KAISER electrical installation
Preventative fire protection and air-tight installation.

ThermoX®.

Installation housings for halogen lights.

KAISER
The basis for good installation

Intelligent technology. Protects life, sav

www.thermox.de

You will find additional information about ThermoX® light housings on the website (address to the left) or contact KAISER directly.

es energy.

The intelligent ThermoX® housing system offers protection against the latent risk of fire posed by the extremely hot halogen lamps in intermediate ceilings and ceiling areas and protects the moisture barrier foil as well as other combustible materials in the ceiling. As the foil forms a vital part of the air-tight building shell, **ThermoX®** is also ideally suited for the air-tight installation (e. g. in low-energy houses). Thanks to its air-tight design, it is also ideal for installations in air-conditioned rooms where unregulated air flows are to be avoided.

ThermoX® has been developed for the installation of halogen lights in wood-panelled and tiled ceilings and for seamless sub-ceiling constructions such as plasterboard, fibre-reinforced plaster sheets, MDF and plywood with double slats and a layer of insulation above. It does not matter whether you are installing lights in new or existing buildings or whether you want to use low or high-voltage lamps: **ThermoX®** is always the perfect solution for halogen lights in hollow ceilings.

Contents

ThermoX®. Keeps the heat under control.

The extreme heat from halogen lamps can compromise the safety of buildings, assets and in particular, the people living in such buildings. Moisture barrier foils and particularly dry components such as insulation materials or wood structures are in direct contact with these hot lamps.

Preventative fire protection saves assets and human lives. ThermoX® housings can provide the necessary protection, and can be retrofitted at any time with little difficulty. Easy to install, they offer safety at all times and can protect your nearest and dearest. Trust ThermoX®; do not rely on luck alone.

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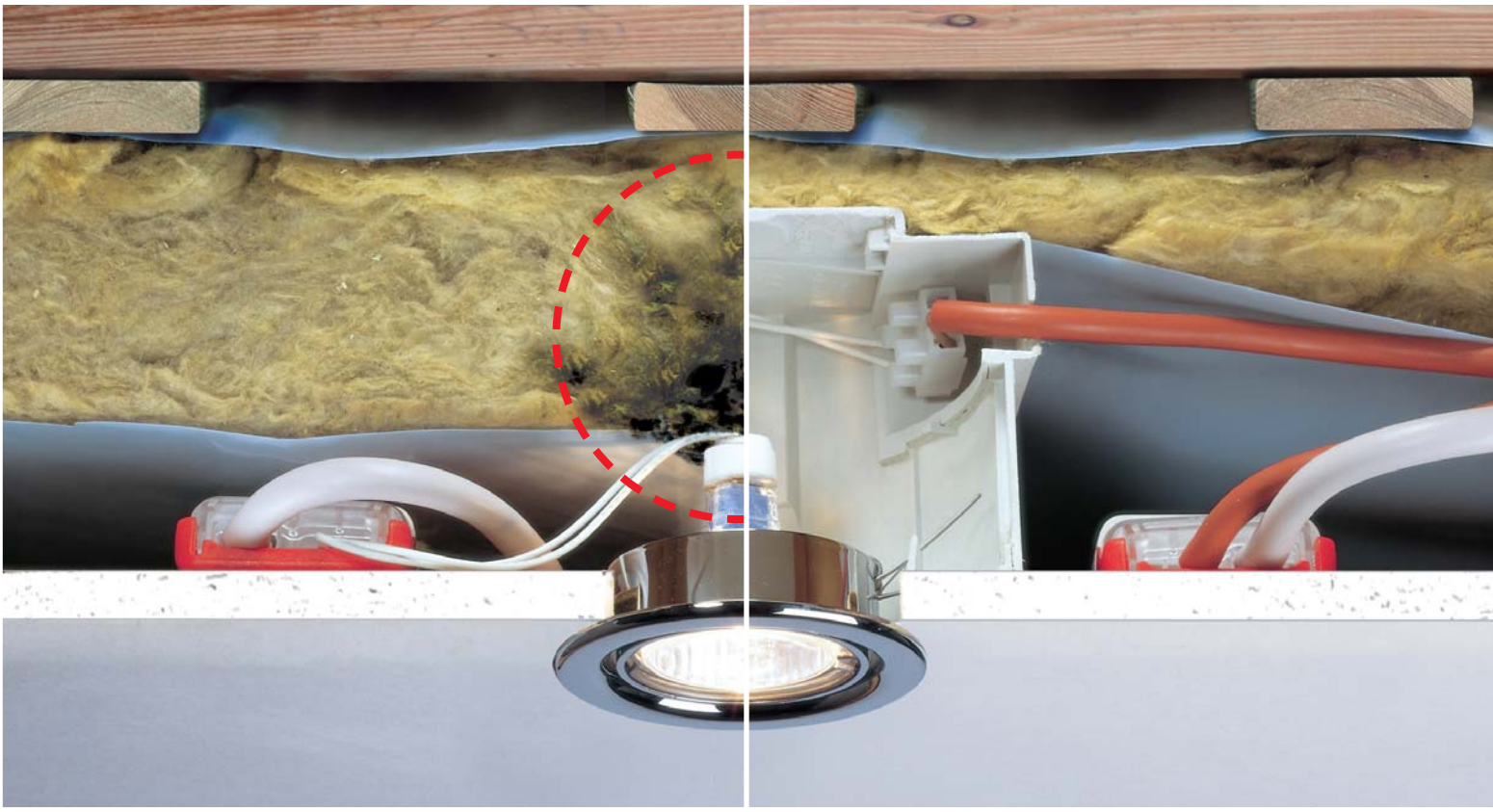
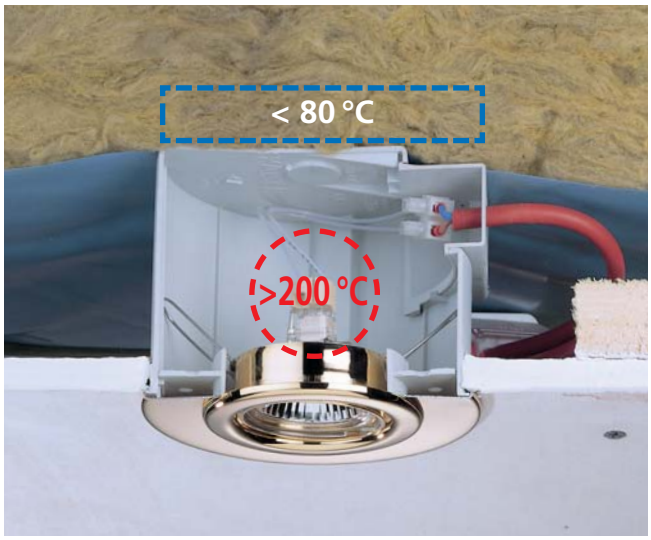
Our technical consulting service will be happy to answer all your questions concerning fire protection in the ThermoX® installation housings as well as other KAISER products.

