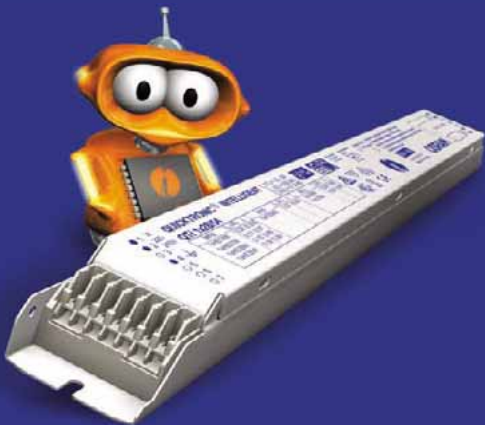




Lighting systems with a built-in future

Really intelligent –

QUICKTRONIC® INTELLIGENT from OSRAM



SEE THE WORLD IN A NEW LIGHT



May 2004, 7.30 am
Conference Room



September 2009, 5.00 pm
Office



Lighting concepts today are being

November 2007, 1.00 pm
Bistro



December 2012, 9.00 pm
Fitness Centre



judged on the needs of tomorrow.



Fit for the future: QUICKTRONIC® INTELLIGENT

No one leasing out a commercial building or rooms today knows who their tenants will be in a few years time. Whether it's a software training school, a fitness centre, management consultants or bistro, every business has its own individual lighting requirements according to the activities it carries out.

Each new tenant will probably have different lighting requirements from the previous tenant. If owners had to install new luminaires each time a new tenant moved in, they would be faced with enormous costs. At present, the average commercial tenancy period is less than five years.



Giant steps into the future:

Artificial intelligence moves into all walks of life. For lighting solutions, OSRAM has taken on a pioneering role and developed a completely new family of intelligent Electronic Control Gear.

*QUICKTRONIC® INTELLIGENT QT*i*, the new ECG family with a built-in future, is represented by Robbie, a friendly soul, a real "cutie" who symbolises the artificial intelligence in QT*i*. He will guide you through all the information on QT*i*.*

Conference Room – HO 49W/500 lux





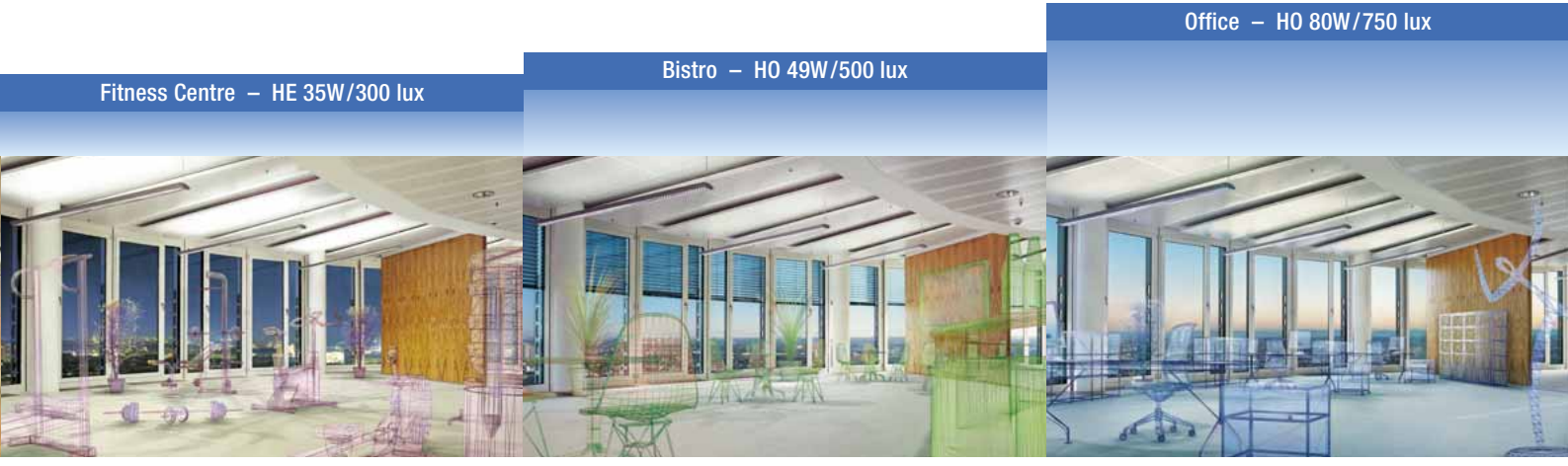
today offers flexible solutions for tomorrow.

