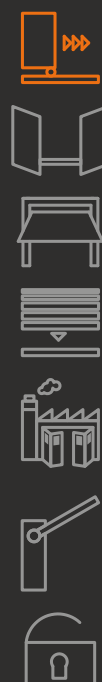


TWATTO SERIES



TODAY'S DIGITAL INTELLIGENCE
MOVES YOUR GATE



WHAT WE DO

INNOVATION, TOP NOTCH MECHANICS AND NEVER-ENDING TECHNOLOGICAL RESEARCH ARE THE ELEMENTS THAT MAKE ROGER TECHNOLOGY A UNIQUE AND DIFFERENT COMPANY

Starting from our first day of work we immediately gave priority to the development and production of excellent, completely Italian mechanics, based only on top quality ferrous and non ferrous raw materials and guaranteed by impeccable production and surface treatment processes. It was just a few years later, in the 1990s, that we created the first major step in our history, by implementing a mass production line for completely robotised motors, thus becoming a reference outsourcer for major brands of the gate automation market.

PEOPLE, IDEAS AND PRODUCT EXPERIENCE

From the very beginning **Roger Technology** has evolved and grown because it's people believe that any bright idea can lead to great change in the future. Our people are passionate and innovative in their approach to every challenge, always pushing the boundaries to develop extraordinary products.

In our language we translate the word "**experience**" as passion. It is this passion that drives us in the development of revolutionary **new products** that serve the real needs of our customers. We understand that our customers want a product designed around the way that they work.

Primo Florian
Founding partner
Engineering
and design

Dino Florian
Founding President
Development
and design

Renato Florian
Founding partner
Assembly
and quality



OUR PLUSES



EXCELLENT RAW MATERIALS

Steel, ductile cast iron, aluminium, bronze, copper and titanium have always been the main and exclusive raw materials used in the advanced engineering processes of our company.



PRODUCTION TECHNOLOGY

At Roger Technology all internal manufacturing is carried out on optimised production lines making use of very advanced technology. We have invested heavily in robotics and automated all product manufacturing phases. This ensures that all components and semi-finished products are highly reliable and are fully compliant with our exceptionally high quality standards.



INTERNAL ASSEMBLY

Our highly qualified and dedicated staff oversee the fitting and assembly stages. Every piece of equipment is checked by our all Italian personnel to ensure that we deliver reliable products to our customers.



MADE IN ITALY

All solutions, products, design and the complete production process of Roger Technology is developed in Italy with the use of materials of primary quality always found in the market through partner suppliers that share the same passion and professionalism of our company in developing products technologically reliable, efficient and simple in the way that they have been made for being installed and used.



BRUSHLESS MOTOR

A DIGITAL BRUSHLESS MOTOR WITH PERMANENT MAGNETIC FIELD, DIGITAL ELECTRONICS FOR THE COMPLETE MANAGEMENT OF THE AUTOMATION SYSTEM CONTROL. DESIGNED FOR SUPER INTENSIVE USE WITH THE ADDED BENEFIT OF A SUPER LOW POWER CONSUMPTION: **THIS IS ROGER BRUSHLESS**

We are the creators at the heart of the product!
All of our digital brushless motors are designed and manufactured in our own factories. Using dedicated automated machines the motors are wound with ultimate precision.

DIGITAL BRUSHLESS MOTOR

Revolutionary and innovative digital Brushless motor with permanent magnetic field, three-phase sinusoidal power supply with native encoder that allows super-intensive use of the automation system with extremely low power consumption, not only providing 100% compliance with all the automation system management and safety rules, but setting new standards in gate safety.

