ | $\begin{gathered} 549 \\ 105^{\circ} \\ \hline \end{gathered}$ | $\begin{gathered} 65 \\ 649 \\ \hline \end{gathered}$ | $\begin{gathered} 529 \\ 112^{\circ} \\ \hline \end{gathered}$ | $\begin{gathered} 75 \\ 649 \\ \hline \end{gathered}$ | $\begin{gathered} 509 \\ 106^{\circ} \end{gathered}$ | $\begin{gathered} 85 \\ 649 \\ \hline \end{gathered}$ | $\begin{aligned} & 489 \\ & 96^{\circ} \end{aligned}$ | $\begin{gathered} 90 \\ 649 \\ \hline \end{gathered}$ | $\begin{aligned} & 469 \\ & 90^{\circ} \\ & \hline \end{aligned}$ | $\begin{aligned} & 105 \\ & 649 \\ & \hline \end{aligned}$ |  |  |
| 140 | $\begin{array}{\|l\|} \hline 566 \\ 96^{\circ} \end{array}$ | $\begin{gathered} 65 \\ 649 \end{gathered}$ | $\begin{gathered} 546 \\ 104^{\circ} \end{gathered}$ | $\begin{gathered} 70 \\ 649 \end{gathered}$ | $\begin{gathered} 526 \\ 110^{\circ} \end{gathered}$ | $\begin{gathered} 80 \\ 649 \end{gathered}$ | $\begin{aligned} & 506 \\ & 95^{\circ} \end{aligned}$ | $\begin{gathered} 90 \\ 649 \end{gathered}$ | $\begin{aligned} & 488 \\ & 89^{\circ} \end{aligned}$ | $\begin{aligned} & 100 \\ & 649 \end{aligned}$ |  |  |  |  |
| 160 | $\begin{aligned} & 564 \\ & 95^{\circ} \end{aligned}$ | $\begin{gathered} 70 \\ 649 \end{gathered}$ | $\begin{gathered} 546 \\ 102^{\circ} \\ \hline \end{gathered}$ | $\begin{gathered} 75 \\ 649 \end{gathered}$ | $\begin{aligned} & 527 \\ & 95^{\circ} \end{aligned}$ | $\begin{gathered} 85 \\ 649 \\ \hline \end{gathered}$ | $\begin{aligned} & 508 \\ & 88^{\circ} \\ & \hline \end{aligned}$ | $\begin{gathered} 95 \\ 649 \end{gathered}$ |  |  |  |  |  | 80 |
| 180 | $\begin{aligned} & 564 \\ & 95^{\circ} \end{aligned}$ | $\begin{gathered} \hline 75 \\ 649 \end{gathered}$ | $\begin{aligned} & 544 \\ & 96^{\circ} \end{aligned}$ | $\begin{gathered} 85 \\ 649 \end{gathered}$ | $\begin{aligned} & 526 \\ & 87^{\circ} \end{aligned}$ | $\begin{gathered} 95 \\ 649 \end{gathered}$ |  |  |  |  |  |  |  | C 85 |


| AS300 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| X | 80 |  | 100 |  | 120 |  | 140 |  | 160 |  | 180 |  | 200 |  |
| Y | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\max } \end{gathered}$ | $\begin{aligned} & \mathrm{Z} \\ & \mathrm{C}_{0} \end{aligned}$ | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\text {max }} \end{gathered}$ | $\begin{aligned} & Z \\ & \mathrm{C}_{0} \end{aligned}$ | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\max } \end{gathered}$ | $\begin{aligned} & Z \\ & C_{0} \end{aligned}$ | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\text {max }} \end{gathered}$ | $\begin{aligned} & \mathrm{Z} \\ & \mathrm{C}_{0} \end{aligned}$ | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\text {max }} \end{gathered}$ | $\begin{aligned} & Z \\ & C_{0} \end{aligned}$ | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\text {max }} \end{gathered}$ | $\begin{aligned} & Z \\ & C_{0} \end{aligned}$ | $\begin{gathered} \mathrm{k} \\ \mathrm{a}_{\text {max }} \end{gathered}$ | $\begin{aligned} & \mathrm{Z} \\ & \mathrm{C}_{0} \end{aligned}$ |
| 100 | 605 | 65 | 585 | 65 | 565 | 70 | 545 | 75 | 525 | 80 | 505 | 95 | 488 | 102,5 |
|  | $96^{\circ}$ | 685 | $105^{\circ}$ | 685 | $114^{\circ}$ | 685 | $115^{\circ}$ | 685 | $101^{\circ}$ | 685 | $94^{\circ}$ | 685 | $90^{\circ}$ | 688 |
| 120 | 608 | 75 | 588 | 70 | 568 | 70 | 548 | 75 | 528 | 85 | 508 | 102,5 |  |  |
|  | $95^{\circ}$ | 688 | $104^{\circ}$ | 688 | $110^{\circ}$ | 688 | $105^{\circ}$ | 688 | $95^{\circ}$ | 688 | $90^{\circ}$ | 688 |  |  |
| 140 | 607 | 65 | 586 | 65 | 567 | 75 | 547 | 80 | 529 | 90 |  |  |  |  |
|  | $95^{\circ}$ | 688 | $105^{\circ}$ | 688 | $110^{\circ}$ | 688 | $96^{\circ}$ | 688 | $90^{\circ}$ | 688 |  |  |  |  |
| 160 | 605 | 70 | 584 | 75 | 566 | 80 |  |  |  |  |  |  |  |  |
|  | $94^{\circ}$ | 688 | $100^{\circ}$ | 688 | $95^{\circ}$ | 688 |  |  | NOT RECOMMENDED |  |  |  |  |  |
| 180 | 600 | 75 | 580 | 80 |  |  |  |  |  |  |  |  |  |  |
|  | $89^{\circ}$ | 685 | $90^{\circ}$ | 680 |  |  |  |  | AC 80 |  |  |  |  |  |
| 200 | 600 | 80 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $90^{\circ}$ | 685 |  |  |  |  |  |  |  |  |  |  |  |  |

## OPERATING LIMITS ABACUS 500



Leaf weight (Kg)


## ABACUS 투트․

## Automation for swings gates <br> 24 Vdc - ONE TECHNOLOGY

24 Vdc worm screw actuators, with built-in encoder and mechanical stops, for leaves up to 5 m*

| 國 | 4- | 0100 | Max. leaf weight* | K0 | N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Abacus 220-ONE TECHNOLOGY | 24 Vdc | G1A220MELOB00 | $2,2 \mathrm{~m}$ | 8 kg | 56 |
| Abacus 300-ONE TECHNOLOGY | 24 Vdc | G1A300MELOB00 | $3,0 \mathrm{~m}$ | $10,1 \mathrm{~kg}$ | 56 |
| Abacus 500-ONE TECHNOLOGY | 24 Vdc | G1A500MELOB00 | 5,0 m | $10,7 \mathrm{~kg}$ | 42 |

Accessories included:


## ADA A ONE Bus KIT System



Complete 24 Vdc kits with worm screw actuators for swinging gate to up 5 m leaf with BUS accessories


## ABACUS 220




KIT System

ABACUS 300


## ABACUS 500

## ■ COMUNELO

AUTOMATION

## ABACUS

Automation for swinging gates
24 Vdc and 230 Vac

24 Vdc and 230 Vac worm screw actuators for swinging gates up to 5 m length＊

| 妞 | 4 | 0100 | Max．leaf length＊ | O\％ | 30 | $\frac{1920}{19090}$ | K0 | $\cdots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ABACUS 220 | 24 Vdc | GAS220MELOB00 | 2，2m | － |  | － | 8 kg | 56 |
| ABACUS 220 | 24 Vdc | GAS220EELOB00 | 2，2 m |  | － | － | 8 kg | 56 |
| ABACUS 220 | 230 Vac | GAS220MEHOB00 | 2，2m | － |  | － | 8，6 kg | 56 |
| ABACUS 300 | 24 Vdc | GAS300MELOB00 | 3，0 m | － |  | － | 10，1 kg | 56 |
| ABACUS 300 | 24 Vdc | GAS300EELOB00 | 3，0 m |  | － | － | 10，1 kg | 56 |
| ABACUS 300 | 230 Vac | GAS300MEHOBOO | 3，0 m | － |  | － | 10，7 kg | 56 |
| ABACUS 500 | 24 Vdc | GAS500MELOB00 | $5,0 \mathrm{~m}$ | $\bullet$ |  | － | $10,7 \mathrm{~kg}$ | 42 |
| ABACUS 500 | 24 Vdc | GAS500EELOB00 | $5,0 \mathrm{~m}$ |  | － | － | $10,7 \mathrm{~kg}$ | 42 |
| ABACUS 500 | 230 Vac | GAS500MEHOB00 | 5，0 m | － |  | － | $11,2 \mathrm{~kg}$ | 42 |

## Accessories included：



ENTRY KIT



KIT System

LIGHT KIT


## FULL KIT

Control Unit

| Motors |
| :---: |
| $A B A C U S 500$ |

Contor 2Ch RC Dart

## ABACUS ${ }_{\text {кт } \text { System }}$



24 V Complete kits with worm screw actuators for swinging gates, 24 Vdc , encoder, up to 5 m length

| 可 | KIT System | 0100 | \% | $\begin{aligned} & 9100 \\ & 10010 \\ & 10010 \end{aligned}$ | 渻 | K0 | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 11. | 20 M | - | - | QUAD 24 HP | $19,7 \mathrm{~kg}$ | 16 |

