EUTRAC

Lighting tracks and adapters for innovative luminaries
The lighting track system

Easy to cut
Cutting to the required length can be done easily on site. No need for time consuming cutting back or bending back of copper conductors. No need for any special tools.

Mounting points
Surface track with pre-punched slotted holes every 333 mm (3~ track), and every 203 mm (1~ track). Slotted holes are 6 mm – 25 mm. Holes can be easily opened with a screwdriver or a similar tool.

Colours
Tracks are available in powder coated, white (close to RAL 9016) and black (close to RAL 9005) or silver anodized (E6/EV1). System components and adapter are available in four different colours, white (close to RAL 9016), black (close to RAL 9005), grey (close to RAL 7038) and silver painted (close to RAL 9006). Tracks are colour matched to components and adapters as close as possible.

The EUTRAC lighting track system - tracks, system components, adapters and monopoints - offers flexible and wide options of power supply products for your lighting structure.

The EUTRAC 3~ Track does not only work with EUTRAC adapters but also with other universal adapters from other suppliers. Furthermore the EUTRAC adapters will fit into other manufactured universal tracks. All EUTRAC products are designed and tested against the most current European standards.

All EUTRAC plastic parts are manufactured out of self-extinguishing polycarbonate according to UL 94, class V0. All power and data bus contacts are manufactured out of high quality material for very high and good connectivity. This will guarantee a high durability and a long life cycle.

All products are tested and certificated by ENEC 05, and comply with European standards EN 60 570 and EN 60 598, all products are CE marked. For the North American market the products are tested and certificated according to the UL standards.
The intelligent lighting track system

The lighting track system with full data – functionality

.... will become an intelligent track system by simply using a lighting control system in your individual project:

Public buildings, offices, conferences
Calling light scenes for different activities, motion sensors connected to light fixtures in offices or other workplaces and light sensors for daylight-dependent lighting management. Besides visual ergonomics, EUTRAC Intelligent Lighting offers also significant potential for savings on energy costs in offices and administrative buildings.

Exhibitions, museums, trade fairs
Exhibits and presentations depend on the right light. In museums and at trade fairs, EUTRAC Intelligent Lighting offers new possibilities for showing objects in the right light, at the right time. Using timers, dimmers and light/motion sensors, lighting management can offer a whole range of technical possibilities to ensure intelligent use of modern lighting technology. This does not only save energy but may bring benefits for reasons of conservation too.

Architecture, building facades, events
Creative light scenes convert building facades and stages for shows or events into unique experiences. Use of specific lighting inside and outside of a building will help improving corporate appearance. In addition media facades are used to communicate visual messages and can be flexibly programmed with the help of a professional lighting management system.

Hotels, restaurants, shops
Today’s products and brands are set in scenes using light. Modern lighting management offers convenient and practical solutions for showrooms, hotels and restaurants. Automatic light sequences can be used for dynamic lighting in shops. A room can be simply redecorated using blend of coloured light, changing its appearance without having to change the room itself.

Airports, stations, underground garages
Thanks to lighting management systems, lighting in public areas become increasingly more professional. With EUTRAC Intelligent Lighting, light can be optimised and adjusted according to requirements. Light will be controlled in brightness and colour, switched on and off or dimmed according to needs, times or events.

For further information visit www.intelligentlighting.de
The EUTRAC NetComposer, as the heart of an Intelligent Lighting control system, offers all possibilities to implement your lighting ideas into lighting solutions.

Explore the functionality

The NetComposer
- Communicates via three different digital control protocols, DALI, DMX/RDM and Wi-Fx wireless.
- Allows interconnection of up to 255 NetComposer through the ethernet building structure and therefore controllability of a max. of 32,000 light fixtures.
- Manages devices in 128 lighting groups and 128 global lighting scenes.
- Offers manual addressing, fully DMX/RDM functionality, time switching program with ASTRO functionality, colour / white light control, graphic “moving light” operation, day light control / motion sensor control, energy saving mode / power off functionality (switch off all standby consumer), logic modules / functionalities, APP user interface (Apple IOS, Windows WIN 7, Android).