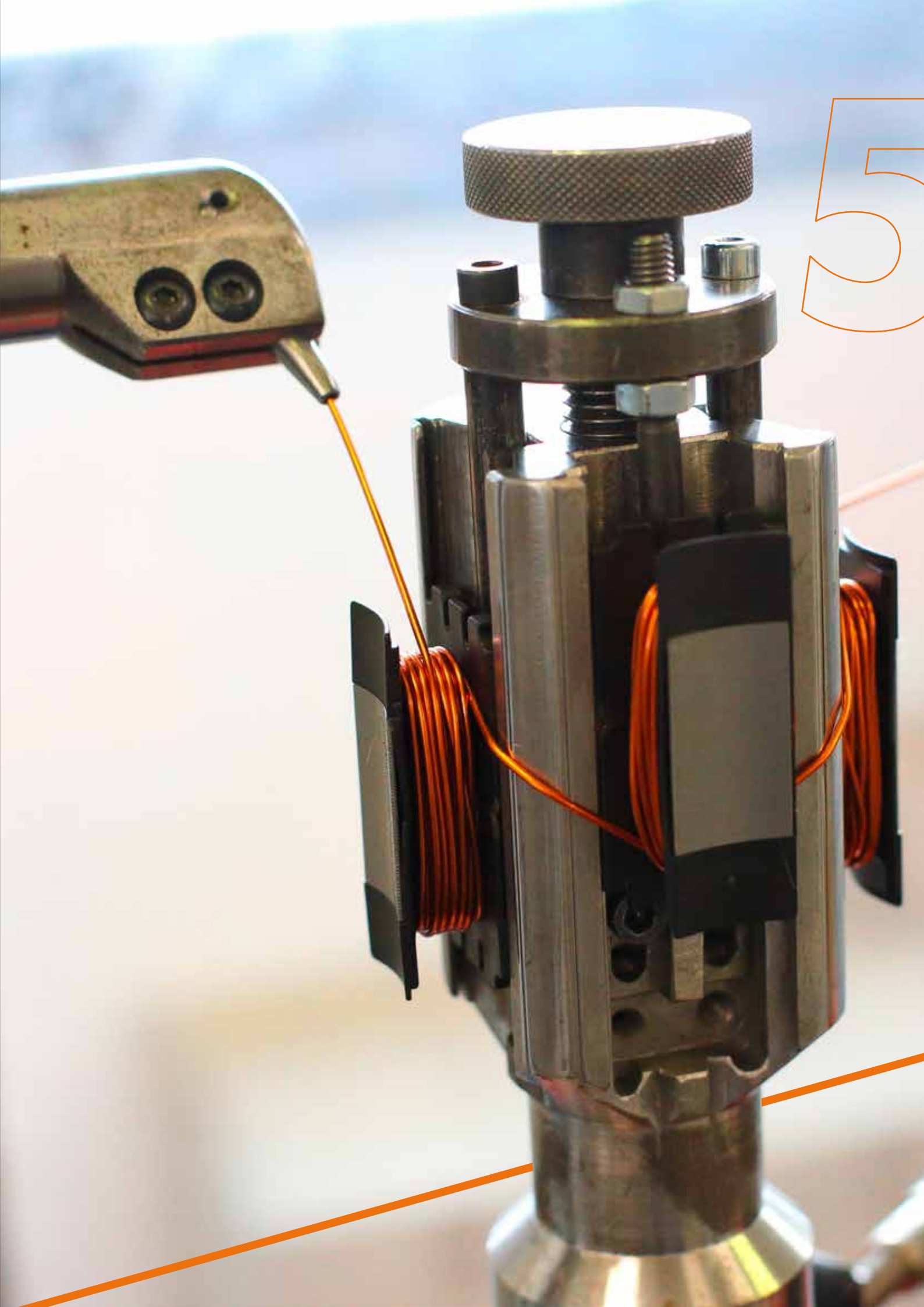
NEW GENERATION OF ELECTRONICS

The new control unit with onboard digital Brushless controller. Without traditional relays and due to the revolutionary MOSFET quadrant system and its control technology entirely based on a DSP (Digital Signal Processor) microcontroller, it represents a new generation of electronic cards created to safely handle all movement phases of the automation system.

ENGINEERING PASSION

All the mechanical components and gears are manufactured in steel, cast iron and bronze. The automation system casings are made from titanium-reinforced die-cast aluminium. All the gears are inspected and assembled on high-quality bearings and inserted on precise seats machined to provide absolute precision between the axes.

A TECHNOLOGY THAT OFFERS MAXIMUM PERFORMANCE
BUT CONSUMES LESS POWER THAN OTHER MOTORS



COMPLETELY BRUSHLESS

THE REVOLUTIONARY DIGITAL MOTOR WITH 12 UNIQUE FEATURES



3-PHASE DIGITAL BRUSHLESS MOTOR

A very powerful motor with substantial torque. The motor is compact and neat due to the special concentrated coil windings, it is powered by a **three phase sinusoidal system**.



NO PROBLEM IN THE EVENT OF POWER FAILURE

With the help of internal or external batteries and the associated battery charging card, your automation system continues to operate for a considerable time **even during prolonged power cuts**, ensuring many more operations than traditional technologies.



SPEED, ACCELERATION AND DECELERATION WITH EXTREME ELEGANCE

The automation system with brushless digital technology creates perfect and elegant movements. With a constant **force and torque** at every point and with the option of varying the speed on deceleration and acceleration the system can be managed with maximum safety.



