



Feel the touch

***tci*** ambiente

# A new function and design experience

## Simply easy

The way we live and work depends on our own ideas and visions. The engineers and designers at tci employ all of their creativity and passion to develop stylish touchpanel systems for building automation. Whether you choose ambiente, mura or amena – you expect nothing less than perfect functionality coupled with a unique timeless design.

It's a good thing when everything is controlled by well thought-out technology. It's even better when a touchpanel blends in harmoniously with your interior decoration. But it's simply perfect when you can operate everything easily and just by intuition. Step into the world of modern building automation and implement modern energy-efficient solutions with touchpanels and servers from tci.

### Industrial Computers

Made in Germany

In our Industrial Computers division you will find intelligent solutions with a unique level of reliability for industrial automation applications.

[www.tci.de](http://www.tci.de)



[ Michael Böck ] [ Karl-Ulrich Menges ]

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# Why Smart Home

## Smart Home is worthwhile – Enjoy convenience and save money at the same time

Opt in favour of a solution which will save you money in the long term - choose a perfectly designed and professionally installed Smart Home. At the same time, enjoy enormous flexibility and secure your investment while luxuriating in total comfort.

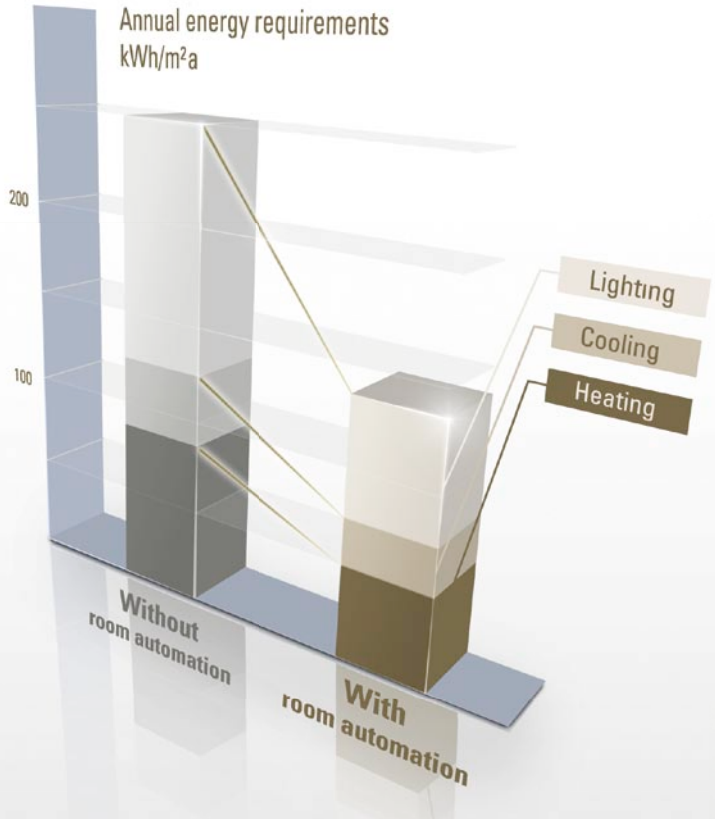
Independent studies have shown that investments in building automation are amortised by energy savings much faster than conventional solutions. Ideal controllers activate heating systems, ventilation, shading systems, lights and other electronic consumers exactly according to your daily routine. Even when you are not at home.

Not only that, you remain flexible and can make all the settings to fit in perfectly with your lifestyle thanks to the central controller – without having to make any structural changes to your house or building.

You will come to realise how quickly your new Smart Home becomes profitable for you.