For your individual project specification

Energy-efficient lighting
To reduce energy consumption, presence detectors and daylight sensors as well as automatic disconnection from the mains network in standby mode, help improving the energy balance.

Flexible lighting
Practical and economical solutions for multi-functional use of rooms and buildings.

Ambience lighting
Emotional wellness lighting and colour control for light moods and light experiences.

Stage lighting
Creativity for sales, presentations and building facades, as well as for events or theatres.
Surface track

+ Data bus

- Mechanical load: page 50
- Weight per meter: 0.94 Kg
- Wiring diagram and information: page 52
- Pre-punched slotted holes
- Cutting to length possible on site
- Suspension components: page 20/21
### Surface track

**5-conductor surface track** for three circuits, consists of an extruded aluminium profile and two PVC supporter profiles, each with two impeded 2.5 mm² cross section copper conductors, for three independent switchable circuits, earthing through the aluminium profile.

Easily field cut able with a standard saw, no cutting back or bending back of conductors necessary. The track has pre-punched slotted holes and may be used within arm’s reach.

EUTRAC adapters with data bus contacts can be used in tracks without data bus. Data functionality is not available in those cases.

<table>
<thead>
<tr>
<th>Length (m)</th>
<th>Code</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25-10</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>25-20</td>
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<td>3</td>
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<td>3</td>
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<td>4</td>
<td>25-40</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### + Data bus

**7-conductor surface track** for three circuits plus data bus, consists of an extruded aluminium profile and two PVC supporter profiles, each with two impeded 2.5 mm² cross section copper conductors, plus one PVC supporter profile with two impeded 1 mm² cross section nickel plated copper conductors, for three independent switchable circuits, earthing through the aluminium profile plus two data conductors.

Easily field cut able with a standard saw, no cutting back or bending back of conductors necessary. The track has pre-punched slotted holes and may be used within arm’s reach. The track system can be integrated into a building management system. Adapters with data bus contacts and SELV safety device ensure compliance with the Safety Extra Low Voltage regulations (SELV according to EN 60950).

The data information can be picked up anywhere along the track via data bus equipped adapters. Beside the DALI protocol the data bus can be used for DMX, 0-10V or KNX protocols. Adapters without data bus contacts can be also used in tracks with data bus. Data functionality is not available in those cases.

For Eutrac lighting control: www.eutrac.de

**For further information visit www.eutrac.com**
### 3. Surface track system components

<table>
<thead>
<tr>
<th>Component</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-coupler with feeding option</td>
<td>555 1 1212</td>
<td>earth inside right</td>
</tr>
<tr>
<td>T-coupler with feeding option</td>
<td>555 1 1213</td>
<td>earth inside left</td>
</tr>
<tr>
<td>T-coupler with feeding option</td>
<td>555 1 1214</td>
<td>earth outside right</td>
</tr>
<tr>
<td>T-coupler with feeding option</td>
<td>555 1 1215</td>
<td>earth outside left</td>
</tr>
<tr>
<td>X-coupler with feeding option</td>
<td>555 1 1216</td>
<td></td>
</tr>
<tr>
<td>Cover for 3-track, L = 1 meter</td>
<td>88 888</td>
<td>material: PVC</td>
</tr>
</tbody>
</table>