EXTREMELY LOW ENERGY CONSUMPTION

A motor that can operate at low voltage in super-intensive use and which can operate in environments with extremely demanding weather conditions while maintaining **very low energy consumption and absorption levels**.



DIGITAL AND VECTORIAL AUTOMATION CONTROLLER

The BRUSHLESS digital controller, which operates at low voltage **24V/36V DC**, allows 100% control of the automation system in digital mode. Due to its operation entirely based on a DSP microcontroller the travel and all the movements of your automation system can therefore be programmed and customised easily, precisely and elegantly.



MOTOR AT AMBIENT TEMPERATURE

The BRUSHLESS motor was created with the main goal of being a motor for super intensive use and **with a 99% efficiency**. Regardless of how many operations the engine performs in a day, it always remains cold or at the most reaches the outside ambient temperature.



THE DIGITAL SILENCE OF THE MOTOR

One great impact is the **silence** or the near absence of noise, generated by the BRUSHLESS motor during all its movements.



MOTOR FOR SUPER-INTENSIVE USE

We wanted to surprise our customers with a product that was fundamentally different to any other product on the market. Fact: our motor remains **permanently cold** even after many days of super intensive use.



IMPACT, OBSTACLE DETECTION AND REVERSAL IN TOTAL SAFETY

Thanks to digital technology we are able to **detect an obstacle** and reverse the motor instantly, by simply specifying the torque of the motor, the sensitivity, the time and the travel of the reversal. All in full compliance with safety requirements.



ONBOARD NATIVE DIGITAL ENCODER

The BRUSHLESS motor has a highly advanced **native digital encoder** that controls management of automation systems in a safe, precise and extremely elegant manner.



SIMPLE INSTALLATION WITH A SINGLE 3-WIRE CABLE

The BRUSHLESS motor can be installed by simply connecting it using three wires! What could be easier? This will provide full digital management of your automation system thanks to the **SENSELESS** and **SENSED** (absolute encoder) technology incorporated in the BRUSHLESS sliding gate motors.

