



GfS Door Terminal Part No.: 790 000

**Installation
Operation
Testing**

Operator
Name
Zusatz
Address
City
Person in charge

Location
Address
City
Building
Door
Special hints

The instructions must be followed in order to permanently assure the correct functioning of the emergency exit.

1. After the emergency exit control system has been installed the proper functioning of the system has to be determined by a final check. The check may just be performed by external specialists. The local inspection regulations have to be taken into consideration.

1.2. After a successful final check an approval seal has to be put on the GfS Door Terminal.

1.3. After the successful final check a certificate is issued, which has to be signed and stored by the operator.

2. Final check

The final check must be initiated by the operator.

2.1. Periodic verification/maintenance

The periodic verification/maintenance (see checklist for commissioning and maintenance) has to be initiated by the operator.

2.2. The emergency exit control system

must be constantly kept operational by the operator. At least once per month the functioning of the system has to be checked.

2.3. At least once a year the operator is obliged

to check the proper and trouble-free interaction of all components and to maintain them (unless there are no shorter periods specified by local authorities).

2.4. The scope, result and date of periodic inspection

have to be recorded. The records must be stored by the local operator.

INDROTUCTION/SAFETY INSTRUCTION

The GfS Door Terminal is a compact device to steer up to 2 holding magnets which are mounted on emergency exit doors. It includes emergency exit switch, flash light, buzzer and key switch. The housing is made out of solid stainless steel.

In order to make full use of all GfS Door Terminal features and to assure the safety of the operator it is important to act according to the following instructions.

Before connecting and operating the device please read the operating manual carefully.

- The electric installation must be executed by an authorized installer
- Before opening the device the external power supply has to be switched-off
- In case of system failure please disconnect the device and ask an authorized installer to repair it
- Please use the device just according to the following instruction

This assembly instruction should be handed on to the operator

INSTALLATION

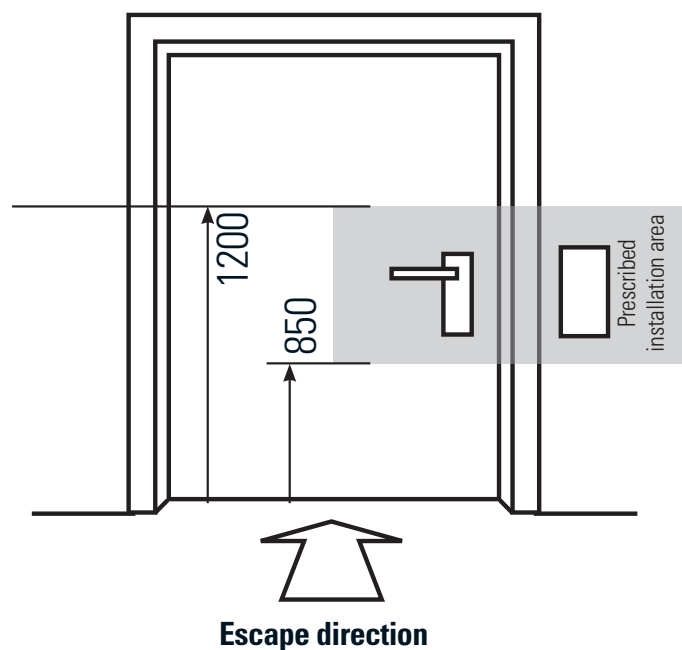
IMPORTANT:

Connect the GfS Door Terminal completely before applying voltage.

- Mount the GfS Door Terminal on the wall with the enclosed screws (see hole pattern). You can find the different measures on page 4)
- Connect all required cables
- Tighten the screws of the emergency exit button insertion (positioned horizontally)
- Tighten the screws of the cover of the LED-field (positioned vertically)
- Now, apply the voltage
- Carry out function test

ATTENTION

GfS recommends to checks the functions of the GfS Door Terminal every 6 months.