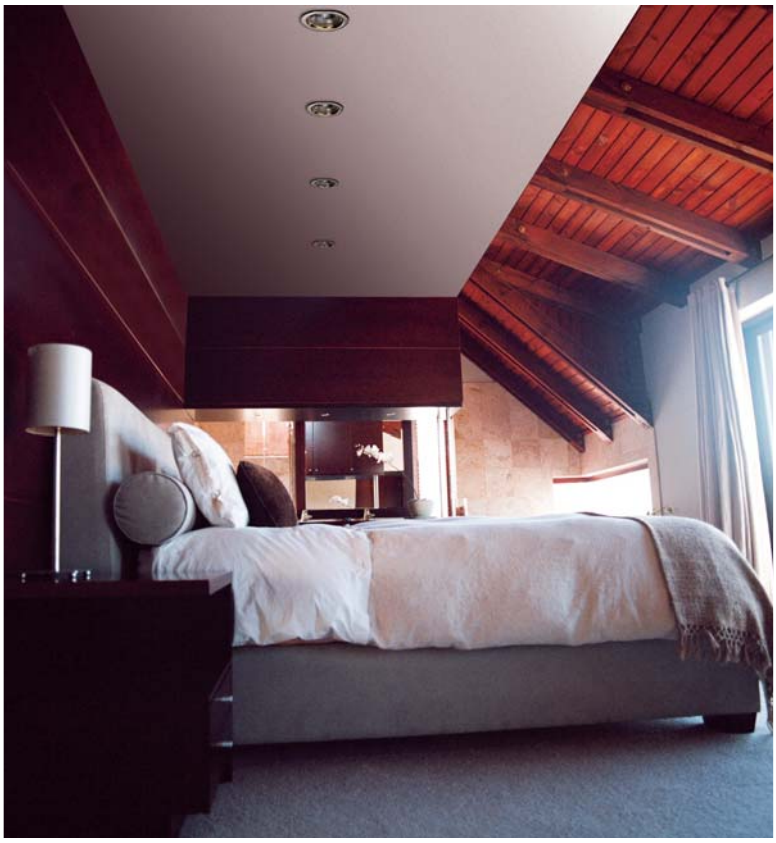


Latent danger of fire from the lamps with temperatures in excess of 200 °C can arise after the lamps have been on only a short period. The extreme heat can endanger all the materials in the ceiling construction and have devastating consequences.

Safety in the form of ThermoX®. ThermoX® housings shield all combustible materials securely. It effectively eliminates the invisible but life-threatening danger and offers preventative protection for buildings, goods and humans.