OSRAM has reacted to this problem and developed intelligent QUICKTRONIC®. With this new family of ECGs, luminaires can be operated with any T5/Ø 16 mm fluorescent lamps of the same length but with different wattages depending on the particular requirements (e.g. HE 35W/HO 49W/HO 80W). All you have to do is to change the lamp.

The lamp is automatically detected by the intelligent QUICKTRONIC® and operated with the right electrical parameters.



With QUICKTRONIC® INTELLIGENT QT i from OSRAM, you will always be able to react instantly and efficiently to changes in lighting requirements.



Fitness Centre – HE 35W/300 lux

Bistro – HO 49W/500 lux

Office – HO 80W/750 lux



Fewer types, greater economy, greater flexibility

QUICKTRONIC® INTELLIGENT – ideal for luminaire manufacturers, retailers and facility managers

The new QUICKTRONIC® INTELLIGENT Electronic Control Gears from OSRAM has led to a reduction in the number of different types not only of prematerials but also for the first time of finished products. Thanks to QUICKTRONIC® INTELLIGENT, a stock clearance is possible and therefore also a reduction in the level of complexity. This is something that will benefit luminaire manufacturers, retailers and facility managers alike. Smaller spaces for storage will be needed, and fewer types will need to be stored.

Provided the thermal design of the luminaire is right, only one basic luminaire type is now needed to operate T5/Ø 16 mm fluorescent lamps of the same length. By equipping the luminaire with LUMILUX® T5 HO or LUMILUX® T5 HE fluorescent lamps of the same length, users can themselves decide which illuminance they want – either especially bright or especially economical. The demand for replacement luminaires in the facility management sector is also significantly reduced. Here too, facility managers only need to stock one “basic luminaire” without any particular lamp.

QUICKTRONIC® INTELLIGENT – greater freedom in project planning and arranging for change of use

Often even at the completion and installation phase it is unclear what the rooms and therefore the lighting will be used for. QUICKTRONIC® INTELLIGENT offers greater freedom at the planning stage and in dealing with subsequent changes, by alternative lamp types of the same length.

- i** Different lighting requirements can be covered by one basic luminaire type (e.g. different production areas)
 - Workplace with high requirements: 750 lux, $R_a > 80$ → HO 80W
 - Workplace with intermediate requirements: 500 lux, $R_a > 80$ → HO 49W
 - Other areas: 300 lux, $R_a > 80$ → HE 35W
- i** If the lighting requirements in a building change, different lamps can be fitted – without the need to install new ECGs.
- i** Differences between the actual values needed and the planned values can be very easily corrected even at a late stage in the project, simply by changing the lamps.



ility: the benefits of QUICKTRONIC® INTELLIGENT

QUICKTRONIC® INTELLIGENT – greater economy, greater flexibility

QUICKTRONIC® INTELLIGENT from OSRAM is the “intelligent” solution. It reduces costs and provides a degree of flexibility that has never been seen before. Luminaire manufacturers benefit from lower costs and reduced complexity in development, production and storage. They also save on luminaire approval costs because only the most powerful system (lamp + ECG) has to be fully approved. All the other combinations simply have to pass certain safety tests.

The two major benefits for retailers and facility managers come from the need for less space for storage and the resultant savings.



QUICKTRONIC® INTELLIGENT with 3 T5/Ø 16 mm fluorescent lamps of the same length: e.g. HE 35W/HO 49W/HO 80W.

