



## CONTENTS

Introduction: Versatile with a large closing force	4
TSA 160 NT components in overview	5
Product variants and features	5
TSA 160 NT for single-leaf doors	6
TSA 160 NT WC-compartments for disabled people	7
TSA 160 NT IS for double-leaf doors	8
Technical data	8
TSA 160 NT F/F-IS for fire-proof doors	9
Automatic systems optimally controlled and secured – GEZE Sensor barriers	10
Hygienically one step ahead – GEZE Swing door systems controlled non-contact	11
Wireless control with system – reliable, convenient and secure at a touch of a button	11



Unilever Hamburg

### INTRODUCTION





## Versatile with a large closing force

Reliably open and close doors may sound simple but this requires highly sophisticated technology. The swing door system TSA 160 NT makes sure that everything runs smoothly, day after day from second to second. At the same time it offers a maximum convenience and safety. The swing door systems TSA 160 NT easily cope with the frequently tough duties of everyday functions, whilst maintaining safety.

Where it is too cumbersome to operate a door by hand, the swing door system TSA 160 NT takes over this job. This provides particular benefits in shops and department stores, hospitals and schools, in homes for the elderly or disabled, as well as in airports and railway stations.

Where doors shut quickly, safely and tight, we can of course also expect a significant contribution to energy savings. Therefore, the tried and tested TSA 160 NT system is frequently used for lobbies, entrances to workshops and cool rooms as well as for doors at the end of corridors. Likewise, where the highest demands are placed on hygiene, the GEZE swing door actuators are frequently found.

Saftey first! The TSA 160 NT actuators are the trusted solution for safety at work, access control as well as interlocks and of course this system fulfills the regulation DIN 18650. An additional safety feature are the GEZE safety sensors, which control the opening and closing action. These sensors will stop the movement of the door in time, if people, animals or movable objects are within the swing opening range of the door. In emergencies they can save lives: The swing door systems TSA 160 NT F and TSA 160 NT F-IS are approved for the use on smoke and fire doors.

GEZE offers comprehensive service – fast and competent.

### **PRODUCT FEATURES**

The TSA 160 NT is an electronically controlled, hydraulic swing door system for door leaves made of wood, steel or aluminium. At the opening it works with a hydraulic pump system. The closing is done by means of a closing mechanism and adjustable hydraulic valves.



# **DIN 18650**



### **Additional product benefits**

- Low maintenance requirements, high reliability and simple to adjust
- The closing force as well as the opening and closing speeds can be fully adjusted
- Leaf width up to 1400 mm
- Door leaf weight up to 250 kg
- Can be fitted to right and left handed doors (pull or push) on hinge side and opposite hinge side
- Modern control systems with an energy-saving power supply
- Standard: Push&Go function can be activated and deactivated as required
- Type-approved and certified in accordance with DIN 18650, meets EN 954-1
- Integrated programme switch for the functions "Off", "Automatic", "Permanently open". Operating mode "shop closing" can be realized with the help of an external program switch.
- Can be used in combination with the GEZE SecuLogic emergency exits, access control system, building technology management system and smoke and heat extraction solutions
- Variants TSA 160 NT-F/F-IS have European certification for use as smoke and fire-proof doors
- Variants TSA 160 NT-IS/F-IS for double-leaf doors with integrated, invisible closing sequence control
- The use of very small secondary leaf opens up a large range of applications and thus flexibility of planning



### **SWING DOOR ACTUATOR TSA 160 NT IN DETAIL**

Components		Valve	Valve settings	
1	Motor shaft	SG	Closing speed	
2	Line fuse	SD	Closing damping	
3	Electric motor	SE	Latching adjustment	
4	Control	OG	Opening speed	
5	Hydraulic pump	OD	Back check	
6	Closing force adjustment			

### **PRODUCT VARIANTS**

### For single-leaf doors

**TSA 160 NT** 

can be used for right and left handed single-action doors (convertible), pull or push

for smoke and fire-proof doors, push

### For double-leaf doors

- separate actuator for each half of the double-leaf door with intermediate cover
- TSA 160 NT-IS

with Integrated, invisible closing sequence control

TSA 160 NT F-IS

for smoke and fire-proof doors, with Integrated, invisible closing sequence control

