

The perfect match for a building-wide lighting control system.

OSRAM QTi DALI® ECG.



It's nice when a lighting plan works.

Dear new buildings,

There really are much simpler projects than you. On the one hand we have to be creative and use glass, brick and concrete to turn you into reality. On the other hand you need us to be realists who keep a watchful eye on practical aspects, safety, and above all costs, costs, costs. Now help is at hand – at every stage from planning to implementation: OSRAM QUICKTRONIC® INTELLIGENT DALI® – the intelligent DALI® ECG.

OSRAM QTi DALI® is the innovative alternative to a conventional DALI® ECG. It is incredibly versatile, simple and efficient.

True to the motto: "it is a clever man who knows where to find what he is looking for", over the next few pages you can find all you need to know about the new OSRAM QTi DALI® ECG.

So for your next project you should create a bridge between creativity and practical necessity – with OSRAM QTi DALI®.



With DALI® you can do anything. Except the wrong thing.

DALI® in detail.

DALI® is the perfect way to turn your plans into reality. Whatever you want to illuminate, DALI® makes lighting planning as uncomplicated as installing the equipment itself.

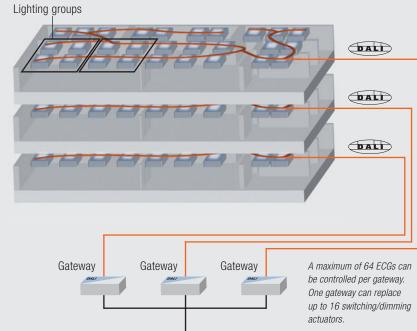
The **D**igital **A**ddressable **L**ighting **I**nterface or DALI® for short is the interface protocol for controlling digital lighting equipment in buildings (for example electronic transformers, ECGs and electronic dimmers). Each unit that has a DALI® interface can be individually controlled via its DALI® address.

The control line is protected of course against polarity reversal and can be routed together with the power supply for example in a five-core sheathed cable. There is no need for special cable. The control line simply has to be rated for line voltage.

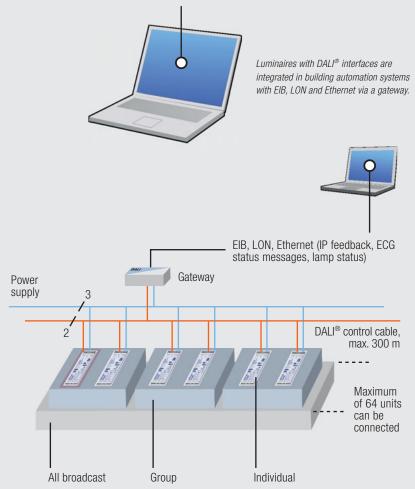
The lighting groups do not have to be assigned at the planning stage. They are simply assigned via the gateway. Even planning of the control line can be separate from planning of the power supply. From now on, we can talk about time and not pressure. Defining the lighting groups is stress-free.

This makes planning and installation easier and you get greater functionality.

And the best thing is that OSRAM has launched QTi DALI® ECGs, which are even more efficient, versatile and innovative. It's good that advanced technology is becoming more and more popular, starting with you.



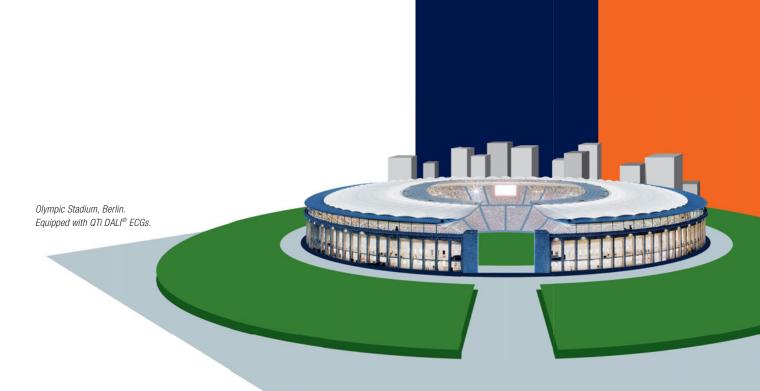
EIB, LON, Ethernet (IP feedback, ECG status messages, lamp status)



Perfect teamwork: OSRAM QTi DALI[®].