- Comfort
- Economy
- Flexibility
- Safety

 [www.ambiente.de/100](http://www.ambiente.de/100)



Sector	Perfect measures	Potential savings	Amortisation time
Operation	User behaviour, energy savings, „Active energy management“	5 to 20 %	0 to 5 years
Systems engineering	HVAC, refrigeration, lighting, control, drive systems, trigeneration (power/heat/cold)	10 to 60 %	2 to 10 years
Building shell	Insulation, windows, thermal bridges, structural physics	> 50 %	10 to 60 years

Graphic source: „Investigations on potential energy savings through the use of open building automation systems based on analysis as per DIN 18599 and prEN 15232.“ Client: LonMark Germany, Contractor: University of Biberach, Faculty of Building Engineering/Authors: Prof. Dr. Martin Becker and Dipl.-Ing (FH) Peter Kroll | Table: Overview of typical amortisation times, source: HLH article Part 1\_No. 2 – 2 February 2008

# Why touchpanels

## Standardized operation with style

Touchpanels can be used to implement complete operation concepts with a standardised user interface. No matter whether you want to open the door, close the blind or switch the light on – operation is always based on the same principle.

## The basis for control is child's play

Simply touch self-explanatory symbols to switch on the light, for example, or select a special mood setting. You can even control several lamps at the same time – in the whole house, if you want to! Saving a setting you like is child's play, too. This is how you achieve pleasurable comfort and maximum flexibility in your home.

## Reliability pays off

Our touch systems are built for **continuous duty** and will be **available on the market for many years** to come. This provides you with long-term security to retain the value of your installation.

Devices such as smartphones or tablet PCs are a **marvelous mobile addition** but do not have the same availability as professional systems. Finally you wouldn't renounce to comfort because your battery is flat or someone is on the phone.



[www.ambiente.de/200](http://www.ambiente.de/200)



## Reliability and extremely long durability

The modular design of our systems including the tci baseboard and CPU module provides you with an extremely reliable, cableless system set-up that comes with a long service life.

## Identity card

The removable identity card contains all the important contact details on the front and the complete system configuration and serial number on the rear. It ensures uncomplicated rapid processing in case of service or if you add an expansion.

## Individual solutions – tailor-made for your home

Experienced tci engineers develop tailor-made solutions based on your ideas and meet the highest demands on design, functionality, quality and reliability.

## PreVision Control

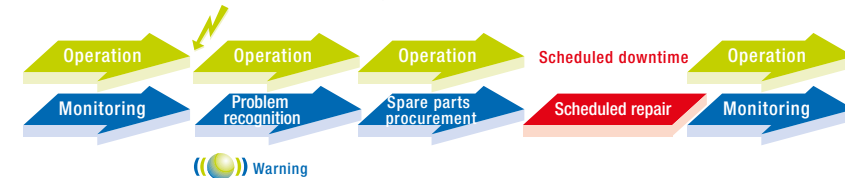
“Prevention is better than cure” – what is good for people also applies to computers in building automation. Our intelligent Condition Monitoring PreVision Control continuously monitors all relevant system parameters. The system is designed for maximum availability as it is equipped with a **prediction feature** that warns about imminent failure. It also has a **remote diagnostic** function.



## System **without** Condition Monitoring



## System **with** Condition Monitoring





# What are the possibilities

## I. Basic functions

### Much more than just a digital switch

The main elements are maintained under simple and reliable control over bus systems such as KNX, LON or Bacnet. You can make all the key settings quite simply by yourself according to your wishes.

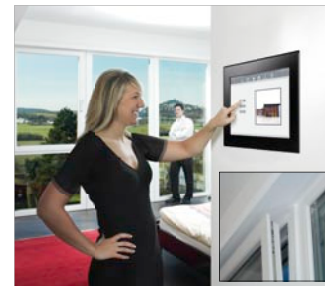
- Light (switches, programmable scenarios)
- Blind control (switches, weather-related control, programmable control)
- Heating control (simple control, combined with window control)

## II. Additional benefits – IP-based

### For information and entertainment

Thanks to the network, you have the flexibility to decide what else you want to operate using your touchpanel. Expansions are possible at any time.

- Video (TV, DVD)
- Audio (music, radio)
- RSS feeds (weather forecasts, news)



[ Control window positions and heating system ]



[ Multimedia contents from various sources ]

# What are the possibilities

## III. Communication – contatto

### For more convenience and safety

Now you can see at any time who is standing at your door – even before you spoke a word. You decide whether you want to answer the bell or rather enjoy the peace and quiet. You can open the door to friends from any room or you can simply let unwanted visitors move on.

