

RZ-24 Central Unit for DICTATOR Hold-Open Systems

The RZ-24 central unit is the **core** of the DICTATOR hold-open system. **This one device combines all essential functions**, so that in the simplest case you only have to connect fire detectors and electromagnets.

- It changes the 230 VAC mains supply in 24 VDC for feeding the connected fire detectors and electromagnets.
- It evaluates the signals of the fire detectors.
- In the event of an alarm or a failure it interrupts the power supply of the electromagnets and thus automatically initiates the closing of the fire/smoke door.
- In case of an alarm or a failure (e.g. fire detector defective or removed, line break, short circuit etc.) also a (disengageable) acoustic signal sounds.
- For resetting the system after an alarm you use the RESET key on the membrane keys.
- The RZ-24 features a "Tür schließen" (= close door) key for closing the door. If required, it is of course possible to connect external release switches.

Besides this the RZ-24 offers **many more functions and options**.



Technical Data Standard Version

Supply voltage	85 VAC - 265 VAC, 50/60 Hz
Power consumption	about 30 W, own consumption about 30 mA
Secondary output voltage	24 VDC \pm 5 %
Secondary total load	0.9 A (supply of fire detectors, electromagnets and other consumers)
Operating temperature	-25 °C to +40 °C
IP rating	IP 64 (when using cable inlets)
Additional switching contact	potential-free contact 8 A/<250 V~/AC1 (relay released = tripping)



RZ-24 Central Unit with Power Pack and Tripping Device

The RZ-24 has been tested and approved by the Deutsches Institut für Bautechnik (German Institute for Building Engineering). It also meets the demands of the EN 14637.

Due to its **high performance (900 mA)** even large hold-open systems can easily be operated by one central unit.

As an option the RZ-24 central unit is available in a **bigger casing** (part no. 040554) (dimensions 202 x 152 x 90 mm). This offers enough room for additional components as e.g. relay circuit boards or an emergency power supply (see Additional Functions - Optional).

Standard Version

- **Manual release** of the hold-open system by the integrated or an additionally connected hand release switch (mounted in the immediate vicinity of the fire door).
- **Tripping** the hold-open system by the connected **fire detectors**.
- **Tripping** the hold-open system by a **fire alarm central** (requires a potential-free contact).
- **RESET** of the complete hold-open system:
First reset the fire detectors by the hand release switch and then the RZ-24 central by its integrated RESET switch.
- **Automatic RESET after a power cut** (NOT after a manual tripping or a fire alarm !!)
- **Integrated excess-current protection**: If too many consumers are connected, the power supply automatically cuts off.
- **Potential-free contact for signalling the tripping**, e.g. for relaying the alarm to a facility management system, an additional warning device etc. If a door operator forms part of the hold-open system, the contact is used to cut the power supply of the door operator in the event of an alarm to allow the mechanic closing of the door (by a door closer, a closing spring or a counterweight).
- **Status indications** for normal operation and alarm on the cover of the central.

Additional Functions - Optional

- **Rechargeable battery buffering**: This allows to bridge - depending on the consumption of the connected fire detectors, electromagnets and other consumers - up to 12 minutes when the 230 VAC supply fails (usable capacity 0.022 Ah).
- **Additional relay contacts** (circuit boards with one, two or four relay contacts, each a changeover contact 2 A/30 VDC).
- Additional circuit board for the **automatic reset** of the RZ-24 central after a power cut and after fire alarm (however, the tripping fire detector has to be reset additionally by the hand switch).
- More options on demand.

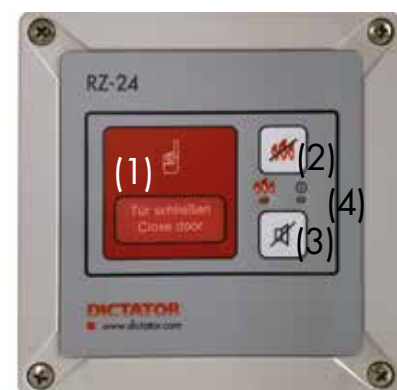
Indication and Operating Elements of the RZ-24

Keys

- Integrated hand release key (1)
- Integrated RESET key (2)
- Key quitting horn (4):
switches the horn off after an alarm.

Status indications

- by 2 LEDs on the front panel (4):
LED green "operation" (normal operation)
LED red "alarm" (error or alarm)





RZ-24 Central Unit - cont.

The door approvals, standards and prescriptions of the accident prevention regulations/safety at work may stipulate the **optical and acoustical signalling of the closing**. This is easily possible with the RZ-24. DICTATOR provides a signaller (part no. 700171) for this purpose which features besides the red LED warning flashlight also a siren which can be switched off - and an extremely low power consumption.

In some countries as e.g. Austria it is prescribed that in underground car parks the warning signal has to start before the actual closing to warn the user against the possible danger. For such an application, on demand an additional time relay is available.

