

Transfer Air Device Type LDO-T



LTG Aktiengesellschaft

D - 70435 Stuttgart, Grenzstraße 7
☎ +49 (0711) 82 01-0, Fax +49 (0711) 82 01-720
Internet: <http://www.LTG-AG.de>
E-Mail: info@LTG-AG.de

LTG Incorporated

105 Corporate Drive, Suite E
Spartanburg S.C., 29303 USA
☎ +1 (864) 599-6340, Fax +1 (864) 599-6344
Internet: <http://www.LTG-INC.net>
E-Mail: info@LTG-INC.net

LTG S.r.l. con socio unico

Via G. Leopardi 10
I-20066 Melzo
☎ +39 (02) 9 55 05 35, Fax +39 (02) 9 55 08 28
Internet: <http://www.LTG-SRL.com>
E-Mail: ltg@ltsrl.191.it

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
 ☎ (069) 94 20 19-14, Fax -10
 E-mail: Bergmann@LTG-AG.de

Central office (Herborn)

Sales area:

PLZ 30, 31, 34-38, 56, 57, 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, 58-59
 Baststraße 30
 D-46119 Oberhausen/Rheinl.
 Herr Perenz
 ☎ (0208) 30431-55, Fax -56
 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

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

Opticlima Systems b.v.

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

Systemair Energo Plus d.o.o.

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

Switzerland

Laminair AG

Kirchbergstrasse 105
 Ch-3400 Burgdorf
 ☎ (034) 420 02-10, (034) 420 02-11
 E-Mail: info@laminair.ch

Turkey

Step Müh. Yapi 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[®] · linear diffusers Coandatrol[®] · ceiling air diffusers Coadavent[®] · displacement diffusers · LTG chilling fans cool wave[®] · induction units Klimavent[®] · fan coil units Raumluft · ceiling fan coil units Ventotel[®] · 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-vL 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 EN ISO 7730.
- Other surface finishes of the Transfer Air Device to meet specific requirements on demand.

Installation

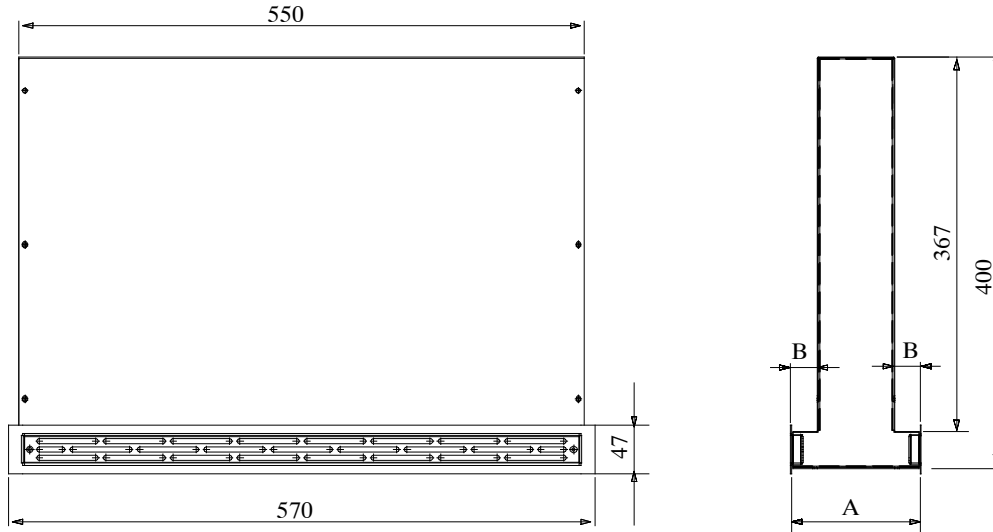
- Flush insertion of the transfer base element in dry walls of 100 mm and 125 mm.
- Clip on the front side device element from inside the room.

You will find the actual **tender documentations** at the end of this document.

They are available in word format at your local dealership or at www.LTG-AG.de.