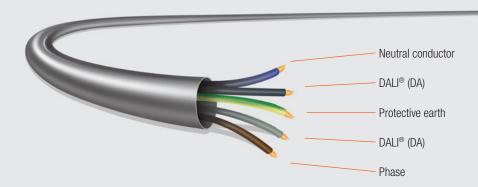
If you plan your building-wide lighting control system right from the start with QTi DALI® you can look forward to dream combinations every bit as accomplished as a top soccer team. QTi DALI® is the perfect partner for building-wide lighting control.

See for yourself just what modern interplay in the world of lighting really means.



Your greatest advantage: there are no disadvantages.

Five quick reasons for OSRAM QTi DALI®.



Optimized system performance: For OSRAM QTi DALI® ECGs this means achieving the same amount of light with less energy and therefore lower energy costs.

Multilamping: Just a few different ECGs can be used to operate more than 26 different fluorescent and compact fluorescent lamps at their rated data. Luminaires with a length of 1.5 meters for example can be equipped with 35, 49 or 80 W T5 fluorescent lamps. Up to three different lighting levels can therefore be achieved with just one luminaire.

Ident number: Each QTi DALI® ECG has a readable identity number which makes commissioning really easy (for example on the building site). Faster, simpler and more cost-effective.

0.5 s: QTi DALI® ECGs from OSRAM start lamps in only 0.5 seconds, which is much gentler on the lamp. This ensures that the lamps reach their full service life even with frequent on/off switching and dimming.

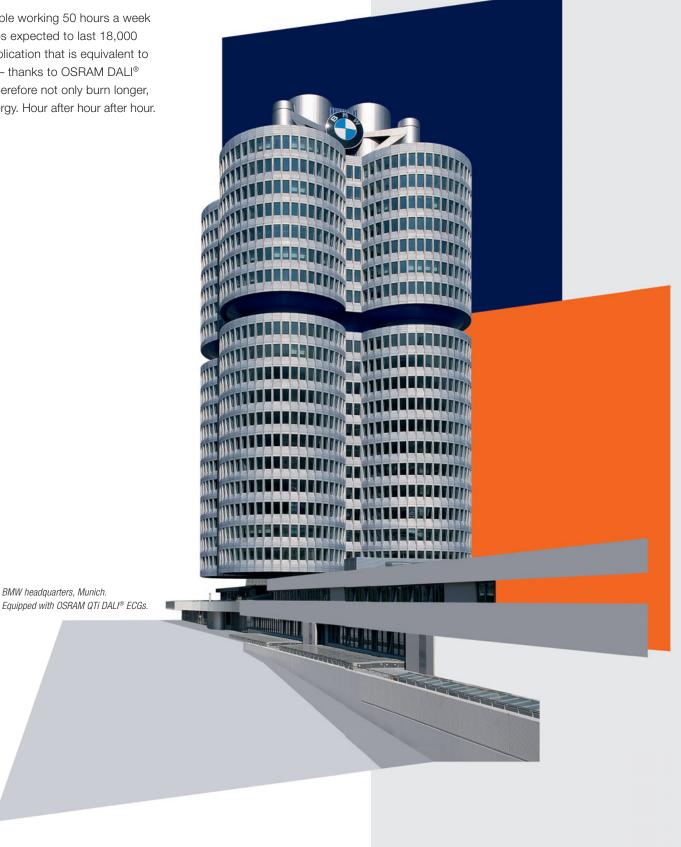
Hot/cold: In combination with dimmable amalgam fluorescent lamps, such as the new OSRAM DULUX® HO CONSTANT, not an extra watt is used to provide full light output. You therefore always get sufficient light, even in particularly hot or cold environments.



If you use your energy wisely you don't risk burning out too soon.

This applies not only to people working 50 hours a week and more, but also for lamps expected to last 18,000 hours. In a typical office application that is equivalent to a lamp life of up to 7 years - thanks to OSRAM DALI® ECGs. Fluorescent lamps therefore not only burn longer, they use up to 11 % less energy. Hour after hour after hour.

BMW headquarters, Munich.



Sustainability also means sustaining your interest.

OSRAM QTi DALI® – the same light from lower power consumption throughout the entire dimming range.

Developed to be efficient. OSRAM QTi DALI® ECGs are renowned for their optimized system output. In the dimming range from 80 to 100% we even switch off electrode preheating. For a 54 W ECG and a 54 W lamp they achieve the greatest energy savings of up to 11% and a life of 22 years. Good news for nature, and for the accounts department.