TSA 160 NT IS/TS

active leaf is automated, fixed leaf with door closer function

#### **GEZE TSA 160 NT**

## For single-leaf doors

### Types of application

The TSA 160 NT system is adaptable to fit your requirements. It can be used for new construction as well as for refurbisment, for inside and outside areas. It only should be dry and the ambient temperatures should be within the usual limits  $(-10^{\circ} \text{ C to } + 60^{\circ} \text{ C})$ .

In addition, there is a broad range of materials to use with the TSA 160 NT; timber, steel, plastic or aluminium. The small dimensions ( $100 \times 120 \times 690$  mm) make it particularly easy for the designer and fitter. And of course, they fit well both in confined spaces and in a retrofit situation. Nevertheless, TSA 160 NT actuators are rugged and powerful. They will open doors up to 250 kg in weight and with a maximum door widths up to 1400 mm without any problem and still perfectly control the closing action. The same actuator can be used for left or right handed doors.

#### **Functions and benefits**

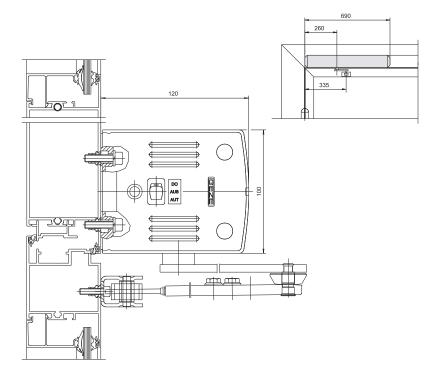
The electrohydraulic swing door actuators TSA 160 NT ensure total satisfaction in connection with all doors. A hydraulic pump system controls the open state and the closing spring mechanism governs the closing process. The door system remains optical and acoustical, whilst unobstructive. The construction with vibration dampers ensures a low noise level. All TSA 160 NT systems are extremely cost-effective. They require very little energy and service. As far as comfort is concerned, the TSA 160 NT is not at all modest. The drive can be combined with all known control options and offers a system ready to be fitted – if required with remote control.

Even power cuts are no problem for the TSA 160 NT. In this case the door can be opened manually just as any normal door. Manual opening is also possible at any time while the actuators are switched on.

Depending on the design and arrangement it is possible to achieve opening angles of up to 115°. Apart from the opening speed, the closing force and closing speed can be fully adjusted. The latching action can be adjusted as well through a valve. The TSA 160 NT is mounted at the head of the door on the hinge side or the opposite hinge side. The TSA 160 NT is designed for door widths up to 1400 mm. In the pulling version the minimum door width (less than 700 mm is possible) is dependent on the mounting of the actuator (actuator offset) and the required opening angle of the door.



Steiff Museum, Giengen



## GEZE TSA 160 NT WC-compartments for disabled people – Reliablility at any location

### **SPECIAL AREAS OF USE**

A toilet for disabled people must be set up in such a way to ensure that people with very different abilities are able to use the facilities without needing help. The Slimdrive EMD swing door drive offers essential assistance and ensures considerable convenience.

### GEZE implements living quarters - barrier-free and suitable for the disabled



Airport Köln-Bonn



- Swing door actuator TSA 160 NT
- Large elbow switch OPEN DOOR (inside and out)
- Switch: Lock/unlock the door
- "Occupied" sign
- "Occupied" control lamp
- Emergency-stop switch

### **Description of function**

After pressing the large elbow switch on the outside of the toilet, the door opens automatically and then closes itself after a set hold-open time has elapsed.

The switch in the WC cubicle is activated by the user to display the "Occupied" sign on the exterior indicator and the control lamp on the switch. At the same time, the large elbow switch inside and out is deactivated. This means that the door cannot be opened by anyone else, or opened accidentally by the user. The powered door opener prevent manually opening of the door from the outside. To leave the cubicle, the user employs the switch again. The "Occupied" display outside along with the control lamp inside will go out. Sensors at the DOOR OPEN large elbow switch activate the drive and the door is opened immediately.