FUL

-
GKAS220MLB920 • • QUAD 24 HP
$19,8 \mathrm{~kg}$
16
Abacus 220
$\qquad$

ㄱ. $\mathrm{H}_{\mathrm{B}} \cdot\|\cdot\| \cdot \| \cdot$ -

GKAS220MLB908

-     - QUAD 24 HP

22 kg
16


$=$ Mechanical endstops $-\begin{gathered}0100 \\ 10010 \\ 0010\end{gathered}=$ Encoder
3): Available version with electronical endstops

## ■ COMUNELO

AUTOMATION

## ABAACBKIT System



Complete kits with worm screw actuators for swinging gates, 230 Vac, encoder, up to 5 m length


|  | ENTRY |  | GKAS300MEH930 | - | - | QUAD 230 HP | 26,1 kg | 16 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Abacus 300 | LIGHT |  | GKAS300MEH920 | - | - | QUAD 230 HP | 26,2 kg | 16 |
|  | FULL | $\underline{\square}$ | GKAS300MEH900 | - | - | QUAD 230 HP | 26,4 kg | 16 |

ENTRY
. 酉•|II

GKAS500MEH930

- • QUAD 230 HP

28 kg
$\qquad$
$\mathrm{LIGHT} \sum \cdot \mathrm{H} \cdot \boldsymbol{\mathrm { H }} \mathrm{H} \cdot \boldsymbol{\|}$. \% GKAS500MEH920

- • QUAD 230 HP

28 kg
Abacus 500
$\qquad$


| FULL $\quad$ 酉•\|•\|•\|. $\qquad$ GKAS500MEH900 |
| :-- |

- 

QUAD 230 HP
28 kg
9

Oi: = Mechanical endstops - $\begin{gathered}0100 \\ 10010 \\ 0010\end{gathered}=$ Encoder
= Available version with electronical endstops

Quantity
per box

## ABACUS Accessories




AC-80
Galvanized rear long bracket to weld
GAS003ASNOGOO
2
$1,75 \mathrm{~kg}$


## RAM

## Technical features



Rear bracket hooking
in die-cast aluminum

Every single product is duly
tested at the end of each
assembly line

## DIMENSIONS (mm)

Ambidextrous



OPERATING LIMITS RAM 220/300


| MAX OPENING | X | Y | $Z$ | K 220/300 | K 500 | WMAX |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $110^{\circ}$ | 150 | 152 | 77 | 925 | 1075 | 50 |
| $90^{\circ}$ | 170 | 182 | 77 | 885 | 1035 | 50 |

Disc-spring closing limit switches
guarantee a smooth return movement without overloading the motor.

Perfectly-matching metallic transmission gears for maximum efficiency, precision, quiet movement and reliability.

## OPERATING LIMITS RAM 500



0100120150170200220250270300320350370400420450470500
Leaf weight ( Kg )

| MAX OPENING | X | Y | $\mathbf{Z}$ | K 220/300 | K 500 | WMAX |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $110^{\circ}$ | 170 | 110 | 40 | 820 | 970 | 50 |
| $90^{\circ}$ | 170 | 110 | 40 | 880 | 1003 | 50 |

Technical features

|  | RAM 220 24V | RAM 300 24V | RAM 300 230V | RAM 500 24V | RAM 500 230V |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Voltage | 24 VDC | 24 VDC | 230 VAC | 24 VDC | 230 VAC |
| Power consumption | 60 W | 100 W | 280 W | 100 W | 280 W |
| Max. absorption | 3 A | 5 A | 1,2 A | 5 A | 1,2 A |
| Max. thrust | 1500 N | 2000 N | 1800 N | 1800 N | 2000 N |
| Standard stroke | 374 mm | 374 mm | 374 mm | 524 mm | 524 mm |
| Duty cycle | Intensive use | Intensive use | 40\% | Intensive use | 30\% |
| Protection degree (IP) | IP44 | \|P44 | IP44 | IP44 | IP44 |
| Insulation class | 2 | 2 | 1 (earthing) | 2 | 1 (earthing) |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |
| No-load speed | $18 \mathrm{~mm} / \mathrm{s}$ | $21 \mathrm{~mm} / \mathrm{s}$ | $16 \mathrm{~mm} / \mathrm{s}$ | $22 \mathrm{~mm} / \mathrm{s}$ | $15 \mathrm{~mm} / \mathrm{s}$ |
| Weight | 7 kg | $7,8 \mathrm{~kg}$ | $8,3 \mathrm{~kg}$ | $8,8 \mathrm{~kg}$ | 9,3 kg |

## ■ COMUNELO

AUTOMATION

## RAM

Automation for swinging gates
24 Vdc and 230 Vac


24 Vdc and 230 Vac telescopic rod actuators for swinging gates up to 5 m length*

| 䒜 | 4- | 0100 | Max. leaf length* | K0] | \% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RAM 220 | 24 Vdc | GRM22000LOB00 | 2,2m | 14 kg | 32 |
| RAM 300 | 24 Vdc | GRM30000LOB00 | $3,0 \mathrm{~m}$ | 15,6 kg | 32 |
| RAM 300 | 230 Vac | GRM30000H0B00 | $3,0 \mathrm{~m}$ | 16,6 kg | 32 |
| RAM 500 | 24 Vdc | GRM50000LOB00 | 5,0 m | 17,6 kg | 32 |
| RAM 500 | 230 Vac | GRM50000H0B00 | 5,0 m | 18,6 kg | 32 |

Accessories included:


## ENTRY KIT




KIT System

## LIGHT KIT



FULL KIT


AUTOMATION

## $\mathbf{R A M}$ KIT System



24 V
Complete kits with telescopic rod actuators for swinging gates， 24 Vdc ，up to 5 m length

| 丰 |  | KIT System | 0100 | 渻 | K0］ | $\bigcirc$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ENTRY |  | GKRM220HLB930 | QUAD 24V HP | 17，9 kg | 16 |
|  | LIGHT |  | GKRM220HLB920 | QUAD 24V HP | 18，1 kg | 16 |
| RAM 220 |  |  |  |  |  |  |



ENTRY ？．W．II．
GKRM500HLB930 QUAD 24V HP 21，5 kg 16


LIGHT
—I相•II•\｜
GKRM500HLB920
QUAD 24V HP
$21,7 \mathrm{~kg}$
16

RAM 500

## ■ COMUNELO

AUTOMATION

## RAM kt $_{\text {sssiem }}$



FULL
GKRM500HHB900
QUAD 230V HP 21,4 kg
16

## RAMPART



## Technical features

|  | RAMPART 600 24V | RAMPART 1000 24V |
| :---: | :---: | :---: |
| Power | $230 \mathrm{~V}( \pm 10 \%) / 50 \mathrm{~Hz}$ | $230 \mathrm{~V}( \pm 10 \%) / 50 \mathrm{~Hz}$ |
| Maximum pulling effort (force needed to start door move) | 600 N | 1000 N |
| Nominal pulling effort (force needed to maintain door move) | 200 N | 300 N |
| Maximum door leaf weight | 110 kg | 210 kg |
| Maximum opening speed | 0,14 meters/seconds | 0,14 meters/seconds |
| Maximum continuous motortime | 60 seconds (intermittent operation mode) | 60 seconds (intermittent operation mode) |
| Current consumption | 110 W | 150 W |
| Remote controls | $433,92 \mathrm{MHz}$ / dynamic code 200 Remote controls max | $433,92 \mathrm{MHz}$ / dynamic code 200 Remote controls max |
| Insulation class | 2 | 2 |
| Protection rating (IP) | IP20 | IP20 |
| Temperature range | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |
| Actuator weight | $4,5 \mathrm{~kg}$ | $5,0 \mathrm{~kg}$ |



Onboard control unit with integrated receiver

Periodical automatic detection of the current absorption during the opening and closing cycle.

Automatic detection of sensitive edges connected (N.O., N.C. 8k2).

Speed and automatic closure parameters adjustable by trimmer.