Inputs/Outputs

Inputs

- Mains connection
- Fire alarm loop: 24 V feed-in of the smoke/heat detectors and evaluation of the status informations
- External hand release switch (is integrated in the fire alarm loop)

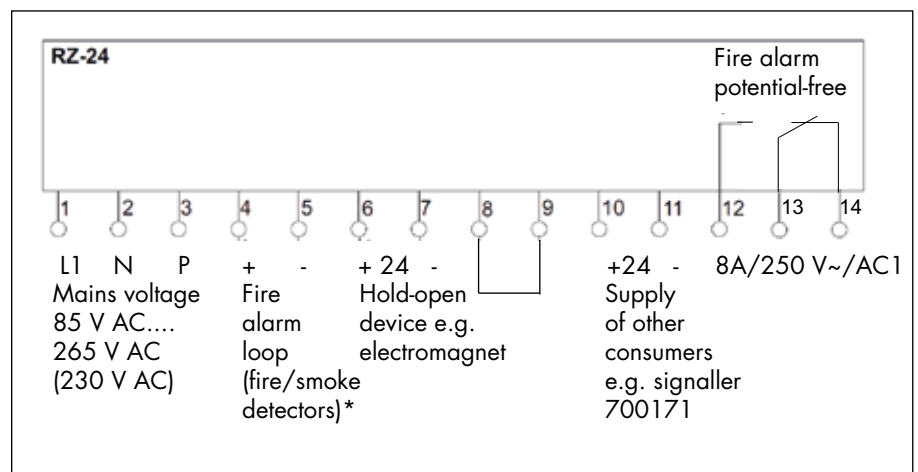
Outputs

- Feed-in of the hold-open system (e.g. electromagnets)
- Feed-in of additional consumers as e.g. external signallers. They allow to signal the closing of a fire protection closure during alarm acoustically and also optically.
- Potential-free relay contact for relaying the tripping (only for hold-open systems without door operator(s)).



Block Diagram

* In the factory a resistor of 3.9 kΩ is inserted at the terminals 4 and 5. Before connecting the fire detectors this resistor has to be taken out and then inserted in the last detector of the detection loop.



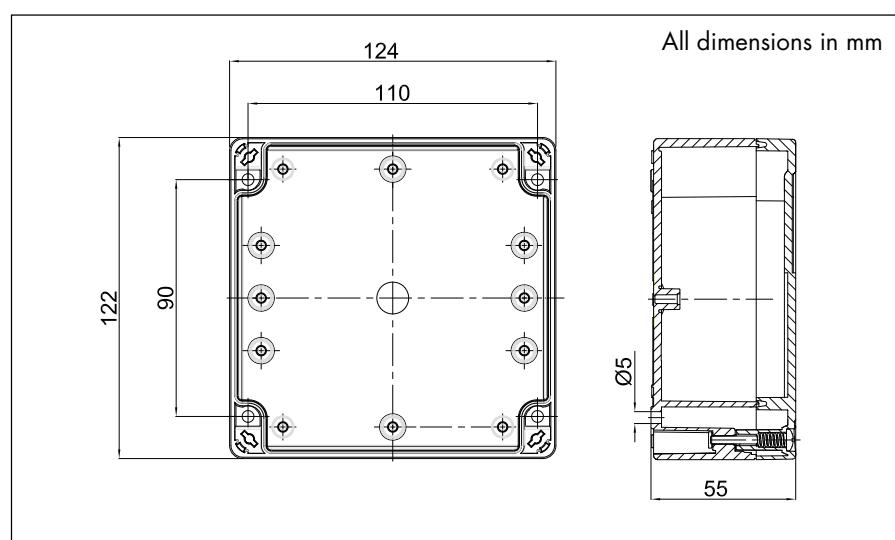


RZ-24 Central Unit - cont.

Important Notes:

- When determining the number of required fire detectors, it has to be taken into consideration that in Germany an additional fire detector has to be installed near the RZ-24, when the central unit is not placed within the detection range of one of the detectors mounted on the door!
- The scope of supply of the RZ-24 also contains a 3.9 kΩ resistor. This is needed when connecting the fire detectors RM 4000/WM 4000.

Dimensions Casing Standard Version



Dimensions of the RZ-24 in the bigger casing: 202 x 152 x 90 mm

Installation Information

The casing provides 4 cable inlets M16 with IP 64 screwed cable glands at its bottom. The larger casing provides 6 cable inlets. If necessary, you can fix the casing with the cable inlets pointing upwards. In this case just turn the cover around. However, with the cable entries from above, the IP rating isn't any longer IP 64.

Additional Functions

By means of different additional components you can realize more functions. The description of the most important components can be found on the following pages. Among these are the rechargeable battery buffering, a time relay, the use of the RZ-24 as a signal control, additional signal contacts etc.

It would be our pleasure to assist you in choosing the components.

Order Information

RZ-24 central unit with power supply and tripping device	part no. 040553
RZ-24 central unit in large casing	part no. 040554