- Audio and video transmission
- Open doors
- Additional cameras can be integrated
- Certified for many manufacturers such as Mobotix, Siedle, TCS, Baudisch
- Door communication
- Security (alarm camera, video surveillance)
- Room-to-room communication
- Video conferences, Skype, VoIP



SSS SIEDLE

TCS®



# Product overview

## ambiente

Design-oriented touchpanel PCs for gallery mounting and building control

- Numerous design variants
- Elegant aluminium housing
- High performance with Intel ATOM CPU



▶ [www.ambiente.de/510](http://www.ambiente.de/510)

## mura

Ultra flat touchpanel PCs with flexible installation options

- 16:9 or 4:3
- Optional with multitouch
- Flat flush installation



▶ [www.ambiente.de/520](http://www.ambiente.de/520)

## contatto

IP interface for audio and video (door) communication

- VoIP, SIP, video streaming for all tci touchpanels
- Independent of manufacturers
- User-friendly and safe



[www.ambiente.de/550](http://www.ambiente.de/550)

## amena

Low-cost touchpanel as intelligent substitute for conventional switches

- 3.5" or 7" touch screen
- Handsfree intercom PTT button
- Flush mounting



▶ [www.ambiente.de/530](http://www.ambiente.de/530)

## iBiento

10" or 16" multitouch with excellent performance and low energy consumption

- Sophisticated design
- Desktop unit
- Maximum 11 W power consumption



▶ [www.ambiente.de/540](http://www.ambiente.de/540)

## Server

Universal server PCs in various designs

- Rugged and long service life
- From compact to 19" rack
- From Intel ATOM to Core i CPU



▶ [www.ambiente.de/560](http://www.ambiente.de/560)





## Perfect in design and function

The new generation of our design legend – equipped with ATOM processor. Even more design options and low power consumption.

### The lightness of design

Whether you select a discrete glass look or a system unit in anodised aluminium – the ambiente offers unprecedented design variety due to its stylish colour and material combinations. It even integrates real wood so that you can combine it into your own interior decoration. The gallery mounting version for the ambiente gives it a particularly luxurious effect: flat with a floating effect.

Even the internal characteristics are impressive. The ideal basis for your applications is the power-saving high-performance Intel ATOM processor. Its connections are easily accessible due to the service-friendly system design.

- Elegant aluminium housing with 15" or 19" touch screen
- Various designs, design elements in real wood or glass
- Fully fledged PC
- As client, fully integratable in IP solutions of various manufacturers
- Integratable in door intercom systems
- Communicates with tci contatto



[ ambiente19, real glass aluminium frame, silver anodised, system unit ]

## Perfect integration

In the wall – not on the wall:  
flush mounting for design aesthetes

### Cuts a fine figure anywhere

The totally flat surface ensures the unit its aesthetic design. The new installation housing also permits flush mounting. Thanks to its small installation depth either in portrait or landscape format, it is easy to integrate even in narrow spaces. A variety of materials and colours for the front frame are available. This is ideal when you are trying to match the unit to your existing interior decoration.

- Ultra flat touchpanel PC for
  - float mounting (EPG)
  - flush mounting (UPG)
- Power-saving high-performance Intel ATOM processor
- Optional with multitouch
- Communicates with tci contatto



In the wall –  
not on the wall!

[ 16Wmura, aluminium frame silver and black anodised ]

## The intelligent touch switch amena

amena makes a vision come true:  
A small intelligent touchpanel replaces conventional switches.

### New convenience at a convincing prices

amena is a system solution with numerous fields of applications. The 3.5" and 7" touchpanels can act as control centre in a small residential units or as clients in a large server-based villa or hotel. The functionality and good looks of every amena touch switch can be software-configured to meet customised requirements. If needs change over the course of time, simply modify the room control centre. The integrated web browser offers easy access to a multitude of applications and systems.