DIMENSIONS (mm)



COLOURS AVAILABLE: WHITE, BLACK



## 【 COMUNELO

AUTOMATION

## RAMPART

Electromechanical actuator
for sectional doors 24 Vdc


24 Vdc motor with encoder and built－in electronics for sectional doors，power 600 N／ 1000 N

| 单 | 4F | 0100 | 鄁 | $(1 p)$ | $\square$ | $\because$ | K0 | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rampart 600 | 24 Vdc | GRT0600ELOW00 | － | － | $9 m^{2}$ | White | $4,9 \mathrm{~kg}$ | 60 |
| Rampart 600 | 24 Vdc | GRT0600ELOB00 | － | － | $9 m^{2}$ | Black | 4，9 kg | 60 |
| Rampart 1000 | 24 Vdc | GRT1000ELOWO0 | － | － | $16 \mathrm{~m}^{2}$ | White | 6，0 kg | 60 |
| Rampart 1000 | 24 Vdc | GRT1000ELOB00 | － | － | $16 \mathrm{~m}^{2}$ | Black | 6，0 kg | 60 |

## CHAIN



Wねはほほ KIT
BELT



## CHAIN



## BLACK KIT

BELT

| $\begin{array}{ll}\text { Max } & (1 p)) \\ \text { Radio } & \text { Kig }\end{array}$ Weight |
| :--- | :--- | :--- | Quantity

1．Quantity
E $\begin{gathered}\text { Product } \\ \text { price }\end{gathered}$Max
surface $\left(\boldsymbol{p l )} \begin{array}{l}\text { Radio } \\ \text { receiver } \\ \text { Kg } \\ \text { Kight }\end{array}\right.$ per pallet

## RAMPART ${ }_{\text {кIT System }}$



Complete kits with actuator for sectional doors, 24 Vdc, up to 1000 N

| 氟 |  | KIT System | 010 | K0 | \% |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | CHAIN |  | GKRT060CLW000 | $13,5 \mathrm{~kg}$ | 48 |
| Rampart 600 | BELT |  | GKRT060BLW000 | 14 kg | 48 |
|  | CHAIN |  | GKRT060CLB000 | 13,5 kg | 48 |
| Rampart 600 | BELT |  | GKRT060BLB000 | 14 kg | 48 |
| Rampart 1000 | CHAIN |  | GKRT100CLW000 | $14,5 \mathrm{~kg}$ | 48 |
|  | BELT |  | GKRT100BLW000 | 15 kg | 48 |
|  | CHAIN |  | GKRT100CLB000 | $14,5 \mathrm{~kg}$ | 48 |
| Rampart 1000 | BELT |  | GKRT100BLB000 | 15 kg | 48 |



## © COMUNELO

AUTOMATION

## RAMPART Accessories



| $\square$ | 目 | 目 | （10） | Q | 閏 |
| :---: | :---: | :---: | :---: | :---: | :---: |



## ■COMUNELIO

## SALIENT

Technical features


## DIMENSIONS (mm)

## Technical features

|  | SALIENT 24V | SALIENT 230V FAST | SALIENT 230V SLOW |
| :--- | :---: | :---: | :---: |
| Power supply | 230 VAC | 230 VAC | 230 VAC |
| Motor power supply | 24 VDC | 230 VAC | 230 VAC |
| Current input | 150 W | 280 W | 280 W |
| Power consumption | $6,5 \mathrm{~A}$ | $1,2 \mathrm{~A}$ | $1,2 \mathrm{~A}$ |
| Torque | 330 Nm | 440 Nm | 440 Nm |
| Duty cycle | Intensive use | $40 \%$ | $40 \%$ |
| Protection rating (IP) | $\mathbb{I P 2 4 D}$ | $\mathbb{P} 24 \mathrm{D}$ | 1 P 24 D |
| Insulation class | 2 | $1($ earthing | $1($ earthing $)$ |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |
| Speed | $1,7 \mathrm{rpm}$ | $1,7 \mathrm{rpm}$ | $1,2 \mathrm{rpm}$ |
| Weight | $11,2 \mathrm{Kg}$ | $11,4 \mathrm{Kg}$ | $11,4 \mathrm{Kg}$ |





## （ $\mathbb{C}$ COMUNE山O

AUTOMATION

## SALIENT

Electromechanical actuators for projecting and non－projecting up－and－over garage doors． 24 Vdc and 230 Vac

Actuator with built－in encoder and electronics，up to $9 \mathrm{~m}^{2}$ with one motor， $16 \mathrm{~m}^{2}$ with two motors

| 丰 | 4 | 010 | Arm section | $\begin{aligned} & 1090190 \\ & 10018 \\ & 0010 \end{aligned}$ | 溫蕆 | （ p ） | K0 | \％ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Salient | 24 Vdc | GSTOFOECLOGOO | $\bigcirc$ | － | － | － | 9，3 kg | 30 |
| Salient | 24 Vdc | GSTOFOEOLOGOO | 0 | － |  |  | 7，3 kg | 30 |
| Salient | 24 Vdc | GSTQFOECLOGOO | $\Delta$ | － | － | － | $9,3 \mathrm{~kg}$ | 30 |
| Salient | 24 Vdc | GSTQFOEOLOGOO | $\Delta$ | － |  |  | 7，3 kg | 30 |
| Salient | 230 Vac | GSTOFOECHOGOO | $\bigcirc$ |  | － | － | 9，8 kg | 30 |
| Salient | 230 Vac | GSTOFOEOHOGOO | $\bigcirc$ |  |  |  | $7,8 \mathrm{~kg}$ | 30 |
| Salient | 230 Vac | GSTQFOECHOGOO | $\Delta$ |  | － | － | 9，8 kg | 30 |
| Salient | 230 Vac | GSTQFOEOHOGOO | $\Delta$ |  |  |  | $7,8 \mathrm{~kg}$ | 30 |

Accessories for
central actuator system
$\mathbf{u p}$ to $\mathbf{9} \mathbf{m}^{\mathbf{2}}$
Accessories for
double application system
up to $16 \mathbf{m}^{2}$

AUTOMATION

## SALIENT KIT System



SALIENT KIT


KIT System


SALIENT DOUBLE MOTOR KIT


AUTOMATION

## SALIENT <br> Accessories

| 0 | 目 | 目 | （10） | 0 | $1{ }^{*}$ | $\dagger$ | 0 | 网 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AC－360 | Galvanised return arms $\mathrm{L}=1500 \mathrm{~mm}$ | GSTOO1AANOGOO | $\theta$ |  | － | 1 | 6，2 Kg |
|  | AC－370 | Galvanised return arms $L=200 \mathrm{~mm}$ | GSTOO2AANOGOO | $\theta$ |  | － | 1 | 0，97 Kg |
|  | AC－375 | Galvanised return arms $\mathrm{L}=2000 \mathrm{~mm}$ | GSTOO3AANOGOO | $\theta$ |  | － | 1 | 8 kg |
|  | AC－330 | Galvanised straight arms with round bushings | GStoo3ASNOGOO | $\theta$ | － | － | 1 | 4，1 Kg |
| $\stackrel{c}{c}$ | AC－340 | Galvanised curved arms with round bushings | GSTOOAASNOGOO | $\theta$ | － | － | 1 | 4，6 Kg |
|  | AC－310 | Galvanised straight arms with ribbed bushings | GSTOO1ASNOGOO | $\theta$ | － | － | 1 | 4，1 Kg |
|  | AC－320 | Galvanised curved arms with ribbed bushings | GST002ASNOGOO | $\theta$ | － | － | 1 | 4，6 Kg |
| $0$ | AC－350 | Galvanised return arm support bracket | GSTOOSASNOGOO | $\theta$ |  | － | 1 | 0，3 Kg |
|  | AC－361 | Galvanised return arm support bracket | GSTOO1AQNOG00 | $\square$ |  | － | 1 | 6，2 Kg |
| $\mathbb{s}$ | AC－371 | Galvanised square arms $\mathrm{L}=200 \mathrm{~mm}$ | GSTOO2AQNOGOO | $\square$ |  | － | 1 | $0,97 \mathrm{~kg}$ |

AUTOMATION

## SALIENT Accessories



| $\checkmark$ | 丰 | 蒻 | 0100 | 0 | ｜${ }^{*}$ | － | 4 | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AC－376 | Galvanised square arms $\mathrm{L}=2000 \mathrm{~mm}$ | GST003AQN0G00 | $\Delta$ |  | － | 1 | 8 Kg |
| 为 | AC－311 | Galvanised straight arms with ribbed bushings | GST001SQN0G00 | $\Delta$ | － | － | 1 | 4，1 kg |
| $3$ | AC－321 | Galvanised curved arms with squared bushings | GST002SQNOGOO | $\Delta$ | － | － | 1 | 4，6 kg |
| $\sin s^{3}$ | AC－351 | Galvanised square arm support bracket | GST005SQN0G00 | $\Delta$ |  | － | 1 | 0，3 kg |
| caner | AC－300 | Galvanised support bracket $\mathrm{L}=615 \mathrm{~mm}$ | GST006ASN0G00 | $\triangle \bigcirc$ | － | － | 1 | $2,0 \mathrm{Kg}$ |
| $\mathrm{CH} \times$ | AC－305 | Galvanised support bracket $\mathrm{L}=1250 \mathrm{~mm}$ | GST007ASN0G00 | $\triangle \bigcirc$ | － | － | 1 | 4，1 Kg |
| Cxamer | AC－307 | Galvanised support bracket L＝ 2000 mm | GST008ASN0G00 | $\triangle \bigcirc$ | － | － | 1 | $6,5 \mathrm{Kg}$ |
|  | AC－380 | Galvanised external release lever | GST001SCN0G00 | $\triangle \bigcirc$ | － | － | 1 | 0，17 Kg |



# BORDER $_{\text {upo a mbeam }}$ 

Manual unlocking system available from both



Depending on the length of the beam and relative accessories, the AC-541 spring must be fixed to one of the holes of the spring-tightening arm according to the table and diagram below.


