



TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.

Technical and Test Institute for Construction Prague

Akreditovaná zkušební laboratoř, Autorizovaná osoba, Notifikovaná osoba, Oznamovaný subjekt, Subjekt pro technické posuzování, Certifikační orgán, Inspekční orgán / Accredited Testing Laboratory, Authorized Body, Notified Body, Technical Assessment Body, Certification Body, Inspection Body. Prosecká 811/76a, 190 00 Praha 9 - Prosek, Czech Republic

Notified Body 1020

CERTIFICATE OF CONSTANCY OF PERFORMANCE

No. 1020 – CPR – 090-036209

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product:

Fixed, vertical road traffic signs
variant: large size traffic sign

placed on the market under the name or trade mark of

Signal sistem d.o.o

INo: HR92389180166

address: Grubišina Br. 15, 52100 Pula - Croatia

and produced in the manufacturing plant:

001

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard

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 6th October 2016 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product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

The stamp of the Notified Body 1020

Prague, 6th October 2016




Ing. Jozef Pöbiš
Manager of the Notified Body



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Notified Body 1020

Branch 0900 – Technical Engineering Services

REPORT

on the outcome of the assessment and verification of constancy
of performance of the product

according to the Regulation (EU) 305/2011 of the European Parliament and of the Council of 9 March 2011
(the Construction Products Regulation or CPR), Art. 1.2 of the Annex V

No. 090-036208

Product:

Fixed, vertical road traffic signs

variant: large size traffic sign

Producer:

Signal sistem d.o.o.

Identification No.: HR92389180166
Address: Grubišina Br. 15, 52100 Pula - Croatia
Producer: Signal sistem d.o.o
Address: Grubišina Br. 15, 52100 Pula - Croatia
Production plant1: Code format of production plant 001
Order: Z090160343

Number of report pages including title-page: 5

Number of Annexes: 0

Stamp of the Notified Body 1020

Prague, 6th October 2016



Roman Ondruška
Head Assessor

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Technický a zkušební ústav stavební Praha, s. p., Branch 0900-TIS, Prosecká 811/76a, 190 00 Prague, Czech Republic
Tel.: 286 019 400, Fax:+420 286 881 995, Web: +420 286 881 995, email: studnicka@tzus.cz, www.tzus.cz
Bank: KB Praha 1 Czech Republic, account No.: 1501-931/0100, ID No.: 000 15679, Tax No.: CZ00015679



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1. General

1.1 Information about the manufacturer

- Producer: Signal sistem d.o.o.
Grubišina Br. 15, 52100 Pula - Croatia, INo: HR92389180166
- Production plant 1 Code format of production plant 001

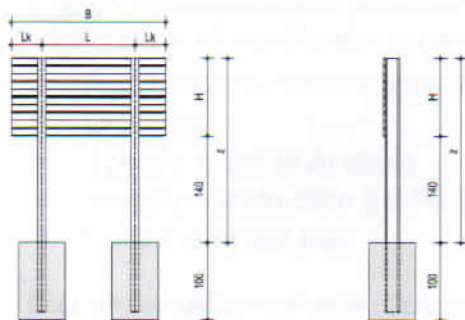
1.2 Information about the product and its intended use

Vertical traffic sign according EN 12899-1, is permanent determined to installation on the road.

Vertical traffic sign are composed from individual consecutive parts from steel or aluminum sheet and reinforcing profiles for informational road signs dimensions of 2500x1500 mm, according to EN 12899-1. These vertical traffic sign are designed for placement on poles, lattice structures, portals or semi-portals.

