

E8 Control System

For Fire Protection Door Operators

For DC door operators DICTATOR offers the **E** control systems as an **economic** alternative to the SQUARE control systems.

The control system allows either for **dead-man or impulse operation**.

Most parameters can be adjusted using the **membrane keys** on the lid of the casing. These membrane keys replace traditional potentiometers. In order to carry out the adjustments the lid of the casing has no longer to be removed, which is an important contribution to increase the safety and reduce the danger of accidents.

The function of the potential-free relay contact is adjusted in the control system: passing on the information of the door when it is open, when closed, when it is moving or when it is either open or closed.

The binders can be removed for an easy connection.

The control systems can be used both for 24 VDC and 48 VDC door operators, with separate frequency converter also for 230/400 VAC three-phase current operators.



Summary

Types of control systems	Fire protection with DC motor: E8 Sliding doors with DC motor: E82
Motors to be connected	24/48 VDC, max. 300 W 230/400 VAC (with additional frequency converter)





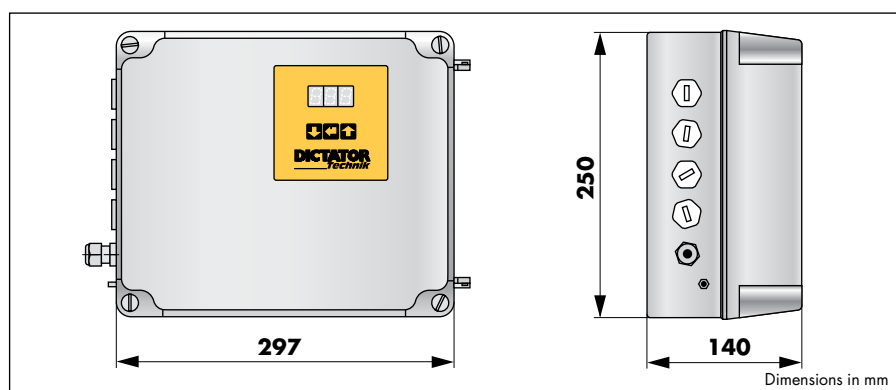
Dimensions, Installation

The E8 control system comes in an IP 56 plastic casing. The high IP rating of the casing permits its installation also in humid surroundings.

Due to its reduced exterior dimensions the E8 control system can be installed even when little space is available.

The E8 control system is also available in a special execution with integrated or separate battery back-up. The battery provides the power supply for the smoke detectors, the integrated magnet and the safety equipment. The door stays open even during a power failure. In the event of a fire alarm the door closes immediately. During closing the safety equipment has priority, that means whenever the safety equipment responds the door stops. It resumes closing as soon as the obstacle has disappeared.

Dimensions E8



On the left side of the casing there are provided 5 cable inlets. The inlet for the mains cable is already equipped with a Pg screw cable inlet. The remaining four cable inlets have a diameter of 20 mm and are intended for Pg 13.5 screw cable inlets. Make sure you always use screw cable inlets with pull relief.



Installation Electrical Connection of the Door Operators

The control system should not be placed farther than 30 m from the door operator. Normally a 2.5 m distance is recommended as all DC-21 operators are supplied with a 2.5 m connection cable to the control system.

Door operator, operating elements, smoke detectors and safety equipment are connected to the **removable binders**. All blocks consist of a different number of binders and, therefore, cannot be plugged into a wrong position.





Programming and Adjusting

All type "E" control systems have a very similar design. The **programming and adjusting** is therefore **almost the same**. This saves you to master a lot of different control systems.

DICTATOR presents a new, **complete product line** consisting of the E control systems and the system 21 door operators. One of the main objectives of the research work has been to develop a line that can be **mastered fast and easily**, that at the same time offers the **most modern technics** and **high operating comfort** and that permits **flexible solutions** for customer requirements.

Basic Adjustments

The different parameters are adjusted with the membrane keys and the display on the lid of the casing. The Enter key permits to switch from one parameter to the next one. With help of the arrow keys the values are either increased or reduced.

