

***LTG Aktiengesellschaft***

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## ***Transfer Air Device Type LDO-T***



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## Components for Room Air Technology

### Germany

#### Central Office (Frankfurt)

Sales area:

**PLZ 54, 55, 60, 63, 64, 66-69, 97**  
 Sontraer Str. 27  
 D-60386 Frankfurt am Main  
 Herr Schilling  
 ☎ (069) 94 20 19-14, Fax -10  
 E-mail: Schilling@LTG-AG.de

#### Central office (Herborn)

Sales area:

**PLZ 30, 31, 34-38, 56, 61, 65**  
 Sperberweg 16  
 D-35745 Herborn  
 Herr Hartmann  
 ☎ (02772) 570-725, Fax -727  
 E-mail: Hartmann@LTG-AG.de

#### Eastern office (Berlin)

Sales area:

**PLZ 10-25, 29, 39**  
 Eisenhutweg 51a  
 D-12487 Berlin  
 Herr Linke  
 ☎ (030) 63 22 87-74, Fax -75  
 E-mail: Linke@LTG-AG.de

#### Eastern office (Chemnitz)

Sales area:

**PLZ 01-09, 98, 99**  
 Johannes-Ebert-Strasse 20  
 D-09128 Chemnitz  
 Herr Schenfeld  
 ☎ (0371) 77118-01, Fax -02  
 E-mail: Schenfeld@LTG-AG.de

#### Southern office

Sales area:

**PLZ 70-96**  
 Grenzstraße 7  
 D-70435 Stuttgart  
 Herr Gau  
 ☎ (0711) 8201-209, Fax -210  
 E-mail: Gau@LTG-AG.de

#### Western office

Sales area:

**PLZ 26-28, 32, 33, 40-53, 57-59**  
 Baststraße 30  
 D-46119 Oberhausen/Rheinl.  
 Herr Perenz  
 ☎ (0172) 7336850  
 E-mail: Perenz@LTG-AG.de

### Austria

#### **KTG Klimatechnische Gesellschaft mbH**

Schubertstraße 13, A-2126 Ladendorf  
 ☎ (02575) 21089, Fax (02575) 21022  
 E-Mail: office@ktg-wien.com

### France

#### **INNTEK**

3 Village d'Entreprises  
 ZA de la Couronne des Près  
 Avenue de la Mauldre, F-78680 Epône  
 ☎ (01) 30 95 19 19, Fax (01) 30 95 18 18  
 E-Mail: INNTEK.AC@wanadoo.fr

### Great Britain

#### **MAP**

#### **Motorised Air Products Ltd.**

Unit 5A, Sopwith Crescent  
 Wickford Business Park Wickford  
 GB-Essex SS11 8YU  
 ☎ (01268) 57 44 42, Fax (01268) 57 44 43  
 E-Mail: info@mapuk.com

### Netherlands

#### **Opticlina Systems**

Leeuwerikstraat 110, NL-3853 AG Ermelo  
 ☎ (0341) 493969, Fax (0341) 493931  
 E-Mail: info@opticlina.nl

### Poland

#### **HTK Went Sp.z.o.o.**

ul. Chopina 13/3, PL-30047 Krakow  
 ☎ (012) 632 31 32, Fax (012) 632 81 93  
 E-Mail: info@htk-went.pl

### Portugal

#### **ArGelo S. A.**

R. Luis Pastor de Macedo, Lote 28 B  
 P-1750-158 Lisboa  
 ☎ (21) 752 01 20, Fax (21) 752 01 29  
 E-Mail: info@argelo.pt

### Slovenia

#### **Energoplus**

Koprska 108 d, SLO- 1000 Ljubljana  
 ☎ (01) 200 73 67, Fax (01) 42 33 346  
 E-Mail: info@energoplus.si

### Turkey

#### **Step Müh. Yapı Ltd.**

Yali Yolu Sokak, Turanlı Apt. No: 24 D.1  
 TR- 34744 Bostanci-Istanbul  
 ☎ (0216) 445 2931, Fax (0216) 445 2505  
 E-Mail: info@stepyapi.com.tr

## The Program for Room Air Technology

### Components

Air diffusers for walls, floors and ceilings · "LTG System clean"® · Coandatrol® and Coandavent® air diffusers · LTG cool wave® chilling fans · Klimavent® induction units · Raumluf® fan coil units · Facade fan coil units · Airflow control units · labair® system

### Engineering services

Technical services for investors, architects, engineers and plant builders during design, construction and operation of buildings. Reliable and precise data relating to the ventilation of air conditioning system are given already before realization of the project, determined by measurements, calculations, building simulations and experiments.