### Connection diagram for data bus wiring layout

Attention: no closed circle structure

### Bird's eye view with the track opening pointed downwards

**L-coupler**
- ER inside

**T-coupler**
- ER inside right
- ER inside left

**X-coupler**
- ER inside

**End feed**
- ER right
- ER left

**ER = Earthing**
### Surface track system components

<table>
<thead>
<tr>
<th>Component</th>
<th>Code</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>End feed earth right</td>
<td>555 1 1201</td>
<td>1 2 3 8</td>
<td>555 2 1201</td>
</tr>
<tr>
<td>End feed earth left</td>
<td>555 1 1202</td>
<td>1 2 3 8</td>
<td>555 2 1202</td>
</tr>
<tr>
<td>End cap</td>
<td>555 0 1217</td>
<td>1 2 3 8</td>
<td>555 0 1217</td>
</tr>
<tr>
<td>Straight coupler</td>
<td>555 1 1206</td>
<td>1 2 3 8</td>
<td>555 2 1206</td>
</tr>
<tr>
<td>L-coupler earth outside</td>
<td>555 1 1209</td>
<td>1 2 3 8</td>
<td>555 2 1209</td>
</tr>
<tr>
<td>L-coupler earth inside</td>
<td>555 1 1210</td>
<td>1 2 3 8</td>
<td>555 2 1210</td>
</tr>
<tr>
<td>L-coupler</td>
<td>555 1 1208</td>
<td>1 2 3 8</td>
<td>555 2 1208</td>
</tr>
<tr>
<td>Flex-coupler 30° to 330°</td>
<td>555 1 1211</td>
<td>1 2 8</td>
<td>555 2 1211</td>
</tr>
<tr>
<td>Mid feed</td>
<td>555 1 5203</td>
<td>1 2 3</td>
<td>555 2 5203</td>
</tr>
</tbody>
</table>

For further information visit www.eutrac.com
## Suspension components for surface track

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
</table>
| **Fastening clip** | for suspension with fast hanger 98-679-0 or chain  
material: galvanized steel | 98-697-0 |
| **Mechanical fastening coupler** | for suspension with fast hanger 98-679-0 or chain  
material: galvanized steel | 98-672-0 |
| **Steel wire with fast hanger** | for fastening clip  
height adjustable  
L = 3.0 meter, silver | 98-679-0 |
| **Traverse** | for balanced suspension, to be placed anywhere along the track,  
power supply possible via mid-feed and pendant rod  
material: die cast aluminium powder coated  
suspension steel wire 98-641-0 or 98-643-0 to be ordered separately | 98-645-123 |
| **Suspension steel wire ECO** | for mounting at pre punched slotted holes without need of pendant clips, incl. wire and ceiling fixing set, nickel plated height adjustable  
L = 1.5 meter | 98-641-0 |
| | | 98-643-0 |
| **Fixing clip** | for T-Bar, incl. M6 nut for ceiling clip 99-018-  
material: galvanized steel | 88-000-0 |
Suspension components for surface track

**Pendant clip**
for suspension by steel wire or pendant rod, incl. M13 x 1 nut
material: aluminium anodized or powder coated

**Pendant clip**
for suspension by steel wire or pendant rod, incl. M13 x 1 nut
material: galvanized steel

**Mechanical coupler**
for suspension by steel wire or pendant rod, incl. M13 x 1 nut
material: aluminium anodized or powder coated

**Mechanical coupler**
for suspension by steel wire or pendant rod, incl. M13 x 1 nut
material: galvanized steel

**Pendant rod**
Ø 13 mm, cut to length on site
to be used with pendant clip or mechanical coupler

- L = 0.6 meter
- L = 1.2 meter

**Suspension steel wire**
to be used with pendant clip or mechanical coupler Height adjustable

- L = 1.5 meter
- L = 3.0 meter
- L = 6.2 meter

**Ceiling clip**
for ceiling mounting to level uneven ceiling, with slotted hole
14 x 7 mm for T-Bar mounting
use mounting clip 88-000-0
material: aluminium anodized or powder coated

For further information visit www.eutrac.com
Pendant H-Profile
To be used with 3–surface track, robust construction for suspension point distance up to 3 meter (max. 20 Kg per suspension point). Upper compartment for integration of up light / LED fixtures or for use of installation and data wires.

Weight per meter: 1.56 Kg

Suspension components: page 20/21

Recessed flush mounted profile
To be used with 3–surface track for flush mounting in concrete or plaster board ceiling.