In the event of a power failure, the closed-circuit opening unlocks the door and the user may exit by pushing opening or pulling the door. Pressing the large elbow switch will enable the door to be opened from the inside even when the system is powered. In an emergency, a key or the triggering of emergency off button can be used to open the door manually from the outside.

## **GEZE TSA 160 NT IS**

## For double-leaf doors

For double-leaf doors the swing door system TSA 160 NT offers different options:

### TSA 160 NT IS

If you require an integrated control of the closing sequence – as required for fire doors – you are on the safe side with the TSA 160 NT-IS. As an alternative, you can separate actuators for each half of the double-leaf door and link these through an intermediate cover. This will ensure complete synchronisation of the two TSA 160 NT systems.

### • TSA 160 NT/TSA 162 (not according to DIN18650)

You can also choose a lower cost alternative: one TSA 160 NT in combination with a TSA 162. The TSA 162 operates as a slave actuator and is reliably controlled by the master actuator. It can be upgraded to a TSA 160 NT at any time.

### TSA 160 NT IS/TS

Pulling or pushing, with integrated door closing sequence selector. The active leaf is automated; fixed leaf with door closer function and permanent hold-open.

### Technical data - mechanical

	TSA 160 NT	TSA 160 NT F	TSA 160 NT IS	TSA 160 NT F-IS
		single-leaf		double-leaf
Application		incl. approval for		incl. approval for
	single-leaf	fire-proof doors	double-leaf	fire-proof doors
Function	pushing or pulling	pushing	pushing or pulling	pushing
Max. leaf width				
(comp. EN 1154)	1400 mm	1400 mm	1400 mm	1400 mm
Min. hinge dimension			1470 mm	1470 mm
Max. hinge dimension			2800 mm	2800 mm
Max. leaf weight	250 kg	250 kg	250 kg	250 kg
	<ul> <li>Linkage for soffit dep</li> </ul>	oth 0–100 mm, 100–200 mn	n, 200–350 mm	
0-4:	<ul> <li>Spindle extension 24</li> </ul>	mm, 30 mm, 45 mm		
Options	<ul> <li>Mounting plate</li> </ul>			
	<ul> <li>Intermediate cover k</li> </ul>	it for double-leaf systems		

### Technical data - electric

	TSA 160 NT	TSA 162
	TSA 160 NT F	(Secondary drive for double-leaf
	TSA 160 NT IS	systems, controlled by TSA 160 NT)
	TSA 160 NT F-IS	
Mains connection	230 V AC 50/60 Hz +10% / -14%	230 V AC 50/60 Hz
Power consumption approx.	300 VA	300 VA
Supply voltage	24 V DC 1200 mA	
Integrated programme switch	Permanently open – OFF – Automatic	
In the case of power failure	Door closer function	Door closer function

EN size 3 6
0 60 seconds
up to 115°
via hydraulic valve
via hydraulic valve
via hydraulic valve

Range of sizes for appropriate door widths			
DIN EN 1154 size 3	max. 950 mm		
DIN EN 1154 size 4	max. 1100 mm		
DIN EN 1154 size 5	max. 1250 mm		
DIN EN 1154 size 6	max. 1400 mm		

## **GEZE TSA 160 NT F/F-IS**

## For smoke and fire-proof doors

Ideal for single-leaf and double-leaf fire-proof doors. In the case of fire it is essential that the door actuator system operates well: A clear case for the GEZETSA 160 NT F. This system has been approved for single-leaf fire doors, mounted at the head of the door and equipped with an electric door strike (DIN 18763). The approval has been given for the "push" version of the door. This means that the actuator is mounted on the opposite side of the hinges at the head of the door. The TSA 160 NT F will move doors with a width up to 1400 mm or a maximum weight of 250 kg.