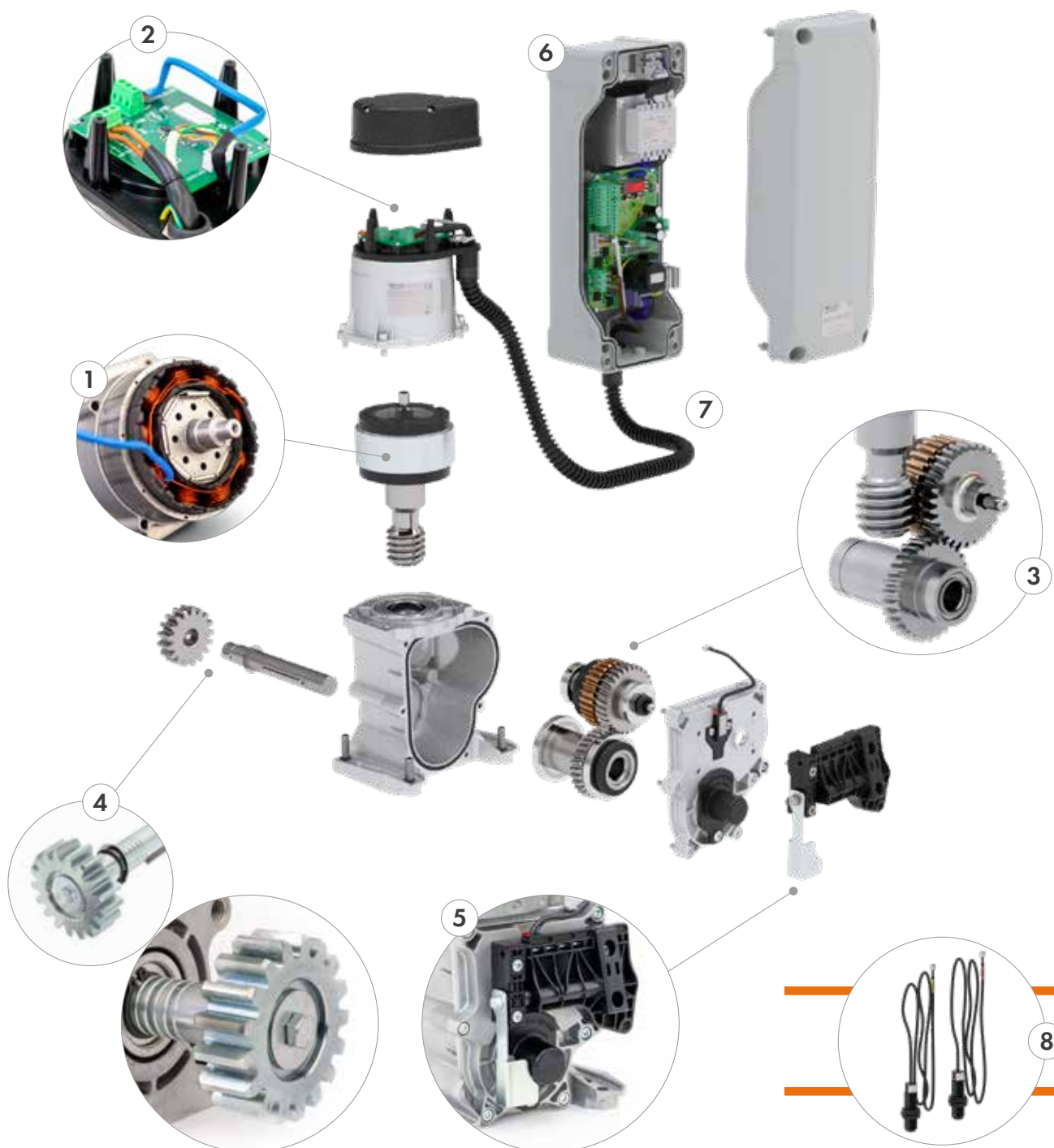


ADVANCED PRECISION ENGINEERING TO OBTAIN OPTIMAL MOTOR PERFORMANCE

We have created a mechanism that gives you the opportunity to get **the maximum performance out of the motor**. A product which combines the quality of the internal production processes, the mechanical processing and the use of high quality ferrous and non-ferrous materials.

WHY BRUSHLESS?

DIGITAL, SMART, POWERFUL, ELEGANT, ROBUST AND ALL-ITALIAN



1 DIGITAL BRUSHLESS MOTOR

Digital Brushless motor based on a permanent magnetic field, which uses neodymium iron-boron magnets inside the rotor. With special concentrated coil windings, powered by a three-phase sinusoidal 36V AC power system, the motor is extremely compact and operates at ambient temperature, guaranteeing super-intensive use with extremely low consumption.

2 4096 PPR SENSORED DIGITAL ENCODER

4096 PPR high resolution magnetic encoder, it ensures an extremely accurate automation control in all its acceleration/deceleration movements, especially in obstacle detection phases.

3 PRECISION ENGINEERING

The gear motor is made entirely of aluminium, steel and bronze. All gears are assembled with superior quality double shielded ball bearings to ensure absolute precision between axes, and provide long-lasting, noiseless performances.

4 ADJUSTABLE PINION

Pinion easily adjustable on 7 positions. With the through type pinion shaft, the pinion distance can be adjusted via 5 mm steps, up to a maximum extension of 30mm. Available with pinion module 4 and module 6 (optional).

5 LOCK RELEASE SYSTEM

Internal lever unlocking system equipped with a magnetic release sensor, which allows the control unit to be informed of the unlocking status of the automation.

6 BUILT-IN CENTRAL BOX

In this version, the new 36V digital controller B70/1THP dedicated to TW110 automations is housed in a special plastic box, separated from the gear box. This way, it can be easily installed at a height of 1 meter.

7 PREWIRED WIRINGS

The automation and digital controller box are supplied prewired for all motor, encoder, release sensor connections. Connections are achieved through high quality corrugated cable conduits for outdoor use.

8 OPTIONAL MAGNETIC LIMIT SWITCHES

The automation can be equipped with magnetic limit switches, through an optional accessory. Magnetic limit switches are screw adjustable, and are supplied in pairs of two NORD-SUD pieces.



TECHNICAL SPECIFICATIONS

	TW110/1000/HS	TW110/1200/R	TW110/1600/HS	TW110/2000
DESCRIPTION	Electromechanical HIGH SPEED BRUSHLESS motor, low voltage, super intensive use, with SENSORED digital magnetic encoder at 4096 PPR, irreversible, ideal for sliding gates up to 1000 kg with digital controller series B70 in prewired plastic box.	Electromechanical BRUSHLESS motor, low voltage, super intensive use, with SENSORED digital magnetic encoder at 4096 PPR, reversible, ideal for sliding gates up to 1200 kg with digital controller series B70 in prewired plastic box.	Electromechanical HIGH SPEED BRUSHLESS motor, low voltage, super intensive use, with SENSORED digital magnetic encoder at 4096 PPR, irreversible, ideal for sliding gates up to 1600 kg with digital controller series B70 in prewired plastic box.	Electromechanical BRUSHLESS motor, low voltage, super intensive use, with SENSORED digital magnetic encoder at 4096 PPR, irreversible, ideal for sliding gates up to 2000 kg with digital controller series B70 in prewired plastic box.
				