Air-tight installation. Saving energy and



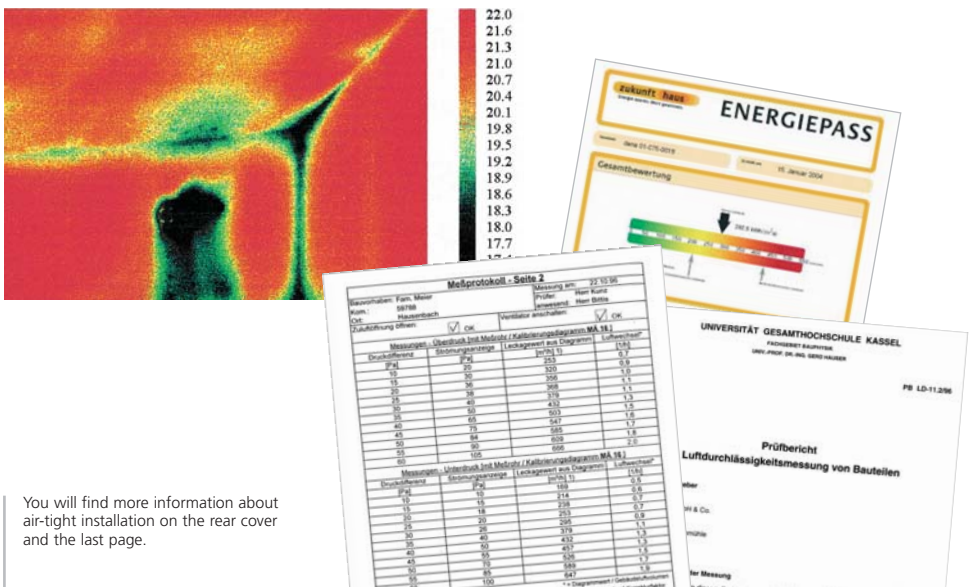
The EnEV (Energy Saving Decree), the EnEG (Energy Saving Act) and the energy pass (to come into effect in 2006) define energy standards for objects such as private buildings. Air-tight building shells make a major contribution towards achieving these values. These shells are normally created using specific building materials and moisture barrier foils, in particular. Destruction of these foils causes leakages, and this can have negative repercussions of various types for buildings and the building's inhabitants. Mildew and fungi can develop in the humidity, and cause damage to buildings and the health of people. The formation of dripping water, draughts, an increased energy consumption and the penetration of dirt particles are further risks.

In tests such as the blower-door test, the air tightness of our products is tested and verified again and again.

Average heat energy consumption in houses with a living surface of 100 m²

House type	Normal house (housing)	Low-energy house	Passive house	Zero-heating energy house	Energy-autonomous house (special case)
Hot oil consumption	approx. 2,200 l / year	approx. 850 l / year	approx. 180 l / year	approx. 0 l / year	approx. 0 l / year
Use of energy	187 kw h/m² a	73 kw h/m² a	15 kw h/m² a	8,3 kw h/m² a	0 kw h/m² a

All values are average values taken from various different sources



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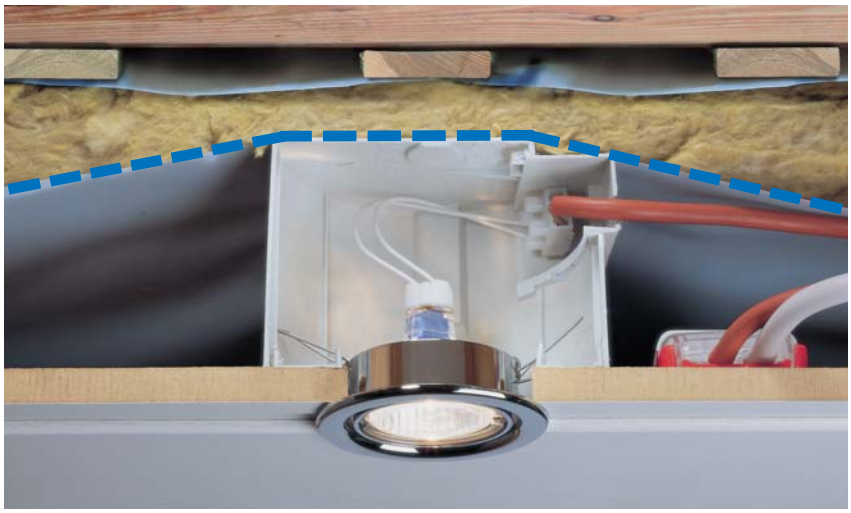
You will find more information about air-tight installation on the rear cover and the last page.

meeting 2006 statutory regulations.

