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**BFT 2611893**

# BFT Virgo SMART BT A20 Wing Gate Operator User Manual

Model: 2611893

## INTRODUCTION

The BFT Virgo SMART BT A20 electromechanical gate operators are designed for swing gates with a leaf weight up to 200 kg and a length up to 2 m. They are intended for installation on wide gate posts, with an installation dimension from the hinge axis to the post edge inside the property of up to 23.5 cm. These operators feature a 24V DC motor and an internal self-locking gearbox, meaning the mechanism locks after closing the gate, preventing manual opening. Electromechanical switches and mechanical limit stops built into the opening and closing drives allow for precise adjustment of the wing's end positions, eliminating the need for ground stops. This significantly reduces installation time. The frequency of use for these operators is up to 60 cycles per day.

## PRODUCT OVERVIEW

The BFT Virgo SMART BT A20 system includes several key components for automated gate operation.



Figure 1: Complete BFT Virgo SMART BT A20 gate opener kit, showing the two gate operators, three remote controls, two safety photocells, and a flashing warning light. Also included are mounting brackets and keys for manual release.

## Key Features:

- **Functional Thalia Light Control Unit with Display:** Integrated control unit for easy programming and operation.
- **Electromechanical Switch:** Ensures precise control of gate movement.
- **Amperometric Obstacle Detection:** Enhances safety by detecting obstructions during gate operation.
- **Personalized Key Release:** Allows manual unlocking of the gate in case of power failure.
- **Suitable for Wide Posts:** Designed for versatile installation on various gate post types.

## SPECIFICATIONS

**IP 44**  
Protection rating

**24V**  
Motor voltage

**200 Kg**  
Max. weight of door/gate wing

**THALIA**  
Control unit

**14 s**  
Cycle time

**Semi intensive**  
Frequency of use

**120 °**  
Maximum angle

**230 V**  
Board power supply

**Mechanical**  
Locking

**Personal key**  
Release

**110 W**  
Power consumption

**2 m**  
Max. width of door/gate wing



Figure 2: Detailed technical specifications of the BFT Virgo SMART BT A20 gate operator, highlighting key performance metrics and features.

Specification	Value
Manufacturer	BFT
Product Dimensions	18.8 x 22.4 x 29.2 cm
Model Number	2611893
ASIN	B0BPSW42B2
Motor Voltage	24V DC
Max. Gate Leaf Weight	200 kg per leaf
Max. Gate Leaf Length	2 m per leaf

Cycle Time	14 seconds
Frequency of Use	Semi-intensive (up to 60 cycles/day)
Protection Rating	IP44
Power Consumption	110 W

## SETUP AND INSTALLATION

Proper installation is crucial for the safe and efficient operation of your BFT Virgo SMART BT A20 gate opener. It is recommended that installation be performed by qualified personnel.

### General Installation Considerations:

- Ensure the gate structure is sound and moves freely without obstruction.
- Verify that the gate posts are strong enough to support the operator's weight and forces.
- Adhere to all local electrical codes and safety regulations.
- The system is designed for easy assembly and contains all necessary parts.

# VIRGO SMART BT A 20 KIT



**Easy to assembly**

contain all needed parts for assembly

**THALIA control unit**

control unit build in



Figure 3: The BFT Virgo SMART BT A20 kit, emphasizing its ease of assembly and the integrated THALIA control unit.

## Mounting Dimensions:

The operators are designed for installation on wide gate posts. The installation dimension from the hinge axis to the post edge inside the property can be up to 23.5 cm. Refer to the detailed diagrams for precise measurements.