Energy savings of up to 11 %.

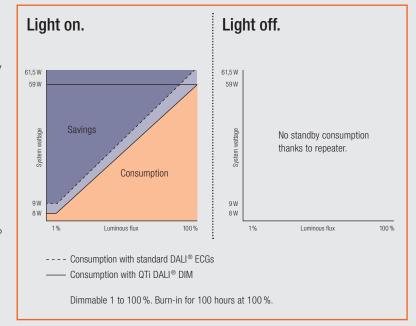
Records are there to be beaten. This is why OSRAM is constantly working on innovative solutions. The results of this work have made QTi DALI® ECGs up to 10% more economical than conventional DALI® ECGs. Or to be more precise, for a luminous flux of 1% you get up to 11% savings. And a full 4% at 100% luminous flux. And of course performance remains unchanged.

And if an SO type repeater is used then there is not even any standby power consumption.

Long life.

Like any fine cigar, an ECG keeps best at the right temperature. OSRAM QTi DALI® ECGs are the "humidors" of the lighting world. The temperature at the $t_{\rm c}$ measuring point has a direct bearing on the life of the unit. If the ECG operates for 10 hours a day at a $t_{\rm c}$ temperature of 65 °C, that translates into a life of at least 22 years. Enough time to appreciate the maturity of your project.

Such careful use of valuable resources deserves special attention.





Temp. test

Welcome in the best hotels in the world.

How do you get accepted into the best hotels in town? If you want to move in high places you need to show that others can rely on you completely. That's why we have the OSRAM System⁺ Guarantee. It reassures you that you can expect very long life from OSRAM QTi DALI®. The strictest quality tests in this segment prove it.

What's more, large projects call for flexible solutions. With OSRAM QTi DALI® ECGs the uses to which a building can be put are limited only by your imagination. To ensure that the lighting in your building remains as versatile as possible, you should be able to equip your luminaires with a wide range of different lamp wattages. SAS Radisson Hotel in Frankfurt. Equipped with OSRAM QTi DALI® ECGs.

If building usage can change day by day then OSRAM QTi DALI® certainly can.

Lifetime, flexibility and quality guaranteed.



The OSRAM System⁺ Guarantee

OSRAM gives you a guarantee – not just on innovative lighting solutions but specifically on the OSRAM QUICKTRONIC® ECGs, including dimmable ECGs. The guarantee is for five years. In the unlikely event of a fault, OSRAM will refund any ECG that has failed because of a material defect or manufacturing fault. You can find all the details at www.osram.com/system_guarantee.

But the most important aspects are, and always will be flexibility and ease of use. We have therefore developed OSRAM QTi DALI® in particular with a view to making your job easier.



Every DALI® ECG has its own address. Just like in real life.

Higher, faster, further. Life in the 21st century is getting more and more hectic, particularly in terms of technology. If you do not keep pace you soon fall well behind. It seems as though life is getting easier only for system integrators.

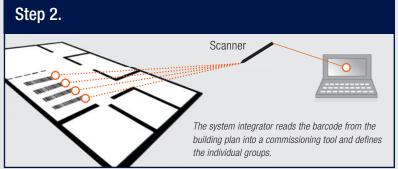
If, for example, thousands of luminaires are to be installed in a building there is no need to assign thousands of addresses. OSRAM QTi DALI® does it all automatically. Welcome to the 21st century. Sihlcity shopping center in Zurich. Equipped with OSRAM QTi DALI® ECGs.

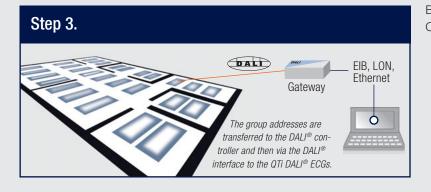
The first navigation system for stress-free DALI® addressing.

Three steps to a fully addressed DALI® system.









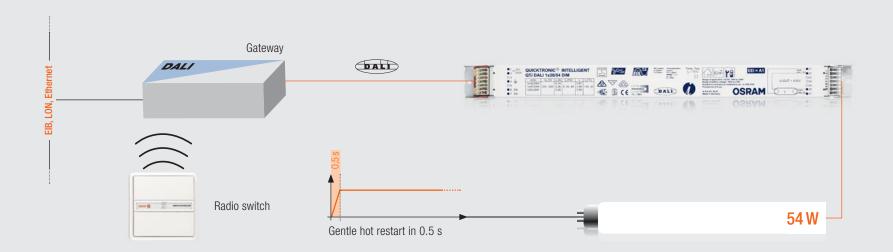
But it is not only assignment that is really quick.