TECHNICAL DATA

Power supply	12 V–24 V/DC
Consumption	State of activation 365 mA (1 holding magnet) State of alarm 150 mA
Degree of protection	IP 20
Output	1 incident message relay
Max. contact load DC	30V/0,5A
Operating temperature	– 20° C to +60° C
Dimensions	90 x 240 x 80 mm
Weight	ca. 1,6 kg

- 2x 32 LED (red/green) for displaying the actual status
- integrated buzzer with 100dB/ 1m
- integrated flash light
- emergency exit switch acc. to EN60947-5-1
- integrated key switch
- 2 mm thick, robust stainless steel housing
- integrated control unit
- reusable cover for emergency exit switch made out of Macrolon

Input

- 12-24V/DC supply
- 1x single remote opening
- 1x permanent remote opening
- 2x holding magnet signals
- 1x door-too-long-open alarm
- 1x intrusion-alarm (or bridge), clamps bridged = door closed
- 2x sabotage alarm
- 2x predefined brightnesses of LED
- 1x fire alarm control system (with bridge normal operation)
- 1x emergency exit switch with internal fail safe contacts
- 1x reserve input

Output

- 2x holding magnet (electric escape route strikes)
- 1x RS-485 interface (bi-directional, half duplex) for integration into building control systems
- 1x external sirène 24V, 0,5A OC
- 1x external flash light 24V, 0,5A OC
- 1x incident message relay (collective message) 30 V, 0,5 A

Conformity

This product complies with the essential requirements of the R&TTE guideline 1999/5/EG. The certificate of conformity you may request from your supplier.

Disposal

Dispose an obsolete GfS Door Terminal at a collecting point for electronic waste or at your supplier. Dispose the packaging material at a paper collecting point for paper resp. plastic. You may not dispose an obsolete device the general garbage.