- Excellent price-performance ratio
- Single cable – easy power supply via Power over Ethernet (PoE)
- Cable-free baseboard technology
- amena70: Microphone and loudspeaker for handsfree intercom
- Communicates with tci contatto



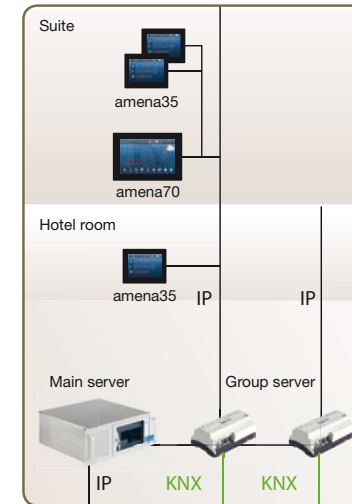
[ amena35, aluminium frame silver anodised;  
amena70, premium front in glass, black ]

## amena applications

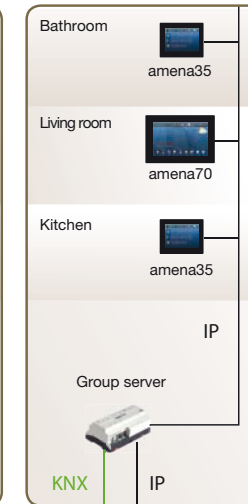
amena moves the control function from a central touchpanel PC to every room and then offers you infinite convenience – at a fraction of the cost of a central solution. Depending on the model, there is a wide range of interfaces, pushbuttons, microphones and brightness and temperature sensors available. It is obvious which options this touch switch has to offer. amena is the ideal basis for scalable system solutions, whether it is intended for a detached house, an event centre or a hotel – to control lighting and air conditioning or even to provide comprehensive convenience and security solutions. The IP-based system makes it open for supplementary standards such as IP-CAM or Fidelio®.

The tci contatto and the amena open up all the possibilities of communication. You too will be amazed at amena: Why don't you bring more comfort into your home?

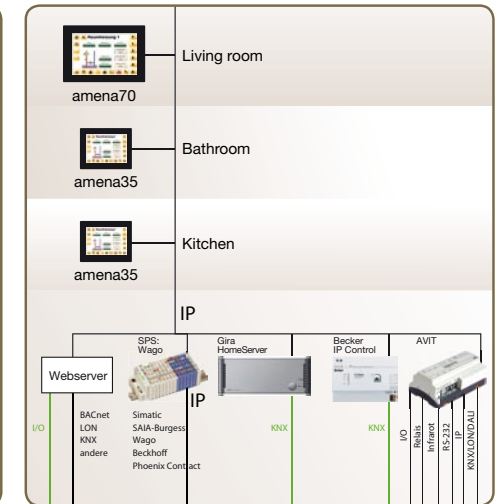
## Hotel



## House



## Servers





## Clever all-in-one PC in exciting design

This is how good excellent performance at low power consumption can look like – nevertheless a fully fledged PC with user-friendly multitouch operation.

### Sophisticated design prepared for everything

It is difficult to believe that the functions of numerous appliances such as alarm clock, remote control, light switch, intercom system and weather station can be performed by only one compact touch panel. The iBiento shows how every possible convenient and security function can be integrated – from operating functions at home or audio and light function control in conference rooms to comprehensive convenience offers in hotel rooms.

- Desktop unit
- 10" and 16" multitouch screen
- Power-saving high-performance Intel ATOM processor
- Single cable – easy power supply via Power over Ethernet (PoE)
- Cable-free baseboard technology
- WebCam optionally
- Communicates with tci contatto



[ iBiento16 with real glass multitouch ]

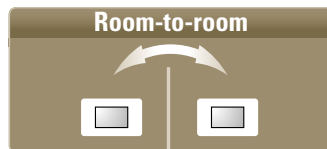
## Communication in the Smart Home via IP standards


Where the action is. Use your tci ambiente touchpanels to integrate audio and video communication via VoIP/SIP and video streaming.

### contatto connects

contatto puts you right where the action is. Use your tci ambiente touchpanels now to integrate audio and video communication via VoIP/SIP and video streaming. This opens up totally new possibilities to make your home even more secure, more convenient and more efficient.