QUICKTRONIC® INTELLIGENT – benefits for everyone:

With QUICKTRONIC® INTELLIGENT, luminaire manufacturers, retailers and facility managers also have some strong “sales arguments” to present to their customers – such as lighting designers, property owners, tenants and other commercial and private users:

- Much lower investment/installation costs for changes of use
- Much lower maintenance costs thanks to optimum lamp operation – and therefore much longer replacement intervals
- Lower power consumption thanks to the perfectly matched system consisting of ECG and fluorescent lamp from OSRAM
- A change in luminous flux at any time by simply changing the lamp



One for many: QUICKTRONIC® INTELLIGENT

The MULTI-WATT talent QUICKTRONIC® INTELLIGENT – the really “intelligent” ECG

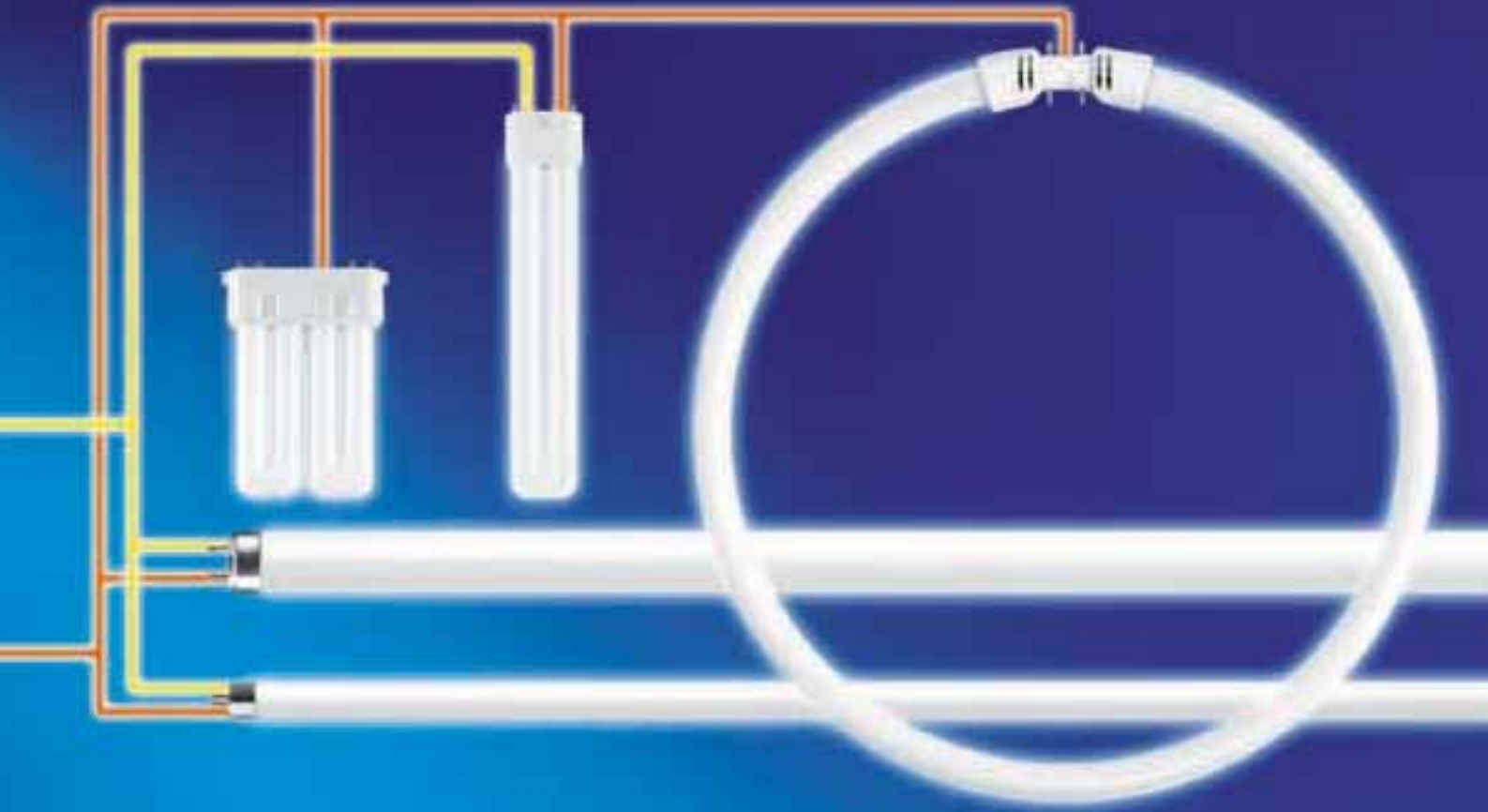
Up to now, for almost every fluorescent lamp a separate and specific ECG is needed to operate it. In rare cases, just one ECG could be used to operate different lamp types within a restricted range of wattages.