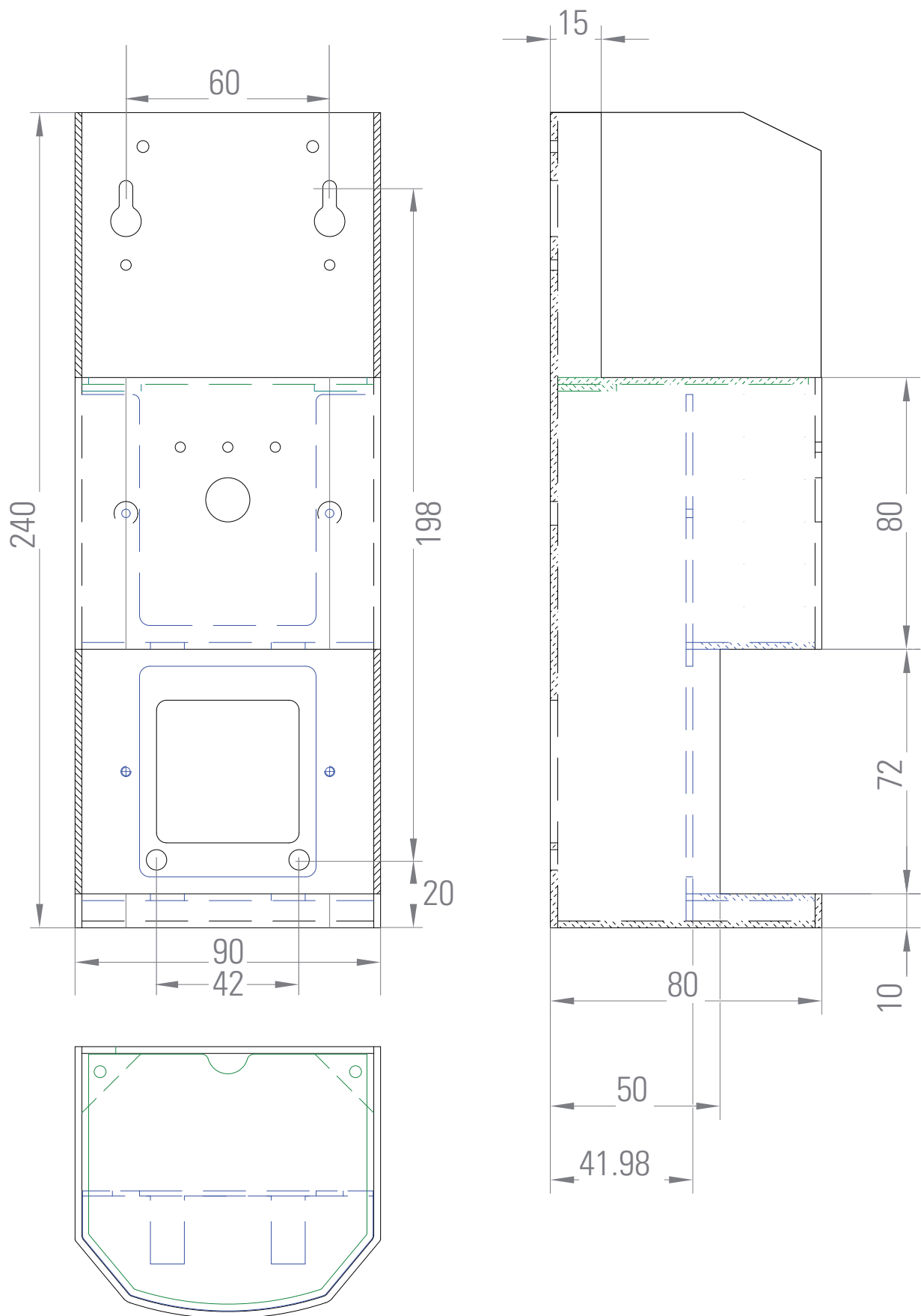
Warrenty

Within the legal warrenty time we intend to repair all defect devices, whether the defect is caused by the material or assembly, or replace them. The warrenty expires after a third-party repair.

Service

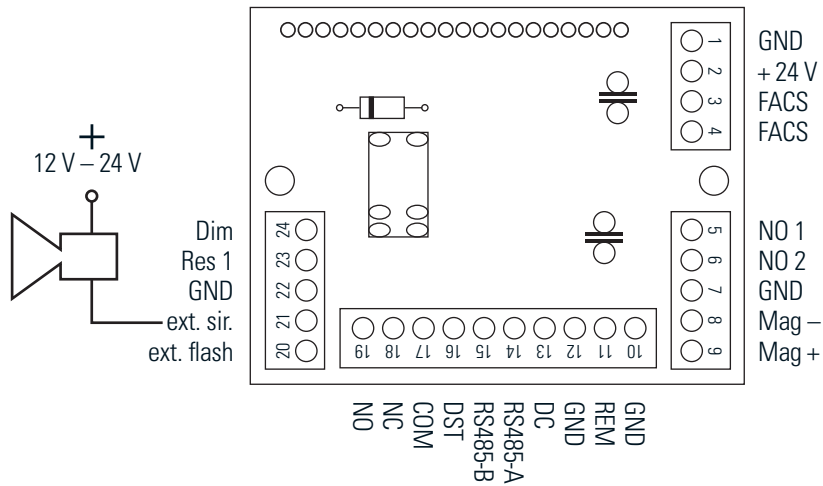
In case of a system failure or a defect GfS Door Terminal please contact the following address:

DIMENSIONS



All units in mm
View 60%

TERMINAL DIAGRAM



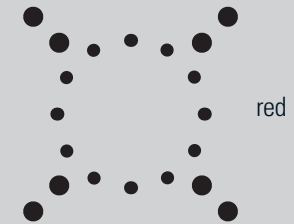
Pos	Abb.	Function	Signal
1	GND	Operating voltage minus	Ground
2	+24V	Operating voltage plus	+24 V
3	FACS	Fire alarm control system	Floating contact or bridge to 4
4	FACS	Fire alarm control system	Floating contact or bridge to 3
5	NO1	Response magnet 1	Ground is switched, holding magnet 1 is energized (Hall Relay NO)
6	NO2	Response magnet 2	Ground is switched, holding magnet 2 is energized (Hall Relay NO). In case that there is just 1 magnet, 6 and 7 must be bridged!
7	GND	Common GND Magnets	GND-Signal (Hall Relais COM)
8	Magnet-	Magnet- Coil 1 and 2	Negative connection for magnets
9	Magnet +	Magnet+ Coil 1 and 2	Positive connection for magnets
10	GND	Reference for remote opening	Signal ground
11	REM	Remote opening input Switch-on	GND resp. bridge 10 and 11 Opening command
12	GND	Reference contact for door contact	Signal GND
13	DC	Contact	Switch-on GND resp. bridge 12 and 13. Door closed
14	RS-485A	Communication	Data signals
15	RS-485B	Communication	Data signals
16	DST	Communication multi function port	Acc. to the required functions as input or output, also usable for communication purposes with 1 wire
17	COM	Incident message relay COM	Floating contact 30 V/0,5 A max
18	NC	Incident message relay NC	Floating contact 30 V/0,5 A max
19	NO	Incident message relay	Floating contact 30 V/0,5 A max
20	ext. flash	External flash light	Open collector-output, 30V/ 0,5A max
21	ext. sir.	External siren	Open collector-output, 30V/ 0,5A max
22	GND	Reference for reserve and dim input	Signal GND
23	Res1	Reserve input	Free function
24	Dim	Dim input	Switch-on GND resp. bridge 24 with 22. Dim command