Materials, dimension and design of mechanical parts:

- Surface up 2 m²



$$z \leq 6,00 \text{ m}$$

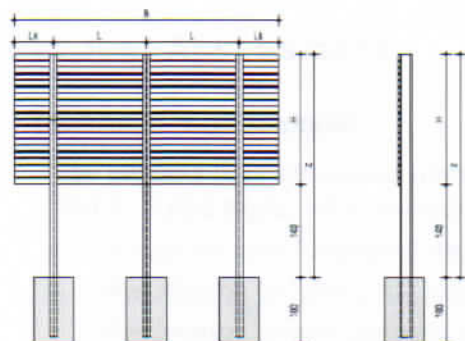
$$L \leq 1,40 \text{ m}$$

$$Lk \leq 0,70 \text{ m}$$

B - proizvoljno

H - proizvoljno, uz uvjet $H + 1,40 \text{ m} = z$

- Surface 2-8 m²



$$z \leq 6,00 \text{ m}$$

$$L \leq 1,40 \text{ m}$$

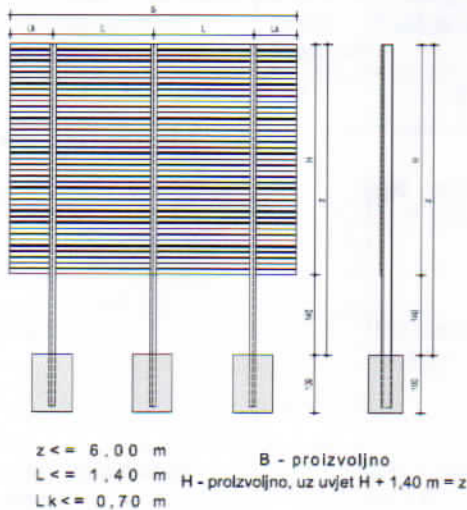
$$Lk \leq 0,70 \text{ m}$$

B - proizvoljno

H - proizvoljno, uz uvjet $H + 1,40 \text{ m} = z$



- Surface more than 8 m²



Assembly is doing according assembly instruction

1.3 List of documentation provided by the manufacturer to the assessment and verification of constancy of performance (AVCP)

- Application for performance of activity of notified body – AVCP system1
- Drawings
- Specific attest of AI sheet
- Assembly instruction SS-PS-007/5
- Control and test plan

1.4 List of the other documentation used during the product AVCP

- None

1.5 Technical specification relating to the AVCP

- EN 12899-1:2007 Fixed, vertical road traffic sign – Part 1: Fixed signs

1.6 Information about previous AVCP

The producer did not demonstrate any previous product certification.

2 Product Assessment

2.1 Technical requirements

The product was assessed under EN 12899-1:2007 Fixed, vertical road traffic sign – Part 1: Fixed signs, with respect to the following monitored properties:

- Structural and functional requirements
- Resistance to horizontal loads
- Resistance to atmospheric corrosion

2.2 List of the Test Reports:

- Calculation report "Statički proračun nosive konstrukcije za prometne znakove No. T.D. 985-5, issued STATIČKI PROJEKTNÍ URED G i F d.o.o. on January 2016



2.3 Evaluation of the results of the product tests and assessment

Monitored property	Test Protocol	Test procedure	Test result	Required / declared level	Evaluation
1	2	3	4	5	6
Resistance to horizontal loads					
Fixing		EN 12899-1:2007 cl. 7.1.14	assessment, product declaration Static calculation No. T.D. 855-5	R: condition cl. 7.1.14	Conforms
Wind load		EN 12899-1:2007 cl. 5.3.1	assessment, product declaration Static calculation No. T.D. 855-5	R: $WL7 = 1,4 \text{ kN.m}^{-2}$	conforms class WL7
Temporary deformation (sign plate) – bend – torsion		EN 12899-1:2007 cl. 5.4.1	assessment, product declaration Static calculation No. T.D. 855-5	R: bend $TDB6 = 100 \text{ mm.m}^{-1}$ torsion $TDT6 = 1,15 \text{ stup.m}^{-1}$	conforms class TDB6 class TDT6
Dynamic load at snow removal		EN 12899-1:2007 cl. 5.3.2		D: $DSL0 = NPD$	NPD
Point load		EN 12899-1:2007 cl. 5.3.3	assessment, product declaration Static calculation No. T.D. 855-5	R: min. $PL1 = 0,15 \text{ kN}$	conforms class PL1
Permanent deformation		EN 12899-1:2007 cl. 5.4.2	assessment, product declaration Static calculation No. T.D. 855-5	R: max. permanent deformation shall not exceed 20% elastic	conforms
Partial safety factor		EN 12899-1:2007 cl. 5.2	assessment, product declaration Static calculation No. T.D. 855-5	R: PAF2	conforms
Resistance to corrosion		EN 12899-1:2007 cl. 7.1.7	assessment, product declaration Static calculation No. T.D. 855-5	R: condition cl. 7.1.7	conforms

Evaluation conclusion: the product confirms to and complies with the declared purpose.