But before the development of T5/Ø 16 mm fluorescent lamps there was generally only one lamp wattage for each lamp length. With the introduction of T5/Ø 16 mm fluorescent lamps all this has changed. Now there are always at

least two lamps of the same length but with different wattages.






Thanks to OSRAM, T5/Ø 16 mm fluorescent lamps of the same length can now be operated in a single luminaire. With QUICKTRONIC® INTELLIGENT QT_i, even High Output (HO) and High Efficiency (HE) fluorescent lamps can be operated with the same ECG. Simply changing the lamp is all that is needed. The new revolutionary microprocessor-controlled QUICKTRONIC® INTELLIGENT family of ECGs automatically detect different lamp types based on their electrical parameters – even if they have very different wattages.





controls many different lamps

Further technical “highlights” of QUICKTRONIC® INTELLIGENT

-  Uniform cable harnesses per luminaire type (DALI DIM, 1...10V DIM and non DIM identical)
-  Uniform casing geometries (for 1-lamp and 2-lamp ECGs)
-  Super low-profile casings: All QUICKTRONIC® INTELLIGENT units are only 21 mm high
-  Combi Wiring: Automatic or manual wiring
-  Power regulation of the lamp in the luminaire at high ambient temperatures

Conventional ECGs	
HE 14W	HO 49W
HE 21W	HO 54W/DL 55W/FC 55W
HE 28W	HO 80W/DL 80W
HE 35W	L 18W
HO 24W/DF 24W/(FC 22W)	L 36W
HO 39W/DL 40W/FC 40W	L 58W
FC 55W	
QUICKTRONIC® INTELLIGENT	
HE 14W/HO 24W/DL 24W/(FC 22W)	HE 21W/HO 39W/DL 40W/FC 40W
L 18W/DL 18W	HE 28W/HO 54W/DL 55W/FC 55W
L 36W/DL 36W	L 58W
HE 35W/HO 49W/HO 80W/DL 80W	

The clever QUICKTRONIC® INTELLIGENT modular system for dimmable and non-dimmable ECGs reduces the number of luminaires required by 60% for T5/Ø 16 mm luminaires for example.





Dimming par excellence

QUICKTRONIC® INTELLIGENT dimmable: DALI or 1...10V – the choice is yours

The dimmable QUICKTRONIC® INTELLIGENT family is offered with either a DALI interface or a 1...10V interface. The properties of the interfaces are in accordance with the relevant standards. In the case of QUICKTRONIC® INTELLIGENT with a digital interface (DALI), it offers the normal DALI functions and also a number of functions that go beyond the DALI standard.

For example, the second generation of **Touch DIM** function has been integrated. Operation is now even more intuitive – and therefore easier. Just provide a standard switch – and lighting control is complete. The memory function has also been further improved: The reference value is now stored simply by double-clicking.



Touch DIM Sensor – or lighting control easy and convenient

The special innovation of the dimmable QUICKTRONIC® INTELLIGENT with the DALI interface is the **Touch DIM Sensor**. This sensor provides a simple way of achieving lighting control with brightness and/or movement detection. Control is achieved entirely with QUICKTRONIC® INTELLIGENT – no need for a separate controller. QUICKTRONIC® INTELLIGENT DALI DIM ECGs only need the small sensor that is used in combination with **Touch DIM**.

Special properties of QUICKTRONIC® INTELLIGENT dimmable

All non-dimmable and for the first time all dimmable QT_i ECGs with QUICKTRONIC® INTELLIGENT feature cut-off technology. In the dimmable versions, filament preheating is regulated as a function of the dimmer setting and completely switched off at higher output. This helps to reduce power losses and therefore the temperature in the luminaire.