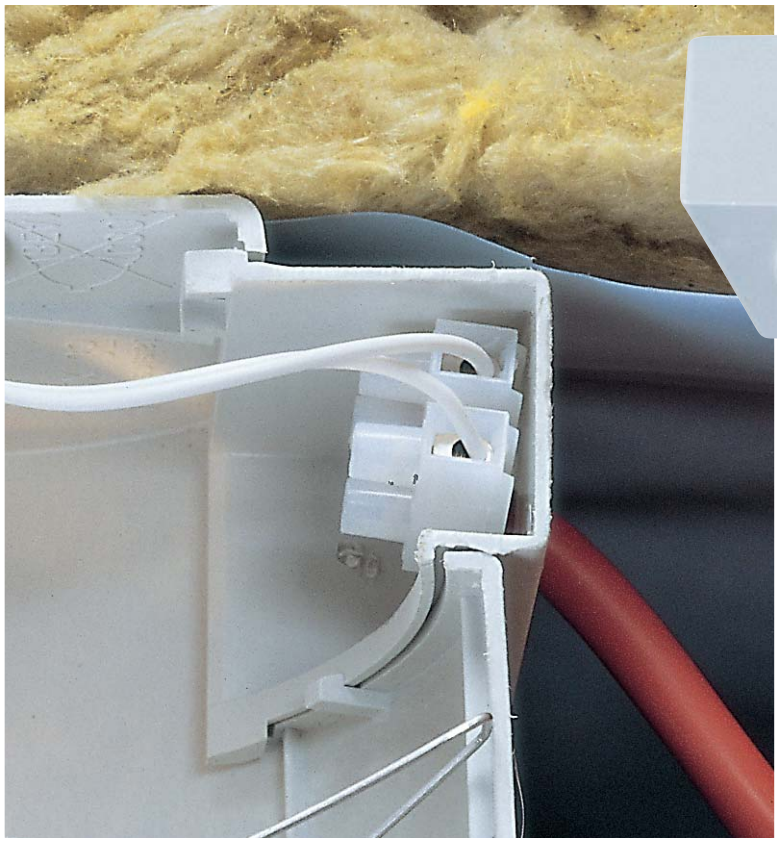
The air-tight ThermoX® housing is designed in such a way that it does not destroy the moisture barrier foil sealing the building and ensures an air-tight installation. This prevents hazardous materials and unregulated draughts of air from entering the rooms. The housing also prevents the dust fires which often arise around recessed lights.

The intelligent design of the housing system ensures an air-tight installation which meets all the EnEV requirements placed on air-tight buildings shells, especially in low-energy houses.

In private buildings and buildings used for commercial purposes, air-tight, fire-preventative installation with ThermoX® is the perfect solution.



ThermoX®. Reliable technology, right dow

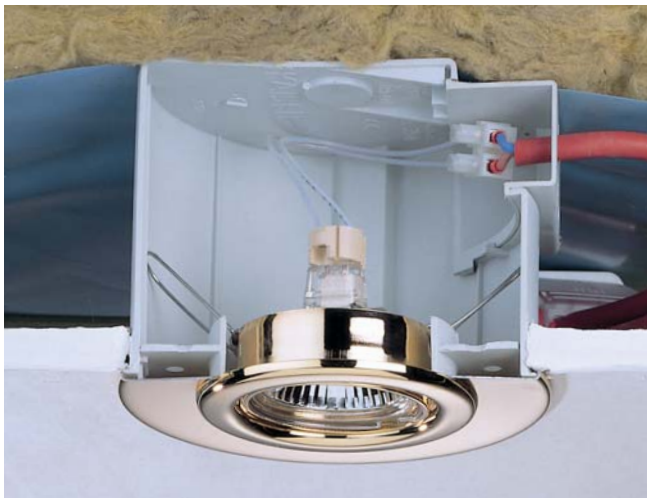


The well-established quick-fit system from KAISER guarantees rapid assembly and a secure hold when products are fitted from the front.

The Halogen Free plastic housing keeps its shape at temperatures of up to 220 °C and fulfils the hot wire test 850 °C in accordance with VDE 0606/DIN EN 60670.

The special transformer closing cover is used to install and remove an electronic transformer and shields the transformer from the high temperatures of the lamp. It also offers sufficient space for cables and contains a built-in terminal attachment.

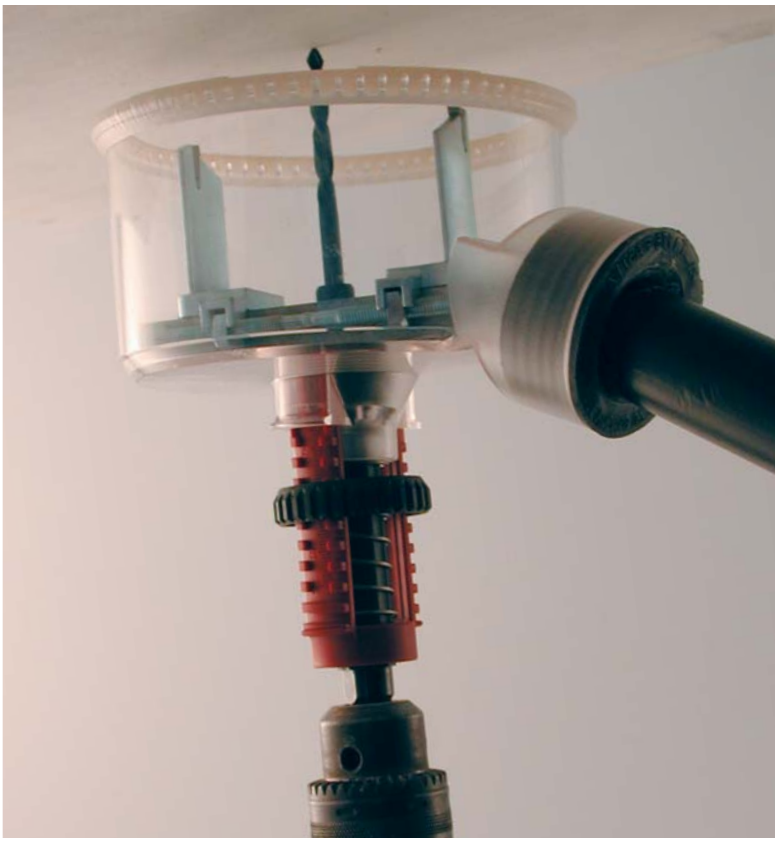
The intelligent front part can be used on both sides for ceiling cut-outs of 68, 75 and 82 mm. Depending on the installation method, the front part is simply turned and always gives the light a secure hold. The plasterboard front allows variable installation openings of up to 86 mm.