Transfer Air Device LDO-T

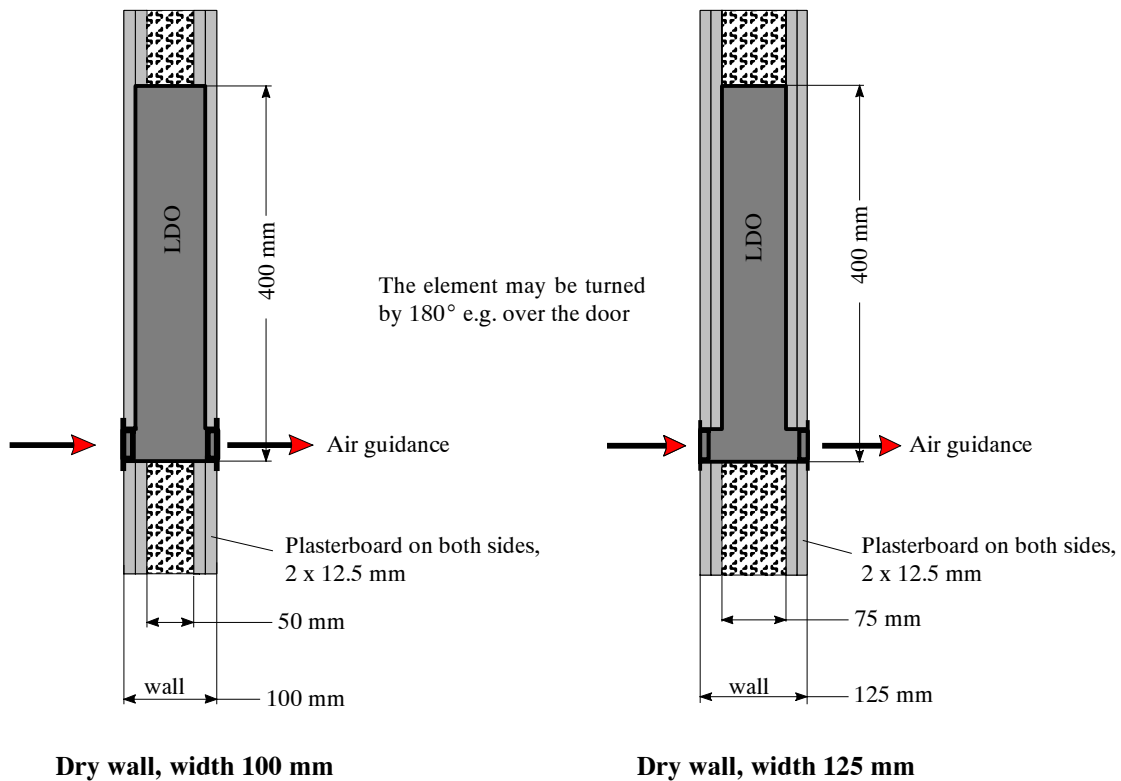
Dimensions



Weight:
 Size 550 abt. 5 kg

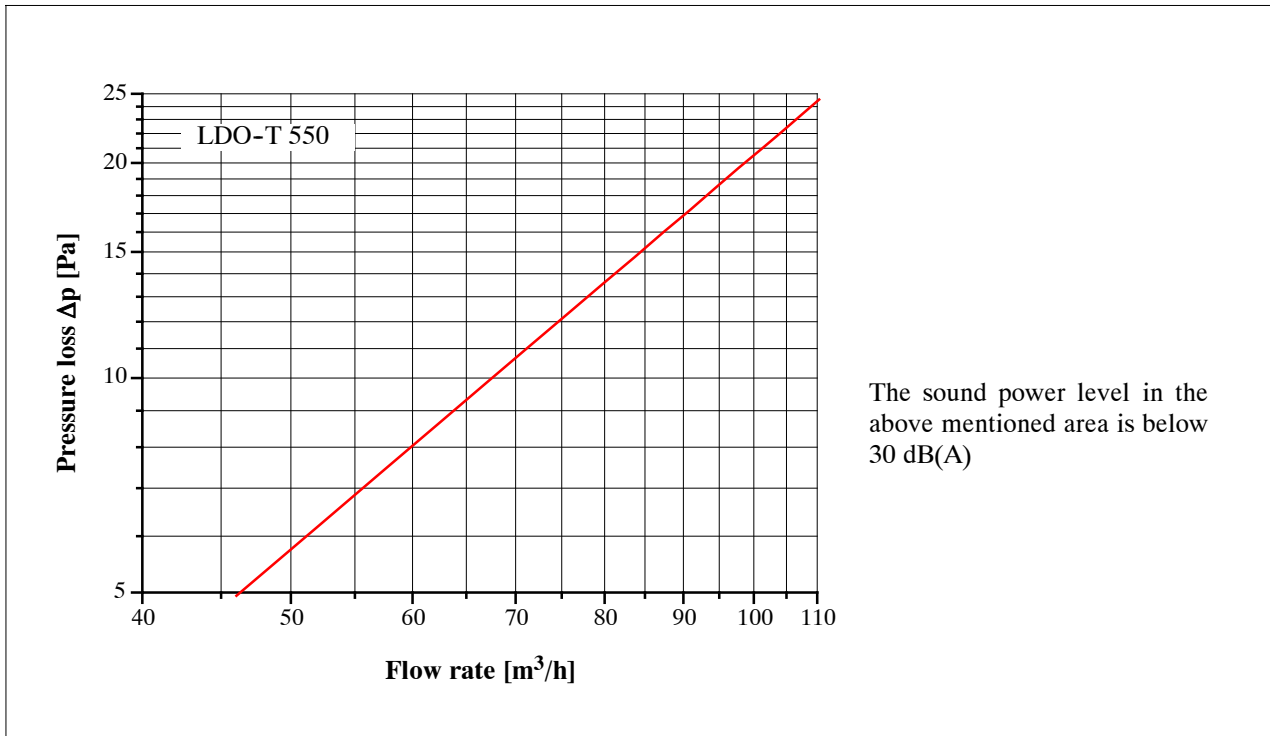
Wall thickness	Dim. A	Dim. B
125	125	25
100	100	12.5

