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Item 3.2. of the provisional agenda

REGULATION No. 37
(Filament lamps)

Provisions for new filament lamp categories

Proposal for draft Supplement 29 to the 03 series of amendments to Regulation No. 37

Submitted by the expert from the Working Party "Brussels 1952"

The text reproduced below was prepared by the expert from the Working Party "Brussels 1952" (GTB) in order to insert into the Regulation provisions for new amber filament light sources of categories HY6W and HY21W. The modifications to the existing text of the Regulation (up to Supplement 28 to the 03 series of amendments) are marked in **bold** characters.

Note: This document is distributed to the Experts of the Working Party on Lighting and Light-Signalling (GRE) only.

A. PROPOSAL

Annex 1,

The list of categories of filament lamps and their sheets, amend to read:

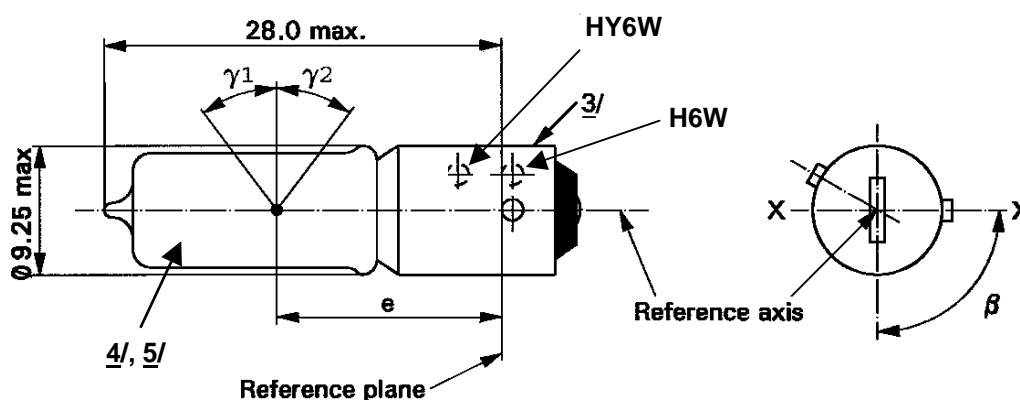
" Category	Sheet number(s)
only for signalling lamps:	
....
H6W	H6W/1
HY6W	H6W/1
HY21W	H21W/1 to 2
P13W	P13W/1 to 3
.... "	

Sheets H6W/1 and H21W/1, amend to read (see next pages):

CATEGORIES H6W AND HY6W

Sheet H6W/1

The drawings are intended only to illustrate the essential dimensions (in mm) of the filament lamp



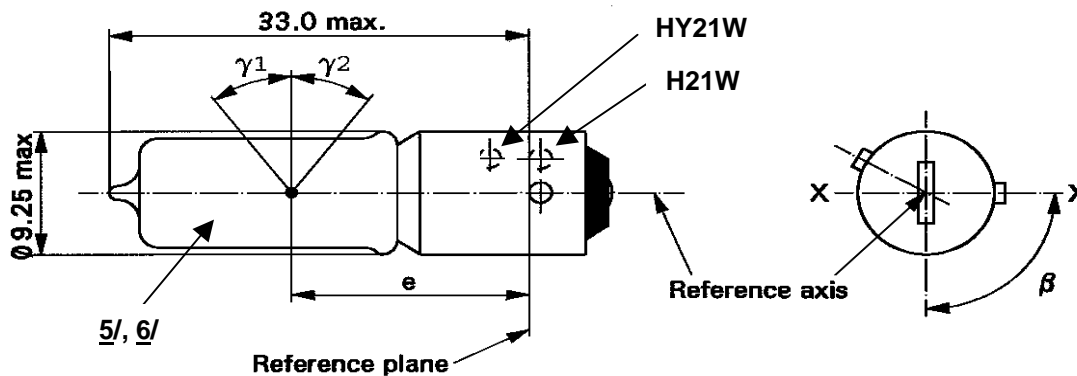
Dimensions in mm		Filament lamps of normal production			Standard filament lamp
		min.	nom.	max.	
e		14.25	15.0	15.75	15.0 ± 0.25
Lateral deviation	<u>1/</u>			0.75	0.4 max
α		82.5°	90°	97.5°	90° ± 5°
γ_1, γ_2	<u>2/</u>	30°			30° min.
Cap:	H6W: BAX9s HY6W: BAZ9s	in accordance with IEC Publication 60061 (sheet 7004-8-1) in accordance with IEC Publication 60061 (sheet 7004-150-1)			
ELECTRICAL AND PHOTOMETRIC CHARACTERISTICS					
Rated values	Volts	12			12
	Watts	6			6
Test voltage	Volts	13.5			13.5
Objective values	Watts	7.35 max.			7.35 max.
	Luminous flux	H6W	125 ± 12 %		
		HY6W	75 ± 17 %		
Reference luminous flux at approximately 13.5 V					White:125 lm Amber:75 lm