OSRAM has succeeded in making the light even faster.

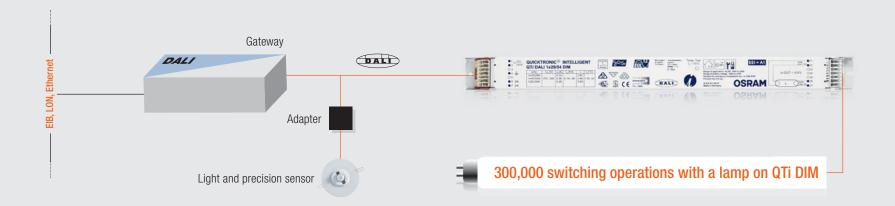
Light when you want it. As often as you want it. As quickly as you want it.



From 0 to 300,000 km/s in 0.5 seconds.



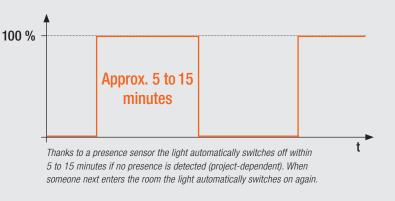
Fast zero-delay lamp starts are extremely important, particularly in connection with BMS systems or radio switches. OSRAM QTi DALI® offers quick and gentle hot restarts, making them ideal for buildings with networked systems or radio switches. The hot restart process takes just 0.5 seconds thanks to optimum control of electrode preheating.



300,000 switching operations with no effect on lifetime.

Fluorescent lamps are the perfect partners for OSRAM QTi DALI®. Particularly if they are highly active. To be more precise, if the lamps are frequently switched on and off or faded up and down. "Frequently" in this context means 300,000 switching operations. That's how many times you can control the lamps without affecting their lifetime.

And now? Now the weather just needs to play its part.



-20 °C to +35 °C.

Sunshine throughout the year. Every day a wonderful 28 °C. If this dream weather really does exist then it's probably on some remote South Sea island. The rest of us however have to deal with whatever the weather throws at us – sun and rain, heat and cold.

Until someone invents a switch for the weather your OSRAM QTi DALI® and HO CONSTANT lamps will deal with all climates and all temperatures.

Cuatro Torres Business Area, Spain. Equipped with QTi DALI® ECGs. Photo: Roberto Ruiz



If you're at home everywhere you don't complain about the climate.

Indoors or outdoors. OSRAM QTi DALI® and HO CONSTANT lamps don't care what the temperature is.

Come rain, come shine. These are two close allies that wind and weather cannot tear apart. OSRAM QTi DALI® and HO CONSTANT lamps create light irrespective of the temperature. They give you so many options for energy-efficient lighting. The new OSRAM DULUX® HO CONSTANT fluorescent lamp is ideal for example. This amalgam lamp can even be dimmed and does not waste a single watt, whatever its ambient temperature.



Low ambient temperature: -20 °C.

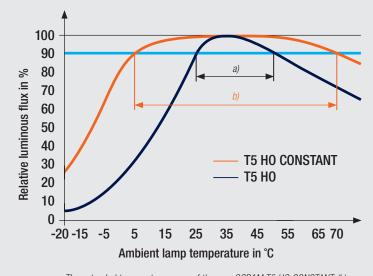
High ambient temperature: +35°C.

The benefits of amalgam technology.

- Up to 30 % more light and 90 % luminous flux at a lamp ambient temperature between +5 °C and +70 °C
- Reliable ignition down to -20°C
- Stable dimming even at the minimum dimmer setting
- Down to 1 % output for T5 CONSTANT and OSRAM DULUX® L CONSTANT; 3 % output for OSRAM DULUX® T/E IN

But the best systems are the ones that keep coming up with the goods. Perhaps that's one reason why so many major projects involve OSRAM QTi DALI[®].





The extended temperature range of the new OSRAM T5 H0 CONSTANT (b) compared with that of the LUMILUX $^{\odot}$ T5 H0 (a)

From professionals for professionals.

Here is a selection of leading suppliers of BMS solutions who have placed their trust in OSRAM QTi DALI®.