Optimised for colour games – QUICKTRONIC® INTELLIGENT QT \dot{i} DALI DIM

Coloured light applications are in. Special features have been integrated in dimmable QUICKTRONIC® INTELLIGENT units with the DALI interface for such applications.

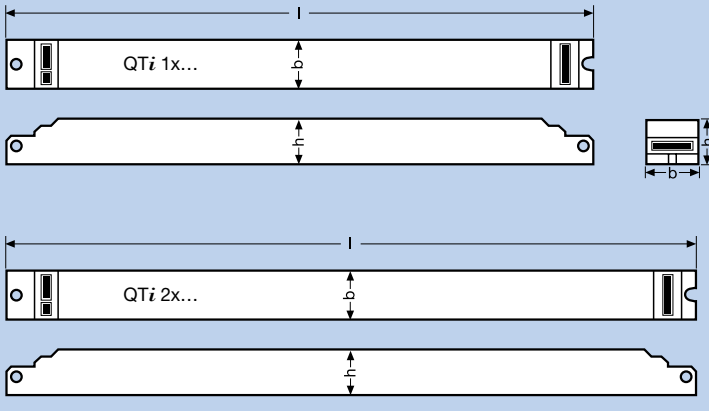
The lamp can be started instantly at any time as it is now possible for the first time to have permanent activation of filament preheating while the lamp is switched off. QUICKTRONIC® INTELLIGENT QT \dot{i} DALI DIM is also optimised for rapid changes in light, for example in high-frequency flashing sequences.



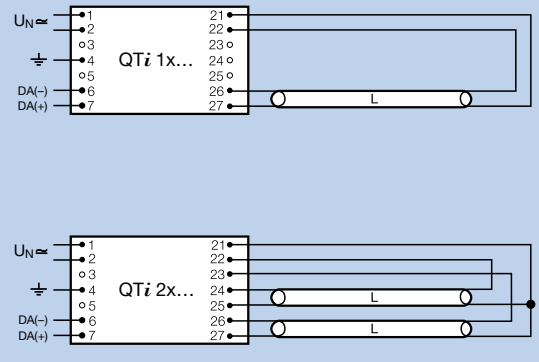
Touch DIM Sensor – brilliantly simple lighting control.

Special highlights of QUICKTRONIC® INTELLIGENT dimmable with DALI interface:

-  Dimming range: 1...100%, starting at any dimmer setting possible
-  **Touch DIM** 2nd generation
-  **Touch DIM Sensor** – simple lighting control without any controller
-  Immediate start of the lamp thanks to permanent activation of filament preheating while the lamp is switched off
-  Very fast response to dimming operations for coloured light effects with no adverse effect on lamp life



Dimensions in mm



Technical data

QUICKTRONIC® INTELLIGENT not dimmable

Product reference	QTi 1x14/24/21/39	QTi 1x28/54	QTi 1x35/49/80
Product number (EAN)	4050300 796871	4050300 796857	4050300 796833
Lamps that can be operated	1xHE 14, 1xHO 24, 1xHE 21, 1xHO 39 <i>In addition:</i> 1xHE 28, 1xHE 35, 1xL 18, 1xL 30, 1xL 36, 1xDL 18, 1xDL 24, 1xDL 36, 1xDL 40, 1xDF 18, 1xDF 24, 1xDF 36, 1xFC 22, 1xFC 40	1xHE 28, 1xHO 54 <i>In addition:</i> 1xHE 14, 1xHE 21, 1xHE 35, 1xL 58, 1xL 70	1xHE 35, 1xHO 49, 1xHO 80 <i>In addition:</i> 1xHE 14, 1xHE 21, 1xHE 28, 1xDL 55, 1xDL 80, 1xFC 55
System wattage [W]	16...43	32...61	39...91

