



ERCO Hi-trac track and light structures – Carrying it off

Hi-trac combines the flexible options of a track with the visual comfort of indirect lighting

The Hi-trac light structure is a heavy-duty system and allows very wide spacing between the suspensions. Hi-trac is an aluminium extrusion and available with integrated ERCO track in two versions: either with an empty upper compartment for cables or as an indirect luminaire.

Hi-trac enables the combination of indirect lighting with accent light from the track.



Structure and characteristics

The features described here are typical of products in this range. Special versions may offer additional or varying features. A comprehensive description of the features of individual products can be found on our website.

1 Panel profile

- White (RAL9002) or silver
- Aluminium, powder-coated
- Track and panel profile to be assembled on site

2 Contacts (lower part)

- 4 isolated copper conductors
- When used as DALI track: 1 16A circuit and 2 conductors for connecting to the DALI data line
- When used as 3-circuit track: three separately switchable circuits, 16A each

3 Earth conductor

4 Fixture with LED module (on upper side)

- High-power LED: warm white (2700K or 3000K) or neutral white (3500K or 4000K)
- Cover: diffuser, polymer, textured
- LED module operation with one track circuit
- Covered control gear: switchable, phase dimmable or DALI dimmable

or

Empty profile (upper side of track)

- For accommodating through-wiring or cover profiles

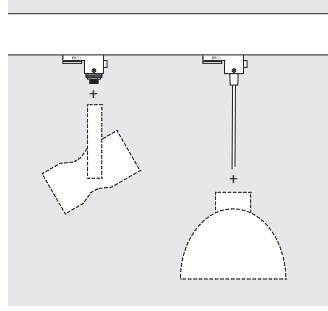
Variants on request

- Housing: 10,000 further colours
- Please contact your ERCO consultant.



Design and application:
www.erco.com/hi-trac

ERCO Hi-trac track and light structures



Focus on mounting and accessories

ERCO's nuanced and diversified product range has stood the test even in special situations – from planning complex light structures to high load requirements.

Open system for luminaires from other manufacturers

Utilise our track as high quality infrastructure for your lighting design, also in combination with luminaires from other manufacturers. We provide the suitable adapters as OEM components.

Special characteristics



Accessory for mounting variants



OEM components



ERCO high-power LEDs



Different light colours



Excellent thermal management



EMC-optimised



Various housing colours



Various construction sizes



Switchable



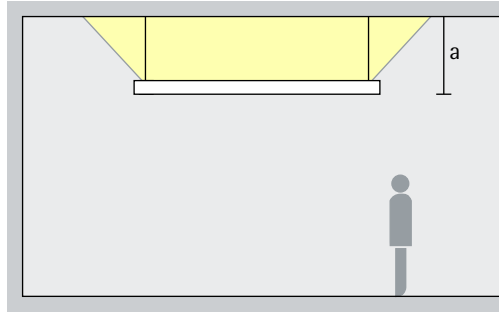
Phase dimmable



DALI dimmable

ERCO Hi-trac track and light structures – Luminaire arrangement

Luminaires, indirect



General lighting

The LED module, mounted flush into the Hi-trac track from above, projects the light onto the ceiling, emphasising the dimensions of high rooms. The ideal distance (a) of the light structure to the ceiling is 0.8m.

Arrangement: $a = 0.8\text{m}$



Phänomena
Science Center,
Lüdenscheid.
Architec-
ture (design):
schneider+schumacher,
Frankfurt am
Main. Architecture
(construction and
implementation):
KKW Architekten,
Altena. Photo-
grapher: Thomas
Mayer, Neuss.



Fundación Fran-
cisco Godia,
Barcelona. Archi-
tect: Jordi Garcés,
Barcelona.

ERCO Hi-trac track and light structures planning aid

Focus on mounting and accessories

ERCO's differentiated product range has stood the test even in special situations – from planning complex light structures to meeting high load requirements.