FUNCTIONS

Alarm secured

LED ring with cross shines red

Incident message relay is activated, emergency exit switch is illuminated, magnet is activated, door contact closed (DC connected) as well as magnet 1 and 2.



Opening time delay

At the end of the opening time delay (5 sec. preset, adjustable)

the green LEDs blink slowly twice

and the GfS Door Terminal is activated again.

Precondition: Holding magnet and door contact are closed.

When the door is opened during the opening time delay and no opening contact active, the status changes directly into "Waiting for door too be closed"



Opening command 1

Turn key switch to the right.

LED ring with corners blink green.

Magnet is deactivated, the door may be opened once without causing an alarm.



Opening command 2

Input "Remote" activated.

Opening command remains active as long as the GfS Door Terminal receives the signal plus opening time delay.



Permanent opening

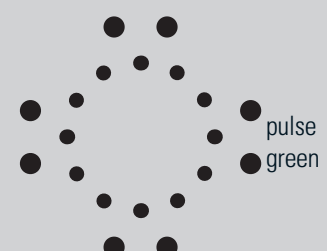
Permanent opening is active as long as Input "Remote" is activated.

Permanent opening with key switch: Turn key switch clockwise for at least 5 sec., till LEDs expire. Remove key.

LEDs and emergency exit switch illumination are pulsing.

Door may be opened as long and as often as desired.

Magnets are permanently deactivated.



FUNCTIONS

Waiting for door to be closed

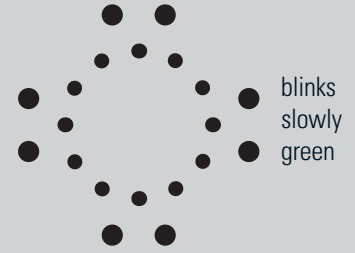
The LEDs blink slowly green

at the end of the opening time.

In case that the holding magnet and door contact are not closed the

LEDs blink green for another 15 sec

(till conditions for activation are met).



Door-too-long-open

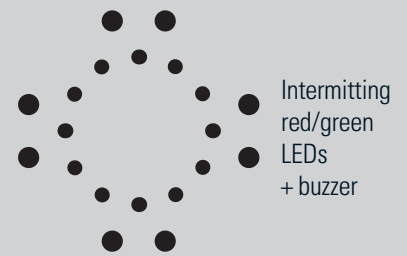
If the door stays open for more than 15 sec. an alarm "Door-too-long-open" is triggered.

Every 3 secs the green LEDs change for 200 ms into red,

while the internal and external buzzers are activated.

Deactivation of alarm

Close door (door reed contact, counter plate) or give again an opening command (opening command 1 and 2 possible)



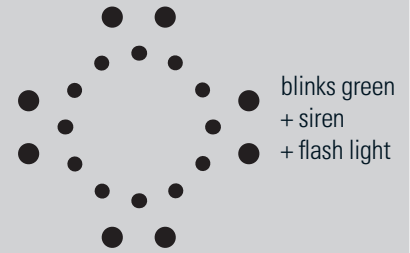
Emergency exit switch alarm

Push emergency exit switch

Flash-light, buzzer (internal and external) are activated, deactivation of incident message relay, magnets are separated and deactivated by the processor.

LEDs blink quickly green (as after opening command).