	EIB	LON	Ethernet	BACnet
ABB AG www.abb.com	- <u>`</u> \\\\\\\			
Albrecht Jung GmbH & Co. KG www.gb.jung.de	-¦Ç;-			
Altenburger Electronic GmbH www.altenburger.de	-¦Ç;-			
Beckhoff Industrie Elektronik www.beckhoff.com	- <u>`</u> \`\	- <u>'</u> Ö-	<u>-'Ā-</u>	
Berker www.berker.com	-¦Ç;-			
delmatic Ltd www.delmatic.com		<u>-</u> \̈C\-		
ELSO GmbH www.elso.de		<u>-`\^</u> -		
Giersiepen GmbH & Co. KG www.gira.com	-;□;-			
Infranet Partners www.infranet-partners.com		- <u>\</u> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	- <u>'</u> Ö;-	
IPAS GmbH www.ipas-products.com	- <u>'</u> Ö . -			
LOYTEC electronics GmbH www.loytec.com		- <u>Ö</u> -	- <u>'</u> Ö-	
Merten GmbH www.merten.com	-;□;-			
REGULEX Automation GmbH www.regulex.de		- <u>'</u> Ö-		
Siemens AG A&D www.automation.siemens.com	- <u>'</u> Ç'-		<u>-`</u> Ö . -	
Siemens Building Technologies www.buildingtechnologies.siemens.com		- <u>`</u> \\[\]-	- <u>'</u> Ö-	- <u>'</u> Ö;-
Svea Building Control Systems GmbH & Co. www.svea-bcs.de		- <u>'</u> Ö-		
Wago Kontakttechnik GmbH & Co. KG www.wago.com	- <u>`</u> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<u>-\̈</u> -	<u>-\̈</u> -	-\̈́\-

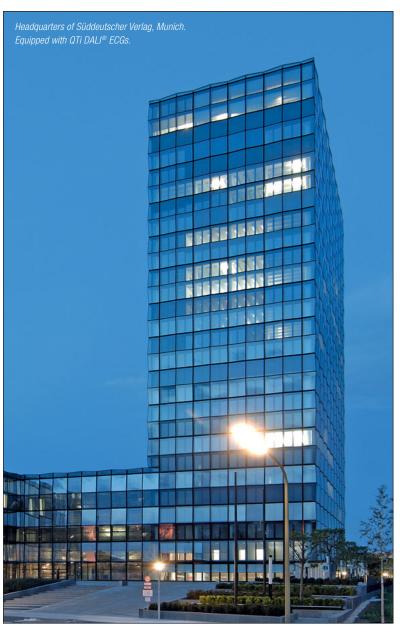


Only the best are involved in these projects. Nice to be part of it.



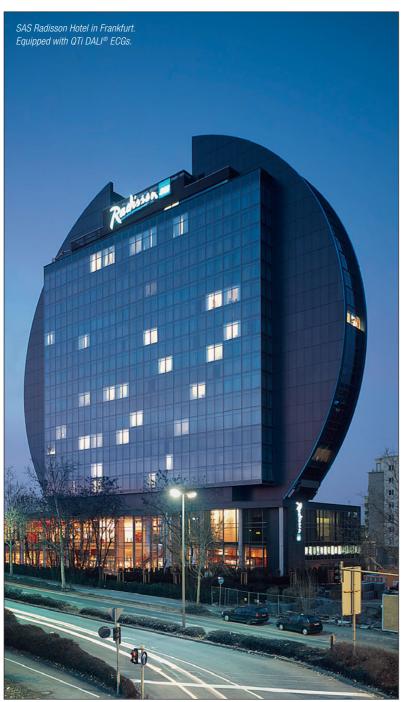














Don't keep looking for OSRAM QTi DALI®, find it!

Ask for luminaires with QTi DALI® inside:

ateljé Lyktan (SE)

www.atelje-lyktan.se

Bega (DE)

www.bega.com

Berlux (LU)

www.berlux.com

BPS Leuchten (DE)

www.bps-leuchten.com

Bright (GR)

www.bright.gr

Cohausz Leuchten (DE)

www.cohausz.net

Compass (HU)

www.compass-lighting.com

der Kluth (DE)

www.derkluth.com

Deska (DE)

www.deska.de

Dijkstra Lampen (NL)

www.dijkstra.com

durlum (DE)

www.durlum.com

elmotec (DE)

www.elmotec-leuchten.de

ERCO (DE)

www.erco.com

ETAP (BE)