The earth conductor in ERCO track systems is set in the lower profile edge. When selecting live end, L- and T-connectors, it must be ensured that the continuous line is not interrupted. The position of the earth conductor is established by the orientation of the track system.

Definitions

Live end

Earth conductor left:
When looking up into the track towards the live end, the earth conductor is on the left.

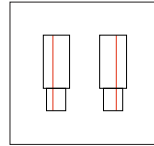
Earth conductor right:
When looking up into the track towards the live end, the earth conductor is on the right.

T-connector

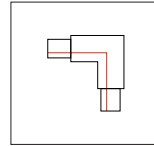
Earth conductor left:
The earth conductor is on the left when looking across the T towards the leg.

Earth conductor right:
The earth conductor is on the right when looking across the T towards the leg.

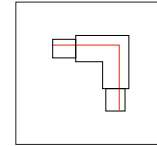
The earth conductor is always positioned on the outside of the T-bar.



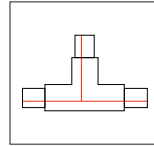
Live end
Earth conductor left
Earth conductor right



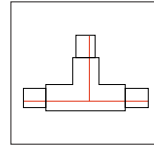
L-connector
Earth conductor inside



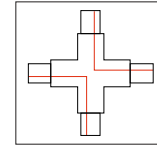
L-connector
Earth conductor outside



T-connector
Earth conductor left



T-connector
Earth conductor right

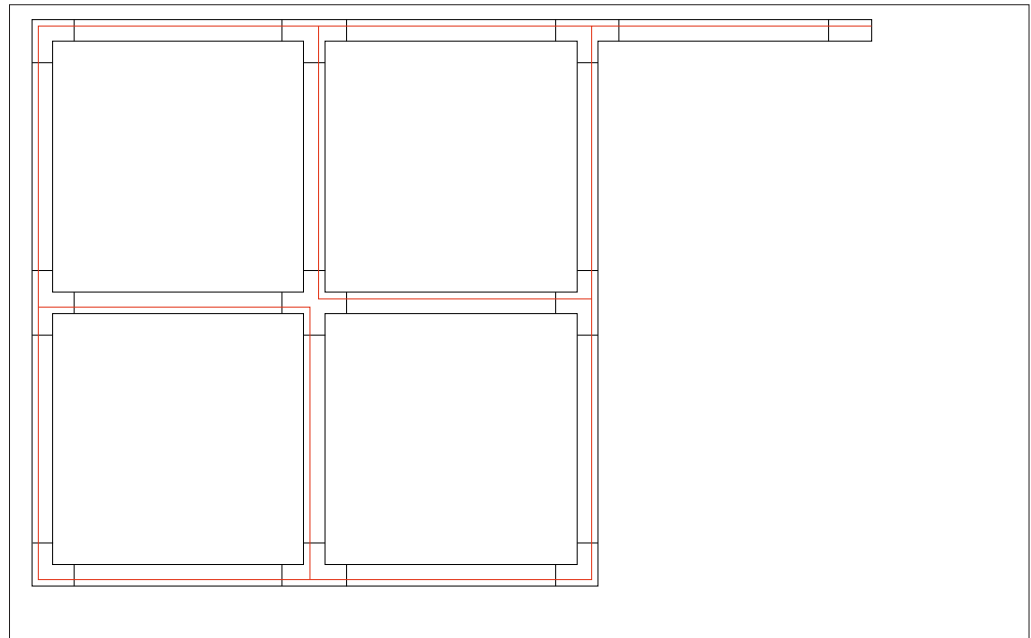


X-connector



Gapless mounting with connectors

The track and light structures can be connected in straight lines using gapless couplers or mounted at right angles with connectors. When planning the track system, all track and connectors are initially outlined in top view without earth conductors. Starting with a T-connector, the earth conductors are then sketched as a through connection. The above definitions of earth conductor left/right will help to compile a list of required connectors for ordering. The drawing on the right illustrates an overview of article numbers.