POWER LINE SUPPLY	230V AC - 50Hz	230V AC - 50Hz	230V AC - 50Hz	230V AC - 50Hz
MOTOR POWER SUPPLY	36V DC	36V DC	36V DC	36V DC
POWER RATING	240W	240W	240W	240W
FREQUENCY OF USE	Intensive use 	Intensive use 	Intensive use 	Intensive use 
THRUST	270 N	300 N	380 N	570 N
OPERATING TEMPERATURE	-20 C° +55 C°	-20 C° +55 C°	-20 C° +55 C°	-20 C° +55 C°
PROTECTION LEVEL	IP44	IP44	IP44	IP44
REDUCTOR TYPE	Irreversible	Reversible 	Irreversible	Irreversible
MANOEUVRE SPEED	25 m/min (0.42 m/s)	17 m/min (0.28 m/s)	21 m/min (0.35 m/s)	12 m/min (0.16 m/s)
LIMIT SWITCH	Without limit switches - optional	Without limit switches - optional	Without limit switches - optional	Without limit switches - optional
RECOMMENDED DIGITAL CONTROLLERS	B70/1THP	B70/1THP	B70/1THP	B70/1THP
ENCODER	Digital magnetic encoder SENSORED 4096 PPR	Digital magnetic encoder SENSORED 4096 PPR	Digital magnetic encoder SENSORED 4096 PPR	Digital magnetic encoder SENSORED 4096 PPR
OPERATING CYCLES PER DAY (OPENING/ CLOSING - 24 HOURS NO STOP)	150000	150000	150000	150000
BATTERIES RECOVERY	Optional 2 external battery 12V 4,5AH	Optional 2 external battery 12V 4,5AH	Optional 2 external battery 12V 4,5AH	Optional 2 external battery 12V 4,5AH
MAXIMUM DIMENSION PRODUCT IN MM (L X W X H)	185 x 160 x 333	185 x 160 x 333	185 x 160 x 333	185 x 160 x 333
TYPE EXIT GEAR	Z20/mod 4	Z17/mod 4	Z17/mod 4	Z17/mod 4
PRODUCT WEIGHT PACKED (KG)	17,4	17,4	17,4	17,4
NUMBER ITEMS PER PALLET	30	30	30	30