Just like the other TSA 160 NT systems, the TSA 160 NT F can be operated with all known control systems. It is possible to start the actuator through various contact devices (radar, infrared, light curtains, switches). Before start-up the catch bolt must be released. For this reason the door frame must be equipped with an electromagnetic door strike. When using the TSA 160 NT F for smoke and fire doors, certain monitoring equipment such as smoke detectors are required, which will in the case of fire deactivate all contact devices opening the door, release the door from a fixed position and disconnect the door strike from the electricity. The actuator is started up again by pressing the reset switch on the actuator. The control of the network relay (24 V/DC) is carried out by the smoke switch, whilst the energy to the actuator (230 V/AC) comes from the main supply.

The TSA 160 NT F demonstrates its flexibility also with smoke alarm systems and has been approved for all major systems.

In the case of fire the most important factor for double-leaf doors is, that the closing sequence must function one hundred percent. This can be guaranteed only with an integrated closer control – it may become a question of survival. In the case of danger or a power cut the TSA 160 NT F-IS will ensure the correct closing sequence of both halves of the double-leaf door. The TSA 160 NT F-IS does not require an externally fitted closer control mechanism and is, therefore, visually, a more sophisticated system. Of course, it is also approved for double-leaf smoke and fire protection doors.

The cabling and release mechanism of the TSA 160 NT F-IS are accommodated in the intermediate cover, making the installation easy. In other words: the amount of cabling required from the electrical contractor is no more than needed for single door actuators. The technical characteristics of the GEZE TSA 160 NT F-IS are identical to the TSA 160 NT F.



Andels Hotel, Berlin



 ${\it Landesbank\ Baden-W\"urt temberg,\ Stuttgart}$ 

## Optimum controlling and securing of automatic drives

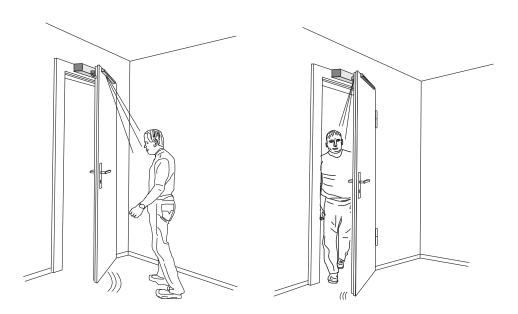
## **GEZE SENSOR BARRIERS**

Safety sensor barriers are used to monitor and secure the swing range of automated swing door leaves. The assembly is carried out on both sides, directly to the door leaf. This ensures the greatest possible level of protection both when opening and when closing the door.

### **Functioning principles**

The GEZE safety sensor barriers work using an infrared light basis. A short-wave infrared beam is issued by the transmitter and picked up by the receiver thanks to reflections on the floor. The 3D light curtain of the sensor barrier results in a very precisely set detection area. Optical measurements of distances combined with trigonometry (triangulation) can be used to reliably recognise persons and objects, for example, shopping trolleys and patient beds.

- The door movement is stopped in the opening direction as soon as the sensor barrier registers an obstacle. Wall blanking of the safety sensor barriers is possible and can be learned.
- In the closing direction, the safety sensor barrier controls the drive of the door being approached and opens it again.





### **GEZE sensor barriers GC 334:**

These electronically adjustable active infrared sensors with dip switch serve to secure automatic swing door leaves in accordance with DIN 18650. They can also be used when the floor conditions are difficult, for example, floor mats and metal rails as well as dark and absorbing floors.

- Simple click mounting in the sensor profile
- Fully automatic start up via learn button, can also be done for several connected units
- Simple adjustment options (e.g. exit assignment, frequency, background mode, grey area) via dip switch
- Integrated second output relay in the sensor in order to secure both the hinge end and the end opposite the hinge with a single cable leading to the drive
- Low power consumption of sensor module
- Closely meshed detection field with a wide detection field for each sensor module
- Highest standard of safety thanks to the constant self-monitoring

## Hygienically one step ahead - GEZE swing door systems with no-contact control



### **GEZE proximity switch AIR 12 Cleanscan**

Opening doors with a wave: The AIR 12 Cleanscan can be used to control interior doors with no requirement for haptic perception cleanly and conveniently. Thus, active infrared sensors ensure, for example, the bacteria-free access to the bathrooms as well as for germ-free conditions in hotel kitchens, swimming baths and doctor's surgeries.