- **Intelligent and multi-faceted**
  Both sides of the front can be used. It is equipped with a bayonet catch and facilitates installation in almost all ceiling types.
- **Saves time, variable**
  The plasterboard front makes installation in plasterboard ceilings much easier and offers variable installation diameters.
- **Quick and easy assembly**
  The tried-and-tested cavity wall technology makes installation of the housing every bit as easy as the KAISER cavity wall socket.
- **Safe and air-tight**
  Halogen-free material and the air-tight design offer solutions for the most demanding of requirements.
- **We have thought of everything**
  The removable closing cover has a terminal fastener and shields the transformer from the lamp.
- **Modular and always the right fit**
  The housing system is perfectly designed to meet market requirements and is made perfect by system tools.

You will find a list of products for the ThermoX® installation housings on page 14.

n to the smallest detail.



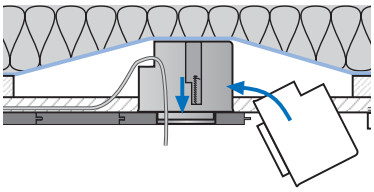
The ThermoX® housing system is rounded off by perfectly designed system tools. The Variocut universal hole cutters can make clean, neat installation openings of Ø 24 – 120 mm in a matter of seconds. Using the universal hole cutter, you can produce exact, air-tight cable and conduit entries of up to Ø 25 mm in the twinkling of any eye in almost any plastic.

ThermoX®. A wide range of installation o

A very diverse range of installation variants is offered by the multi-faceted housing system in wood-panelled and tiled ceilings and for seamless sub-ceiling constructions such as plasterboard, fibre-reinforced plaster sheets, MDF and plywood with double slats and a layer of insulation above. The housing can be installed from above or below. The latter option is particularly useful for retrofitting.

Clean, exact installation openings for your lights are made with ThermoX® in every instance. When installing the housing from above, simply insert the light into the opening – and you're done! When installing the housing from below, it is best to use the four different decorative coverings. These are simply fastened on beneath the light and cover not only the installation opening but also optimise the design of the lights, whether they are in the same surface or different-coloured.

Installation from above in panelled ceilings is performed during planking. The installation openings are cut and the housing is simply inserted from above. No further work is necessary. Naturally, this installation variant can also be used with all other ceiling designs.



You can find more information and download a complete installation manual on the website to the left or else contact KAISER directly.

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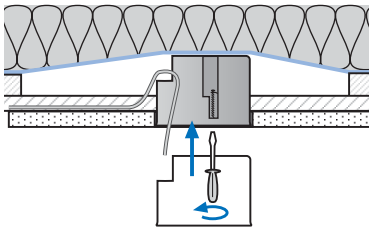
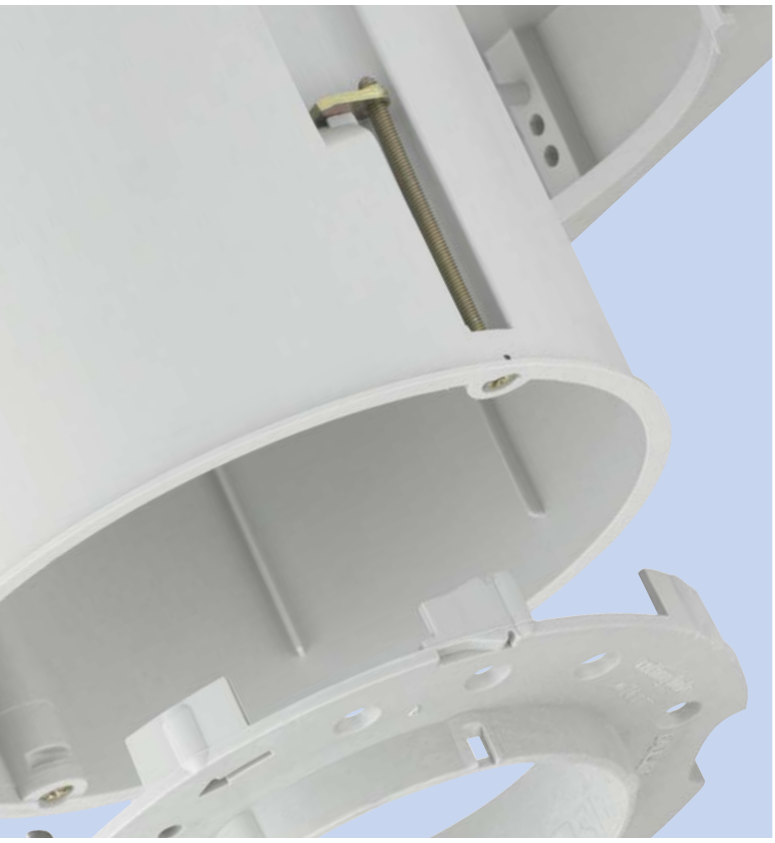