Installation situation

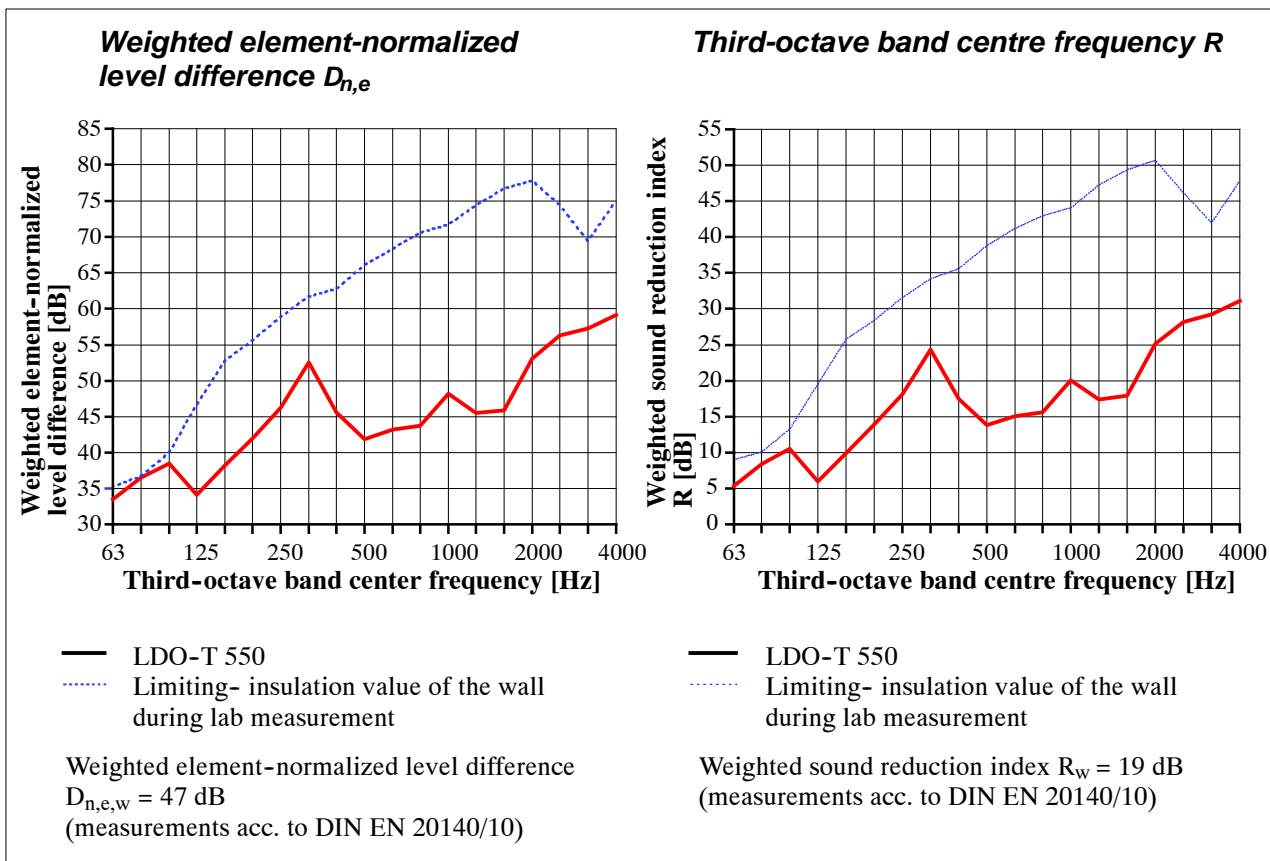


Transfer Air Device LDO-T

Pressure loss selection diagram

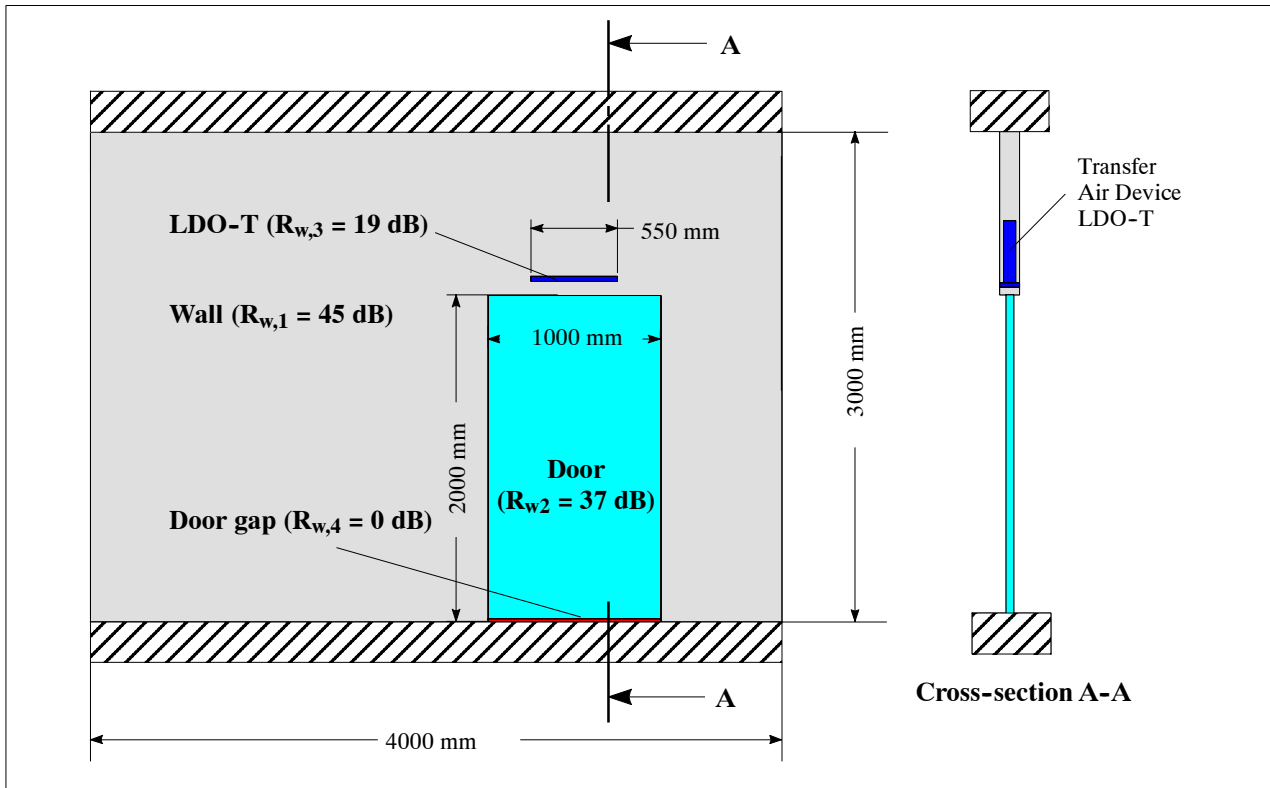


Selection diagrams



Transfer Air Device LDO-T

Dimensioning Examples



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

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

Specification and Schedule of Prices

Transfair Air Device LDO-T

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Qty.	Description	Unit Price in €	Total price in €
	<p><u>Sound insulating device</u> 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 $V_{Nenn} = 90 \text{ m}^3/\text{h}$ with a pressure loss of $\Delta p = 20 \text{ Pa}$.</p> <p><u>Device comprising of :</u></p> <ul style="list-style-type: none"> - 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 - 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) - device element may be clipped in place from inside the room. Width: 30 mm, length: 550 mm <p>Manufacturer: LTG Aktiengesellschaft Type: LDO-T</p>		