## Components for Process Air Technology

### Japan

#### **Toho Engineering Co. Ltd.**

14-11, Shimizu 3-Chome, Kita Ku  
 Japan 462 Nagoya  
 ☎ (052) 9 91-10 40, Fax (052) 9 14-98 22  
 E-Mail: main@tohoeng.com

## The Program for Process Air Technology

### Components

Axial-flow, centrifugal and tangential fans · Collector system for: coarse and fine particle filtration, separating and compacting, compressing and humidifying.

### Engineering services

Technical services for construction engineers and plant designers during development and operation of assembly groups, machines and plants.

## Transfer Air Device LDO-T

### Function

The Transfer Air Device type LDO-T is an acoustically treated air transfer device for mounting into walls.

LDO-T devices may be used to transfer room air to adjacent corridors, false ceilings or adjacent interior zones using either mechanical or natural ventilation systems.

Transfer Air Devices reduce the pressure difference between two rooms connected by the device and thus avoid excessive door opening forces

The Transfer Air Device type LDO-T prevents noise/voice transmission to adjacent rooms.

### Features

- High transmission loss with low pressure loss
- Easy installation
  - fascia grille, suitable for easy retrofit installation without tools using clips
- Aesthetic design
  - finish of fascia grille either painted, anodized aluminum or stainless steel;
  - modification of device shape/size possible to special order
- Standard sizes for dry wall thicknesses of 100 mm and 125 mm
  - installation between 625 mm grid metal stud sections.
- Non-flammable version
  - abrasion resistant sound absorber material A1

### Design / Range of Products

Ready-to-install unit including:

- aesthetically designed fascia grille of galvanized sheet steel, painted (either anodized aluminum or stainless steel)
- transfer base element of galvanized sheet steel with integrated sound absorber providing excellent acoustic effectiveness

standard length: 550 mm



Figure: wall installation LDO-T

### Tolerances

- For the dimensions stated in this technical brochure DIN ISO 2768-mk General Tolerances apply.
- Length tolerances:  $\leq 1.5 \text{ m} \pm 1.5 \text{ mm}$ ;  
 $\geq 1.5 \text{ m} \pm 2.0 \text{ mm}$ .
- Straightness and twist tolerances according to DIN EN 12020-2.

### Finish

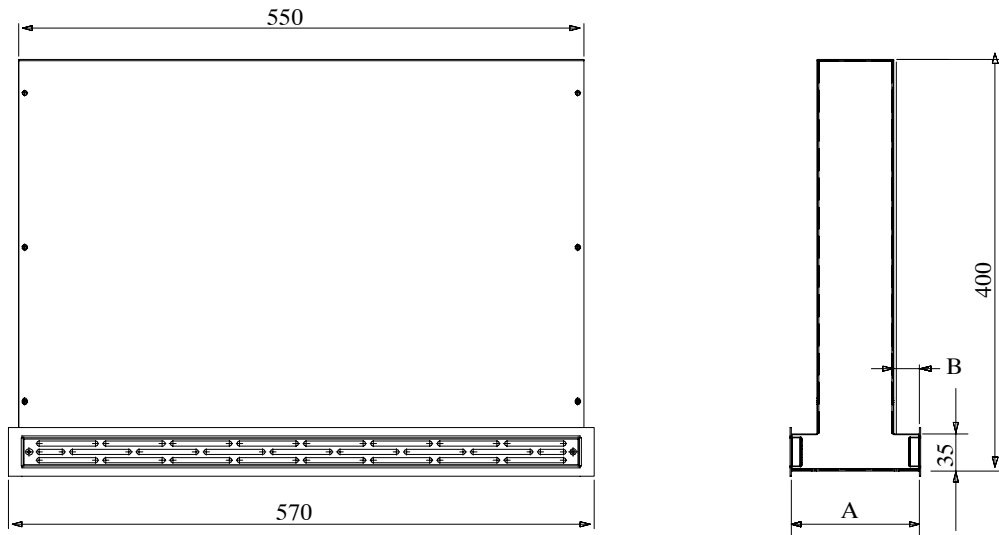
- The surface finish of the Transfer Air Device has been designed for use in room climates according to DIN 1946 Part 2.
- Other surface finishes of the Transfer Air Device to meet specific requirements on demand.

