



CEN/TC 226 Secretariat
"Road equipment"
"Equipements de la route"
"Straßenausstattung"

CEN/TC 226 N 1456

2015-05-19

Convenor Report of CEN/TC 226/WG 11 “Variable message signs”

Action: 26th plenary meeting of CEN/TC 226, item 7.9

Source: Wolfgang Ernst, Convenor

Comments:



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CEN/TC 226/WG11 “Variable message traffic signs (VMS)”
Activity report of WG11
to the meeting of CEN/TC 226 on 11. 06 – 12. 06. 2015 in Berlin

Status of EN 12966-1:

EN 12966-1: 2005 +A1:2009 is applicable as a harmonised European standard since 1. August 2010.

Status of EN 12966-2:

This European Standard was approved by CEN on 15. March 2005

Status of EN 12966-3:

This European Standard was approved by CEN on 15. March 2005

Status of EN 12966:2014

Closing date of Formal voting: 17. September 2014

Result of voting

(National Members having abstained are not counted in this vote.)

Approved by National Members

National Members approving: 24

National Members disapproving: 0

Weighted percentage approving: 100.00 % (requirement $\geq 71\%$)

Editorial comments answered and addressed: 24. September 2014

Implementation Dates

date of Ratification (DOR) (1)	2014-10-18
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date of Availability (DAV) (2)	2014-12-10
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date of Announcement (DOA) (3)	2015-03-31
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date of Publication (DOP) (4)	2015-06-30
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date of Withdrawal (DOW) (5)	2016-09-30
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Relations

Supersedes

[EN 12966-3:2005](#)
[EN 12966-2:2005](#)
[EN 12966-1:2005+A1:2009](#)

Wolfgang Ernst
Convenor of WG11

Attachments: n1415_Result of Formal Vote on prEN 12966
FSP_ORG_ID,FSP.pdf (Implementation dates)



CEN/TC 226 Secretariat
"Road equipment"
"Equipements de la route"
"Straßenausstattung"

CEN/TC 226 N 1415

2014-09-23

Result of Formal Vote on WI 00226186

FprEN 12966 "Road vertical signs - Variable message traffic signs"

Action: For information

Source: NBSs

Comments: Next step: Ratification



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Voting Results:

Ballot Information:

Ballot reference:	FprEN 12966
Ballot type:	FV (Formal Vote)
English title:	Road vertical signs - Variable message traffic signs
French title:	Signaux de signalisation routière verticale - Panneaux à messages variable
German title:	Vertikale Verkehrszeichen - Wechselverkehrszeichen
Work Item Number:	00226186
Procedure Iteration:	1
Vienna Agreement Status:	None
Opening date:	2014-07-17
Initial closing date:	2014-09-17
Closing date:	2014-09-17
Note:	

Result of voting

(National Members having abstained are not counted in this vote.)

Approved by National Members

National Members approving: 24

National Members disapproving: 0

Weighted percentage approving: 100.00 % (requirement $\geq 71\%$)

1 **MB** = Member body (enter the ISO 3166 two-letter country code, e.g. CN for China)

2 **Type of comment:** ge = general te = technical ed = editorial

NB Columns 1, 2, 4, 5 are compulsory.