- Door communication 
- Security (alarm camera, video surveillance)
- Room-to-room communication
- Video conferences, Skype, VoIP
- Available for ambiente, mura, amena and logico



 [www.ambiente.de/550](http://www.ambiente.de/550)



### contatto door communication

#### contatto connects

We integrate the systems of almost all manufacturers in your building system. The following manufacturers have been successfully certified: **Mobotix, Siedle, TCS, Baudisch, among others.**

## logico – the server solution

Full server performance at low consumption – the logico servers from tci. Fanless, maintenance-free and mountable in all positions. The logico-hs even fits in your fuse box.

### The appropriate server for every application

The fanless logico-hs has the cross section of an automatic circuit breaker and can be mounted on a DIN top-hat rail in the power distribution. USB and VGA interfaces are located behind the service cover when you need to perform service work. The logico-hs has a remote desktop function for installation in a network.

The compact logico-II also operates without any moving parts, it is durable, reliable and also noiseless. The scalable 19" rack servers are the ideal basis for high-performance systems and customised solutions.

[www.ambiente.de/560](http://www.ambiente.de/560)

Series	Description
<b>logico-hs</b>	Compact series housing with the cross section of an automatic circuit breaker, mounted on DIN top-hat rail <a href="http://www.ambiente.de/561">www.ambiente.de/561</a>
<b>logico II</b>	Aluminium housing, ultra compact and fanless, flexible mounting using the wall mounting plate <a href="http://www.ambiente.de/562">www.ambiente.de/562</a>
<b>Box-PC</b>	Rugged sheet steel housing, ultra compact and fanless, flexible mounting using the wall mounting plate <a href="http://www.ambiente.de/563">www.ambiente.de/563</a>
<b>Rack-PC</b>	Flat and compact housing for wall mounting, fanless or forced air ventilation, flexible mounting <a href="http://www.ambiente.de/564">www.ambiente.de/564</a>



# Projects and references

## ambiente.lounge



### ambiente.lounge "Smart Home" live

A large number of touchpanels are installed in ambiente.lounge to give you control over all building service functions at your fingertips. Home owners can control all the services installed in their houses, such as lighting, heating, security systems and audio/video appliances, using the touch function. The complete networking of the building service infrastructure via touchpanels from tci helps to minimise power consumption.

▶ [www.ambiente.de/610](http://www.ambiente.de/610)

## Solar house of the Technical University of Darmstadt



### mura15 acting as control panel in an innovative solar house

The Plus Energy House designed by the TU Darmstadt is a solar house that generates more energy than it consumes. A touchpanel PC mura15 from tci act as the control centre for the building services and as a presentation platform. The intelligent software of the KNX control panel monitors and controls all active systems, such as photovoltaic, solar thermal energy, domestic appliances, cooling, heating and ventilation.

▶ [www.ambiente.de/620](http://www.ambiente.de/620)

## Luxury villa in Emirates Hills



### More than 400 data points comfortably linked with ambiente touchpanels

Emirates Hills is one of the best residential areas in Dubai. On this very exclusive site is a luxury villa located that is equipped with ambiente touchpanels from tci. The building that comprises six bedrooms is visualised on a total of 18 pages with more than 400 data points that can be easily operated using the ambientes. The elegant touchpanels made in Germany also integrate all the surveillance cameras in the building automation system.

▶ [www.ambiente.de/630](http://www.ambiente.de/630)

## King Saud bin Abdulaziz University



### Lighting control using ambiente touchpanels at 15 colleges

ambiente touchpanels from tci provide pleasant lighting at the King Saud bin Abdulaziz University for Health Sciences (KSAU-HS) in Saudi Arabia. Additionally are ambiente touchpanels also installed at three sites of the KSAU-HS with 15 colleges and three office buildings in Riyadh, Jeddah and Ahasa. All the lighting systems in the buildings are also controlled and visualised.

▶ [www.ambiente.de/640](http://www.ambiente.de/640)





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