3 Factory Production Control Assessment

The product assessment was performed in the production plant 001 on 22th September 2016

3.1 Requirement of the technical specification regarding Factory Production Control:

The requirements on the production management system are stipulated in EN 12899-1:2007 Fixed, vertical road traffic sign – Part 4: Factory production control

3.2 Evaluation of the Factory Production Control assessment results:

- The technical documentation of the producer Signal sistem d.o.o and production plant 001 and 002 contain a description of the production management system in the internal document Technological Guideline for Fixed, vertical road sign.



2.3 Evaluation of the results of the product tests and assessment

Monitored property	Test Protocol	Test procedure	Test result	Required / declared level	Evaluation
1	2	3	4	5	6
Resistance to horizontal loads					
Fixing		EN 12899-1:2007 cl. 7.1.14	assessment, product declaration Static calculation No. T.D. 855-5	R: condition cl. 7.1.14	Conforms
Wind load		EN 12899-1:2007 cl. 5.3.1	assessment, product declaration Static calculation No. T.D. 855-5	R: $WL7 = 1,4 \text{ kN.m}^{-2}$	conforms class WL7
Temporary deformation (sign plate) – bend – torsion		EN 12899-1:2007 cl 5.4.1	assessment, product declaration Static calculation No. T.D. 855-5	R: bend $TDB6 = 100 \text{ mm.m}^{-1}$ torsion $TDT6=1,15 \text{ stup.m}^{-1}$	conforms class TDB6 class TDT6
Dynamic load at snow removal		EN 12899-1:2007 cl. 5.3.2		D: $DSL0 = \text{NPD}$	NPD
Point load		EN 12899-1:2007 cl. 5.3.3	assessment, product declaration Static calculation No. T.D. 855-5	R: min. $PL1 = 0,15 \text{ kN}$	conforms class PL1
Permanent deformation		EN 12899-1:2007 cl. 5.4.2	assessment, product declaration Static calculation No. T.D. 855-5	R: max. permanent deformation shall not exceed 20% elastic	conforms
Partial safety factor		EN 12899-1:2007 cl 5.2	assessment, product declaration Static calculation No. T.D. 855-5	R: PAF2	conforms
Resistance to corrosion		EN 12899-1:2007 cl. 7.1.7	assessment, product declaration Static calculation No. T.D. 855-5	R: condition cl. 7.1.7	conforms

Evaluation conclusion: the product confirms to and complies with the declared purpose.

3 Factory Production Control Assessment

The product assessment was performed in the production plant 001 on 22th September 2016

3.1 Requirement of the technical specification regarding Factory Production Control:

The requirements on the production management system are stipulated in EN 12899-1:2007 Fixed, vertical road traffic sign – Part 4: Factory production control

3.2 Evaluation of the Factory Production Control assessment results:

- The technical documentation of the producer Signal sistem d.o.o and production plant 001 and 002 contain a description of the production management system in the internal document Technological Guideline for Fixed, vertical road sign.



- The production management system complies with the technical documentation and ensures that the marketed products conform to the technical specifications, and is assessed as conforming

4 Conclusion

- The sample of product fulfils the requirements of the technical specification.
- The FPC is in accordance with the harmonised technical specification and ensures that the declared performances are achieved.
- Findings and conclusions mentioned in this Report are valid providing the conditions under which FPC assessment was carried out remain unchanged (e.g. technical regulations, technical specifications, production technology, incoming raw and manufacturing equipment).
- In compliance with provision of the CPR Art. 1.2, Annex V Surveillance Reports containing FPC assessment and evaluation have to be complementary to the technical documentation.

5 Annexes

The documents are not part of this Protocol and are kept by the author.

Prepared by: Roman Ondruška