Reset of alarm just possible with key switch. Unlatch emergency exit switch.



Intrusion, sabotage

In case that one of the two feedback loops of the holding magnets or door contacts are interrupted, an intrusion alarm is triggered.

LEDs change from red to orange.

The incident message relay is deactivated, the external siren is activated.

The magnet stays active!

Reset just possible with key switch (turn right).

In case that the PCB is removed (sabotage on the GfS Door Terminal) the same alarm is triggered.

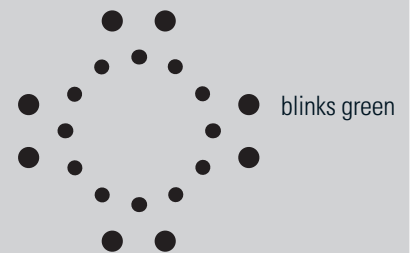


Fire alarm

In case of a central fire alarm clamp 3 and 4 are separated, the failure relay is deactivated. Holding magnets are separated and deactivated by the processor.

LEDs blink quickly green (like open). The emergency exit switch illumination blinks in push-pull.

The deactivation of the alarm only with key switch (turn right) possible.






PROGRAMMING

Programming

- 1 Turn key switch to the right (create status open)
- 2 Hold key switch left at least for 5 sec. till orange ring shines
- 3 Turn key switch to the left, release
- 4 Turn briefly key switch to the left. Repeat this in order to enter other programming modes
- 5 Turn key switch to the right in order to confirm the correct programming mode
- 6 Turn key switch to the right in order to change the status/ value
- 7 Turn key switch to the left in order to store the value and finish programming mode

Programming mode

1	Open time delay	2	Silent alarm	3	Accoustic alarm switch-off
	orange		orange		orange
					

Change opening time

Execute programming steps 1-3

Orange LED ring shines. Programming mode: opening time.

Start programming – execute step 5 (turn to the right)
(Confirm programming mode by turning key to the left)

Orange LED ring changes to red

1 green LED means 5 sec. opening time. By turning the key switch to the right the opening time increases each time by additional 3 sec.

- 1 turns to the right: 8 sec
- 2 turns to the right: 11 sec
- 8 turns to the right: 29 sec

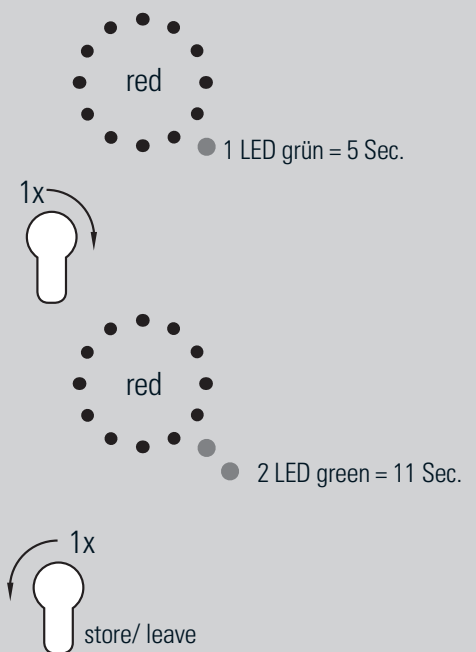
Each turn leads to 1 more LED to shine green (max. 8).

9 turns to the right: 5 sec

When the required opening time delay is set, turn key switch briefly to the left (step 7 – end programming mode)

The LEDs blink quickly 4 times.

The new values are set. In case of a power break down, the opening time remains stored.



PROGRAMMIEREN

Silent alarm

Execute programming steps 1-3

Execute step 4 once. (turn to the left)

The LED cross shines orange.

Execute programming step 5 (turn to the right).

Orange cross changes into green

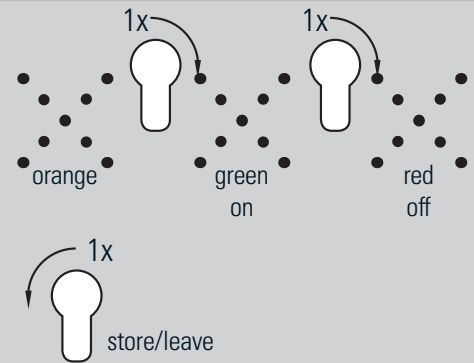
(sirène will be triggered in case of an alarm)

Execute programming step 6 once in order to change to silent alarm (turn to the right).