Operating Options Safety Features Relay Contact

- *OPEN, CLOSE: Deadman or Impulse Function* (adjustable with a DIP-switch)
- *STOP 1*: operating in opening and closing direction
- *STOP 2*: operating only in closing direction
There are two adjustment possibilities in the event of a fire alarm: priority of the safety equipment or priority of the smoke alarm (parameter P-3).
- *Safety Equipment (STOP 3)*: operating only in closing direction. The following functions can be adjusted:
 - temporary STOP or
 - STOP and then the door opens completely (parameter P-A).There are two adjustment possibilities in the event of a fire alarm: priority of the safety equipment or priority of the smoke alarm (parameter P-3).
The safety equipment is switched off as soon as the door has reached the position CLOSED.
- *Automatic Closing*: as soon as the position OPEN has been reached the door closes automatically after a pre-set time (1 to 180 sec.) (parameter P-5).
- *Blocking of the Door in the Closed Position* (parameter P-4)
When using a separate limit switch for the position "Door Closed" the door can be blocked in the closed position with the magnet integrated in the door drive. The blocking force in case of a door drive operating with steel rope is about 50 kg, with toothed belt about 80 kg.
- *Relay Contact* to actuate warning or signalling devices (function adjustable with 5 DIP switches): contact closed when door is open, when door is closed, when door is moving or when door is closed and open.

Motor Parameters

In order to **optimally adjust** the door operator to the requirements of the door, several parameters of the motor can be set in the E8 control system, such as:

- *Opening Speed* (The closing speed is adjusted directly at the operator.)
- *Crawling Speed* before the final position OPEN (Speed is reduced before reaching the final position rendering separate final dampers superfluous.)

Encoder

The parameter P-b is used to choose the type of position control: either with separate limit switches or using the integrated encoder of the door operator (if equipped with this type of position control). In the latter case the positions are adjusted in the control system. When starting the control system for the first time the control system automatically switches to dead man operation. Only when all positions have been entered it will automatically return to the adjusted impulse function.

Diagnostic Function

All E control systems are provided with a **diagnostic function** that will help the DICTATOR service team to solve problems - even by telephone.



Technical Data, Order Information

For the control of fire protection door operators DICTATOR provides the E8 control system. It is designed for DC motors. But with a separate frequency converter it also can be used for three-phase current fire protection door operators.

In Germany you may use the E8 control system only together with the AR 20 cutoff relay (approval no. Z6.5-1335), which in case of an alarm cuts completely off the power supply of the control system and thus ensures the closing of the door.

Technical Data

Voltage	230 VAC, 50/60 Hz +/-10 %
Power consumption	max. 250 W, 10 A
Output voltage (secondary)	24 VDC
Power supply (secondary)	max. 400 mA
Output voltage to motor	24 or 48 VDC
Motor rating	max. 5 A (120 W)
Dimensions	HxWxD = 297 x 250 x 140 mm
Potential-free relay contact / Capacity	max. 30 VAC / 60 VDC, 10 A
Operating temperature	0 - 40 °C, 20 - 70 % of humidity
IP rating	IP 56 / 2
Overvoltage rating / Insulation	II / class I

Order Information

E8 control system	part no. 730111
Frequency converter for E8 control system	part no. 730114
AR 20 cutoff relay	part no. 040582
UPS power supply for E8 control system (separately)	on demand

Components Included

Control system in casing IP 56 with membrane keys and display

Application Range E8 Control System

The E8 control system is intended for door operators with 24 or 48 V **direct current (DC) motors** for **fire protection sliding doors**.

DICTAMAT 8000-21 door operator	from page 05.010.00
DICTAMAT 7000-21 door operator	from page 05.011.00
DICTAMAT 3700-21 door operator	from page 05.012.00
Customised door operators 24 VDC, 48 VDC	on demand

Together with the separate frequency converter it can be used for **fire protection sliding door operators** with 230/400 VAC **three-phase current motor** (DICTAMAT 700, page 05.019.00).