** = ISO/CS editing unit

Votes by National Members						
Country	Member	Participation	Approval	Disapproval	Abstention	Vote on dates
Austria	ASI	Member, Inside EEA	X *			Yes
Belgium	NBN	Member, Inside EEA	X *			No Answer
Bulgaria	BDS	Member, Inside EEA	X			Yes
Croatia	HZN	Member, Outside EEA	X			Yes
Cyprus	CYS	Member, Inside EEA			X *	Yes
Czech Republic	UNMZ	Member, Inside EEA	X			Yes
Denmark	DS	Member, Inside EEA	X			Yes
Estonia	EVS	Member, Inside EEA	X			Yes
Finland	SFS	Member, Inside EEA	X			Yes
France	AFNOR	Secretariat, Inside EEA	X			Yes
Germany	DIN	Member, Inside EEA	X *			Yes
Greece	NQIS ELOT	Member, Inside EEA				
Hungary	MSZT	Member, Inside EEA	X			No Answer
Iceland	IST	Member, Inside EEA			X *	Yes
Ireland	NSAI	Member, Inside EEA	X			Yes
Italy	UNI	Member, Inside EEA	X			Yes
Latvia	LVS	Member, Inside EEA	X			Yes
Lithuania	LST	Member, Inside EEA	X			Yes
Luxembourg	ILNAS	Member, Inside EEA			X *	Yes
Malta	MCCAA	Member, Inside EEA	X			Yes
Netherlands	NEN	Member, Inside EEA	X			Yes
Norway	SN	Member, Inside EEA	X			Yes
Poland	PKN	Member, Inside EEA			X *	No Answer
Portugal	IPQ	Member, Inside EEA			X *	Yes
Romania	ASRO	Member, Inside EEA	X			Yes
Slovakia	SOSMT	Member, Inside EEA			X *	No Answer
Slovenia	SIST	Member, Inside EEA	X			Yes
Spain	AENOR	Member, Inside EEA	X			Yes
Sweden	SIS	Member, Inside EEA	X *			Yes
Switzerland	SNV	Member, Outside EEA			X *	No Answer
The Former Yugoslav Republic of Macedonia	ISRM	Member, Outside EEA	X			Yes
Turkey	TSE	Member, Outside EEA			X *	No Answer
United Kingdom	BSI	Member, Inside EEA	X			Yes
TOTALS			24	0	8	
			(*) A comment file was submitted with this vote			

Comments on Implementation Dates

Country	Member	Participation	Answer
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Comments from Voters

Austria	ASI	Member, Inside EEA	FprEN_12966_ASI.doc
Belgium	NBN	Member, Inside EEA	FprEN_12966_NBN.doc
Cyprus	CYS	Member, Inside EEA	FprEN_12966_CYS.doc
Germany	DIN	Member, Inside EEA	FprEN_12966_DIN.doc
Iceland	IST	Member, Inside EEA	FprEN_12966_IST.doc
Luxembourg	ILNAS	Member, Inside EEA	FprEN_12966_ILNAS.doc
Poland	PKN	Member, Inside EEA	FprEN_12966_PKN.doc
Portugal	IPQ	Member, Inside EEA	FprEN_12966_IPQ.doc
Slovakia	SOSMT	Member, Inside EEA	FprEN_12966_SOSMT.doc
Sweden	SIS	Member, Inside EEA	FprEN_12966_SIS.doc
Switzerland	SNV	Member, Outside EEA	FprEN_12966_SNV.doc
Turkey	TSE	Member, Outside EEA	FprEN_12966_TSE.doc

1	2	3	4	5	6	7
MB ¹	Clause/ Subclause/ Annex/Figure/Table (e.g. 3.1, Table 2)	Paragraph/ List item/ Note/ (e.g. Note 2)	Type of com- ment ²	Comment (justification for change)	Proposed change	Secretariat observations on each comment submitted
AT	4.4.5, M.3, P.1	Figure 2 (Key) Figures M.2; M.3; M.4 (Keys) Figures P.1; P.2; P.3; P.4 (Keys)	ed	<p>German version:</p> <p>The indices and exponents; as well as the root signs are difficult to read. e.g. Key of table M.2:</p> $s_c = 33,9 \text{ mm}$ $r_c = 2$ $B = 0,5 \times s_c \times r_c \times \sqrt{3}$ $C = s_c$ $E = 0,809 \times (a - 2 \times b) \pm 8 \%$ $D = 0,5 \times (a - 2 \times b - e)$ $F > 0,36 \times e = 262,8$ $H = a - 0,5 \times s_c \times \sqrt{3}$ $p = (r_c \times h \times \pi) / s_c$ $s_c = 30,9 \text{ mm}$ $r_c = 1$ $a = 999,4 \text{ mm}$ $b = 58,7 \text{ mm}$ $c = 30,9 \text{ mm}$ $e = 730,0 \text{ mm}$ $d = 75,8 \text{ mm}$ $f = 380,0 \text{ mm}$ $h = 970,0 \text{ mm}$ $p = 176$	<p>Forward to DIN:</p> <p>Mend the appearance of the indices, exponents and root signs</p>	
AT	A.3.1	1 st formula	ed	<p>English version:</p> $A_e = n \times (S_{av})^2$ <p>German version:</p> $A_e = n \times (S_{av})^2$	Replace "A _e = n x (S _{av}) 2" by "A _e = n x (S _{av}) ² "	
AT	M.3	Table M.2	ed	<p>English version:</p> <p>2nd column; 6th row: "A"</p>	Replace "A" by "a"	
AT	Annex R	Paragraphs above the Figures R.4 and R.5	ed	<p>German version:</p> <p>References to the Figures H.4 and H.5</p>	<p>Forward to DIN:</p> <p>Replace "H.4" by "R.4" and "H.5" by "R.5"</p>	
AT	Annex R	Figure R.4	ed	<p>German version:</p> <p>Columns "LR" and "C"; row "weiß"; with the values "R34" and "C25"</p>	<p>Forward to DIN:</p> <p>Replace "R34" by "R3⁴" and "C25" by "C2⁵"</p>	
AT	Annex R	Figure R.5	ed	<p>German version:</p> <p>Column "Grün"; row "Gelb": "0,8 % %"</p>	<p>Forward to DIN:</p> <p>Delete the redundant percentage sign</p>	
AT	ZA.1	Table	ed	<p>German version:</p>	<p>Forward to DIN:</p>	