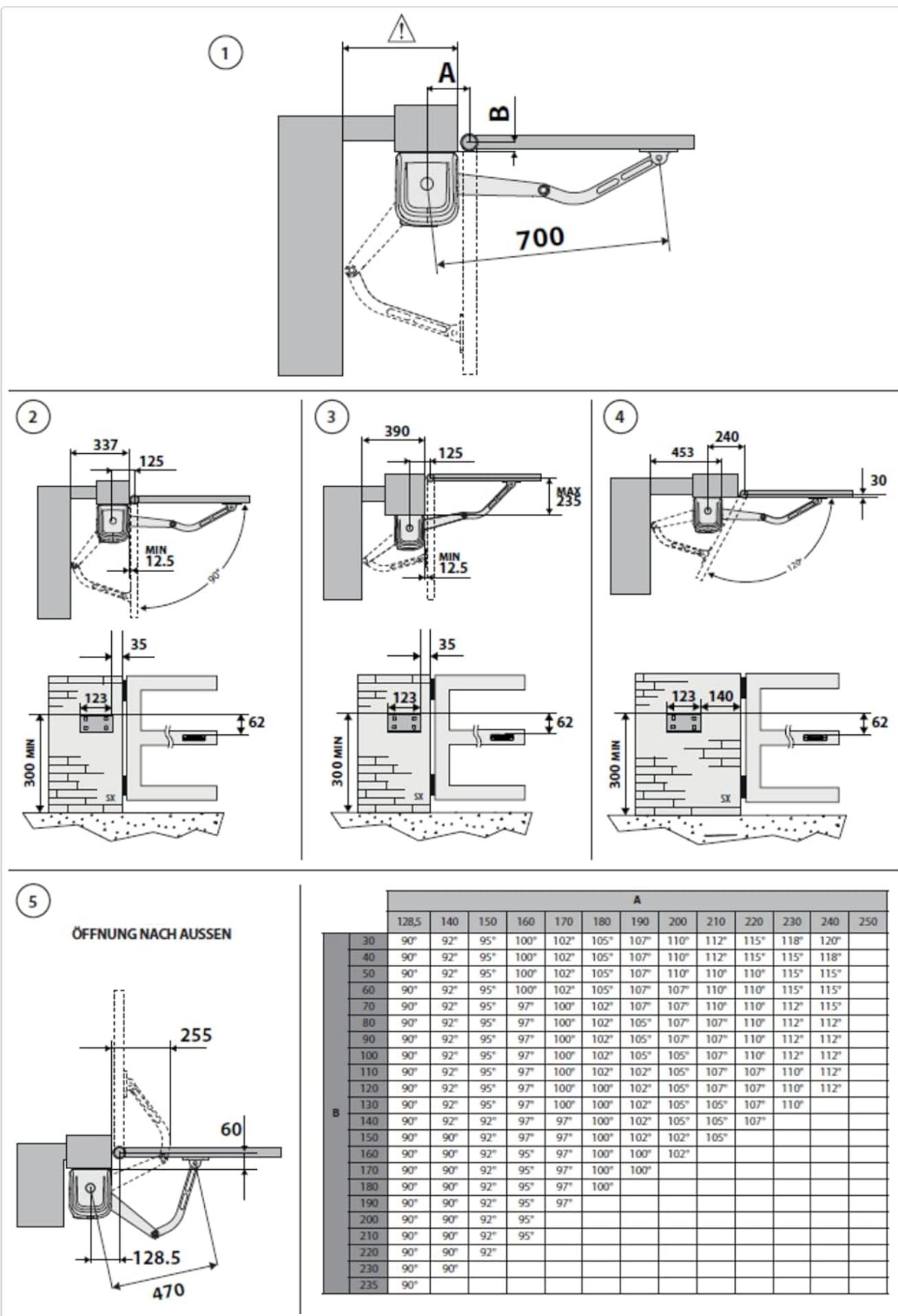


Figure 4: Installation diagrams illustrating various mounting configurations and critical dimensions for the gate operators, including details for inward and outward opening gates.

## Component Installation:

- Gate Operators:** Mount the operators securely to the gate posts and gate leaves using the provided brackets and hardware. Ensure correct alignment for smooth operation.
- Photocells (COMPACTA A20-180):** Install the photocells at an appropriate height to detect obstacles. They offer adjustable heads for flexibility. Connect them to the control unit as per wiring diagrams.