### Installation

- Flush insertion of the transfer base element in dry walls of 100 mm and 125 mm.
- Clip on the front side device element from inside the room.

# Transfer Air Device LDO-T

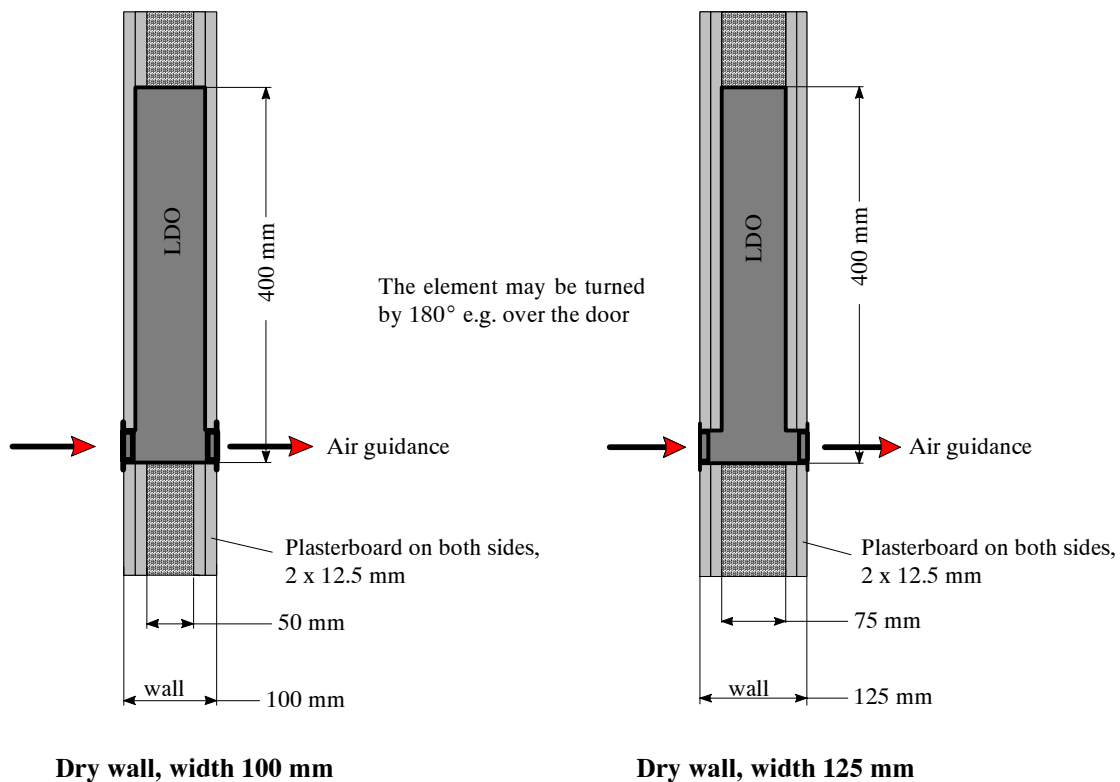
## Dimensions



Weight:  
Size 550 abt. 5 kg

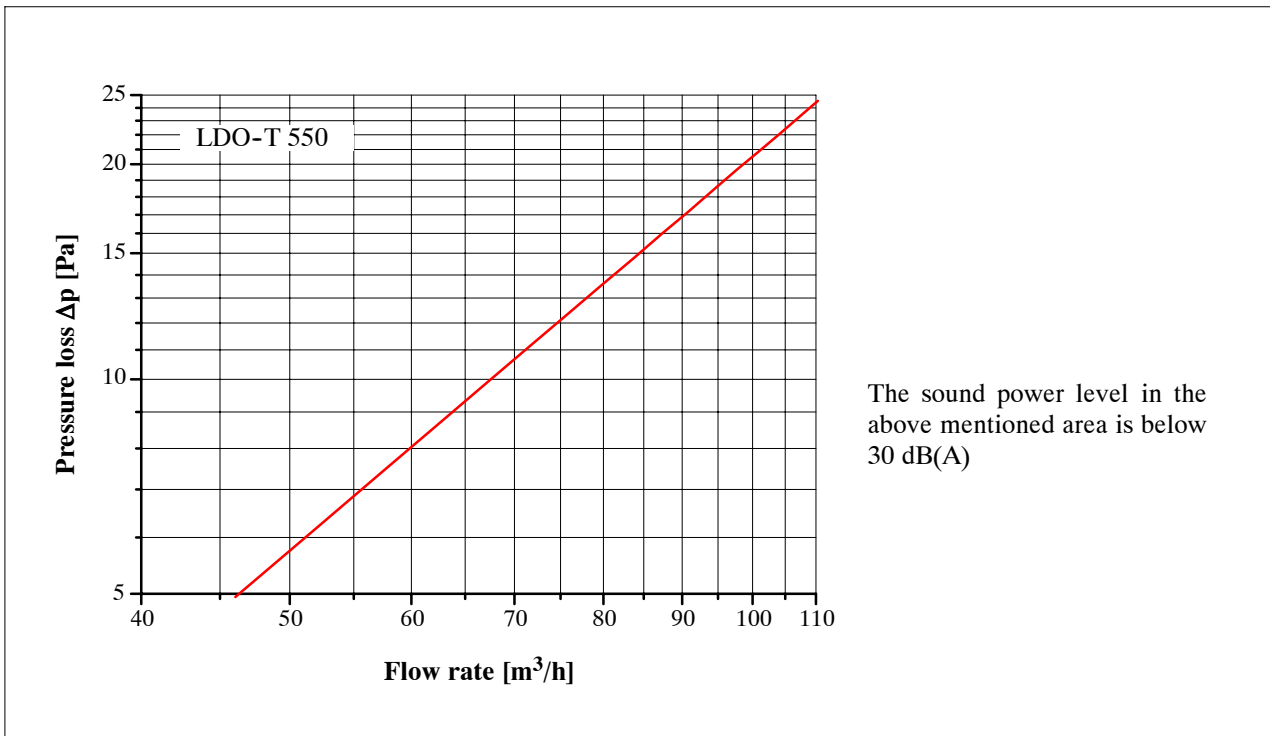
Wall thickness	Dim. A	Dim. B
<b>125</b>	125	25
<b>100</b>	100	12.5