Every single product is duly tested at the end of each assembly line

## For beams up to $\mathbf{4 m}$ in length



## TECHNICAL FEATURES

|  | BORDER 400 24V |
| :--- | :---: |
| Power supply | 230 VAC |
| Motor power supply | 24 VDC |
| Power consumption | 150 W |
| Current input | $4,5 \mathrm{~A}$ |
| Torque | 100 Nm |
| Duty cycle | Intensive use |
| Protection rating (IP) | $\mathbb{P} 44$ |
| Insulation class | 2 |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |

DIMENSIONS (mm)


## （ COMUNELO

AUTOMATION

## BORDER

Automation for road barriers
24 Vdc－BORDER

24 Vdc electromechanical barrier

| 园 | －4 | 0100 | 涗 | （ 1 ） | K9 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Border 400 | 24 Vdc | GBR040EVLOA00 | CU 24 V BR | － | 45 kg | 9 |

## BORDER ${ }_{\text {кiT }}$ system

Complete 24 Vdc Border barrier kit with 3 m beam


Complete 24 Vdc Border barrier kit with 4 m beam


## Accessories



#  

Possibility to install a LED signal light on board



Depending on the length of the beam and relative accessories, the AC-541 spring must be fixed to one of the holes of the spring-tightening arm according to the table and diagram below.

| SPRING AC-541 |
| :--- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Every single product is duly tested at the end of each assembly line

## TECHNICAL FEATURES

|  | LIMIT 500 24V |
| :--- | :---: |
| Power supply | 230 VAC |
| Motor power supply | 24 VDC |
| Power consumption | 150 W |
| Current input | $6,2 \mathrm{~A}$ |
| Torque | 300 Nm |
| Duty cycle | Intensive use |
| Protection rating (IP) | $\mathbb{P 4 4}$ |
| Insulation class | 2 |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |

DIMENSIONS (mm)


For beams up to 10 m in length ( $5+5 \mathrm{~m}$ )


## LIMIT 500 투

Automation for road barriers 24 Vdc－LIMIT
ONE TECHNOLOGY

24 Vdc electromechanical barrier with encoder，One Technology

| 弱 | 4 | 0100 | －筧㬉 | （1） | K0 | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LIMIT 500 ONE | 24V | G1LX50EELOR00 | CU 24V LIMIT ONE | － | $47,5 \mathrm{~kg}$ | 9 |

## LIMIT 500

Automation for road barriers
24 Vdc－LIMIT


24 Vdc electromechanical barrier with encoder

| 围 | －45 | 0100 | $\mathrm{PAL}$ | 湄㤟 | （1p） | K0 | $\cdots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Limit 500 | 24 Vdc | GLTX50EELOR00 | RAL 3002 （RED） | CU 24V LT | － | $47,5 \mathrm{~kg}$ | 9 |
| Limit 500 | 24 Vdc | GLTX50EEL0G00 | RAL 7011 （GREY） | CU 24V LT | $\bullet$ | $47,5 \mathrm{~kg}$ | 9 |



## LIMIT 500 kIT System



Complete kits with 24 Vdc barrier, up to 5 m beam

| \# | 010 | RAL | K0 | N |
| :---: | :---: | :---: | :---: | :---: |
| Kit Limit 500-4 m | GKLTX40ELOR901 | RAL 3002 (RED) | 59 kg | 9 |
| Kit Limit 500-4 m | GKLTX40EL0G901 | RAL 7011 (GREY) | 59 kg | 9 |
| Kit Limit 500-5m | GKLTX50ELOR901 | RAL 3002 (RED) | 59 kg | 9 |
| Kit Limit 500-5m | GKLTX50EL0G901 | RAL 7011 (GREY) | 59 kg | 9 |



KIT Versions available also with splitted beams ( $2 m+2 m / 3 m+2 m$ and AC-775 Rectangular Beam Joint)

Complete 24 Vdc barrier kit with 5 m boom with traffic light function


KIT Versions available also with splitted beams ( $2 m+2 m / 3 m+2 m$ and AC-775 Rectangular Beam Joint)

## LIMIT 600 asomine

Possibility to install a LED signal light on board

Robust ambidextrous beam support in die-cast aluminium



Depending on the length of the beam and relative accessories, the AC-541 spring must be fixed to one of the holes of the spring-tightening arm according to the table and diagram below.


## DIMENSIONS (mm)

## TECHNICAL FEATURES

|  | LIMIT 600 24V |
| :--- | :---: |
| Power supply | 230 VAC |
| Motor power supply | 24 VDC |
| Power consumption | 150 W |
| Current input | $6,2 \mathrm{~A}$ |
| Torque | 300 Nm |
| Duty cycle | Intensive use |
| Protection rating (IP) | \|P44 |
| Insulation class | 2 |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |



## For beams up to $\mathbf{6 m}$ in length

## For beams up to 12 m in length ( $\mathbf{6 + 6 m}$ )



AUTOMATION

## LIMIT 600 트․

Automation for road barriers 24 Vdc－LIMIT
ONE TECHNOLOGY

24 Vdc electromechanical barrier with encoder，One Technology

| 國 | 4－ | 0100 | 渻 | K옹） |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Limit 600 ONE | 24V | G1LX60EELOR00 | CU 24V LIMIT ONE | $57,5 \mathrm{~kg}$ | 6 |

## LIMIT 600

Automation for road barriers
24 Vdc－LIMIT


24 Vdc electromechanical barrier with encoder

| \＃ | － 5 | 0100 | PRAL | 澌県 | K0 | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Limit 600 | 24 Vdc | GLTX60EELOR00 | RAL 3002 （RED） | CU 24V LT | $57,5 \mathrm{~kg}$ | 6 |
| Limit 600 | 24 Vdc | GLTX60EELOG00 | RAL 7011 （GREY） | CU 24V LT | $57,5 \mathrm{~kg}$ | 6 |



## - - -



24 Vdc electromechanical barrier with encoder, 6 m beam


KIT Version available also with splitted beams ( $3 m+3 m$ and AC-775 Rectangular Beam joint)

Complete 24 Vdc barrier kit with 6 m boom with traffic light function

|  | 國 | 0100 | $1 \triangle \mathrm{RAL}$ | K0 | N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Limit 600 | 6 m -Traffic light | GKLTX60ELOR907 | RAL 3002 (RED) | $57,5 \mathrm{~kg}$ | 6 |
| Limit 600 | 6 m -Traffic light | GKLTX60EL0G907 | RAL 7011 (GREY) | $57,5 \mathrm{~kg}$ | 6 |



KIT Version available also with splitted beam ( $3 m+3 m$ and AC-775 Rectangular Beam joint)

# LIMIT 800 up to 8 m beam 




|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6,00 | 6,50 | 7,00 | 7,50 | 8,00 |
| Beam with joint and plug | - | - | - | - | - |
| Beam with joint, plug and strip led | - | - | - | $\bigcirc$ | - |
| Beam with joint, plug and protective rubbers | - | - | - | - | - |
| Beam with joint, plug, protective rubbers and strip led | - | - | - | $\bigcirc$ | - |
| Beam with joint, plug and mobile support | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Beam with joint, plug, mobile support and strip led | - | - | - | - | - |
| Beam with joint, plug, mobile support, strip led and protective rubbers | - | $\bigcirc$ | - | - | $\bigcirc$ |
| Beam with joint, plug and aluminum skirt | - | - | $\bigcirc$ | - |  |
| Beam with joint, plug, aluminum skirt and strip led | - | - | - |  |  |
| Beam with joint, plug, aluminum skirt, strip led and mobile support | - | $\bigcirc$ |  |  |  |
| SPRING AC 540 Double SPRING AC 550 |  |  |  |  |  |

SPRING AC 540 Double SPRING AC 550

TECHNICAL FEATURES
Every single product is duly tested at the end of each assembly line

|  | LIMIT $800 \mathbf{2 4 V}$ |
| :--- | :---: |
| Power supply | 230 VAC |
| Motor power supply | 24 VDC |
| Power consumption | 150 W |
| Current input | $6,2 \mathrm{~A}$ |
| Torque | 300 Nm |
| Duty cycle | Intensive use |
| Protection rating (IP) | $\mathbb{P} 44$ |
| Insulation class | 2 |
| Working temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |

## For beams up to $10 / 16 \mathrm{~m}$

For beams up to $7 \mathrm{~m}(3+4 \mathrm{~m})$ and up to $8 \mathrm{~m}(4+4 \mathrm{~m})$

DIMENSIONS (mm)



Automation for road barriers 24 Vdc－LIMIT
ONE TECHNOLOGY

24 Vdc electromechanical barrier with encoder，One Technology

| 可 | －4＝ | 000 | 絾 | ®0 | T |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LIMIT 800 ONE | 24 V | G1L080EELOR00 | CU 24V LIMIT | 95 kg | 6 |

## LIMIT 800

Automation for road barriers
24 Vdc－LIMIT

24 Vdc electromechanical barrier with encoder

| 可 | －4， | 0100 | 消 | K0 | \％ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Limit 800 | 24 Vdc | GLT080EELOROO | CU 24V LT | 95 kg | 6 |



## LIMIT $\mathbf{8 0 0}$ kT System



Complete 24 Vdc barrier kit up to 8 m boom with traffic light function


## AUTOMATION

## LIMIT <br> Accessories




AUTOMATION

## L|M|TAccessories




## MY2021 ACCESSORIES

Complete range of new generation security accessories



## NEW DART

$$
\begin{gathered}
\text { Protection } \\
\text { Design } \\
\text { Adjustment } \\
\text { Simplicity } \\
\text { Reliability } \\
\text { Duration } \\
\text { Range } \\
\text { Technology }
\end{gathered}
$$



## New generation outdoor photocells



Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the photocell. Large space dedicated to wiring.

Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position even after installation
Duration:
High quality plastic material with anti-UV additives and embossed painting
Sync Version:
The DART SYNC version allows automatic synchronization between transmitter and receiver to avoid interference in systems with multiple pairs of photocells.


| $\square$ | 0100 | \# | -4 | IP | Range | E | Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DART | GDARTSTDNOBOOA | Pair of photocells with range up to 15 m | 12V/24V | IP 54 | 15 m | 1 Kit | $0,15 \mathrm{Kg}$ |
| DART SYNC | GDARTSTDN1B00 | Pair of photocells, synchronized version with range up to 20 m | 12V / 24V | IP 54 | 20m | 1 Kit | 0,15 Kg |
| DART BUS | GG1DARTSTN0B00A | Pair of photocells, synchronized version with range up to 20 m One Technology | 24V | IP 54 | 15 m | 1 Kit | 0,15 Kg |



## New generation outdoor photocells, slim version



Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the photocell. Large space dedicated to wiring.

Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position even after installation
Duration:
High quality plastic material with anti-UV additives and embossed painting
Sync Version:
The DART SYNC version allows automatic synchronization between transmitter and receiver to avoid interference in systems with multiple pairs of photocells.


| $\square$ | 0100 | \# | 45 | IP | Range | E | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DART SLIM | GDARTSLMNOB00A | Pair of photocells, slim version, with a range of up to 15 m | 12V / 24V | IP 54 | 15 m | 1 Kit | 0,12 Kg |
| DART SLIM SYNC | GDARTSLMN1B00A | Pair of slim photocells, slim and synchronized version, with range up to 20 m | 12V / 24V | IP 54 | 20m | 1 Kit | 0,12 Kg |
| DART SLIM BUS | GG1DARTSTNOB00A | Pair of slim photocells, slim and synchronized version, with range up to 20 m One Technology | 24 V | IP 54 | 15 m | 1 Kit | $0,12 \mathrm{Kg}$ |



## DART ADJUSTABLE

## New generation outdoor adjustable photocells, painted finish

Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the photocell. Large space dedicated to wiring.
Design:
New attractive design with no visible screws


Adjustment:
Transmitter and receiver can rotate $180^{\circ}$ on the vertical axis and $40^{\circ}$ on the horizontal axis. The slotted holes allow adjustment of the position even after installation
Duration:
High quality plastic material with anti-UV additives and embossed painting
Sync Version:
The DART SYNC version allows automatic synchronization between transmitter and receiver to avoid interference in systems with multiple pairs of photocells.


| $\square$ | 0100 | \# | - | IP | Range | 2 | Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DART ADJUSTABLE | GDARTADJNOBOOA | Pair of adjustable photocells with range up to 15 m | 12V / 24V | IP 54 | 15 m | 1 Kit | 0,25 Kg |
| DART ADJUSTABLE SYNC | GDARTADJN1B00A | Pair of adjustable photocells, synchronized version with range up to 20 m | 12V / 24V | IP 54 | 20m | 1 Kit | 0,25 Kg |
| DART ADJUSTABLE BUS | G1DARTADNOB00A | Pair of adjustable photocells, synchronized version with range up to 20 m One Technology | 24V | IP 54 | 15 m | 1 Kit | 0,25 Kg |



New generation outdoor battery-powered adjustable photocells, painted finish

Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the photocell. Large space dedicated to wiring.
Design:
New attractive design with no visible screws
Adjustment:
Transmitter and receiver can rotate $180^{\circ}$ on the vertical axis and $20^{\circ}$ on the horizontal axis. The slotted holes allow adjustment of the position even after installation
Duration:
High quality plastic material with anti-UV additives and embossed painting


| $\square$ | 0100 | 可 | - | IP | Range | 4 | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DART BATTERY | GDARTBTTNOBOOA | Pair of battery-operated adjustable photocells with capacity up to 18 m | 12V / 24V | IP 54 | 18m | 1 Kit | 0,30 kg |

A pre-assembled gasket protects the electronics from any entry of


The 4 slotted holes allow adjustment of the position even after installation


## DART ADJUSTABLE INDUSTRIAL

Adjustable photocells for industrial gates with a range of up to $\mathbf{3 0} \mathbf{m}$

ficormano

Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the photocell.
Large space dedicated to wiring.
Design:
New attractive design with no visible screws
Adjustment:
Transmitter and receiver can rotate $180^{\circ}$ on the vertical axis and $20^{\circ}$ on thehorizontal axis
The slotted holes allow adjustment of the position even after installation
Anti-vandalism:
The structure of the photocell completely in die-cast aluminum guarantees high strength and resistance.


| $\square$ | 0101 | $\square$ | 4 | IP | Range | $\pm$ | Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DART INDUSTRIAL | GDARTINDNOBOO | Pair of adjustable photocells with range up to 30 m | 12V / 24V | IP 55 | 30 m | 1 Kit | 0,60 kg |



## New generation recessed wall photocells



Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the photocell. Large space dedicated to wiring.

Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position even after installation
Duration:
High quality plastic material with anti-UV additives and embossed painting


| $\triangle$ | 0100 | \# | - | IP | Range | 4 | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DART INSERT | GDARTINSNOB00 | Pair of recessed wall photocells, adapter bowl included | 12V / 24V | IP 54 | 15 m | 1 Kit | $0,20 \mathrm{~kg}$ |
| $\underset{\text { BUS }}{\text { DART INSERT }}$ | G1DARTISNOB00A | Pair of recessed wall photocells, adapter bowl included One Technology | 24V | IP 54 | 15m | 1 Kit | 0,20 kg |


|  | G-BOX | GBOXUNSTDOBOO | Adapter bowl DART INSERT / DART INSERT BUS | 20 |
| :---: | :---: | :---: | :---: | :---: |
|  | $0,025 \mathrm{~kg}$ |  |  |  |



## DART COVER



## DART COVER

Vandalism protection in die-cast aluminum for

- DART
- DART SYNO
- DART BUS

| $\square$ | 0100 | \# | E | K0 |
| :---: | :---: | :---: | :---: | :---: |
| COVER VANDAL PROOF | GCVRDTSTDOS00 | Anti-vandalism DART photocell covers | 1 Kit | $0,15 \mathrm{Kg}$ |



## DART COVER SLIM

Vandalism protection in die-cast aluminum for:

- DART SLIM
- DART SLIM SYNC
- DART SLIM BUS

| $\bullet$ | 010 | 䓂 | 5 | K0 |
| :---: | :---: | :---: | :---: | :---: |
| COVER VANDAL PROOF SLIM | GCVRDSSTDOS00 | Anti-vandalism DART SLIM photocell covers | 1 Kit | $0,15 \mathrm{Kg}$ |



|  | O100 |
| :---: | :---: |
| MAST 50 | GMASTO05NOG00A |
| MAST 100 | GMAST010NOGOOA |
| MAST 100 TWIN | GMASTT1ONOGOOA |


| 0 | 010 |
| :---: | :---: |
| MAST SLIM 50 | GMASTSO5NOGOOA |
| MAST SLIM 100 | GMASTS1ONOGOOA |

Compatible with: DART, DART BUS, DART SYNC, TACT, TACT RADIO, TACT CARD, INDEX, INDEX BUS, INDEX EU


## NEW TACT

Complete range of New generation security accessories

$$
\begin{aligned}
& \text { Protection } \\
& \text { Design } \\
& \text { Comfort }
\end{aligned}
$$

Simplicity
Reliability
Lighting Duration Technology


『COMUNELLO

## TACT

Digital keyboard selector in die-cast aluminum, up to $\mathbf{2 5 0}$ codes storable

Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Comfort:
Keys with backlit numbers clearly visible in the dark.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the keyboard. Large space dedicated to wiring.
Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position even after installation
Durability:
Structure completely in die-cast aluminum


| $\square$ | 0100 | 國 | -4 | IP | $F$ | K9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TACT | GTACTSTDNOBOOA | Digital keyboard selector, in aluminum (working via TACT DEC) | 24 VDC/VAC | 54 | 1 | 0,35 Kg |

A pre-assembled gasket protects the
electronics from any entry of insects or


The 4 slotted holes allow adjustment of the position


## Digital keyboard selector, radio version

Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Comfort:
Keys with backlit numbers clearly visible in the dark.
Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position even after installation
Durability:
High quality plastic material with anti-UV additives and embossed painting Smart:
Up to 10 codes that can be memorized with the possibility of canceling and reprogramming the single code.


| $\square$ | 0100 | 푸 | -4* | IP | T | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TACT RADIO | GTACTRADNOBOOA | Digital keyboard selector, radio | 24 VDC/VAC | 54 | 1 | 0,15 Kg |



The 4 slotted holes allow adjustment of the position even after installation


## TACT CARD

## Digital transponder selector in die-cast aluminum, up to $\mathbf{2 5 0}$ memorable cards / TOCKENs

Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the selector. Large space dedicated to wiring.
Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position even after installation
Durability:
Structure completely in die-cast aluminum


| $\triangle$ | 0100 | 國 | - | IP | 4 | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TACT CARD | GTACTCARNOBOOA | Digital transponder selector in aluminum (working via TACT DEC) | 24 VDC/VAC | 54 | 1 | 0,27 Kg |



The 4 slotted holes allow adjustment of the position even after installation


Cable passage arranged both at the bottom and at the rear of the selector.