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NB Columns 1, 2, 4, 5 are compulsory.

MB/ NC ¹	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment ²	Comments	Proposed change	Observations of the secretariat
			ZA.1.1		The footnotes "f" and "g" do not appear in the table	Delete the footnotes "f" and "g"	
CY				ge	Lack of technical expertise		
DE		index		ge	References (page numbers) to Figures are incorrect.	Please update content –Figures.	
DE		index		ge	References (page numbers) to Tables are incorrect.	Please update content – Tables.	
DE		tables		ge	Table formats are not consistent.	Please check and use Table format 5 throughout the document.	
DE		Indexes/symbols		ge	Often indexes or symbols are not in the correct font. Symbols shall be in Times new roman in italics and indexes (if they are not variables) shall be in Arial.	Please check whole document.	
DE		3.18.1 and 3.18.2 and 3.18.3 and 3.18.4		ed	It would be more sensible to insert the variable into the headline in or to prevent having same headlines.	Change title by adding the index to the variables : luminance L_{a10} with external illumination luminance L_{a5} with external illumination luminance L_{b10} with external illumination luminance L_{b5} with external illumination	
DE		3.18.1and 3.18.2		ed	Wording is imprecise. Find better wording for "apparent luminance".	Substitute "apparent luminance" with "perceived luminance".	
DE		3.19		ed	Spelling mistake.	Please correct to read: emitted	
DE		New 3.19.1 and new 3.19.2		ed	Definitions are missing: Add new definitions for LR_{10} and LR_5 .	Please check and add definitions.	
DE		3.9		ed	Format of definition is incorrect. Add note to entry 1: See figure A.2.	Please check and add "note to entry 1: See Figure A.2.	
DE		3.29		ed	Format of definition is incorrect. Add note to entry 1: See 5.3.	Please check and add "note to entry 1: See 5.3.	

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MB/ NC ¹	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment ²	Comments	Proposed change	Observations of the secretariat
DE		4.4.1	Table 1, footnote c	ed	A comma is missing after L2.	Substitute the full stop with a comma.	
DE		4.4.2	Figure 1	ed	Wrong size.	Please check and adapt the size.	
DE		4.4.5	Figure 2	ed	Wrong size.	Please check and adapt the size.	
DE		4.5.2.4	Table 4	ed	Table format.	Please check format.	
DE		5.5.2	Table 24, note 2	ed	Indices are not in lower key.	Please check format.	
DE		5.3.2		ed	(1 350 × 1 350 × 500) mm	Please check and add spaces.	
DE		5.3.2	Figure 3	ed	Wrong size.	Please check and adapt the size.	
DE		5.4.3	Tables 18 – 23	ed	Table format.	Please check format.	
DE		5.5.1	Figure 4	ed	Wrong size.	Please check and adapt the size.	
DE		5.5.2	Tables 26 – 27	ed	Table format.	Please check format.	
DE		5.5.4.2	Figure 5	ed	Wrong size.	Please check and adapt the size.	
DE		6.2.1	2 nd para.	ed	2. para: ... in 4.4, 4.3 and 4.5...	Chronological enumeration: 4.3, 4.4 and 4.5	
DE		6.3.2.6		ed	Tables 31 and 32	Please check format.	
DE		7.2 b)		ed	<i>Missing space: Extremetemperature</i>	Please check and correct to read: extreme temperature	
DE		7.3 b)		ed	<i>Missing space: Extremetemperature</i>	Please check and correct to read: extreme temperature	
DE		7.4 b)		ed	<i>Missing space: Extremetemperature</i>	Please check and correct to read: extreme temperature	
DE		A.1	Figure A.1	ed	Wrong size.	Please check and adapt the size.	
DE		A.2	Key Figure A.2	ed		Please check format.	
DE		A.3.1	Figure A.4	ed	Wrong size.	Please check and adapt the size.	
DE		A.3.3	Figure A.6	ed	Wrong size.	Please check and adapt the size.	