Weight per meter: 0.88 Kg

Pendant H-Profile
for 3–surface track, to suspension via steel wire or pendant rod, material: aluminium profile silver anodized or powder coated
L = 4075 mm

L-coupler
for H-Profile (110 x 110 mm) material: aluminium profile powder coated

Endplate
material: steel powder coated

Fixing device
for suspension via steel wire or pendant rod Ø 13 mm material: galvanized steel

Mechanical coupler
material: galvanized steel

Recessed flush mounted profile
for 3–surface track, incl. 12 slider nuts and two end cap plates material: aluminium profile raw L = 4075 mm

Mounting brackets
for fixing recessed mounting profile made of perforated steel, fixing by self-tapping screws, adjustment 8 - 28 mm, 6 pieces per packing unit

Snap hanger
for suspension with fast fixing devices provided on site, 6 pieces per packing unit

Mechanical mitre coupler
60° to 300°
Recessed track

Mechanical load: page 50

Weight per meter: 1.15 Kg

Wiring diagram and information: page 52

Cutting to length possible on site

flange less recessed profile, see page 21
### Recessed track

**5-conductor recessed track** for three circuits, consists of an extruded aluminium profile and two PVC supporter profiles, each with two impeded 2.5 mm² cross section copper conductors, for three independent switchable circuits, earthing through the aluminium profile.

Easily field cut able with a standard saw, no cutting back or bending back of conductors necessary. The track may be used within arm's reach. The housing profile offers an easy and flexible suspension solution by using snap hanger (557 0 5321 0).

EUTRAC adapters with data bus contacts can be used in tracks without data bus. Data functionality is not available in those cases.

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td></td>
<td>26-20</td>
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</tr>
<tr>
<td></td>
<td>26-30</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>26-40</td>
<td>1</td>
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</tbody>
</table>

**7-conductor recessed track** for three circuits plus data bus, consists of an extruded aluminium profile and two PVC supporter profiles, each with two impeded 2.5 mm² cross section copper conductors, plus one PVC supporter profile with two impeded 1 mm² cross section nickel plated copper conductors, for three independent switchable circuits, earthing through the aluminium profile plus two data conductors.

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The data information can be picked up anywhere along the track via data bus equipped adapters. Beside the DALI protocol the data bus can be used for DMX, 0-10V or KNX protocols. Adapters without data bus contacts can be also used in tracks with data bus. Data functionality is not available in those cases.

For Eutrac lighting control: www.eutrac.de

### Data bus

**7-conductor recessed track** for three circuits plus data bus, consists of an extruded aluminium profile and two PVC supporter profiles, each with two impeded 2.5 mm² cross section copper conductors, plus one PVC supporter profile with two impeded 1 mm² cross section nickel plated copper conductors, for three independent switchable circuits, earthing through the aluminium profile plus two data conductors.

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For Eutrac lighting control: www.eutrac.de
### Recessed track system components

<table>
<thead>
<tr>
<th>Component</th>
<th>Code</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-coupler with feeding option, earth inside right</td>
<td>555 1 3212</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>T-coupler with feeding option, earth inside left</td>
<td>555 1 3213</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>T-coupler with feeding option, earth outside right</td>
<td>555 1 3214</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>T-coupler with feeding option, earth outside left</td>
<td>555 1 3215</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>X-coupler with feeding option</td>
<td>555 1 3216</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Snap hanger for suspension with fast fixing, 6 pieces per packing unit</td>
<td>557 0 5321 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cover</td>
<td>88 888</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Earth run layout help**

Bird’s eye view with the track opening pointed downwards.

**Connection diagram for data bus wiring layout**

Attention: no closed circle structure.
### Recessed track system components

<table>
<thead>
<tr>
<th>Component</th>
<th>Code</th>
<th>Qty</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>End feed</strong></td>
<td>555 1 3201</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>End feed</strong></td>
<td>555 1 3202</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>End cap</strong></td>
<td>555 0 3217</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Electrical and mechanical straight coupler</strong></td>
<td>555 1 3206</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>L-coupler</strong></td>
<td>555 1 3209</td>
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<td>2</td>
</tr>
<tr>
<td><strong>L-coupler</strong></td>
<td>555 1 3210</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>I-coupler</strong></td>
<td>555 1 3208</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Mid feed</strong></td>
<td>555 1 5203</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>End feed</strong></td>
<td>555 1 3205</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

For further information visit www.eutrac.com
Mechanical load

Drawings below show the possible maximum load of spot lights and other devices on the 3– track accordingly to their mounting or suspension points. The track weight is already taken into consideration.