The pulse generator is installed at hand height and is able to precisely recognise people and objects, regardless of the direction in which they are moving, both very close i.e. at a distance of just five centimetres or even as far as 0.6 metres. The differing detection distances can be adapted optimally to the actual ambient circumstances and the requirements of the user groups. The no-contact sensor system offer the highest possible level of operating convenience, simply moving towards the door is sufficient to active the automated opening function. It also brings about the benefit of absolute hygiene.

- No-contact proximity switch
- Variable adjustment of the sensor range in two stages
- Precise detection of people and objects regardless of the direction in which they are moving
- Can be used universally for either surface or flush mounting



#### **GEZE radar movement detector GC 302:**

Radar technology is ideal for detecting moving objects. Radar ( $\bf Radio\ D$ etection and  $\bf R$ anging) refers to the locating of and detection of objects by means of electro-magnetic waves. The GEZE radar movement sensor GC 302 serves to implement reliable control of automatic doors.

- Pre-programmed convenience settings
- Configuration using buttons and remote control
- Prevention of unintentional door opening by blocking out cross-traffic
- SMD+ as the new detection field for movements < 50 mm/second

## Wireless control with system - reliable, convenient and secure at the touch of a button



### **GEZE Radio programme**

Radio controlled operators for the various applications in our daily life make bring added convenience. Senior citizens, the disabled or physically weaker people can be afforded more quality of life, and they help make things easy for care staff. They are increasingly becoming standard fittings for barrier-free and agesuitable living.

With a new and innovative radio solution, GEZE has also adapted their range of control elements. The wireless control of doors and windows using the GEZE radio programme makes connection to a power supply superfluous. Thanks to the tiny dimensions of the radio modules, these can easy be integrated in a drive or an in-wall casing and can also be clipped directly into the elbow switch and mounted wirelessly on glass.

### Examples of types of application

- Retro-fitting without needing to lay cables and using existing switches/buttons
- Mounting without connection to power, for example, on glass
- Individual or group control of doors and windows
- Combined control of doors and windows using a remote

GEZE GmbH P.O. Box 1363 71226 Leonberg Germany

GEZE GmbH Reinhold-Vöster-Straße 21-29 71229 Leonberg Germany Telefon +49 (0) 7152-203-0 Telefax +49 (0) 7152-203-310

#### www.geze.com

### Germany

GEZE Sonderkonstruktionen GmbH Planken 1 97944 Boxberg-Schweigern Tel. +49 (0) 7930-9294-0 Fax +49 (0) 7930-9294-10 E-Mail: sk.de@geze.com

GEZE GmbH Niederlassung Nord/Ost Bühringstraße 8 13086 Berlin (Weissensee) Tel. +49 (0) 30-47 89 90-0 Fax +49 (0) 30-47 89 90-17 E-Mail: berlin.de@geze.com

GEZE GmbH Niederlassung West Nordsternstraße 65 45329 Essen Tel. +49 (0) 201-83082-0 Fax +49 (0) 201-83082-20 E-Mail: essen.de@geze.com

GEZE GmbH Niederlassung Mitte Adenauerallee 2 61440 Oberursel (b. Frankfurt) Tel. +49 (0) 6171-63610-0 Fax +49 (0) 6171-63610-1 E-Mail: frankfurt.de@geze.com

GEZE GmbH Niederlassung Süd Reinhold-Vöster-Straße 21-29 71229 Leonberg Tel. +49 (0) 7152-203-594 Fax +49 (0) 7152-203-438 E-Mail: leonberg.de@geze.com GEZE Service GmbH NL Südwest Reinhold-Vöster-Straße 25 71229 Leonberg Tel. +49 (0) 7152-92 33 34