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DE		A.3.2 and A.3.3	First sentences	ed	Wording should be consistent...	The symbol of the VMS may not only be...but also...	
DE		B2	Figure B.1	ed	Wrong size.	Please check and adapt the size.	
DE		B2	Key Figure B.1	ed		Please check format.	
DE		B2	Key Figure B.1	ed	The text in the key is wrong. Number 11 refers to accelerated weathering cause (natural, 3 years).	Please check and correct text in 11 .	
DE		B3	Figure B.2	ed	Wrong size.	Please check and adapt the size.	
DE		B3	Key Figure B.2	ed		Please check format.	
DE		B3	Key Figure B.2	ed	The text in the key is wrong. Number 13 refers to accelerated weathering cause (natural, 3 years).	Please check and correct text in 13 .	
DE		B4	Figure B.3	ed	Wrong size.	Please check Figure and column 15	
DE		B4	Figure B.3	ed	Wrong size.	Please check and adapt the size.	
DE		B4	Key Figure B.3	ed		Please check format.	
DE		B4	Key Figure B.3	ed	The text in the key is wrong for no.15. Please delete (P).	Please check and correct text in 15 .	
DE		L	Figure L.1	ed	Wrong size.	Please check and adapt the size.	
DE		L	Figure L.2	ed	Wrong size.	Please check and adapt the size.	
DE		M3	Table M.2	ed	Symbol for "side length of triangle" should not be capitalized.	Please check and substitute "A" with "a".	
DE		M	Figure M.1	ed	Wrong size.	Please check and adapt the size.	
DE		M	Figure M.2	ed	Wrong size.	Please check and adapt the size.	
DE		M	Figure M.3	ed	Wrong size.	Please check and adapt the size.	
DE		M	Figure M.4	ed	Wrong size.	Please check and adapt the size.	
DE		M	Figure M.4, Key	ed	Superfluous line.	Please delete superfluous empty line in key.	

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DE		M	Figure M.5	ed	Wrong size.	Please check and adapt the size.	
DE		M	Figure M.6	ed	Wrong size.	Please check and adapt the size.	
DE		M	Figure M.7	ed	Wrong size.	Please check and adapt the size.	
DE		M	Figure M.8	ed	Wrong size.	Please check and adapt the size.	
DE		M	Figure M.9	ed	Wrong size.	Please check and adapt the size.	
DE		M	Figure M.10	ed	Wrong size.	Please check and adapt the size.	
DE		N	Figure N.1	ed	Wrong size.	Please check and adapt the size.	
DE		N	Figure N.2	ed	Wrong size.	Please check and adapt the size.	
DE		N	Key Figure N.2	ed		Please check format.	
DE		N	Figure N.3	ed	Wrong size.	Please check and adapt the size.	
DE		N	Figure N.4	ed	Wrong size.	Please check and adapt the size.	
DE		N	Key Figure N.4	ed		Please check format.	
DE		N	Figure N.5	ed	Wrong size.	Please check and adapt the size.	
DE		N	Key Figure N.5	ed		Please check format.	
DE		N	Figure N.6	ed	Wrong size.	Please check and adapt the size.	
DE		N	Key Figure N.6	ed		Please check format.	
DE		N	Figure N.7	ed	Wrong size.	Please check and adapt the size.	
DE		N	Key Figure N.7	ed		Please check format.	
DE		N	Figure N.8	ed	Wrong size.	Please check and adapt the size.	
DE		N	Key Figure N.8	ed		Please check format.	
DE		O.9	Aufzählung	ed		Integration of enumeration into text.	

