

## Dieffematic PM1 400

# Dieffematic PM1 400 Swing Gate Automation Kit 230V User Manual

Model: PM1 400

## 1. INTRODUCTION

---

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Dieffematic PM1 400 Irreversible Swing Gate Automation Kit. This kit is designed for automating double-leaf swing gates, suitable for residential and condominium use. Please read all instructions carefully before beginning installation or operation.

## 2. SAFETY INSTRUCTIONS

---

- Installation must be performed by qualified personnel in compliance with local safety regulations.
- Disconnect power before performing any maintenance or adjustments.
- Keep children and pets away from the gate area during operation.
- Ensure all safety devices (e.g., photocells, safety edges) are correctly installed and functioning.
- Do not attempt to repair damaged components; contact qualified service personnel.
- The emergency release key should be accessible and its operation understood by all users.

## 3. PACKAGE CONTENTS

---

Verify that all components are present in the package:

- **2x** Linear Electromechanical Actuators (PM1 400 model)
- **1x** Control Unit with Waterproof Box

- Mounting Brackets and Hardware
- Emergency Release Key(s)
- Instruction Manual (this document)



Figure 1: Dieffematic PM1 400 Swing Gate Automation Kit components. This image shows the main components included in the kit, typically two linear actuators and a control unit.

## 4. SETUP AND INSTALLATION

The Dieffematic PM1 400 automation system is designed for straightforward installation without requiring modifications to your existing gate structure. The actuators feature a full metal frame and stainless steel rod for durability.

### 4.1 Pre-Installation Checks

- Ensure your gate leaves are structurally sound and move freely without obstruction.
- Verify the gate dimensions and weight are within the system's specifications (up to 3.00 m length and 250 kg weight per leaf).

- Confirm availability of a 220V 50Hz power supply at the installation site.

## 4.2 Mounting the Actuators

1. Attach the rear mounting brackets to the gate pillars according to the provided template, ensuring correct alignment for the desired opening angle (maximum 100°).
2. Attach the front mounting brackets to the gate leaves.
3. Securely mount the two linear electromechanical actuators to the brackets.

## 4.3 Control Unit Installation and Wiring

1. Mount the waterproof control unit box in a protected, accessible location near the gate.
2. Connect the 220V 50Hz power supply to the control unit.
3. Wire the two actuators to the control unit as per the wiring diagram in the detailed installation guide (not included in this general manual).
4. Connect any optional safety devices (photocells, flashing light, pedestrian input) to the designated terminals on the control unit.

## 4.4 Initial Configuration

The control unit features an integrated receiver and electronic clutch with quick and comfortable stroke adjustment. It supports both symmetric and asymmetric gates by allowing independent management of each leaf's travel.

- Adjust the motor power and slowdown settings using the trimmers on the control unit.
- Configure the delay for the second gate leaf if desired.
- Set the desired operating logic: Step-by-step, Semi-automatic 1, Semi-automatic 2, or Automatic Condominium mode.
- The system includes obstacle detection and slowdown during opening and closing.

# 5. OPERATING INSTRUCTIONS

---

## 5.1 Standard Operation

- Use your remote control (paired with the integrated receiver) to open or close the gate.
- The gate will open/close with a smooth slowdown at the beginning and end of the movement.

## 5.2 Pedestrian Mode

If configured, a dedicated input allows for partial opening of one gate leaf for pedestrian access. Consult your installer for activation and usage.

## 5.3 Emergency Release

In case of power failure or malfunction, the gate can be manually operated using the emergency release key. The convenient key release mechanism is located on the motor unit. Insert the key and follow the instructions on the actuator to disengage the motor and manually move the gate leaves. The irreversible design ensures the gate remains locked in both open and closed positions without an electric lock.

# 6. MAINTENANCE

---

The Dieffematic PM1 400 automation system is designed for minimal maintenance. Once correctly installed, the system requires virtually no routine care due to its robust construction with an aluminum body and bronze gear core, ensuring a long lifespan.

- Periodically check for any obstructions in the gate's path.
- Ensure all mounting hardware remains secure.
- Keep photocells and safety sensors clean and unobstructed.

## 7. TROUBLESHOOTING

---

If you experience issues with your gate automation system, consider the following:

- **Gate not responding:** Check power supply, remote control battery, and ensure no safety devices are triggered (e.g., photocells blocked).
- **Gate stops unexpectedly:** The obstacle detection system may have been activated. Check for obstructions in the gate's path.
- **Unusual noises:** Inspect the gate hinges and actuator mounting for any loose components or signs of wear.

For persistent problems, contact a qualified technician.

## 8. SPECIFICATIONS

---

Feature	Specification
Model	PM1 400
Gate Leaf Length (Max)	3.00 m
Gate Leaf Weight (Max)	250 kg
Motor Speed	1400 RPM
Power	280 W
Thrust Force (Adjustable)	500 to 3000 N
Maximum Opening Angle	100°
Power Supply	220 V, 50 Hz
Actuator Weight (Approx.)	6.0 kg
ASIN	B07ZKM2CP5
Manufacturer Reference	264387266008

## 9. WARRANTY AND SUPPORT

---

For warranty information and technical support, please refer to the documentation provided with your purchase or contact your Dieffematic dealer. Keep your proof of purchase for warranty claims.