GEZE Service GmbH NL Nord-Ost Bühringstraße 8 13086 Berlin (Weissensee) Tel. +49 (0) 30-47 02 17 32

GEZE Service GmbH NL West Nordsternstraße 65 45329 Essen Tel. +49 (0) 201-8 30 82 16

GEZE Service GmbH NL Mitte Adenauerallee 2 61440 Oberursel Tel. +49 (0) 6171-63 61 03

GEZE Service GmbH NL Süd Keltenring 10 85658 Egmating Tel. +49 (0) 8095-87 13 61

#### Austria

GEZE Austria GmbH Mayrwiesstraße 12 5300 Hallwang b. Salzburg Tel. +43-(0)662-663142 Fax +43-(0)662-663142-15 E-Mail: austria.at@geze.com

#### **Baltic States**

GEZE GmbH Baltic States office Dzelzavas iela 120 S 1021 Riga Tel. +371 (0) 67 89 60 35 Fax +371 (0) 67 89 60 36 E-Mail: office-latvia@geze.com

### Benelux

GEZE Benelux B.V. Leemkuil 1 Industrieterrein Kapelbeemd 5626 EA Eindhoven Tel. +31-(0)40-26290-80 Fax +31-(0)40-26 290-85 E-Mail: benelux.nl@geze.com

### Bulgaria

GEZE Bulgaria - Trade Representative Office 61 Pirinski Prohod, entrance "B", 4th floor, office 5, 1680 Sofia Tel. +359 (0) 24 70 43 73 Fax +359 (0) 24 70 62 62 E-Mail: office-bulgaria@geze.com

### China

GEZE Industries (Tianjin) Co., Ltd. Shuangchenzhong Road Beichen Economic Development Area (BEDA)
Tianjin 300400, P.R. China
Tel. +86(0)22-26973995-0
Fax +86(0)22-26972702
E-Mail: Sales-info@geze.com.cn

GEZE Industries (Tianjin) Co., Ltd. Branch Office Shanghai Unit 25N, Cross Region Plaza No 899, Ling Ling Road, XuHui District 200030 Shanghai, P.R China Tel. +86 (0)21-523 40 960 Fax +86 (0)21-644 72 007 E-Mail: chinasales@geze.com.cn

Branch Office Guangzhou Room 17C3 Everbright Bank Building, No.689 Tian He Bei Road 510630 Guangzhou P.R. China Tel. +86(0)20-38731842 Fax +86(0)20-38731834

E-Mail: chinasales@geze.com.cn

GEZE Industries (Tianjin) Co., Ltd.

GEZE Industries (Tianjin) Co., Ltd.
Branch Office Beijing
Rm3A02, Building 3
ZhuBang 2000 Business Plaza
No.98, Balizhuang xili
Chaoyang District
100025 Beijing, P.R.China
Tel. +86 (0)10-8797 5177 /-78
Fax +86 (0)10-8797 5171
E-Mail: chinasales@geze.com.cn

### France

GEZE France S.A.R.L.
ZAC de l'Orme Rond
RN 19
77170 Servon
Tel. +33-(0)1-606260-70
Fax +33-(0)1-606260-71
E-Mail: france.fr@geze.com

### Hungary

GEZE Hungary Kft.
Bartók Béla út 105-113.
Budapest
H-1115
Tel. +36 (1) 481 4670
Fax +36 (1) 481 4671
E-Mail: office-hungary@geze.com

### Iberia

GEZE Iberia S.R.L.
Pol. Ind. El Pla
C/Comerc, 2-22, Nave 12
08980 Sant Feliu de Llobregat
(Barcelona)
Tel. +34(0)9-02194036
Fax +34(0)9-02194035
E-Mail: info@geze.es

#### India

GEZE India Private Ltd.
MF 2 & 3, Guindy Industrial Estate
Ekkattuthangal
Chennai 600 097
Tamilnadu
Tel. +91 44 3061 6900
Fax +91 44 3061 6901
E-Mail: office-india@geze.com