Surface track 25-…/225-…

Recessed track 26-…/226-…

Max. load on flange: 4 kg/m
Layout help for continue earthing for 3- surface track.

The track offers the earthing along one inner side of the profile. When planing the layout you need to consider earth continuity. The location of the earthing is defined by the view in direction of the track. The layout needs to be looked at true sided from above. Please see sketch below as a layout help. Choose the right end feed and coupling components from the given pictures.

Layout shows surface track from a bird’s eye view with the track opening pointed downwards.
Important safety notes / electrical connection / wiring diagram

Important safety notes!

Please consider all safety notes from the technical manual. Keep them carefully in case you will extend or change the installation. The technical manual is also available from our web page www.eutrac.de

Lighting tracks are for indoor use only (IP20, 45°C max.), do not use in damp or wet locations.

3– track wiring diagram

a) Connection to AC 230V (220 - 240V)
   maximum load: 3.600 W (3.500 - 3.800 W)
   Total load can spread on any circuit
   fuse 1 x 16 A
   power supply cable min. 3 x 1.5 mm²
   power supply cable min. 3 x 2.5 mm²

b) Connection to AC 400V (380 - 415V)
   maximum load: 3 x 3.600 W = 10.800 W (11.400 W)
   Single fuse for each circuit, look for even spread L₁, L₂, L₃ of total load
   fuse 3 x 16 A
   power supply cable min. 5 x 1.5 mm²
   power supply cable min. 5 x 2.5 mm²

Load at end feed: All end feeds can be loaded as shown under a) or b)

Connection diagram for data bus wiring

Attention: no closed circle structure otherwise data bus functionality will be not given.
Regulations
All lighting tracks and components are CE conform, comply to relevant standards and regulations and designed according to the ENEC standards. All electronic parts are EMC tested. The data bus track system complies with and is tested against DIN EN 60570 for 250V/16A standard and may be used in arm’s reach. In conjunction with SELV- (Safety Extra Low Voltage against EN 60950) safety data bus contacts all commodities DALI ballasts can be used with the EUTRAC DALI data bus track system.

Conformity declaration
Eutrac Stromschienen GmbH hereby declares that all components of the lighting track system comply with the following European standards:

- Low Voltage regulation 73/23/EWG
- EMC regulation 89/336/EWG
- EN 60598
- EN 60570

DMX512/RDM**: “Digital multiplex Signal” is the standard protocol used in the stage lighting industry. It is characterized by rugged wiring and fast and safe data transfer. There are 512 channels available per line.

DMX System installation
Maximum participants
A DMX system (also named DMX „universe”) operates with 512 addresses or channels. This ends up in a maximum of 32 devices. If more devices are used then the use of a galvanic separated DMX repeater is needed. By a star-shaped installation a galvanic separated DMX splitter is needed.

Wiring
DMX requires the use of twisted shielded two-wire cable with a characteristic impedance of 110 Ohm. The shield has to be connected to DMX GND. The wiring system needs to be closed at each end by a 120 Ohm - resistor. The NetComposer has a resistor already built in.

Cable length
Lighting track system with data bus could be used for DMX operation up to max. 50 meter length. The track should be operated as a isolated galvanic universe. In this case the DMX GND will not be used. Only SELV devices should be used on the track system.

Connect devices
The data transmission in a DMX system is polarity dependant. Pay attention during installation and use a DMX cable tester to check the polarity.

DMXGND should not be connected to the PE connection of the housing device or of a 230V mains connection cable.

Connect devices
The data transmission in a DMX system is polarity dependant. Pay attention during installation and use a DMX cable tester to check the polarity.

Test certification marks
Trademarks