Brushless Motor



Intensive Use



High Speed Motor



Reversible Motor



IPU Technology

KIT PACKAGING

L.: 35 cm
P.: 22 cm
H. 38 cm



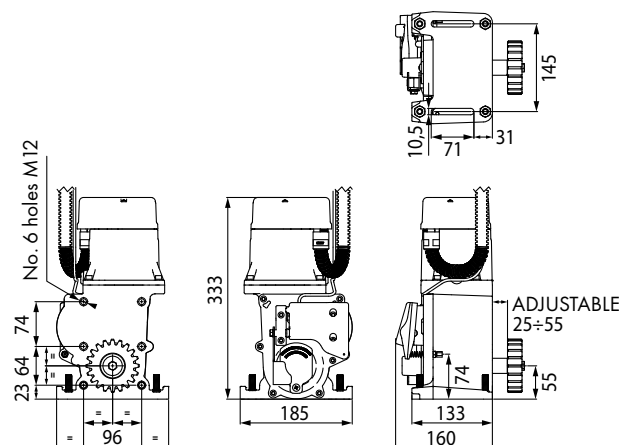
FUNCTIONS

OF AUTOMATED SLIDING GATE MOTOR

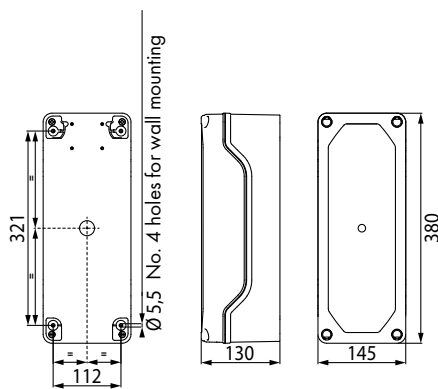
DESCRIPTION	TW110/1000/HS	TW110/1200/R	TW110/1600/HS	TW110/2000
MAX GATE WEIGHT	1000 KG	1200 KG	1600 KG	2000 KG
ONBOARD DIGITAL CONTROLLER	B70/1THP	B70/1THP	B70/1THP	B70/1THP
RADIO RECEIVER TYPE	H93/RX20/I with fixed code connection H93/RX22A/I with fixed code connection H93/RX2RC/I with rolling code connection	H93/RX20/I with fixed code connection H93/RX22A/I with fixed code connection H93/RX2RC/I with rolling code connection	H93/RX20/I with fixed code connection H93/RX22A/I with fixed code connection H93/RX2RC/I with rolling code connection	H93/RX20/I with fixed code connection H93/RX22A/I with fixed code connection H93/RX2RC/I with rolling code connection
MOTOR POWER SUPPLY	36V	36V	36V	36V
ENCODER TYPE (ETC)	Digital magnetic encoder SENSORED 4096 PPR	Digital magnetic encoder SENSORED 4096 PPR	Digital magnetic encoder SENSORED 4096 PPR	Digital magnetic encoder SENSORED 4096 PPR
MAINS POWER SUPPLY	230V AC - 50Hz	230V AC - 50Hz	230V AC - 50Hz	230V AC - 50Hz
ENERGY CONSUMPTION	Very low consumption	Very low consumption	Very low consumption	Very low consumption
POWER SUPPLY FOR ACCESSORIES	24V DC	24V DC	24V DC	24V DC
FLASHING LIGHT TYPE	24V DC LED	24V DC LED	24V DC LED	24V DC LED
OUTPUT FOR GATE OPENING INDICATOR AND AUTOMATION SYSTEM ON WARNING LIGHT	✓	✓	✓	✓
OUTPUT FOR COURTESY LIGHT	40W	40W	40W	40W
TIMED AND GUARANTEED AUTOMATIC CLOSING	✓	✓	✓	✓
GATE EDGE SAFETY MANAGEMENT, 8.2KΩ OR STANDARD	✓	✓	✓	✓
FORCE ADJUSTMENT IN NOMINAL IN START-UP AND DECELERATION	✓	✓	✓	✓
OBSTACLE DETECTION (ALSO IN POSITION RECOVERY MODE) - MOTOR REVERSAL	✓	✓	✓	✓
SPEED ADJUSTMENT	✓	✓	✓	✓
DECELERATION	✓	✓	✓	✓
MANAGEMENT OF THE SLOWDOWN STARTING POINT	✓	✓	✓	✓
STARTING ACCELERATION (SOFT-START)	✓	✓	✓	✓
GUARANTEED CLOSING	✓	✓	✓	✓
PARTIAL OPENING CONTROL	Pedestrian entry	Pedestrian entry	Pedestrian entry	Pedestrian entry
HUMAN PRESENCE CONTROL	✓	✓	✓	✓
CONDOMINIUM FUNCTION	✓	✓	✓	✓
SAFETY DEVICE CONFIGURATION	✓	✓	✓	✓
INSTALLATION TEST FUNCTION	(prog button)	(prog button)	(prog button)	(prog button)
OPERATING TEMPERATURE	-20°C/+55°C	-20°C/+55°C	-20°C/+55°C	-20°C/+55°C
INVERTER THERMAL PROTECTION	✓	✓	✓	✓
RESTORE FACTORY DEFAULT VALUES	✓	✓	✓	✓
INFORMATION ON USE OF MOTOR	✓	✓	✓	✓
SECURITY PASSWORD MANAGEMENT	✓	✓	✓	✓
EXP B-CONNECT INPUT PREDISPOSITION	✓	✓	✓	✓