Product reference	QTi 2x14/24/21/39	QTi 2x28/54	QTi 2x35/49	QT-FQ 2x80
Product number (EAN)	4050300 797090	4050300 797076	4050300 796895	4050300 825564
Lamps that can be operated	2xHE 14, 2xHO 24, 2xHE 21, 2xHO 39 <i>In addition:</i> 2xHE 28, 1xHE 35, 2xL 18, 2xL 30, 2xL 36, 2xDL 18, 2xDL 24, 2xDL 36, 2xDL 40, 2xDF 18, 2xDF 24, 2xDF 36, 2xFC 22, 2xFC 40	2xHE 28, 2xHO 54 <i>In addition:</i> 2xHE 14, 2xHE 21, 2xHE 35, 2xL 58	2xHE 35, 2xHO 49 <i>In addition:</i> 2xHE 14, 2xHE 21, 2xHE 28	2xHO 80 <i>In addition:</i> 2xDL 55, 2xDL 80
System wattage [W]	32...88	63...119	79...110	122...175

QUICKTRONIC® INTELLIGENT dimmable with DALI or 1...10V interface


Product reference	QTi DALI 1x14/24 DIM	QTi DALI 1x21/39 DIM	QTi DALI 1x28/54 DIM	QTi DALI 1x35/49/80 DIM
Product number (EAN) (DALI)	4050300 870380	4050300 870366	4050300 870809	4050300 870342
Product reference	QTi 1x14/24 DIM	QTi 1x21/39 DIM	QTi 1x28/54 DIM	QTi 1x35/49/80 DIM
Product number (EAN) (1...10V)	4050300 870922	4050300 870564	4050300 870588	4050300 870540
Lamps that can be operated	1xHE 14, 1xHO 24 <i>In addition:</i> 1xDL 24, 1xDF 24	1xHE 21, 1xHO 39 <i>In addition:</i> 1xDL 40, 1xL 70	1xHE 28, 1xHO 54 <i>In addition:</i> 1xDL 55, 1xFC 55	1xHE 35, 1xHO 49, 1xHO 80
System wattage [W]	17...27	24...44	31...61	39...88

Product reference	QTi DALI 2x14/24 DIM	QTi DALI 2x21/39 DIM	QTi DALI 2x28/54 DIM	QTi DALI 2x35/49 DIM	QTi DALI 2x80 DIM*
Product number (EAN) (DALI)	4050300 870861	4050300 870489	4050300 870502	4050300 870465	4050300 870441
Product reference	QTi 2x14/24 DIM	QTi 2x21/39 DIM	QTi 2x28/54 DIM	QTi 2x35/49 DIM	QTi 2x80 DIM*
Product number (EAN) (1...10V)	4050300 870946	4050300 870694	4050300 870717	4050300 870670	4050300 870984
Lamps that can be operated	2xHE 14, 2xHO 24 <i>In addition:</i> 2xDL 24, 2xDF 24	2xHE 21, 2xHO 39 <i>In addition:</i> 2xDL 40, 2xL 70	2xHE 28, 2xHO 54 <i>In addition:</i> 2xDL 55	2xHE 35, 2xHO 49	2xHE 80 <i>In addition:</i> 2xHE 35, 2xHO 49
System wattage [W]	34...54	48...88	62...121	78...108	78...175

DALI interface acc. to DALI standard, plus **Touch DIM** and **Touch DIM Sensor** function

*All 2x80 QTz types may have different electrical properties because of their special thermal properties (see data sheet)

General technical data for all QUICKTRONIC® INTELLIGENT units

- 1-lamp version (l x w x h): 360 x 30 x 21 mm,
- 2-lamp version (l x w x h): 423 x 30 x 21 mm
- Voltage ranges:
198...264 V AC, 176...254 V DC
- Mains voltage 220...240 V
- Mains frequency 0; 50...60 Hz
- Radio interference suppression acc. to EN 55015, EN 55022
- Harmonic content acc. to EN 61000-3-2
- Safety acc. to EN 61347-2-3
- Lamp operation acc. to EN 60929
- Immunity acc. to EN 61547
- Approval marks  
- Suitable for luminaires of protection classes I and II (with functional earth)
- Reliable end-of-life safety shutdown acc. to Test 2 (asymmetrical power detection)



Digital Addressable Lighting Interface

For detailed technical data and further information on QUICKTRONIC® INTELLIGENT go to www.osram.com/qli