For installation from below panelled or plasterboard ceilings, a Ø 120 mm opening is cut and the housing is inserted. The housing is then fastened in place with the quick coupling piece in a matter of seconds. It is possible to install the housing this way with the plastic or plasterboard front. To finish off, the installation opening is either smoothed, covered with a decorative covering or simply wallpapered over.

This installation method makes it very easy to retrofit ThermoX® housings, thereby increasing safety levels in existing buildings.

ThermoX®. Technical data.



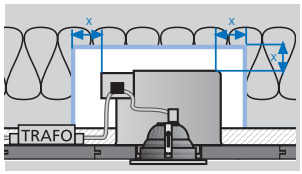
Housing

- 3 parts, both sides of front can be used
- Heat distortion resistant up to 220 °C, halogen-free, fireproof: 850 °C in accordance with VDE 0606/DIN EN 60670
- Only use certified (VDE or EN 60598) lights or those marked with F or M M
- Use heat-resistant cable for the SEC side
- Use temperature-resistant terminals
- Electronic safety transformers up to 105 VA can be used Dimensions max. 123 x 37 x 26 mm, a rounded shape is advantageous for installation and removal (e.g. PC mouse shape)

Lamp selection

Halogen low voltage (12 V)
Halogen high voltage (230 V)

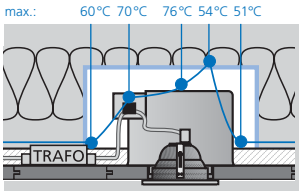
x = min. 50 mm



Usable lamps at „x“:
Cool beam max. 35 W
ALU reflector max. 50 W

Temperature profile

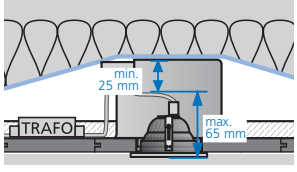
Halogen low voltage (12 V)



Based on:
Room temperature of 23 °C
50 W ALU reflector

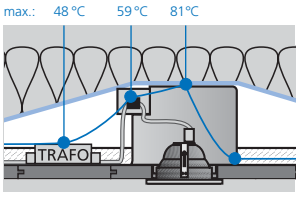
Lamp selection

Halogen low voltage (12 V)



Usable lamps:
Cool beam max. 20 W
ALU reflector max. 35 W

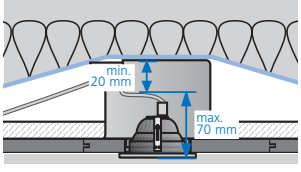
Temperature profile



Based on:
Room temperature of 23 °C
35 W ALU reflector

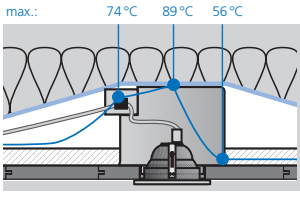
Lamp selection

Halogen high voltage (230 V)