INSTALLATION

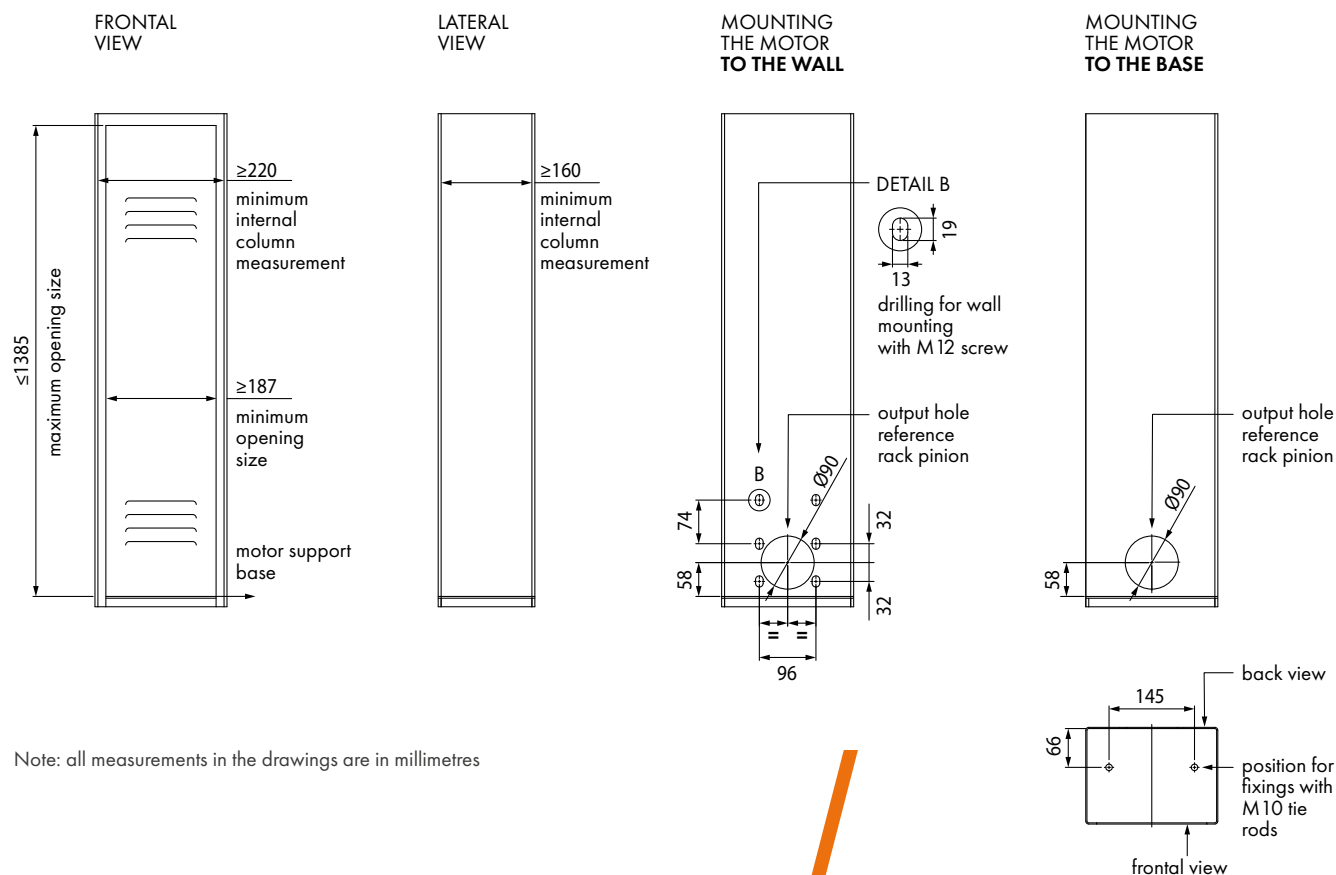
MOTOR DIMENSIONS



CONTROL UNIT DIMENSIONS



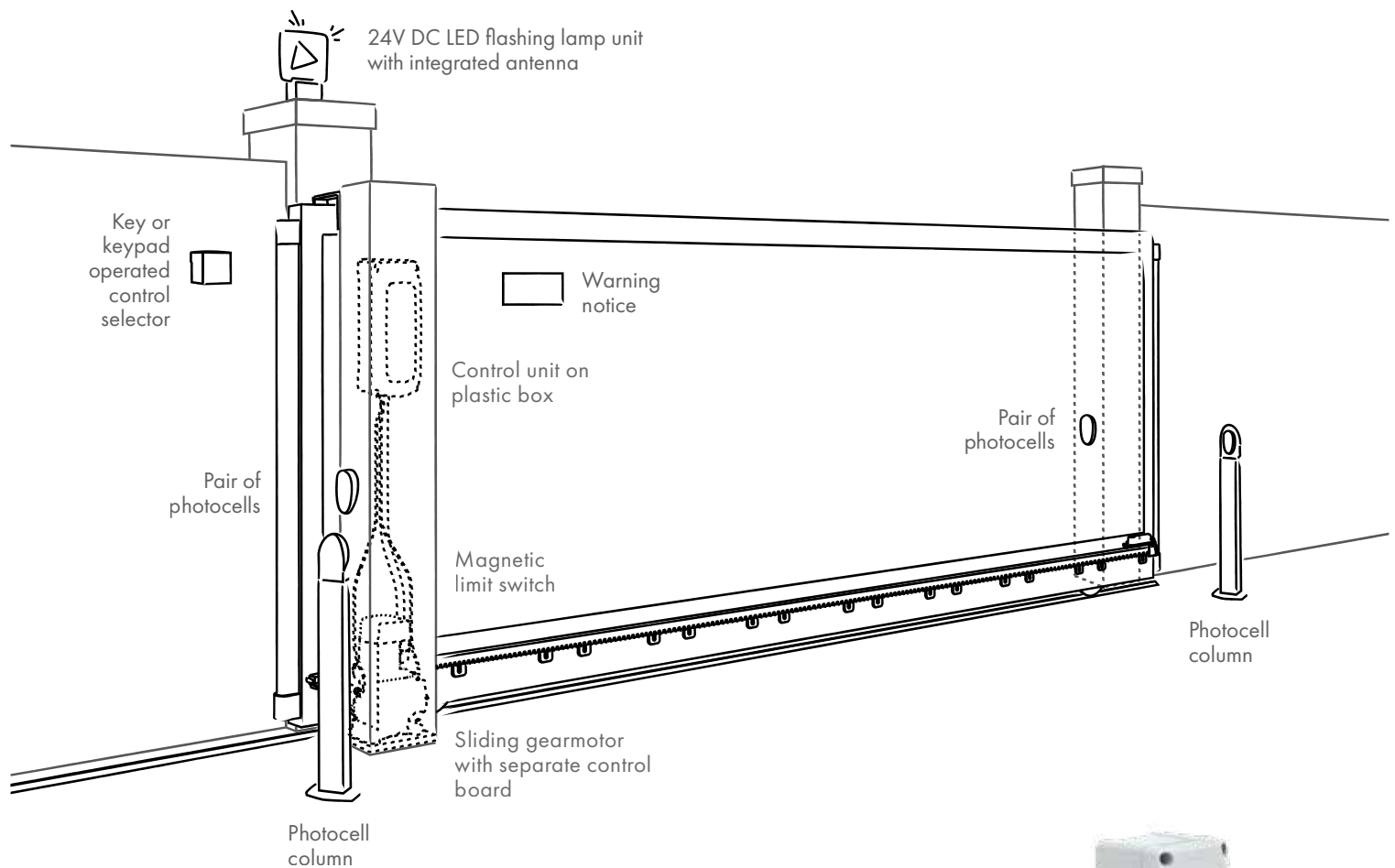
PREPARATION FOR INSTALLATION OF THE MOTOR IN THE COLUMN



Note: all measurements in the drawings are in millimetres

INSTALLATION TYPE

TW110 COLUMN INSTALLATION



Fixed or rolling
code remote
controls



OPTIONAL ACCESSORIES

TW110: EVERYTHING YOU NEED FOR A COMPLETE, PROFESSIONAL INSTALLATION



B71/BCHP/EXT

Kit for emergency batteries charger for Brushless digital controller EDGE1/BOX - B70/1DCHP - B70/1THP 36V DC with plug-in card, with 2 recovery batteries 12V DC, 4.5 Ah. Box case included



GA554

Pocket of 6 spacers (2,5 cm) and screws



B71/BCHP/BOX

Kit for emergency batteries charger for Brushless digital controller EDGE1/BOX - B70/1DCHP - B70/1THP 36V DC. Box case included and without recovery batteries



GA557

Roger Technology nylon rack module 4 with 6 connectors L.1000



GA550

Galvanised steel rack 22x22x1000 module 4



GA558

Roger Technology nylon rack module 6 with 6 connectors L.1000



GA551

Galvanised steel rack 30x12x1000 module 4 with spacers and screws



LT328

Pinion Z17 mod. 4 with increased thickness H.38 for series R30 - G30 - TW110 - E30 (except BG30/804/HS - BG30/1504/HS - TW110/1000/HS)



LT331

Pinion Z11 mod. 6 only for series G30 - BG30 - TW110 (except BG30/804/HS - BG30/1504/HS - TW110/1000/HS)



RL671

Metallic wire length 3 m for release from outside



MC783

Pair of increased magnets for magnetic limit switch, only for GA558



**B74/
BCONNECT
VERS. HW2**

Module WI-FI B-CONNECT - Remote management and programming system in IP web browser mode via Wi-Fi hot spot P2P connection for Brushless control units (B70/2ML - EDGE1 - CTRL - B70/1DC - B70/1DCHP - B70/1T - B70/1THP - F70/IPU36)



MC786

NORD-SOUTH magnetic limit switches for TW110



R99/C/001

"Automatic Opening" warning notice



MC787

NORD-SOUTH magnetic limit switch kit and brackets for TW110



PREMIUM DEALER / PROFESSIONAL DEALER



imagin@ive ASSOCIATI



F99/E/028EN - 07/2024



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