## 2 channels decoder for TACT / TACT-CARD



Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the keyboard. Large space dedicated to wiring.
Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position even after installation
Durability:
Structure completely in die-cast aluminum


| $\square$ | 0100 | 官 | - | IP | \% | Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TACT DEC | GTACTDECNOBOOA | Decoder for TACT / TACT-CARD | 24 VDCNAC | 54 | 1 | 0,27 Kg |



The 4 slotted holes allow adjustment of the position even after installation


Cable passage arranged both at the bottom and at the rear of the decoder.

## Key selector



Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the selector. Large space dedicated to wiring.
Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position even after installation
Strength:
Structure completely in die-cast aluminum


| $\square$ | 0100 | 풀 | IP | 2 | Kg |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Index | GINDEXSTNOBOOA | Key selector with standard cylinder | 54 | 1 | 0,28 Kg |
| INDEX BUS | GINDEXEUNOBOOA | Key selector with standard cylinder One Technology | 54 | 1 | $0,28 \mathrm{Kg}$ |



## Key selector with European cylinder



Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the keyboard.
Large space dedicated to wiring.
Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position
Strength:
Structure completely in die-cast aluminum


| -1 | OIOO | IP | 个 | Kive |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| INDEX EU | GINDEXEUNOBOOA | Key selector with European cylinder | 54 | 1 | $0,36 \mathrm{Kg}$ |



## INDEX INSERT

## Recessed wall key selector



Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the selector. Large space dedicated to wiring.
Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position
Strength:
Structure completely in die-cast aluminum


| $\triangle$ | 0100 | \# | IP | T | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| INDEX INSERT | GINSEXSTNOBOO | Recessed wall key selector, adapter bowl included | IP 54 | 1 | 0,33 Kg |


| G-BOX | GBOXUNSTDOB00 | Adapter bowl INDEX INSERT | 20 | $0,025 \mathrm{~kg}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2 |  |

The slotted holes allow adjustment of the position even after installation


## Recessed wall key selector with European cylinder



Protection:
Electronics protected by a preassembled gasket on a dedicated housing.
Simplicity and ease of installation:
Cable passage arranged both at the bottom and at the rear of the selector. Large space dedicated to wiring.

Design:
New attractive design with no visible screws
Adjustment:
The slotted holes allow adjustment of the position
Strength:
Structure completely in die-cast aluminum


| $\triangle$ | 0100 | 國 | IP | E | Kg |
| :---: | :---: | :---: | :---: | :---: | :---: |
| INDEX INSERT EU | GINSEXEUNOB00 | Recessed wall key selector with European cylinder adapter bowl included | IP 54 | 1 | 0,45 Kg |


|  | G-BOX | GBOXUNSTDOBOO | Adapter bowl INDEX INSERT | 20 |
| :---: | :---: | :---: | :---: | :---: |
|  | $0,025 \mathrm{~kg}$ |  |  |  |



## Complementary accessories



## TACT BADGE

Compatible with: TACT CARD

| $\square$ | 0100 | \# | E | K0 |
| :---: | :---: | :---: | :---: | :---: |
| TACT-BADGE | GTACTCRDNOBOOA | BADGE for new TACT CARD | 10 | 0,06 Kg |



## TACT TOCKEN

Compatible with: TACT CARD

| $\triangle$ | 0100 | 可 | E | ¢0 |
| :---: | :---: | :---: | :---: | :---: |
| tact-tocken | GTACTTKNNOBOOA | TOCKEN for new TACT CARD | 10 | $0,06 \mathrm{Kg}$ |

## 凹CONUNELIO



$$
\begin{aligned}
& \text { iol } \\
& \text { The first } \\
& \text { truly original } \\
& \text { signal light }
\end{aligned}
$$

SWift

Designed by Patrick Caseley

A new classic, timeless design timeless installation

\#ICOMUNELIO

## Accessonies

## New generation led flashing light, 24VDC

Simplicity and ease of installation:
The flashing light can be installed both on the wall and horizontally. Ample space dedicated to wiring.

Design:
New captivating design: Ixi stands out for its ultra-original and futuristic design Its perfect geometry diffuses light in an excellent way.
Adjustment:
The slotted holes allow adjustment of the position even after installation Durability:
The board is protected by a painting against possible condensation or contact with insects. External stainless steel screws.

Protection:
The internal board is completely isolated both from the inside and outside of the flashing light.


| $\square$ | 0100 | \# | - | IP | T | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IXI | GIILEDSTLYB00 | Led flashing light 24 VDC | 24 V | IP 44 | 1 | $0,35 \mathrm{Kg}$ |



The flashing light can be installed both on the wall and horizontally.


■ COMUNELO
AUTOMATION

## New generation led flashing light, 24VDC / 230VAC



Simplicity and ease of installation:
Extremely simple to install thanks to the easy access to the connection area, it can be powered at both 24 Vdc and 230 Vac .
The flashing light can be installed both on the wall and horizontally.
Design:
New captivating design: The Swift range is inspired by the concept of pure and discreet lines of the classic flashing warning lights.
Durability:
The board is protected by a painting against possible condensation or contact with insects. External stainless steel screws.
Bus Technology:
The bus technology allows you to name and manage the single flashing light.


| $\square$ | 010 | \# | - | IP | T | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SWIFT | GSWIFTSTLYB00A | Led flashing light 24 VDC / 230VAC | $24 \mathrm{~V} / 230 \mathrm{~V}$ | IP 54 | 1 | 0,25 Kg |



## REMOTE CONTROLS



| $\checkmark$ | 苇 | 官 | 0100 | $E$ | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 CHANNELS ROLLING CODE | VICTOR－2 RC | Remote control，rolling code， 2 channels，grey | GVCTR2STNOGOO | 1 | 0，02 kg |
|  | VICTOR－2 RC | Remote control，rolling code， 2 channels，blue | GVCTR2STNOLOO | 1 | 0，02 kg |
|  | VICTOR－2 RC | Remote control，rolling code， 2 channels，red | GVCTR2STNOROO | 1 | 0，02 kg |
|  | VICTOR－2 RC | Remote control，rolling code， 2 channels，green | GVCTR2STNOVOO | 1 | 0，02 kg |
|  | VICTOR－2 RC | Remote control，rolling code， 2 channels，yellow | GVCTR2STNOYOO | 1 | 0，02 kg |
| 2 CHANNELS FIXED CODE | VICTOR－ 2 SYNC | Remote control，fixed code with self learning copy， 2 channels，grey | GVCTR2SYNOGOO | 1 | 0，02 kg |
|  | VICTOR－ 2 SYNC | Remote control，fixed code with self learning copy， 2 channels，blue | GVCTR2SYNOLOO | 1 | 0，02 kg |
|  | VICTOR－ 2 SYNC | Remote control，fixed code with self learning copy， 2 channels，red | GVCTR2SYNOROO | 1 | 0，02 kg |
|  | VICTOR－2 SYNC | Remote control，fixed code with self learning copy， 2 channels，green | GVCTR2SYNOVOO | 1 | 0，02 kg |
|  | VICTOR－ 2 SYNC | Remote control，fixed code with self learning copy， 2 channels，yellow | GVCTR2SYNOYOO | 1 | 0，02 kg |
|  | VICTOR－4 RC | Remote control，rolling code， 4 channels，grey | GVCTR4STNOGOO | 1 | 0，02 kg |
|  | VICTOR－4 RC | Remote control，rolling code， 4 channels，blue | GVCTR4STNOLOO | 1 | 0，02 kg |
|  | VICTOR－4 RC | Remote control，rolling code， 4 channels，red | GVCTR4STNOROO | 1 | 0，02 kg |
| 4 CHANNELS ROLLING CODE | VICTOR－4 RC | Remote control，rolling code， 4 channels，green | GVCTR4STNOROO | 1 | 0，02 kg |
|  | VICTOR－4 RC | Remote control，rolling code， 4 channels，yellow | GVCTR4STNOYOO | 1 | 0，02 kg |
|  | VICTOR－4 SYNC | Remote control，fixed code with self learning copy， 4 channels，grey | GVCTR4SYNOGOO | 1 | 0，02 kg |
|  | VICTOR－4 SYNC | Remote control，fixed code with self learning copy， 4 channels，blue | GVCTR4SYNOLOO | 1 | 0，02 kg |
|  | VICTOR－4 SYNC | Remote control，fixed code with self learning copy， 4 channels，red | GVCTR4SYNOROO | 1 | 0，02 kg |
| 4 CHANNELS | VICTOR－4 SYNC | Remote control，fixed code with self learning copy， 4 channels，green | GVCTR4SYNOVOO | 1 | 0，02 kg |
|  | VICTOR－4 SYNC | Remote control，fixed code with self learning copy， 4 channels，yellow | GVCTR4SYNOYOO | 1 | 0，02 kg |