#### Italy

GEZE Italia Srl Via Giotto, 4 20040 Cambiago (MI) Tel. +3902950695-11 Fax +3902950695-33 E-Mail: italia.it@geze.com

GEZE Engineering Roma Srl Via Lucrezia Romana, 91 00178 Roma Tel. +3906-7265311 Fax +3906-72653136 E-Mail: roma@geze.biz

#### **Poland**

GEZE Polska Sp.z o.o. ul. Annopol 21 03-236 Warszawa Tel. +48 (0)22 440 4 440 Fax +48 (0)22 440 4 400 E-Mail: geze.pl@geze.com

#### Romania

GEZE Romania s.r.l.

IRIDE Business Park,
Str. Dimitrie Pompeiu nr. 9-9a,
Building 10, Level 2, Sector 2,
020335 Bucharest
Tel.: +40 (0) 21 25 07 750
Fax: +40 (0) 21 25 07 750
E-Mail: office-romania@geze.com

## Russian Federation

GEZE GmbH Representative
Office Russia
Kolodesnij pereulok3, str. 25
Office Nr. 5201-5203
107076 Moskau
Tel. +7 (0) 49 55 89 90 52
Fax +7 (0) 49 55 89 90 51
E-Mail: office-russia@geze.com

### Scandinavia – Sweden

GEZE Scandinavia AB
Mallslingan 10
Box 7060
18711 Täby, Sweden
Tel. +46(0)8-7323-400
Fax +46(0)8-7323-499
E-Mail: sverige.se@geze.com

### Scandinavia – Norway

GEZE Scandinavia AB avd. Norge Industriveien 34 B 2073 Dal Tel. +47(0)639-57200 Fax +47(0)639-57173 E-Mail: norge.se@geze.com

### Scandinavia – Finland

Branch office of GEZE Scandinavia AB Herralantie 824 Postbox 20 15871 Hollola Tel. +358(0)10-4005100 Fax +358(0)10-4005120 E-Mail: finland.se@geze.com

#### Scandinavia - Denmark

GEZE Danmark
Branch office of GEZE Scandinavia AB
Høje Taastrup Boulevard 53
2630 Taastrup
Tel. +45(0)46-323324
Fax +45(0)46-323326
E-Mail: danmark.se@geze.com

#### South Africa

DCLSA Distributors (Pty.) Ltd.
118 Richards Drive, Halfway House,
Ext 111
P.O. Box 7934, Midrand 1685
Tel. +27(0)113158286
Fax +27(0)113158261
E-Mail: info@dclsa.co.za

#### **Switzerland**

GEZE Schweiz AG Bodenackerstrasse 79 4657 Dulliken Tel. +41-(0)62-2855400 Fax +41-(0)62-2855401 E-Mail: schweiz.ch@geze.com

#### Turkey

GEZE GmbH Türkiye - İstanbul İrtibat Bürosu Ataşehir Bulvarı, Ata 2/3 Plaza Kat: 9 D: 84 Ataşehir Kadıköy / İstanbul Tel. + 90 (0) 21 64 55 43 15 Fax + 90 (0) 21 64 55 82 15 E-Mail: office-turkey@geze.com

### Ukraine

Repräsentanz GEZE GmbH Ukraine ul. Vikentiya Hvoyki, 21, office 151 04080 Kiev Tel. +38 (0) 44 49 97 725 Fax +38 (0) 44 49 97 725 E-Mail: office-ukraine@geze.com

## United Arab Emirates/GCC

GEZE Middle East
P.O. Box 17903
Jebel Ali Free Zone
Dubai
Tel. +971(0)4-8833112
Fax +971(0)4-8833240
E-Mail: geze@emirates.net.ae

## **United Kingdom**

GEZE UK Ltd.
Blenheim Way
Fradley Park
Lichfield
Staffordshire WS13 8SY
Tel. +44(0)1543443000
Fax +44(0)1543443001
E-Mail: info.uk@geze.com

GEZE REPRESENTATIVE