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LED Signals for Wayguard Simis LC

Minimization of maintenance work

Today, LED light sources are primarily being used instead of classic, conventional signal lamps. Due to the use of state-of-the-art LEDs, energy-saving LED technology results in optimum signal light values.

Even in poor lighting conditions, LED signal light units with their bright, uniform radiation can be reliably detected by road users. The widely feared phenomenon of phantom light (reflection when the sun is low) is almost completely suppressed. The electrical interface to Simis LC is formed by the LAB board which is integrated in the level-crossing road signal. In line with HD 638 / DIN VDE 0832-100, this LAB board can be used to operate the LED signal light units directly on the LESOM (level-crossing signal operating module) module. LED light sources have a considerably longer lifetime than conventional signal lamps and ensure a high level of system availability. Failures caused by faulty signal lamps are now history.

Running costs for power supply are correspondingly low. Due to the high level of efficiency featured by LED light sources, electrical power consumption is considerably reduced. Thus, LED signal light units with their low power consumption levels make a valuable contribution to environmental protection. In comparison to signal lamps, energy savings of up to 80% are possible.

Benefits of LED signal light units at a glance

- No phantom color due to colorless lenses
- Phantom class 5
- Energy savings of up to 80% in comparison to signal lamps
- High EMC interference immunity
- Electrical activation optimized to Simis LC
- Considerably longer lifetime in comparison to signal lamps
- Higher availability of road signal systems
- Robust, simple design with state-of-the-art high-performance LEDs (no matrix)
- Simple-to-replace LED units
- All signaling options realizable:
 - red / yellow
 - steady red light (individual)
 - flashing red light (retention of existing system)



Design of the LED signal

Technical data

Optical properties of LED signal light units as per DIN EN 12368 / DIN 67527-1; Height: 200 mm

Luminous intensity distribution class	B2/2
Axial luminous intensity, typical value	red > 200 cd yellow > 200 cd
Radiation characteristics Uniformity of luminance	W (wide-angled signals) 1:10
Chromaticity coordinate as per DIN EN 12368	red 613–631 nm yellow 585–597 nm
Symbol class	S1
Phantom class	5

Electrical and mechanical properties of LED signal light units

Operating current (nom.)	350 mA DC
Operating voltage (nom.)	17.8 V DC
Power consumption	6 W
Power factor	0.9
EMC	as per DIN EN 50293
IP rating	IP65
Diffusion disks	system-specific, colorless plastic lenses
Symbol masks	standard design (symbol lenses for small-sized signal light units)
Impact resistance	IR 3
Operating temperature	–40 °C to +65 °C class A, B, C
Relative humidity	20% to 95%
Lenses	system-specific, colorless diffusion disks
Standard symbol designSymbole	as symbol masks
Housing color	pebble gray, RAL 7032



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