The LED cross shines red.

With any further execution of programming step 6 the setting changes from green/acoustic alarm to red/silent alarm.

Execute programming step 7 in order to end the programming.



Automatic acoustic alarm switch-off

Execute programming step 1-3.

Execute step 4 twice (turn to the right).

Two orange half circles shine.

Execute step 5 (turn to the right).

Two half circles shine green.

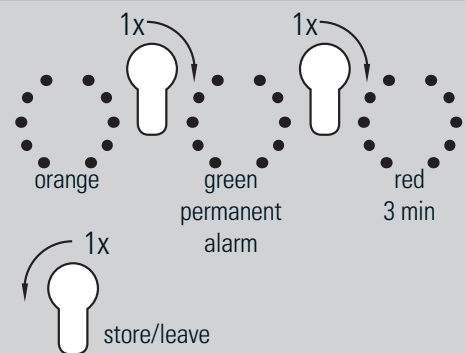
Execute step 6 once (turn to the right).

LED half circles shine red.

Siren is automatically switched-off after 3 min.

With any further execution of programming step 6 the setting changes from green/no automatic alarm switch-off to red/automatic alarm switch-off.

Execute programming step 7 in order to end the programming.



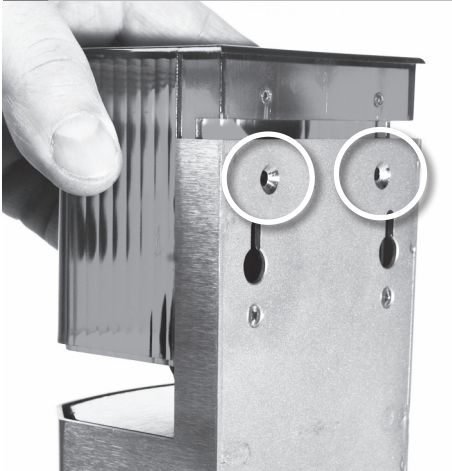
Dim

Activate the port dim

the brightness of all LEDs and the emergency exit switch back light are reduced to a minimum

CHANGING THE EUROPEAN PROFILE CYLINDER

1 Flash light cover



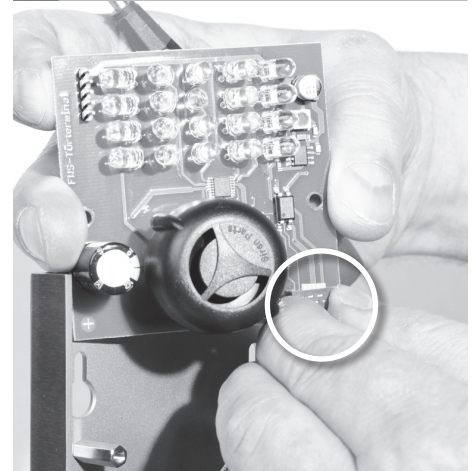
Loosen screws (2x) and remove the cover of the flash light upwards

2 Alarm board



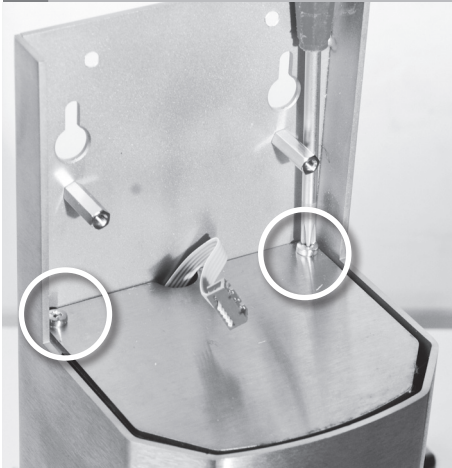
Loosen screws (2x) and remove alarm board

3 Alarm board



Carefully remove cable

4 Internal cover sheet



Remove internal cover (2 screws)