Mechanical information

Horizontal ceiling mounting:
All luminaires that are approved for the ERCO track system can be used.

Horizontal mounting on walls:
only luminaires with a maximum weight of 2kg may be used. Follow the mounting instructions of the luminaire.

Vertical mounting on walls:
The guiding groove on the track profile must be facing to the right.

Other mounting methods:
see the product documentation for information on the limited use of luminaires.

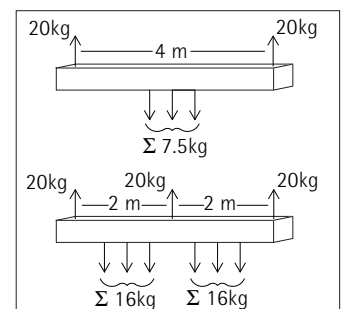
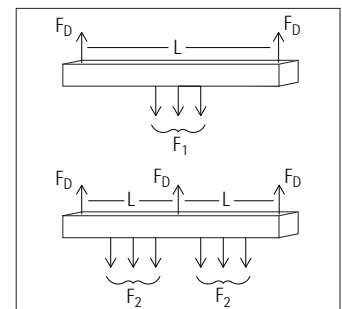
Permissible loading is calculated from the max. permissible profile deflection and the max. permissible mechanical loading of the suspension devices. Load distribution takes both the weight of the system and the equally distributed point loads into consideration.

L (mm)	length
f _e (mm)	deflection due to weight of profile
F ₀ (kg)	max. loading of suspension device
F _e (kg)	weight of the profile
F ₁ (kg)	maximum permissible load for two-point suspension and permissible deflection (L/250) of 4mm per metre length
F ₂ (kg)	maximum permissible load for series suspension and permissible deflection (L/250) of 4mm per metre length

Hi-trac track and light structures

L (mm)	1000	2000	3000	4000
F _e (kg)	2.20	4.40	6.60	8.80
f _e (mm)	0.03	0.52	2.65	8.40

F ₀	= 20kg
F ₁ (kg)	38 36 20 7.5
F ₂ (kg)	18 16 14 7.5



ERCO Hi-trac track and light structures planning aid

Flexible use

You can use ERCO track with various types of control. The same rail profile is wired for conventional multi-phase installations, DALI applications and Multi Dim applications.

In the conventional multi-phase installation with 3 load circuits/control circuits, up to 3 phases can be connected and fused with a maximum of 16A each.

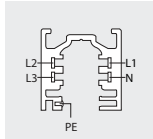
For DALI installation, 1 load circuit with max. 16A is available.

When using luminaires with Multi Dim, 1 load circuit with 16A is also available. 2 control circuits are available for phase dimming or Push Dim operation.

For the electrical connection, all connecting parts are available either for 3-circuit/Multi Dim installation or for DALI applications.

Connection variants

ERCO Track for 3-circuit installation



Connection

L1 load circuit / control circuit 1
L2 load circuit / control circuit 2
L3 load circuit / control circuit 3
N neutral conductor
PE protective conductor

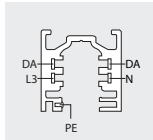
Possible control types

Switchable
Phase dimmable
Casambi Bluetooth
Zigbee
On-board Dim

Suitable adapters

3-circuit adapter
Transadapter
Intrack adapter (only switchable, Casambi Bluetooth, Zigbee, On-board Dim)
Intrack adapter for 48V luminaires

ERCO track for DALI installation



Connection

DA DALI
DA DALI
L3 load circuit
N neutral conductor
PE protective conductor

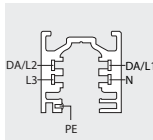
Possible control types

DALI
On-board Dim

Suitable adapters

DALI adapter
DALI Transadapter
Intrack adapter (only DALI setting with Multi Dim)

ERCO track for Multi Dim installation with phase dimming / Push Dim / DALI



Connection

L1 DALI control circuit 1
L2 DALI control circuit 2
L3 load circuit
N neutral conductor
PE protective conductor

Possible control types

Multi Dim
Multi Dim + On-board Dim
DALI

Suitable adapters

Intrack adapter (with Multi Dim)
DALI adapter
DALI Transadapter



All ERCO adapters are mounted in the track without tools. The necessary electrical connection of the track differs according to the type of adapter.

