

Traffic light Quadro LED-TL



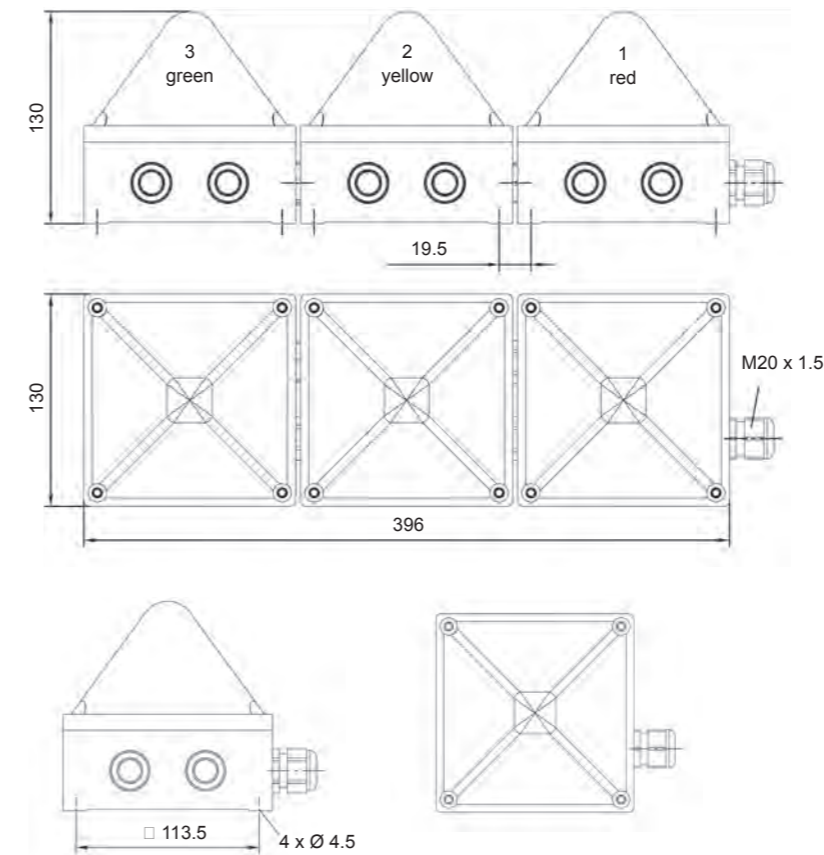
- bright LED signal lights for traffic light applications, e.g. for
 - traffic routing in non-public areas
 - conveyer and storage systems
 - crane safety (see also 'Regulations and standards for crane applications', page 87)
 - container handling systems
- extraordinary housing protection (IP 66, IK0 8 and UV-protected PC housing) and innovative LED technology provide for very bright signals, long service lives and reliable operation
- mounted using external lugs or internal holes that do not impair the IP protection; mounting can be performed in any direction
- preassembled as traffic light and ready to connect
- also available as non-preassembled version
- optionally with integrated light sensor for optimal adaptation to the ambient light (glare avoidance)

IP 66 Protection system	IK 08 Impact-proof housing	+ 55 °C - 30 °C Operating temperature	 Light sensor (optional)
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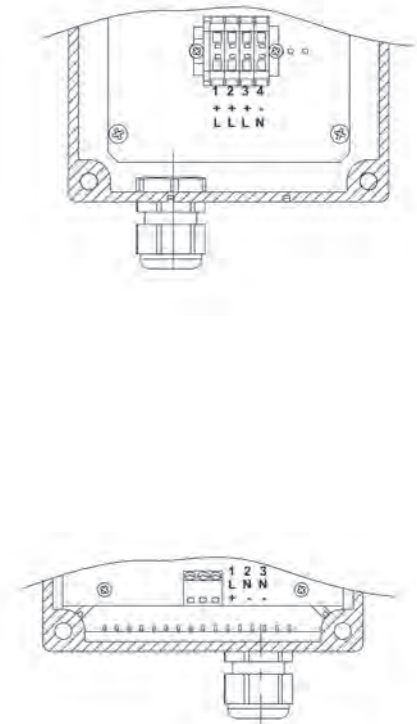
Electrical data	Quadro LED-TL	
Rated voltage	115 / 230 V AC	24 V DC
Rated frequency	50 Hz / 60 Hz	
Operating range	85 V – 265 V	10 V – 30 V
Max. current consumption	60 mA / 30 mA	1.06 A

Mechanical data	Quadro LED-TL
Operating mode	LED continuous light
Light source	high output LED array
Light intensity (DIN 5037)	> 80 cd
Lens colours	red / yellow / green
Operating temperature	- 30 °C ... + 55 °C
Storage temperature	- 40 °C ... + 70 °C
Relative humidity	95%
Protection system according to EN 60529	IP 66; IK 08 (EN 50102), mounting arbitrary
Duty cycle	100%
Service life of light source	> 50.000 hrs
Material	lens: polycarbonate (PC), UV-resistant housing: polycarbonate (PC), UV-resistant, RAL 7035
Cable entry	M20/M32 sideways, other imprints prepared
Connecting terminals	spring-type terminal 0.08 – 2.5 mm ² (in the red light)
Mounting	external lugs or internal holes
Weight	1.32 kg

Dimensions



Connection diagrams



Ordering details

Article numbers		Quadro LED-TL		Quadro LED-TLi (with light sensor)	
Lens colour	Rated voltage	115/230 V AC	24 V DC	115/230 V AC	24 V DC
red / yellow / green		211 06 64 0 008	211 06 63 0 008	211 07 64 0 008	211 07 63 0 008
yellow		211 06 64 3 000	211 06 63 3 000	211 07 64 3 000	211 07 63 3 000
red		211 06 64 5 000	211 06 63 5 000	211 07 64 5 000	211 07 63 5 000
green		211 06 64 6 000	211 06 63 6 000	211 07 64 6 000	211 07 63 6 000

Article numbers for other combinations on request

Conformity to standards

The visual characteristics of LED lights conform to the European standard DIN EN 842: 'Machine safety – visual alarm signals'. Requirements contained in the DIN EN 981 standard: 'Machine safety – system of acoustic and visual alarm and information signals', can be fulfilled. The colours 'red' for the emergency signal and 'yellow' for the warning signal conform to the requirements of IEC 73 / DIN EN 60073 / VDE 0199: 'Coding of display devices and control elements using colours and supplementary means'.

References to visual alarm devices can be found in the following standards:
 EN 60825-1 Radiation safety of laser devices, identical to IEC 825 and DIN-VDE 0837
 DIN EN 54 Fire alarm systems
 DIN 54113-2 Radiation protection regulations for the technical operation of X-ray equipment up to 500 kV

Regulations and standards for crane applications

DIN-EN 13000:2004-09 Cranes – truck-mounted cranes	Visual warning to the driver (EN 842) in the case of	<ul style="list-style-type: none"> - approaching the load capacity (at 90 - 98.5% of the permissible load capacity) - triggering of the overload safety system - overriding of the overload safety system
DIN-EN 14439:2006 Safety – rotating tower cranes	Visual warning by the crane driver (EN 457) to persons in the vicinity in the case of	<ul style="list-style-type: none"> - remote control – green, continuous light - anti-collision – white, blinking light - rotating (in some cases when required by local authorities) – green, blinking light
	Visual warning to the driver (EN 842) in the case of	<ul style="list-style-type: none"> - approaching the load capacity (at 90 - 95% of the permissible load capacity) – yellow, continuous light - wind warning and alarm – yellow, blinking light and red, blinking light