5 Key switch



Loosen key switch through the backside openings

5 Key switch



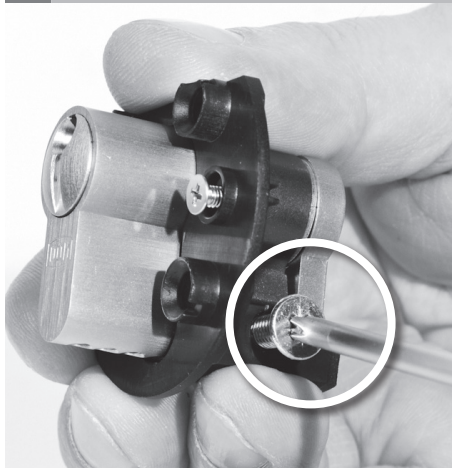
Loosen key switch and remove it (2 screws)

6 Holder for cylinder



Remove the holder for the cylinder (2 screws)

7 Fixation of cylinder



Loosen the fixation and change the cylinder (30/10)

ZERTIFIKAT

Technischer Überwachungsverein Thüringen e.V.

Prüfstelle für Bauprodukte



Hauptverwaltung Erfurt
Melchendorfer Straße 64
99 096 Erfurt

Tel. 0361 / 4 28 30
Fax 0361 / 373 55 62

Service-Center Mittelthüringen
Ichtershäuser Str.32
99 310 Arnstadt
Tel. 03628 / 59 83 70
Fax 03628 / 59 83 71

Service-Center Südthüringen
Industriestraße 13
98 544 Zella-Mehlis
Tel. 03682 / 45 2-635
Fax 03682 / 45 26 57

Baumusterprüfbescheinigung P-4056/13

- Antragsteller:** GfS Gesellschaft für Sicherheitstechnik mbH
Tempowerkring 15
21079 Hamburg
- Fertigungsstätte:** GfS Gesellschaft für Sicherheitstechnik mbH
Tempowerkring 15
21079 Hamburg
- Baumuster:** Eintürenzentrale zur elektrischen Verriegelung von Türen in Rettungswegen
- Typ:** **GfS-Fluchttürterminal**
- Zulässige Ausführung:** Fluchtwegterminal "GfS-Türterminal" bestehend aus:
- Fluchtwegterminal mit Steuerung und Nottaste,
 - externes Netzteil MeanWell MDR-20-X
 - Haftmagnet FWS-HM (Modell 10020),
 - Fluchttüröffner effeff 331U,
 - Fluchttüröffner effeff 332
- Vereinbarte Prüfgrundlagen:**
1. Richtlinie über elektrische Verriegelungssysteme von Türen in Rettungswegen (EltVTR) Mitteilung des DIBt Heft Dez/1998
 2. DIN EN 60950-1: 2011-01
Sicherheit von Einrichtungen der Informationstechnik
- sowie in vorgenannten Prüfgrundlagen aufgeführte Mitgeltende Vorschriften, Normen und Richtlinien.
- Bedingungen:**
1. Der Einbau des elektrischen Verriegelungssystems "GfS-Türterminal" an Türen in Rettungswegen darf nur durch eine geschulte Fachfirma erfolgen.
 2. Das Türterminal ist in unmittelbarer Türnähe in einer Höhe zwischen 850 - 1200 mm zu montieren und mit dem Hinweisschild nach Ziff.3.3.6 der Prüfgrundlage 1 (EltVTR) zu kennzeichnen.
 3. Montage und Installation des elektrischen Verriegelungssystems für Türen in Rettungswegen sind nach den Zeichnungsunterlagen vorzunehmen.
 4. Für die erste Inbetriebnahme der Türen mit elektrischen Verriegelungen in Rettungswegen sind nachstehend aufgeführte, begleitende Unterlagen dem Betreiber zu übergeben:
 - eine Ablichtung der Baumusterprüfbescheinigung, Prüfzeichen P-4056/13,
 - Installations- und Nutzungsanleitung,
 - Prüfbuch mit Angaben zur Prüfung.

