



# LED SIGNAL EU

## APPLICATIONS

Trackside signaling

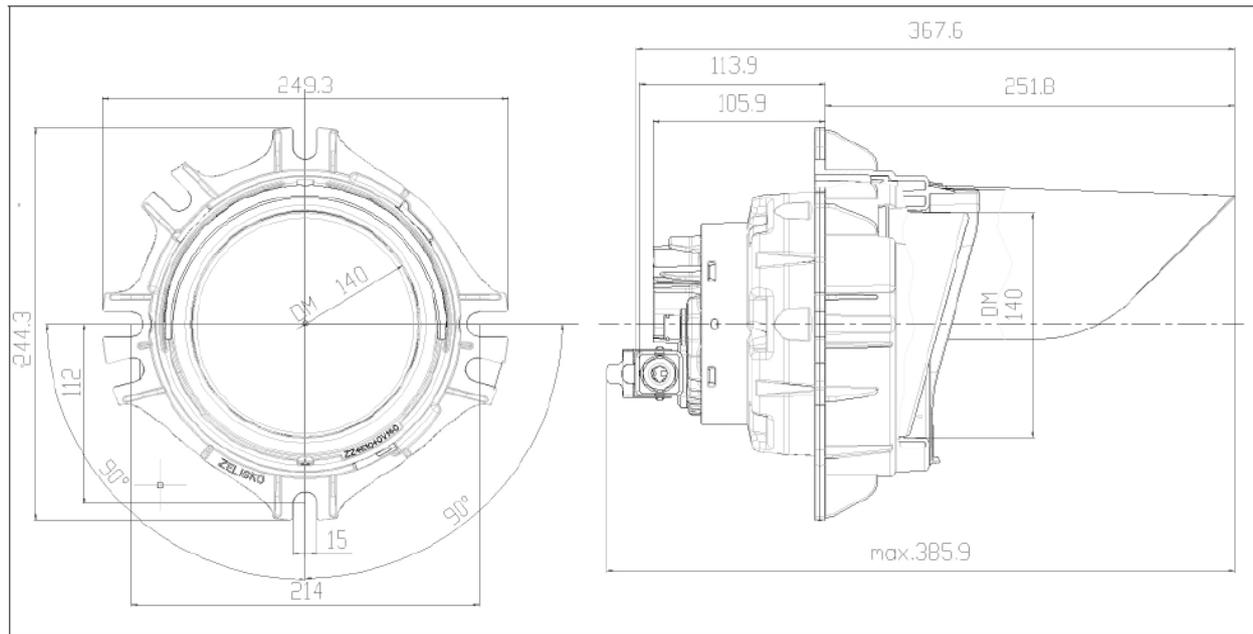
# COMPACT 140



**ZELISKO**

## Zelisko LED Signal EU combines high visibility with low life-cycle costs

The new **Compact Line** offers the symbiosis between minimal dimensions and future orientated componets.



### Features LED EU

- safety level SIL4 acc. CENELEC EN 50129
- high power LED
- no preventive maintenance
- high availability
- high efficiency
- AC & DC variants
- Current / Voltage monitoring of LED
- safe shut down in fault case
- compatible to a lot of interlocking types

### Features COMPACT

- only 2 electronic PCB (PCU + LED)
- One PCU variant specific for one interlocking type
- LED module: one size and colour for all IXL types
- significant simplification in logistics
- best optical performance + smallest dimensions
- Protection class IP65
- Front part adaptable to different mounting methods
- Connection via plug or cable gland
- easier mounting and adjustment on the mast
- weight: actual type: 3kg, Compact: 1,95 kg !
- 100 % recyclable