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VICTOR

| $\bullet$ | 岢 | 國 | 0100 | 4 | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 CHANNELS ROLLING CODE 868，46 MHZ | VICTOR－868－2 RC | Remote control，rolling code， 2 channels， $868,46 \mathrm{MHz}$ ，grey | GVCTR2S8NOGOO | 1 | 0，02 kg |
|  | VICTOR－868－2 RC | Remote control，rolling code， 2 channels， $868,46 \mathrm{MHz}$ ，blue | GVCTR2S8NOLOO | 1 | 0，02 kg |
|  | VICTOR－868－2 RC | Remote control，rolling code， 2 channels， $868,46 \mathrm{MHz}$ ，red | GVCTR2S8NOROO | 1 | 0，02 kg |
|  | VICTOR－868－2 RC | Remote control，rolling code， 2 channels， $868,46 \mathrm{MHz}$ ，green | GVCTR2S8NOVOO | 1 | 0，02 kg |
|  | VICTOR－868－2 RC | Remote control，rolling code， 2 channels， $868,46 \mathrm{MHz}$ ，yellow | GVCTR2S8NOYOO | 1 | 0，02 kg |
|  | VICTOR－868－4 RC | Remote control，rolling code， 4 channels， $868,46 \mathrm{MHz}$ ，grey | GVCTR4S8N0G00 | 1 | 0，02 kg |
|  | VICTOR－868－4 RC | Remote control，rolling code， 4 channels，868，46 MHz，blue | GVCTR4S8N0L00 | 1 | 0，02 kg |
|  | VICTOR－868－4 RC | Remote control，rolling code， 4 channels， $868,46 \mathrm{MHz}$ ，red | GVCTR4S8NOROO | 1 | 0，02 kg |
| 4 CHANNELS ROLLING CODE 868，46 MHZ | VICTOR－868－4 RC | Remote control，rolling code， 4 channels， $868,46 \mathrm{MHz}$ ，green | GVCTR4S8NOVOO | 1 | 0，02 kg |
|  | VICTOR－868－4 RC | Remote control，rolling code， 4 channels， $868,46 \mathrm{MHz}$ ，yellow | GVCTR4S8NOYOO | 1 | 0，02 kg |

Radio receiver， 2 channels， 868 MHz

GRESIVE8NOGOO
1
$0,20 \mathrm{~kg}$
—．


## VICTOR 55 CARBON FINISH

| $\checkmark$ | 芴 | 官 | 010 | * | K9 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | VICTOR 55-2 RC | Remote control, rolling code, 2 channels, CARBON finish | GVCTR2STNCCOO | 1 | 0,02 kg |
|  | VICTOR 55-2 SYNC | Remote control, fixed code with self learning copy, 2 channels CARBON finish | GVCTR2SYNCCOO | 1 | 0,02 kg |
|  | VICTOR 55-4 RC | Remote control, rolling code, 4 channels, CARBON finish | GVCTR4STNCCOO | 1 | 0,02 kg |
| 4 CHANNELS | VICTOR 55-4 SYNC | Remote control, fixed code with self learning copy, 4 channels CARBON finish | GVCTR4SYNCCOO | 1 | 0,02 kg |



AUTOMATION

## Accessories ONE TECHNOLOGY

Control board - ONE TECHNOLOGY


Accessories - ONE TECHNOLOGY

| $\square$ | Э | , | 010 | t | K0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | DART BUS | Couple of photocells, One Technology | G1DARTSTNOB00A | 1 | 0,15 kg |
|  | DART-SLIM BUS | $R x+t x$ photocell One Technology | G1DARTSLNOB00A | 1 | 0,12 kg |
|  | DART ADJUSTABLE BUS | Couple of adjustable photocells, One Technology | G1DARTADNOB00A | 1 | $0,25 \mathrm{~kg}$ |
|  | DART INSERT BUS | Pair of recessed wall photocells, One Technology | G1DARTISNOB00A | 1 | 0,20 kg |
|  | AC-51 | Back-up batteries, One Technology | G1BATTERLOGOOA | 1 | 1,30 Kg |
|  | INDEX BUS | Standard key operated switch, One Technology | G11NDEXSTOB00A | 1 | 0,25 kg |
|  | KIT INDEX BUS | Standard key operated switch - Kit no. 2 pieces with the same cylinder, One Technology | G1INDEXSDOB00A | 1 | 0,50 kg |
|  | SWIFT ONE W | Flashing LED signal light 24V, One Technology, white | G1SWIFTSTWB00 | 1 | 0,26 kg |
|  | I/O ONE | Interface I/O ONE | G1INTERFLOB00 | 1 | 0,50 kg |
|  | AC-35 | Signal amplifier for 433 MHz remote controls | GAMPLANTLOGOO | 1 | 0,2 kg |

## Accessories ONE TECHNOLOGY

Columns for ONE TECHNOLOGY accessories

AC-860 Column fixing KIT MAST NEW SLIM GMASTKITOOZO1 $\quad 10,1$

AUTOMATION

## Accessories




## DART

Couple of photocells
GDARTSTDNOBOOA
1 kit
$0,15 \mathrm{~kg}$


DART SYNC
Couple of photocells, syncronized version

GDARTSTDN1B00
1 kit
$0,15 \mathrm{~kg}$


DART COVER
Vandalism protection in die-cast aluminum for: DART, DART SYNC DART BUS


DART-SLIM
Couple of photocells, slim version
GDARTSLMNOBOOA
1 kit
$0,12 \mathrm{~kg}$


DART SLIM SYNCRO
Couple of photocells slim, syncronized version

GDARTSLMN1B00A
1 kit
$0,12 \mathrm{~kg}$

## DART COVER SLIM

Vandalism protection in die-cast aluminum for: DART SLIM, DART SLIM SYNC, DART SLIM BUS

Q
Quantity
E Product

AUTOMATION

## Accessories



## Accessories



1
$0,20 \mathrm{~kg}$

## Accessories



## Accessories



## Accessories



# GENERAL TERMS OF SALE 

## 1．GENERAL INFORMATION

1．1 This document is intended for customers（hereinafter＂Customers＂） of FRATELLI COMUNELLO SPA（hereinafter simply COMUNELLO）；its purpose is to inform customers about the contractual conditions that COMUNELLO shall apply in all the sales of its products（hereinafter GENERAL TERMS AND CONDITIONS OF SALE），unless otherwise agreed in writing，and which，in any case，are binding on and effective between the parties pursuant to art． 1341 of the Italian Civil Code．

1．2．COMUNELLO applies the Italian law in all contractual relationships involving the sale of its products，save for any specific derogations to be agreed and proved in writing．

1．3 The General Terms and Conditions of Sale listed here exclusively refer to products bearing the COMUNELLO trademark（hereinafter the ＂Products＂）．

## 2．OFFERS－QUOTES

2．1 The offers made by COMUNELLO to its Customers are effective for a maximum period of 20 （twenty）days from their submission；in any case they will have to be formalized in writing，including by email．

2．2．Upon expiry of the aforementioned deadline，the offer made by COMUNELLO shall be deemed cancelled and not acceptable by the CUSTOMER，unless otherwise specifically agreed in writing between the contracting parties

## 3．ORDERS

3．1 Purchase orders signed by the Customers and addressed to Comunello must be confirmed using the specific form prepared by Comunello（order confirmation），which each Customer has to sign and return to Comunello，precisely specifying the quantity of the goods bought and any additional features of the requested products．

3．2 The purchase contract shall be considered finalized and binding on the parties by means of：
a）confirmation of the purchase order by FRATELLI COMUNELLO SPA；
b）physical execution of the purchase order by FRATELLI COMUNELLO SPA，provided it is in compliance with the contents of the sale entered into between the parties．

3．3 Any amendment or addition to the individual provisions of the General Terms and Conditions of Sale or to the purchase order shall be ineffective unless approved in writing by COMUNELLO SPA．In the event changes are made to the purchase order after sending the form specified in paragraph 3．1．，they shall have no effect if in the meantime Comunello has accepted the order or has implemented it in part；in any event， Comunello reserves the right to cancel the original purchase order and to suspend performance of the current one，requesting damages．

3．4 The Product delivery date specified in the purchase orders is always indicative and any delay of up to 30 days with respect to such deadline shall never constitute grounds for the CUSTOMER to claim damages against Comunello or to terminate the contractual relationship．More specifically，Comunello reserves the right to extend the delivery date due to unforeseeable circumstances or force majeure or in any case for circumstances that could not be foreseen at the time of the sale（for example，difficulty in procurement of raw materials and components）； if prior to delivery，the CUSTOMER is in a difficult financial situation or changes its legal form，Comunello shall be entitled to suspend performance of，and possibly terminate the contract．

## 4．DELIVERY AND SHIPPING

4．1 The Products are delivered to the Customer at the production site or at the registered office of Comunello（hereinafter＂Delivery＂）．