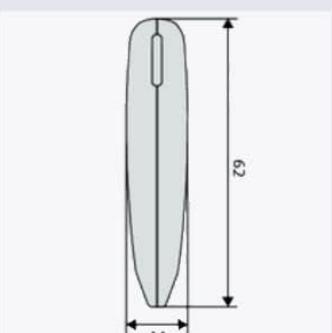
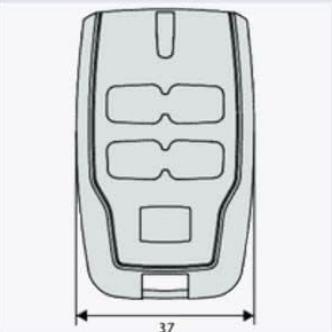


Figure 5: BFT COMPACTA A20-180 photocells, designed for high installation flexibility with a 180-degree adjustable head and a 20-meter nominal range.

- Flashing Light (RADIUS LED):** Mount the flashing light in a visible location to indicate gate movement. Connect it to the 24V power supply from the control unit.



**Transmitters with  
4 channels  
Range 50/100 m  
Voltage 12 V  
Battery type 23 A  
Frequency 433 MHz**



## Remote controller

BFT Mitto 4-433 MHz rolling code

Figure 6: BFT RADIUS LED flashing light, which includes an incorporated antenna and operates on a 24V power supply.

4. **Wiring:** Connect all components to the Thalia Light control unit according to the provided wiring diagrams (not included in this manual, refer to the full installation guide). Ensure all electrical connections are secure and insulated.
5. **Limit Switches:** The integrated electromechanical switches allow for precise adjustment of the gate's open and closed positions, eliminating the need for physical ground stops. Adjust these during the initial setup.

## OPERATING INSTRUCTIONS

### Remote Control Operation:

The gate system is operated using the provided BFT Mitto 4-433 MHz rolling code remote controls.

# Flashing light LED

## RADIUS LED

Flashing light with incorporated antenna for motors with 24 V power supply.



Figure 7: BFT Mitto 4-433 MHz remote controller, detailing its features and dimensions.

- Press any button on the remote control to activate the gate.
- A single press will initiate the opening or closing cycle.
- Pressing the button again during operation will stop the gate.
- A third press will reverse the gate's direction.

### Manual Release:

In case of a power outage or malfunction, the gate can be manually opened using the personalized key.

1. Locate the manual release mechanism on the gate operator.
2. Insert the personalized key into the lock.
3. Turn the key to disengage the motor, allowing the gate to be moved by hand.
4. To re-engage, reverse the process and ensure the mechanism locks securely.

## MAINTENANCE

Regular maintenance ensures the longevity and reliable operation of your gate opener.

- **Monthly:** Check the gate's mechanical components for any signs of wear, rust, or damage. Ensure the gate moves freely without the operator engaged.
- **Quarterly:** Clean the photocell lenses to ensure proper obstacle detection. Inspect all electrical connections for corrosion or looseness.
- **Annually:** Have a qualified technician inspect the entire system, including motor, gearbox, and control unit, for optimal performance and safety.
- Keep the area around the gate and operators clear of debris.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Gate does not respond to remote control.	No power; remote control battery low; remote control out of range; photocells obstructed.	Check power supply; replace remote battery; move closer to gate; clear photocell path.
Gate stops or reverses during operation.	Obstacle detected by safety features (photocells, amperometric detection); gate mechanism obstructed.	Remove any obstacles; check gate path for physical obstructions.
Gate operates slowly or with difficulty.	Mechanical friction; low voltage; motor issue.	Lubricate hinges and moving parts; check power supply; contact service technician.
Flashing light does not illuminate.	Bulb/LED faulty; wiring issue; no power to light.	Check connections; replace light if necessary.

## WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided with your purchase or contact your retailer. For technical support, spare parts, or professional assistance with installation and maintenance, please contact the authorized BFT service center or your product supplier.

Seller: [Automatyka.shop](http://Automatyka.shop)