3-circuit adapter

3-circuit adapters establish the electrical and mechanical connection to the luminaire, and enable selection of the switching/load circuits of which a maximum of three are available. Phase selection is already possible with the installed luminaire.

DALI adapter

DALI adapters can be operated in a track for DALI installations. One load circuit is available.



ERCO Transadapter

ERCO transadapters contain the control gear of the luminaire and are used in various sizes and designs. For phase dimmable luminaires, the adapter also includes the controller for On-board Dim. In contrast to the 3-circuit adapters, phase selection is carried out before insertion into the track. As with the 3-circuit adapter, the transadapter offers the possibility of operating with 3 circuits/load circuits.

DALI Transadapter

DALI adapters can be operated in a track for DALI installations. One load circuit is available.

Intrack Adapter

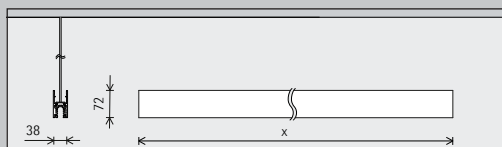
Intrack adapters contain the power supply for the luminaire and disappear completely into the track. As with the 3-circuit adapters, they enable the operation of three control circuits/circuits.

Intrack Adapter Multi Dim

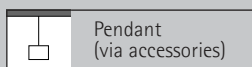
Intrack adapters with Multi Dim provide one load circuit that requires a permanent phase on L3, similar to the DALI application. Depending on the operating mode, this adapter enables the control modes DALI and Push Dim or phase dimmable with 2 control circuits

ERCO Hi-trac track and light structure

ERCO Hi-trac track



Type of mounting



Length

2000mm	4000mm
3000mm	Special length *

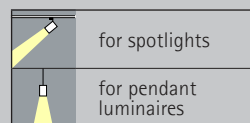
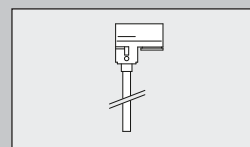
Application

3-circuit ✓ Switchable ✓ Phase dimmable ✓ Phase dimmable (via Multi Dim) ✓ Push Dim (via Multi Dim) ✓ Casambi Bluetooth ✓ Zigbee	DALI ✓ DALI ✓ DALI dimmable (via Multi Dim)
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Colour (housing)

	White
	Silver
	10,000 colours *

ERCO OEM adapter



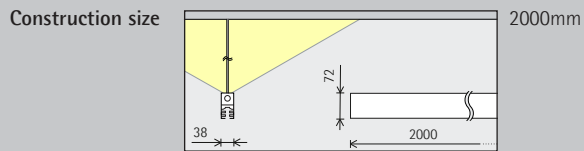
3-circuit ✓ Switchable ✓ Phase dimmable ✓ Casambi Bluetooth ✓ Zigbee	DALI ✓ DALI
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	White
	Black

Accessories

	Connectors		Cover profile
	Suspension equipment		

Hi-trac luminaires



LED module
Maximum value
at 4000K CRI 82

12W/1800lm

**Light colour
(indirect)**

	2700K CRI 92		3500K CRI 92
	3000K CRI 92		4000K CRI 82
	3000K CRI 97		4000K CRI 92

Control

	Switchable
	Phase dimmable
	DALI

Colour (housing)

	White
	Silver
	10,000 colours *

* available on request

Article numbers and planning data:
www.erco.com/012190

Design and application:
www.erco.com/hi-trac





vital pharmacy,
Vienna. Archi-
tecture/lighting
designers: bpw
architektur,
Vienna.

Heidelberg City
Hall. Planning:
Heidelberg City
Council, Facility
Management.
Photography: Dirk
Vogel, Altena.