## Installation situation

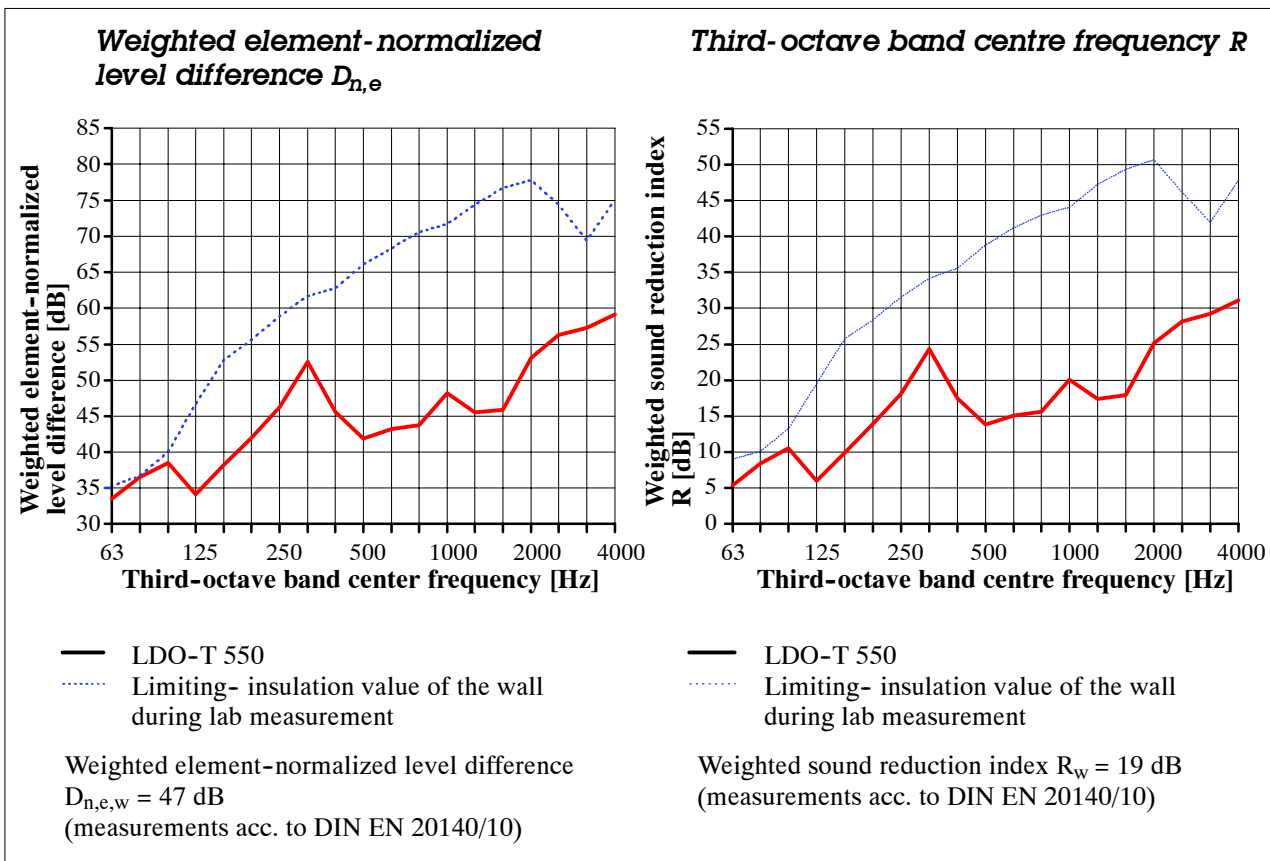


# Transfer Air Device LDO-T

## Pressure loss selection diagram

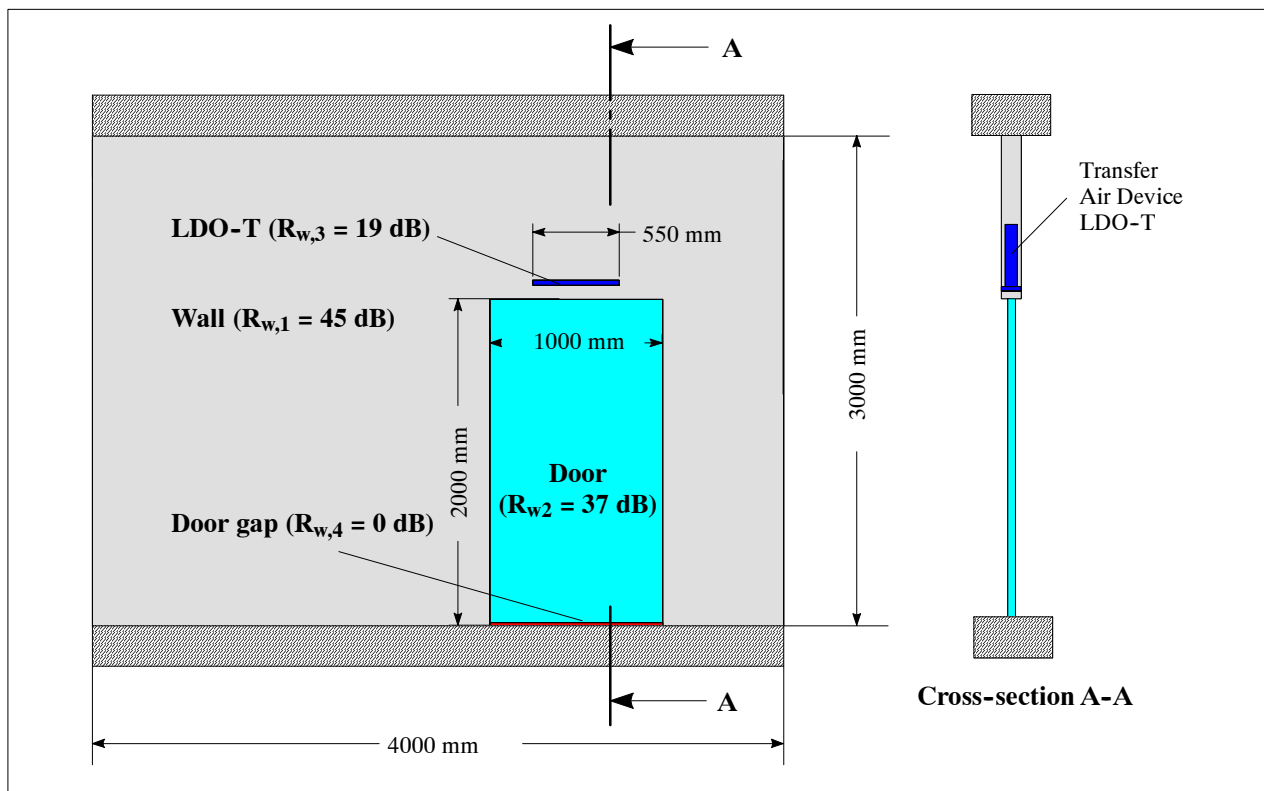


## Selection diagrams



# Transfer Air Device LDO-T

## Dimensioning Examples



<b>Example 1</b>	- Wall: - Door:	- 10 m <sup>2</sup> with R <sub>w,1</sub> = 45 dB - 2 m <sup>2</sup> with R <sub>w,2</sub> = 37 dB	Resulting weighted sound reduction index: <b>R<sub>w, res</sub> = 42 dB</b>
<b>Example 2</b>	- Wall: - Door: - LDO-T 550:	- 9,98 m <sup>2</sup> - 2 m <sup>2</sup> with R <sub>w,2</sub> = 37 dB - 0.016 m <sup>2</sup> with R <sub>w,3</sub> = 19 dB	Resulting weighted sound reduction index: <b>R<sub>w, res</sub> = 41 dB</b>
<b>Example 3</b>	- Wall: - Door: - 2 x LDO-T 550:	- 9.97 m <sup>2</sup> with R <sub>w,1</sub> = 45 dB - 2 m <sup>2</sup> with R <sub>w,2</sub> = 37 dB - 2 x 0,016 m <sup>2</sup> with R <sub>w,3</sub> = 19 dB	Resulting weighted sound reduction index: <b>R<sub>w, res</sub> = 40 dB</b>
<b>Example 4</b>	- Wall: - Door: - Door gap:	- 10 m <sup>2</sup> with R <sub>w,1</sub> = 45 dB - 1.98 m <sup>2</sup> with R <sub>w,2</sub> = 37 dB - 0.02 m <sup>2</sup> with R <sub>w,4</sub> = 0 dB	Resulting weighted sound reduction index: <b>R<sub>w, res</sub> = 28 dB</b>

Calculation is based on the following equation:  $R_{w, res} = -10 \lg \left( \frac{1}{S_{ges}} \cdot \sum_{i=1}^n S_i \cdot 10^{(-R_{w,i}/10)} \right)$