Usable lamps:
Cool beam max. 20 W
ALU reflector max. 35 W

Temperature profile



Basierend auf:
Room temperature of 23 °C
35 W ALU reflector

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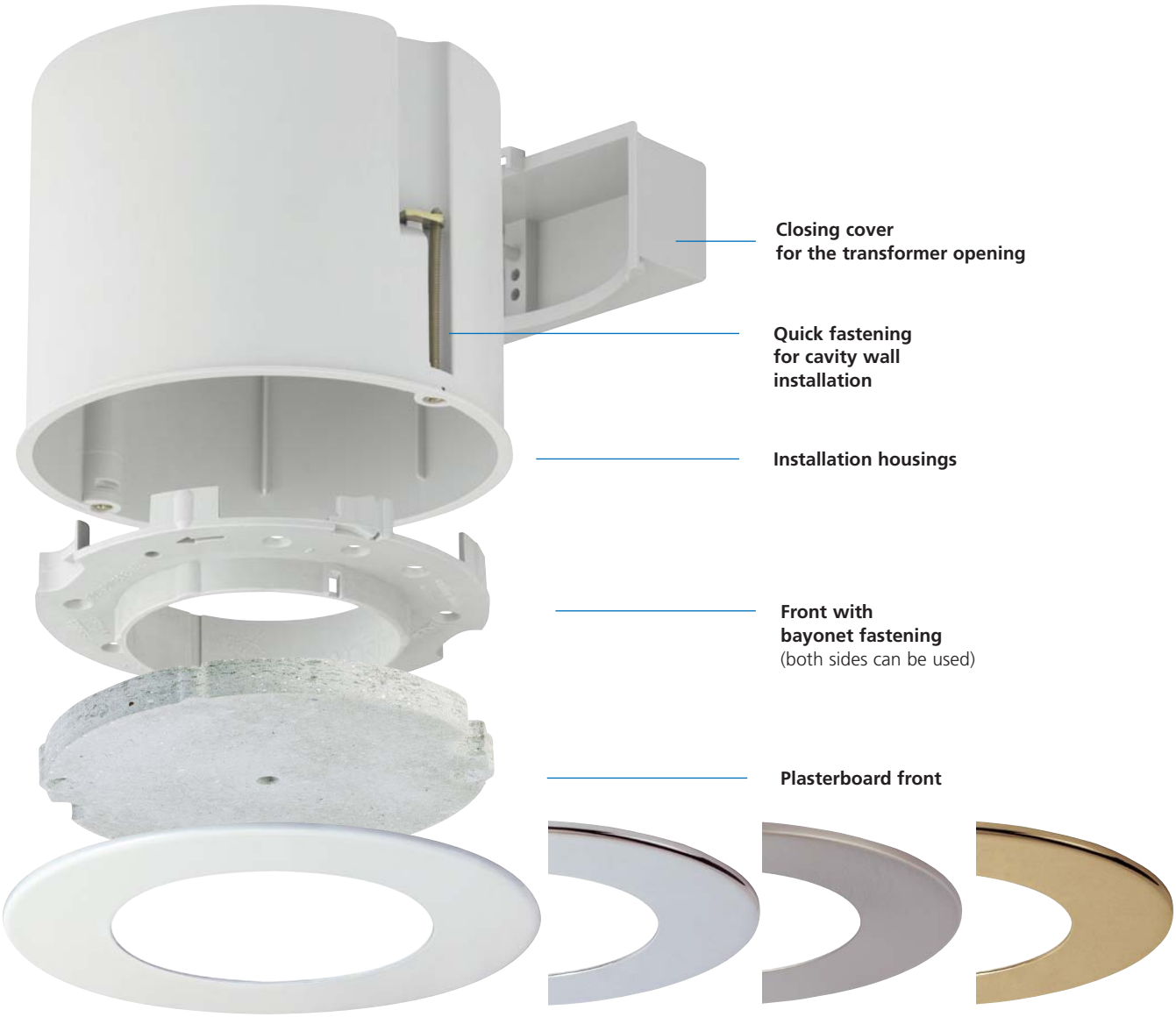
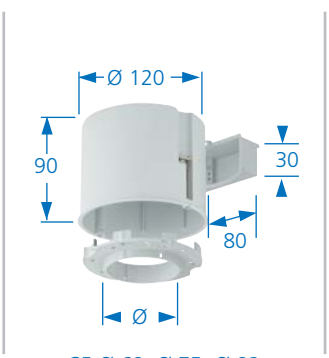
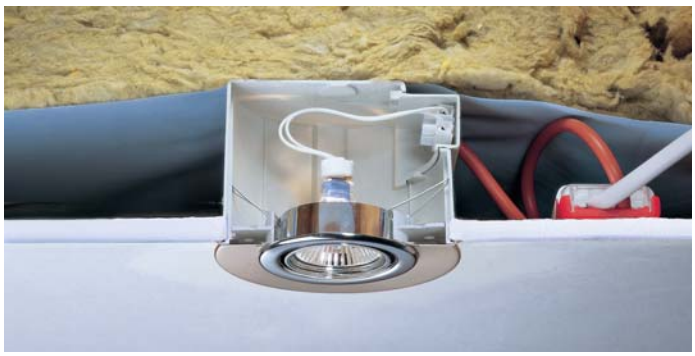
Our technical consulting service will be happy to answer all your questions concerning the ThermoX® installation housings.





CE Ø 68, Ø 75, Ø 82



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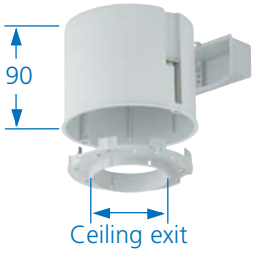
ThermoX®. Products.



Part No. 9300-01/02/03
ThermoX® housing for low and high-voltage lights

- for fixed and swivelling lights
- max. installation depth for LV lights 65 mm, HV lights 70 mm
- fitted from front, cut hole Ø 120 mm
- Max 35 Watt

9300-01 ceiling exit of 68 mm
- fitted from rear, cut hole Ø 74 mm

9300-02 ceiling exit of 75 mm
- fitted from rear, cut hole Ø 79 mm

9300-03 ceiling exit of 82 mm
- fitted from rear, cut hole Ø 86 mm

Part No. 9300-22
ThermoX® housing with plasterboard sheet

- For fixed and swivelling lights
- Max. installation depth for LV lights 65 mm, HV lights 70 mm
- Fitted from front, cut hole Ø 120 mm
- Ceiling exit up to Ø 86 mm possible
- Saves time. If not plastered, joint may have to be closed.
- Max 35 Watt