## COMPACT 3D VIEWS



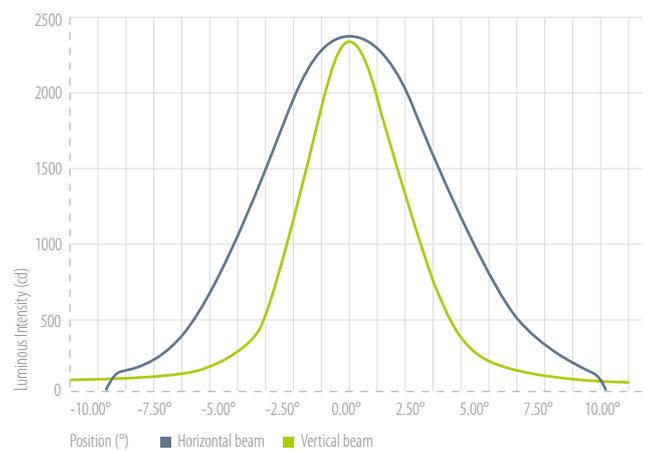
LED signal EU 140 mm

## Technical data Compact 140 mm, other variants are in progress.

Luminous intensity			red / amber / green / white		blue		purple	
			min.	max.	min.	max.	min.	max.
Lumins intensity -160 mm signal								
Lumins intensity -140 mm signal	typ. [cd]	day	1000	3000	1000	3000		
		night	350	1500	350	1500		
Lumins intensity -100 mm signal								

Electrical parameters for 12 V AC/20 W standard version		Value			Unit
		min.	typ.	max.	
Voltage daytime operation	$U_{\text{day}}$	10.8	12	13.2	$V_{AC\ rms}$
Current daytime operation	$I_{\text{day}}$	1.1		1.9	$A_{AC\ rms}$
El. power daytime operation	$P_{\text{day}}$		20		$W_{\text{eff}}$
Voltage nighttime operation	$U_{\text{night}}$	7.2	8	9.0	$V_{AC\ rms}$
Current nighttime operation	$I_{\text{night}}$	0.9		1.4	$A_{AC\ rms}$
Frequency	$f$	47	50	53	Hz
Switch-off current	$I_{\text{off}}$			850	$mA_{AC\ rms}$
Switch-on	$U_{\text{on}}$	-	7	7.2	$V_{AC\ rms}$
Switch-on delay	$t_{\text{on}}$	-	90	150	ms
Undervoltage switch-off	$U_{\text{off}}$	5		6.9	$V_{AC\ rms}$
Flashing frequency (50/50)	$f_{\text{blink}}$	-	1	1.5	Hz

## Light distribution



Errors and technical modifications are excepted.

## LED Technology from Zelisko all over the World !



Country	Total ordered quantity
Austria	60650
Algeria	10036
Finland	6096
Romania	7488
Germany	3014
Bulgaria	4166
Turkey	4773
Switzerland	2112
Belgium	326
Greece	883
Tunisia	1216
Slovakia	1155
Italy	693
Estonia	47
Hungary	70
Sweden	212
Dominican Republic	350
Panama	148
Taiwan	209
Croatia	126
nicht erfasst	111
Denmark	50
Indonesia	36
Serbia	2
Hong Kong	9
Czech Republic	12
Spain	5
Slovenia	2
	103997



### Developed in Austria – Delivered worldwide !

After years of gaining experience with the delivery of LED signals in Austria, Zelisko started to look beyond the borders and is extending the market by participating in international projects. This page shows the most important references for Zelisko's LED signal technology. Beside safety level class SIL 4, best optical performance and compatibility with the most commonly used interlocking types are the key for success.

# LED Signal EU in operation: Switzerland, Bulgaria, Romania, Slovakia



**Wherever top quality is crucial  
for competitiveness, Zelisko offers  
cutting-edge technology!**

**Dr. techn. Josef Zelisko,  
Fabrik für Elektrotechnik und Maschinenbau  
Gesellschaft m.b.H.**

Beethovengasse 43-45  
2340 Mödling  
Austria  
Phone: +43 2236 409-2229  
Fax: +43 2236 409-2279  
[www.zelisko.com](http://www.zelisko.com)  
[www.knorr-bremse.com](http://www.knorr-bremse.com)



---

 **KNORR-BREMSE**

---

 **NEW YORK AIR BRAKE**

---

 **IFE**

---

 **MERAK**

---

 **MICROELETTRICA**

---

 **SELECTRON**

---

 **KIEPE ELECTRIC**

---

 **EVAC**

---

 **ZELISKO**

---

 **RAILSERVICES**

---