### Nomenclature

**LDO-T / 550 / ....**

Type \_\_\_\_\_

Size \_\_\_\_\_

Colour \_\_\_\_\_

L = painted acc. to RAL )

P = powder coated acc. to RAL

E = stainless steel

A = anodized aluminum

**Transfer Air Device**  
**Specification and Schedule of Prices**

Quantity	Specification	Unit Price in €	Total in €
	<p>Sound insulating device for the transfer of room air to hallway areas and hallway intermediate ceilings, low pressure loss while maintaining the sound insulation features of the partition walls, for flush installation in vertical room surfaces with dry wall thicknesses of 100 mm or 125 mm;            Nominal flow rate <math>V_{nom} = 90 \text{ m}^3/\text{h}</math> with a pressure loss of <math>\Delta p = 20 \text{ Pa}</math>.</p> <p>The device includes:</p> <ul style="list-style-type: none"> <li>- transfer base element of 0.6 mm galvanized sheet steel with integrated sound absorber of abrasion resistant, non flammable A1 material, height: 400 mm, width to suit: 100 mm, 125 mm</li> <li>- device element of 0.6 mm galvanized sheet steel with sub-frame, painted acc. to RAL (optional anodized aluminum, powder coated acc. to RAL or stainless steel)</li> <li>- device element may be clipped in place from inside the room. Width: 30 mm, length: 550 mm..</li> </ul> <p><b>Manufacturer: LTG Aktiengesellschaft</b>  <b>Type: LDO-T</b></p>		