ZERTIFIKAT

Prüfstelle für Bauprodukte
Baumusterprüfbescheinigung P-4056/13
Seite 2 von 2

**Hinweise:**

1. Diese Bescheinigung berechtigt den Hersteller zur Kennzeichnung des elektrischen Verriegelungssystems vom Typ „GfS-Türterminal“ mit dem Ü-Zeichen nach Bauregelliste A Teil 1 lfd. Nr. 6.19 unter Angabe von Typ, Baujahr und Seriennummer.
2. Das elektrische Verriegelungssystem bietet die Möglichkeit des Anschlusses an eine Brandmeldezentrale.
3. Die Baumusterprüfung umfasste keine Prüfung der elektromagnetischen Verträglichkeit gem. EG-Richtlinie 204/108/EG.
4. Vor der ersten Inbetriebnahme des elektrischen Verriegelungssystems ist eine Prüfung durch einen Sachkundigen mit schriftlichem Nachweis des Prüfergebnisses erforderlich.
Für die wiederkehrenden Prüfungen und Wartungsfristen nach Herstellerangaben gilt die jeweils am Einbauort gültige Landesbauordnung.
5. Weitergehende Forderungen der Bauaufsichtsbehörde entsprechend der für den Einbauort geltenden Landesbauordnung und die Kennzeichnung der Rettungswege bleiben von dieser Bescheinigung unberührt.
6. Die Baumusterprüfbescheinigung gilt bis zum 31.12.2017. Bei wesentlichen Änderungen der technischen Regel kann eine erneute Prüfung notwendig werden.

Zella-Mehlis, den 12.12.2013

Technischer Überwachungsverein Thüringen e.V.
Prüfstelle für Bauprodukte

Dipl.-Ing. (FH) M. Reichelt
Leiter der Prüfstelle



CHECKLIST		YES	NO
GENERAL	Installation complete		
	Execution of installation		
	Connections/wiring		
	Completeness of documentation		
INSTALLED COMPONENTE	GfS Door Terminal		
	Power unit		
	Holding magnet		
	Fail-unlocked strike		
	External switch		
FUNCTIONAL CHECK	Check the correct locking of the door		
	Operate external switch		
	Check the ability to switch the control LEDs (red/green) on the holding magnets		
	Check automatic and manual reset		
	Check the ease of opening the door, door may neither pinch nor drag		
	Check all mechanical components and clean them, check fixation		
REVISION CONTROL UNIR/ ELECTRIC CONNECTION	Meassure input/output voltage on power supply <input type="text"/> V AC outp. <input type="text"/> V DC		
	Check sabotage alarm		
	Voltage within holding magnet: Input <input type="text"/> V DC/output		
	Meassure current of holding magnet <input type="text"/> mA		
	Check function of external switch (key switch etc.), fire alarm system		
	Check function of emergency exit switch (accoustic and visual alarm)		
	Check the forwarding of alarm signals to external devices		
Comments			

Year	1	2	3	4	5	6	7	8	9	10	11	12	monthly verification by operator
Comment													annual verification by external specialist
													Annual revision sticker handed out
Company (stamp)						Signature external specialist						YES	NO

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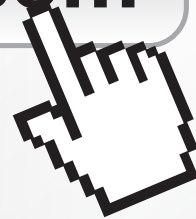
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Company (stamp)							Signature external specialist						YES	NO

SPARE PARTS

Installation frame for in-wall mounting		Part No.	
	for GfS Door Terminal	799 011	
Replacement cover for flash-light		Part No.	
	for the flash-light of the GfS Door Terminal, red	799 000	
Replacement cover for emergency exit switch		Part No.	
	for emergency exit switch of the GfS Door Terminal made out of unbreakable Macrolon, transparent	799 001	
European Cylinder		Part No.	
	for insertion into GfS Door Terminal, incl. 2 keys	901 375	
	2 replacement keys	901 376	
Pictos	Part No.	Pictos	Part No.
for marking the use of the emergency exit switch		for marking the use of the emergency exit switch	
	Regular print quality, adhesive 921 390		fluorescent, adhesive 921 490

www.gfs-online.com



Händlerstempel



GFS – Gesellschaft für Sicherheitstechnik mbH

Tempowerkring 15 · 21079 Hamburg · Fon 0 40-79 01 95 0 · Fax 0 40-79 01 95 11 · info@gfs-online.com · www.gfs-online.com