

Certificate of constancy of performance

Certificate number: 0958-CPR-1023/3

In compliance with Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction products Regulation or CPR), this certificate applies to the construction products

Fixed, vertical road traffic signs – fixed signs

Scope of certificate:

- Sign plates with sign face materials applied according to Table ZA.5

Road vertical signs – variable message traffic signs

Scope of certificate:

- Rotating prism continuous signs

With performances as on the next page(s).

placed on the market under the name or trade mark of

Signal AG

Industriezone kleine Ey
Kanalstrasse 34 – 38
CH-3294 BÜREN a/A
SWITZERLAND

and produced in the manufacturing plant

Signal AG
Industriezone kleine Ey
Kanalstrasse 34 – 38
CH-3294 Büren a/A
SWITZERLAND

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in (Annex ZA of the standards):

EN 12966-1:2005+A1:2009

EN 12899-1:2007

under system 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

constancy of performance of the construction product

This certificate was first issued on 21 November 2011 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

Culemborg, 12 March 2023



ing. L.J.M. Grannetia
Certification Manager



**Table 1: Characteristics and declarations covered by the FPC of Signal AG Rotating Prism VMS
OPEN and CLOSED version**

Essential characteristic	EN 12966-1 §	Characteristic	Method	Declared value/level/ class Rotating Prism VMS OPEN and CLOSED version
Structural performance				
Resistance to horizontal loads	8.3.2.1	Loads	EN 12899-1:2007 table 6: Safety factor table 7: Partial material factor table 8: Wind table 9: Snow Table 10: Point load	PAF2 PMF 1,15 WL7 ¹⁾ DSL2 ¹⁾ PL2 ¹⁾
	8.3.2.2	Deflections	EN 12899-1: 2007 table 11: Bending table 12: Torsion	TDB2 ¹⁾ TDT0 ¹⁾
Impact resistance	8.3.4	Impact resistance	EN 12966-1+A1:2009 table 13: EN 60598-1	Pass
Visibility characteristics				
Chromaticity Coordinates & Retro reflectivity	Applied are only EN 12899 CE certified Orafol retro-reflective sheeting materials ²⁾			
Durability				
Physical performance and optical performance	8.2	Environmental requirements	EN 12966-1+A1:2009 Table 13: impact test Table 14: vibration test Table 15: corrosion test Table 16: water penetration test Table 17: dust penetration test Table 18: temperature test	Pass Pass Pass IP-X4 IP-5X T1 and T2 and T3
Dangerous substances	13	Dangerous substances	According to national regulations of member state of destination	No release

- 1) Valid for dimensions up to length or height of 6,3 meter. For bigger dimensions, additional structural calculations will be performed separately to determine class/level; The dimension of the applied prisms are width 100 mm or 150 mm or 200 mm.
- 2) Applied retro-reflective sheeting materials are digitally printed with AGFA Anapuma H2050i LED printer with Orafol Oralite 6910 microprismatic class R3B covered with Oralite 5019 transparent overlay.

Tabel 2. Characteristics, value, level or class for vertical road traffic signs Signal AG (retro-reflective sheeting to ZA.1 and sign plates to ZA.5)

Characteristics	EN 12899-1 clause	Property	Method	Value/level/class
Resistance to horizontal loads				
Fixings	7.1.14		EN 1933-1-1; EN 1995-1-1; EN 1999-1-1	Pass
Wind actions	5.3.1	Windload		Sign plates: WL7
Temporary deflection - bending / - torsion	5.4.1	Temporary deflection - bending / - torsion		Sign plates: TDB4 TDT5
Dynamic load from snow clearance	5.3.2	Dynamic snow load		Sign plates DSL3
Point loads	5.3.3	Point load		Sign plates PL2
Permanent deflection	5.4.2	Bending		Pass
Partial safety factor	5.2			PAF1
Performance under vehicle impact (passive safety)	6.3	Performance under vehicle impact	EN 12767	Class 0
Visibility characteristics				
Retro-reflective signs				
Daylight chromaticity and luminance factor	4.1.1.3; 4.2	Daylight chromaticity	CIE 15; ETA	3M + Orafol CR2
		Luminance factor β		3M + Orafol CR2
Retro-reflection (coefficient of retro-reflection)	4.1.1.4; 4.2	Coefficient of retro-reflection RA	CIE 54.2; ETA	3M AEGP+Oralite 5710 RA1 3M HIP+Oralite 5810+5910 RA2 3M DG3+Oralite 6910 R3B
Durability				
Impact resistance - sign face material	4.1.2; 7.4.2.3; 7.2.2.2	Impact resistance	EN ISO 6272	Pass
Resistance to weathering - sign face material	4.1.1.5; 4.2	Daylight chromaticity	EN ISO 877:1996 / CIE 15 or ETA	3 years accelerated natural weathering test
		Luminance factor β		
		Coefficient of retro-reflection RA		
Resistance to accelerated artificial weathering - sign face material	4.1.1.5; 4.2	Daylight chromaticity	EN ISO 4892-2 / CIE 15 or ETA	Pass
		Luminance factor β		
		Coefficient of retro-reflection RA		
Corrosion resistance - Metals	7.1.7	Corrosion resistance		Signs: alumin EN-AW 1050 H24 or stainless steel V4A; class SP1