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MB/ NC ¹	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment ²	Comments	Proposed change	Observations of the secretariat
DE		P	Figure P.1	ed	Wrong size.	Please check and adapt the size.	
DE		P	Key Figure P.1	ed		Please check format.	
DE		P	Figure P.2	ed	Wrong size.	Please check and adapt the size.	
DE		P	Figure P.3	ed	Wrong size.	Please check and adapt the size.	
DE		P	Figure P.4	ed	Wrong size.	Please check and adapt the size.	
DE		Q.1	enumeratio n	ed		Integration of enumeration into text.	
DE		Q.2	enumeratio n	ed		Integration of enumeration into text.	
DE		Q.3	enumeratio n	ed		Integration of enumeration into text.	
DE		Q.4	enumeratio n	ed		Integration of enumeration into text.	
DE		Annex R	Footnotes in tables	ed	Renumber the footnotes for each figure/table separately. Consecutive footnotes are not sensible.	Renumber each footnote per Figure/Table.	
DE		Annex R	Figure R.1	ed	Table format impractical.	Convert table into figure.	
DE		Annex R	Figure R.2	ed	Table format impractical.	Convert table into figure.	
DE		Annex R	Figure R.3	ed	Table format impractical.	Convert table into figure.	
DE		Annex R	Figure R.4	ed	Table format impractical.	Convert table into figure.	
DE		Annex R	Figure R.4, footnote 4	ed	LR and LR (*) are lacking the numbers.	Please check and specify: LR ₁₀ and LR ₅	
DE		Annex R	Figure R.5	ed	Table format impractical.	Convert table into figure.	
DE		Annex R	Figures R.2 to R.5	ed	Seek better wording for title of last column.	Ratio of operating current to maximum allowed LED-current.	
DE		Annex ZA	Table ZA.1.1	ed		Please check format.	
DE		Annex ZA	Table ZA.1.2	ed		Please check format.	

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LU		GENERAL		ge	No available expertise in Luxembourg on Subject Matter		
PT					No comments		
IS				ge	Abstention - Lack of expertise.		
BE		3	3.19	ed	...to the luminance emitted...	... to the luminance emitted...	
BE		4.4.3.2.	Table 4 Table 5 Table 6 Table 7 Table 8 Table 9	te	For luminance classes L2 and L3: Le(min) and La(max) values are indicated. However for the L1 class La(min) and La(max) are indicated. So for class L1 the minimum value is indicated as La(min) – means with external illumination – Should this not be Le(min) also for class L1?	Depending on the answer of the question raised, potentially change La(min) into Le(min) for class L1 for tables 4, 5, 6 7, 8 and 9.	
BE		4.4.4.	Table 10	ed	Vertical off axis	Off reference axis	
BE		5.5.4.4.2.	Formula	ed	There is no explanation for the value L _b . Should L _b be replaced with L _{b10} in this case?	Depending on the answer to the raised question, replace L _b by L _{b10} in the formula mid page 43.	
BE		6.2.1.		ed	All performances related to characteristics included in 4.4, 4.3 and 4.5	All performances related to characteristics included in 4.3, 4.4 and 4.5	
BE		6.3.		ed	Factory production control is no longer part of 3. Terms and definitions. Add the term FPC to the definition list	Add FPC to clause 3, using the text of previous version of the standard (permanent internal control of production exercised by the product manufacturer).	
BE		A.2.	Figure A.2. Key	ed	In the legend explaining the meaning of the numbers of the figure, the position of nr. 4 is unclear.	Correct the position of nr. 4 to be in line with the text "horizontal element spacing, width of equivalent area of an element (Sh)	
BE		A.3.1.	Formula	ed	$A_e = n \times (S_{av})^2$. Should the 2 be a square, like in previous version of the standard. If so use superscript for 2.	Depending on answer to the raised question, change the formula to: $A_e = n \times (S_{av})^2$	
BE		B.2.	Figure B.1. Key	ed	Text for Key nr. 10 and 11 not so clear.	Change line spacing for nr. 10.	