4．2 If the Products are delivered Ex－works Rosà or Cassola（VI）Incoterms 2021，the risk is transferred upon delivery of the Products by FRATELL COMUNELLO SPA to the Customer or to the carrier，the CUSTOMER being in charge of the transportation costs．

4．3 Unless otherwise agreed，FRATELLI COMUNELLO SPA shall
establish，in the name and on behalf of the Customer，the type of shipment，the transport route and the carrier．

4．4 FRATELLI COMUNELLO SPA reserves the right to partially fulfil the purchase order or to partially deliver the products ordered．The Customer cannot raise any objection with regard to partial deliveriesand／or deliveries made by instalments．All Partial deliveries shall be invoiced individually and the paMYent time limits shall run from the date of each invoice．The paMYent of partial Deliveries may not be deferred until completion of all the Deliveries related to the original purchase order．The provisions of Article 4.1 shall also apply to partial deliveries．

## 5．PRICES AND PRICE LISTS

5．1 The price is as specified in the last Comunello price list for the products delivered to the Customer，including normal packaging and excluding shipping costs（hereinafter the＂Price＂）．The last price list issued by FRATELLI COMUNELLO SPA cancels all previous price lists and， unless otherwise agreed，it shall be applicable to the sale．

## 6．PAMYENT

6．1 PaMYent of the Price has to be made within the time limit agreed between the contracting parties．Failure to pay the price within the agreed time limit shall result in the application of interest for late paMYent in commercial transactions，to the extent provided by Legislative Decree No． 231 of 9.10 .2002 as amended and supplemented．Default interest shall run from the expiry of the paMYent due date，subject to COMUNELLO＇s right to seek compensation for any further damage．

6．2 The Customer may not make claims or raise objections against Comunello until the Price has been paid．

6．3 In the event of irregular paMYents，Comunello reserves the right to suspend the performance of all purchase orders，including those not affected by the delay or default by the CUSTOMER，without notice and with no right to compensation for the CUSTOMER．

## 7．RETURNS AND COMPLAINTS

7．1 Any complaints referring to either the quantity or the quality of the delivered Products must be made in writing within 8 （eight）days from receipt of the Products．

7．2 The Products returned shall be accepted by FRATELLI COMUNELLO SPA only after written agreement and exclusively with regard to new Products with their original packaging．

7．3 The Products must be returned using the appropriate transport document specifying the written permission of FRATELLI COMUNELLO SPA as well as the quantity and quality of the Products．

7．4 Returns shall not be considered accepted by FRATELLI COMUNELLO SPA unless they are returned in the manner specified above and， specifically，taking delivery of the Products at the headquarters or at the warehouses of FRATELLI COMUNELLO SPA may not be construed as acceptance of the returns．

7．5 The amount credited for returns not due to causes attributable to FRATELLI COMUNELLO SPA，shall be subject to a $30 \%$ deduction，to be regarded as a flat－rate assessment of the damage（penalty clause）， charged to the Customer on account of the general，shipping，goods deterioration，age etc．costs incurred by COMUNELLO．

## 8．WARRANTY

8．1 In business relationships or in case of products sold for professiona use，this warranty is limited to the repair or replacement of product parts that FRATELLI COMUNELLO SPA acknowledges as defective，through equivalent re－manufactured Products（the＂Conventional Warranty＂）；the warranty does not include the costs necessary for repairing or replacing the material（e．g．labour costs，rental of equipment etc）．－

8．2 The provisions contained in articles 1490 to 1495 of the Italian Civil Code shall not apply．
8．3 FRATELLI COMUNELLO SPA warrants the proper operation of the products within the limits indicated in 8.1 above．Unless otherwise agreed，
the validity of the Conventional Warranty is 24 (twenty four) months from the production date, which can be found on the products. For actuator of the Showin line the warranty is 60 (sixty) months from the production date, while for the remaining products of the Automation Frame Line the warranty is 36 (thirty six) months from the production date. The Warranty shall be effective and binding on COMUNELLO only if the product has been correctly installed and maintained in accordance with the installation and safety rules set out in the documentation provided by COMUNELLO or otherwise available on the website www.comunello.com
8.4 The warranty does not cover: failures or damage caused by transport; failures or damage caused by defects in the electrical system of the buyer and/or by carelessness, negligence, inadequate or abnormal use of such system; failure or damage due to tampering carried out by unauthorized personnel or due to incorrect use / installation (in this regard, system maintenance at least every six months is recommended) or the use of non-original spare parts; defects caused by chemical agents and/or atmospheric phenomena. The warranty does not cover the cost of consumables; in any event, COMUNELLO shall be entitled to a consideration for the work performed at the Customer, where such work proves useless as the warranty did not apply or because the customer had used the Comunello product in a negligent, reckless or incompetent manner, such that the proper use of the product could have avoided the work.
8.5 Implementation terms: unless otherwise agreed, the right to the Conventional Warranty is exercised by showing a copy of the purchase document (invoice) to COMUNELLO. Any defect must be notified to COMUNELLO within the time limit of thirty (30) days from detection of the defect. The action must be exercised within the limitation period of 6 (six) months from detection of the defect. The Product parts for which the Customer requests application of the Conventional Warranty must be returned by the Customer to FRATELLI COMUNELLO SPA, Via Cassola 64, 36027 Rosà (VI) Italy.
8.6 The Customer cannot claim compensation for indirect damage, loss of profits, loss of production and in any case it cannot claim compensation for an amount that exceeds the value of the supplied components or products. All transport costs for Products that have been repaired or to be repaired, although covered by the Conventional Warranty, shall be charged to the Customer.
8.7 No external work carried out by Comunello technical staff is covered by the Conventional Warranty.
8.8 Specific amendments to the Conventional Warranty conditions described herein can be defined by the parties in their commercial contracts.

## 9. REPAIRS AFTER EXPIRATION OF THE WARRANTY

9.1 The Product repairs requested by the Customer shall be carried out by FRATELLI COMUNELLO SPA, subject to prior agreement on the cost of the work. In any case, labour and transport costs (return) shall be charged to the customer.

## 10. RESERVATION OF TITLE

10.1 The Products delivered to the CUSTOMER shall continue to be the property of FRATELLI COMUNELLO SPA until full paMYent of the Price by the Customer, regardless of who has possession of the Products. Transport costs and other costs necessary to recover the Products as well as extraordinary expenses and those that can be recovered, shall be charged to the Customer.

## 11. PATENTS, TRADEMARKS AND DISTINCTIVE MARKS

11.1 The Customer is aware that the Products are covered by patents and incorporate know-how and design that are the exclusive property of FRATELLI COMUNELLO SPA, pursuant to the Italian Industrial Property Code.
11.2 The Customer is expressly forbidden from infringing such FRATELLI COMUNELLO SPA's rights; in any case, the Customer may not in any way remove, delete or otherwise alter the trademarks or other signs or distinctive marks of any kind affixed to Products; the Customer
is likewise forbidden from affixing new ones of any kind. Any form of reproduction or use of the FRATELLI COMUNELLO SPA trademark and of any other distinctive mark on the Products is forbidden, without written authorization by

FRATELLI COMUNELLO SPA.

## 12. EXPRESS TERMINATION CLAUSE

12.1 Pursuant to article 1456 of the Italian Civil Code, any delay of more than ten days in the paMYent, or any non-paMYent of the Price, including partial, by the Client, as provided for in Article 6 of these General Terms and Conditions of Sale, shall result in termination of the purchase contract and FRATELLI COMUNELLO SPA shall be entitled to seek compensation from the Customer for the damage suffered, in addition to restitution of the Products not paid by the Customer.
12.2 The notice referred to in the previous paragraph shall be sent by registered mail with return receipt or via certified email address (Pec).

## 13. AGREEMENT BETWEEN THE PARTIES

13.1 Any agreements, existing or that will take place between FRATELLI COMUNELLO SPA and the Customer, in relation to returns and paMYent methods, shall prevail over the provisions of these General Terms and Conditions of Sale.
14. APPLICABLE LAW AND JURISDICTION
14.1 The purchase contracts entered into in accordance with the General Terms and Conditions of Sale are subject to Italian law only, with the exclusion of any other legislation.
14.2 All disputes that may arise on the mentioned purchase contracts shall be subject to Italian jurisdiction and referred to the exclusive competence of the Court of Vicenza, including if the agreed paMYent method is by bank collection order or draft payable at the customer's. (Italy). The content of this catalogue is subject to change at any time and without notice by FRATELLI COMUNELLO SPA.
(Italy). The content of this catalogue is subject to change at any time and without notice by FRATELLI COMUNELLO SPA.

## [ COMUNELO AUTOMATION

Help Desk +39 0424585111
www.comunello.com

FRATELLI COMUNELLO S.P.A.

## HEADQUARTERS

Via Zarpellon, 33
36027 San Giuseppe di Cassola, Vicenza, Italy
Tel. +39 0424585111 Fax +39 0424533417
info@comunello.it www.comunello.com

## REGISTERED OFFICE

Via Cassola,64 - C.P. 79
36027 Rosà, Vicenza, Italy
Tel. +39 0424585111 Fax +39 0424533417
info@comunello.it www.comunello.com


[^0]:    Versions with 10 m cable included