- 1/ Maximum lateral deviation of filament centre from two mutually perpendicular planes both containing the reference axis and one containing axis X-X.
- 2/ In the area between the outer legs of the angles γ_1 and γ_2 , the bulb shall have no optically distorting areas and the curvature of the bulb shall have a radius not less than 50 per cent of the actual bulb diameter.
- 3/ Over the entire length of the cap there shall be no projections or soldering exceeding the permissible maximum diameter of the cap.
- 4/ The light emitted from filament lamps of normal production shall be white for category H6W and amber for category HY6W.
- 5/ The light emitted from standard filament lamps shall be white for category H6W and amber or white for category HY6W.

CATEGORIES H21W AND HY21W

Sheet H21W/1

The drawings are intended only to illustrate the essential dimensions (in mm) of the filament lamp



Dimensions in mm		Filament lamps of normal production			Standard filament lamp
		min.	nom.	max.	
e			20.0 <u>1/</u>		20.0 ± 0.25
f	12 V			3.8	3.8 + 0/ - 1
	24 V			4.5	
Lateral deviation <u>2/</u>				<u>1/</u>	0.0 ± 0.15 <u>3/</u>
β		82.5°	90°	97.5°	90° ± 5°
γ1, γ2 <u>4/</u>		45°			45° min.
Cap:	H21W: BAY9s HY21W: BAW9s	in accordance with IEC Publication 60061 (sheet 7004-9-1) in accordance with IEC Publication 60061 (sheet 7004-149-1)			
ELECTRICAL AND PHOTOMETRIC CHARACTERISTICS					
Rated values	Volts	12	24	12	
	Watts	21	21	21	
Test voltage	Volts	13.5	28.0	13.5	
Objective values	Watts	26.25 max.	29.4 max.	26.25 max.	
	Luminous flux	H21W	600 ± 12 %	600 ± 15 %	
		HY21W	300 ± 17 %	300 ± 20 %	
Reference luminous flux at approximately		12 V		White: 415 lm	
		13.2 V		White: 560 lm	
		13.5 V		White: 600 lm Amber: 300 lm	

- 1/ To be checked by means of a "Box system", sheet H21W/2.
- 2/ Maximum lateral deviation of filament centre from two mutually perpendicular planes both containing the reference axis and one containing axis X-X.
- 3/ The lateral deviation with respect to the plane perpendicular to axis X-X is measured in the position described in paragraph 1. of the test procedure specified on sheet H21W/2.
- 4/ In the area between the outer legs of the angles γ1 and γ2, the bulb shall have no optical distorting areas and the curvature of the bulb shall have a radius not less than 50 per cent of the actual bulb diameter.
- 5/ The light emitted from filament lamps of normal production shall be white for category H21W and amber for category HY21W.
- 6/ The light emitted from standard filament lamps shall be white for category H21W and amber or white for category HY21W."

Sheet H21W/2, the title, amend to read: "CATEGORIES H21W AND HY21W".

B. JUSTIFICATION

H6W and H21W are the original */ categories of halogen signalling light sources. Due to the technical progress, now it is possible to produce also amber versions of these light sources. Although the transmission factor of the amber filters for higher wattages is somewhat lower (approximately 50 instead of 60 per cent), due to the necessity of other materials that are more resistant to higher bulb wall temperatures, the overall efficiency of light generation is still higher than the one of non-halogen filament lamps.

The introduction of the amber versions HY6W and HY21W is proposed because of the market demand for their optical quality aspects like dimensions and precision of the filament, and their external dimensions like built-in depth. Moreover, halogen light sources, in general, perform better with regard to their lifetime.

*/ As from Supplement 25 to the 03 series of amendments to Regulation No. 37, light sources of all categories may include a halogen type light source.