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BE		L	Figure L.2.	ed	Numbers on the drawing hard to recognize	Increase size of picture similar to previous version of the standard.	
BE		N.3.	Figure N.1. Figure N.2. Figure N.3. Figure N.4.	ed	Picture size is relatively small	Increase size of the drawing to have a better view.	
BE		N.4.4.		ed	...depending on character height speed limit and vertical beam width...	...depending on character height, speed limit and vertical beam width...	
SE		4.4.5	Table 11	ed	B2 occurs twice in the table for beam width class.	Change to B3 on the third line.	
SE		Annex L	Figure L.2	ed	The figure is too small, digits are illegible.	Increase size of figure and digits.	
SE		Annex M	Figures M. 1 – 5	ed	The figure is too small, digits are illegible.	Increase size of figure and digits.	
SE		Annex M	Figures M. 6 – 10	ed	The figures have random sizes. The difference between the cases is better demonstrated if all examples are the same size.	Make the figures the same size.	
SE		Annex N	Figures N.2-8	ed	The figures are too small, digits are illegible.	Increase size of figure and digits.	
SE		Annex ZA		ed	In Tables ZA.1.1 and 1.2 the intended use is mobile, temporary or permanently installed VMS. This is description is also used in figures ZA.1 to 6. The CPR states in article 2 that “‘construction product’ means any product or kit which is produced and placed on the market for incorporation in a permanent manner”. Chapter II of the CPR handles Declaration of performance and CE for construction products. This implies that mobile and temporary installed	Remove references to mobile and temporary installed VMS in Annex ZA. This since the procedure for CE marking are only located in the Annex ZA.	

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Template for comments and secretariat observations

Date: 2014-09-15	Document: FprEN 12966 Review	Project:00226186
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MB/ NC ¹	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment ²	Comments	Proposed change	Observations of the secretariat
					VMS cannot be CE marking as a construction product according to CPR.		
CH					Abstain due to no answer from the national experts		
SK				ge	No available expertise		
TR					ABSTAINS		

1 **MB** = Member body / **NC** = National Committee (enter the ISO 3166 two-letter country code, e.g. CN for China; comments from the ISO/CS editing unit are identified by **)

2 **Type of comment:** **ge** = general **te** = technical **ed** = editorial

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CEN/TC 226 - Road equipment

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Project

Reference EN 12966:2014

Title Road vertical signs - Variable message traffic signs

Work Item Number 00226186

Abstract/Scope

This European Standard provides specifications for two types of variable message signs (VMS); i.e. continuous (see 3.4) and discontinuous (see 3.7). This European Standard covers mobile, temporary and permanently installed VMS used in circulation areas, on public and private land, including tunnels for the information, guidance, warning and/or direction of traffic. Test modules are used to demonstrate compliance with the requirements. This European Standard specifies visual and physical characteristics of VMS as well as their durability aspects. It also provides relevant requirements and corresponding test methods, assessment and verification of constancy of performance (AVCP) and marking. NOTE Provisions for the evaluation of conformity with regards to type testing are further specified in 6.2; provisions with regards to factory production control (FPC) are further specified in 6.3. This European Standard does not cover a) sign gantries, cantilevers, posts (supports) and foundations, b) signal heads, c) sizes and shapes of VMS messages, d) control units and monitoring units unless inside the VMS, e) control of sign luminance.

Status Published

Reference Document

date of Availability (DAV) 2014-12-10

ICS 93.080.30 - Road equipment and installations

Legal

Directive(s) 305/2011

Mandate(s) M/111

Citation in OJEU 305/2011 (Expected)

Implementation Dates

date of Ratification (DOR) (1) 2014-10-18

date of Availability (DAV) (2) 2014-12-10

date of Announcement (DOA) (3) 2015-03-31

date of Publication (DOP) (4) 2015-06-30

date of Withdrawal (DOW) (5) 2016-09-30

Relations

Supersedes

[EN 12966-3:2005](#)
[EN 12966-2:2005](#)
[EN 12966-1:2005+A1:2009](#)

Normative reference (6)

Sales Points



- (1) Date of ratification (dor) date when the Technical Board notes the approval of an EN (and HD for CENELEC), from which time the standard may be said to be approved
- (2) Date of availability (dav) date when the definitive text in the official language versions of an approved CEN/CENELEC publication is distributed by the Central Secretariat
- (3) Date of announcement (doa) latest date by which the existence of an EN (and HD for CENELEC), a TS or a CWA has to be announced at national level
- (4) Date of publication (dop) latest date by which an EN has to be implemented at national level by publication of an identical national standard or by endorsement
- (5) Date of withdrawal (dow) latest date by which national standards conflicting with an EN (and HD for CENELEC) have to be withdrawn
- (6) This list of normative references is purely indicative. The only official list of normative reference is the list of the published standard.