www.etaplighting.com

Exportux (PT)

www.exporlux.pt

Fagerhult (SE)

www.fagerhult.com

Glashütte Limburg (DE)

www.glashuette-limburg.com

hatec Lichttechnik (DE)

www.hatec-licht.de

Huco (CH)

www.hucoag.com

iGuzzini (IT)

www.iguzzini.com

Inge (CZ)

www.inge.cz

Interlight (GR)

www.interlight.gr

Intra Lighting (SLO)

www.intra-lighting.com

IWS Lichttechnik (DE) iwslicht@aol.com

Kalfex (GR)

www.kalfex.com

Konrath (DE)

www.konrath.de

Kotzolt (DE)

www.kotzolt.com

Leccor (DE)

www.leccor.com

Lighting Innovations (ZA)

www.lightinginnovations.co.za

Lite-Licht (DE)

www.lite-licht.com

Louis Poulsen (DK/DE)

www.louis-poulsen.com

Ludwig Leuchten (DE)

www.ludwig-leuchten.com

Lug (PL)

www.lug.com.pl

MP Illumination (GR)

www.mpillumination.com

NORKA (DE)

www.norka.de

Petridis Lighting (GR)

www.petridis-lighting.gr

Pracht Lichttechnik (DE)

www.pracht-lichttechnik.de

Prolicht (AT)

www.prolicht.at

Rademacher (DE)

www.rademacher-gmbh.de

Regent (CH)

www.regent.ch

Regiolux (DE)

www.regiolux.de

Ribag (CH)

www.ribag-licht.com

Ridi (DE)

www.ridi.de

Riegens (UK/DK)

www.riegens.com

RSL (DE)

www.rsl.de

Ruco Licht (DE)

www.rucolicht.de

Schmitz-Leuchten (DE) www.schmitz-leuchten.com

Schuch (DE)

www.schuch.de

Semperlux (DE)

www.selux.com

Siteco (DE)

www.siteco.com

Smedmarks (SE)

www.smedmarks.com

spectral (DE)

www.spectral-lichttechnik.de

Trilux (DE)

www.trilux.de

Tulux (CH)

www.tulux.ch

Veko (NL)

www.veko.nl

Waco (BE)

www.waco.be

Waldmann (DE)

www.waldmann.com

Wila (DE) www.wila.com

XAL (AT)

www.xal.com

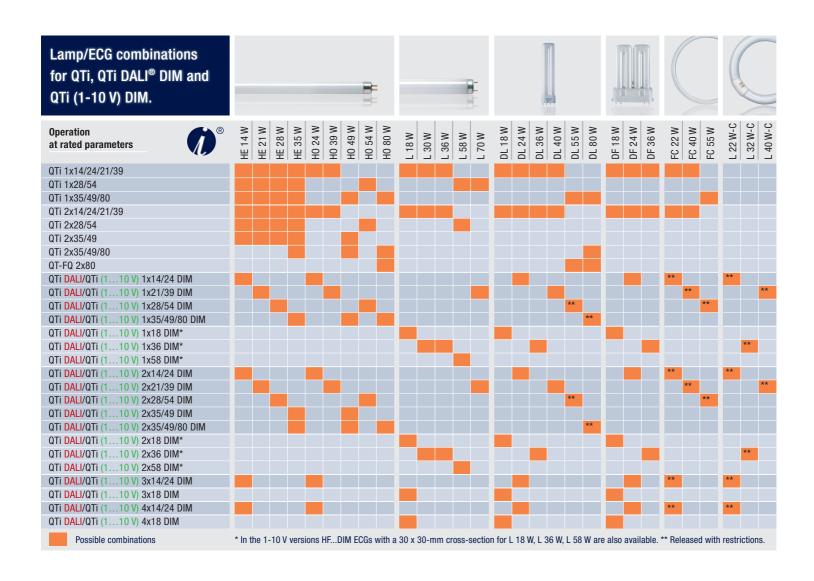
Zumtobel (AT)

www.zumtobel.com

There is no "one-size-fits-all" DALI[®]. But there is the right DALI[®] that fits all situations.

We'll stop trying to convince you now. We want you to do it for yourself.

It's now up to you to choose OSRAM QTi DALI®. And you'd be in the best company. If you need any more good reasons why you should benefit from OSRAM QTi DALI® simply go to www.osram.com/qti. Tender documents are available at www.osram.com/ecg-tender.



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