

High quality tools for Human Centric Lighting:**ERCO Quintessence downlights in tunable white**

Lüdenscheid, May 2019. Human Centric Lighting (HCL) refers to lighting concepts that take into account not only the visual but also the biological effect of light on people. General lighting with variable light colour plays a central role in such applications which are often based on the so-called circadian sequence – the spectral change of daylight from sunrise to sunset. ERCO now presents recessed luminaires with tunable white technology precisely for this purpose. As part of the Quintessence range, they offer proven product and design quality as well as visual comfort of the highest level.

Day begins with the tinge of morning dawn. At noon when the sun is at its zenith, sunlight and the light of the sky blend to form a radiant bluish white that shifts back to a warm orange in the evening until sunset: mankind itself has developed according to this eternal cycle. That our internal clock and other biological functions are controlled and influenced by the spectral components in light is now considered to be standard scientific knowledge. Human Centric Lighting (HCL) concepts aim to utilise these findings for architectural lighting to improve the well-being of people in buildings. However, the mere use of individual products is not enough: holistic HCL solutions consist of several networked components. This is the only way to synchronise and selectively control parameters such as light intensity, the direction of light and, above all, the colour temperature of the light sources.

Tunable white – quality in Quintessence

For the central component of general lighting in such HCL concepts, ERCO now provides lighting designers with flexible and high quality tools: the Quintessence recessed luminaires with tunable white technology. These offer all the features that have made Quintessence a benchmark for downlights: for example ERCO darklight reflectors for maximum visual comfort, aluminium housings designed as heat sinks for optimum thermal conditions and mounting rings for quick and easy

installation with covered mounting or optionally for installing flush with the ceiling.

Infinitely variable from warm white to daylight white

The implementation of tunable white technology with Quintessence lighting tools also meets the high standards of this range: the 2-channel LED modules provide a wide colour temperature range from 2700K to 6500K, and with CRI>90 from 2700K to 5000K they also feature very good colour rendering – even when dimmed. The dimming range of the modules is a complete 0-100% and they are also flicker-free and therefore suitable for camera recording. The luminous flux remains constant when the light colour changes, and all value changes are smooth and continuous. Colour temperature and brightness are controlled digitally via a DALI interface.

Highly logical: the ERCO luminaire system

The versions of Quintessence recessed tunable white luminaires also follow the logical structure of the ERCO luminaire system. The downlights in tunable white are available in three sizes. There is also a choice between wide flood light distribution especially for rooms with high ceilings and extra wide flood for uniform, efficient general lighting with large luminaire spacing for normal ceiling heights. The high cylindrical illuminance levels ideally supports functions such as facial recognition. The new downlights in tunable white open up a wide range of applications for users of the Quintessence range – and not only for HCL, but also for all kinds of dynamic, atmospheric and attractive displays of architectural spaces with light.

Technical features

ERCO lens system:	diffuser lens made of optical polymer with Wide flood and Extra wide flood light distributions
ERCO LED module:	High-Power LEDs on metal-core PCB, tunable white: variable light colour from 2700K to 6500K
Control gear:	DALI
Housing:	cast aluminium, plastic, three sizes
Reflector:	ERCO silver darklight reflector
Mounting ring:	white
Installation:	covered or flush with suitable mounting ring (as accessory)

Images



Tunable white: now also available with Quintessence recessed luminaires

Quintessence has been expanded with tunable white technology to achieve general lighting with different colour temperatures.

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Visualization: Electric Gobo



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About ERCO

The ERCO Light Factory in the German town of Lüdenscheid is a leading international specialist in architectural lighting using LED technology. The family business, founded in 1934, now operates as a global player with independent sales organisations and partners in 55 countries worldwide. Since 2015 ERCO's portfolio has been 100% LED. With this in MIND, ERCO in Lüdenscheid develops, designs and produces digital luminaires with focus on photometrics, electronics and design. Working closely with architects, lighting designers and engineers, ERCO develops lighting tools used primarily for applications in the following fields: Work, Shop, Culture, Community, Hospitality, Living, Public and Contemplation. ERCO understands digital light as the fourth dimension of architecture – providing highly precise and efficient lighting solutions to support creative designers in turning their visions into reality.

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