Part No. 1089-00
VARIOCUT universal hole cutter for circular cut-outs from 65 - 120 mm

Part No. 1089-10
VARIOCUT universal hole cutter for circular cut-outs of 24-68 mm

- Maximum cutting depth 45 mm
- With hardened metal cutter inserts
- For cavity wall building materials
- With dust extractor
- Accepts vacuum cleaner hoses from 31-36 mm

Part No. 9300-41/42/43
Front rings

- Available as a single part for retrofitting or as a spare part

9300-41 Ceiling exit of 68 mm
9300-42 Ceiling exit of 75 mm
9300-43 Ceiling exit of 82 mm

Part No. 9301-01/01/03/04

- Metal with galvanised or powder coating

Decorative covering for 68 and 75 mm ceiling exit
9301-01 white (similar to RAL 9016)
9301-02 chrome plated
9301-03 matt nickel (similar to stainless steel)
9301-04 gold plated

Decorative covering for 82 mm ceiling exit
9301-11 white (similar to RAL 9016)
9301-12 chrome plated
9301-13 matt nickel (similar to stainless steel)
9301-14 gold plated

Part No. 1085-80
Universal opening cutter for plastics

- For manufacture of exact entry size
- For low voltage cabling of Ø 4 - 7.5 mm
- For sheathed cabling up to 5 x 2.5 or 7 x 1.5
- For DIN EN conduit up to 20 mm outside Ø
- With 1/4" chuck size for battery-powered drillsber

Part No. 9300-93
Universal front part, on its own

- Ceiling exit up to Ø 86 mm possible

KAISER. Air-tight installation.

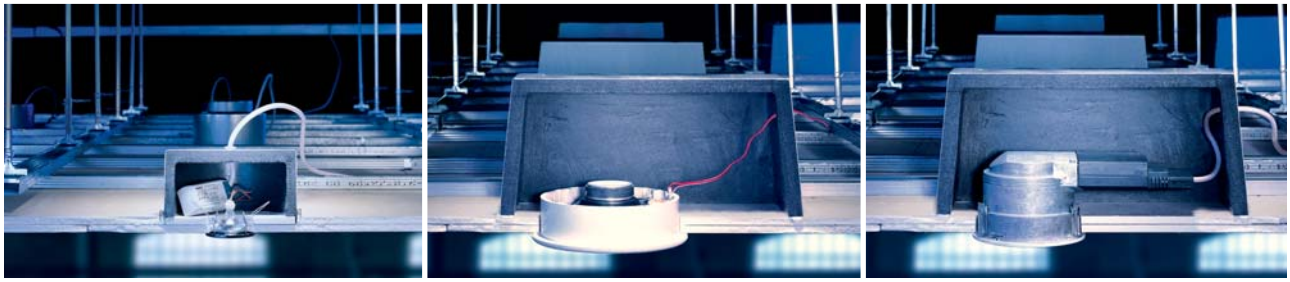
Air-tight installation. Due to enter force in 2006, the energy pass (EU Guideline 2002 /91/EC, Energy Saving Decree / EnEV and Energy Saving Act / EnEG) will check energy losses throughout the building shell and will work hand in hand with statutory regulations, especially in public buildings.

The KAISER product range has been specially designed for energy-efficient electrical installation in accordance with EnEV as well as particle-protected installation when clean room and hygiene conditions have to be met. It has been proven that our products for air-tight cavity-wall and masonry installation meet current statutory requirements.

KAISER. Fire protection technology.

ABP and
DIBt-approval
Fire resistance class S30
in accordance with DIN 4102-9

Award for
PRODUKTINNOVATION
BAUEN IM BESTAND
BAU. Munich 2005



Fire protection. The FlamoX® system protects people and materials if fire breaks out. The FlamoX® housing offers the planner maximum freedom when completing his designs while making no compromises on safety. When fitting lights or loudspeakers in fire protection ceilings F30, you will be given the fire protection class. If a fire breaks out, the system automatically shuts the installation openings and is thus safely shielded from the fire. FlamoX® prevents smoke and fire from spreading, thereby keeping the escape routes and installation levels in buildings safe.

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You will find further information about KAISER products for air-tight installation and fire protection technology on our websites.

KAISER

KAISER products have been offering a sound basis for very good electrical installation since 1904. Product innovations, which have often been developed for you, set standards in the industry. The findings of KAISER research and development activities have often become the standard towards which all other manufacturers aspire.

Naturally, the KAISER product development division does not just work to these self-imposed standards but is also ISO-certified. This ensures consistent product quality – even after all these years.

It goes without saying that meeting delivery deadlines, excellent customer service and an optimum price/performance ratio are taken very seriously by us.

Work with a strong brand – your work can only benefit as a result.

Do you want more information?

Information in the Internet
You will find further detailed product information about ThermoX® on our product website.
Internet: *www.thermox.de*

KAISER Product information on the Internet:
www.kaiser-elektro.de
www.kaiser-housing.com
www.flamox.de
www.thermox.de
www.geraetetraeger.info
www.kaiser-econ.de

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