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IS : 2418 (Part IV) - 1977
(Reaffirmed 1992)

Indian Standard

SPECIFICATION FOR TUBULAR FLUORESCENT LAMPS FOR GENERAL LIGHTING SERVICE

PART IV GO AND NO-GO GAUGES FOR G-5 AND G-13 BIPIN CAPS

(First Revision)

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Indian Standard

SPECIFICATION FOR TUBULAR FLUORESCENT LAMPS FOR GENERAL LIGHTING SERVICE

PART IV GO AND NO-GO GAUGES FOR G-5 AND G-13 BIPIN CAPS

(*First Revision*)

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*Indian Standard***SPECIFICATION FOR TUBULAR FLUORESCENT
LAMPS FOR GENERAL LIGHTING SERVICE****PART IV GO AND NO-GO GAUGES FOR G-5 AND
G-13 BIPIN CAPS***(First Revision)***0. FOREWORD**

0.1 This Indian Standard (Part IV) was adopted by the Indian Standards Institution on 21 September 1977, after the draft finalized by the Electric Lamps and Accessories Sectional Committee had been approved by the Electrotechnical Division Council.

0.2 This standard (Part IV) has been prepared to cover the dimensions of 'go' and 'no-go' gauges for bipin lamp caps of types G-5 and G-13. This shall be read in conjunction with the following:

IS : 2418 (Part I)-1977 Specification for tubular fluorescent lamps for general lighting service: Part I Requirements and tests (*first revision*)

IS : 2418 (Part II)-1977 Specification for tubular fluorescent lamps for general lighting service: Part II Standard lamp data sheets (*first revision*)

IS : 2418 (Part III)-1977 Specification for tubular fluorescent lamps for general lighting service: Part III Dimensions of G-5 and G-13 bipin caps (*first revision*)

0.3 While preparing this standard, considerable assistance has been derived from IEC Pub 61-3(1969) Lamp caps and holders together with gauges for the control of interchangeability and safety, Part 3: Gauges, published by the International Electrotechnical Commission.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (*revised*).

1. SCOPE

1.1 This standard (Part IV) specifies the essential dimensions of ' go ' and ' no-go ' gauges for bipin caps of types G-5 and G-13 for use on finished and unfinished lamps. This standard also specifies the method of testing for dimensions of the bipin caps with these gauges.

2. DIMENSIONS OF GAUGES

2.1 The dimensions of gauges shall be in accordance with the appropriate tables given below:

- | | |
|---|---------|
| a) Go and no-go gauge for bipin cap G-5
(not for use on finished lamps) | Table 1 |
| b) Go and no-go gauge bipin cap G-5
(for use on finished lamps) | Table 2 |
| c) Go and no-go gauge for bipin cap G-13
(not for use on finished lamps) | Table 3 |
| d) Go and no-go gauge for bipin cap G-13
(for use on finished lamps) | Table 4 |

3. TESTS FOR DIMENSIONS OF BIPIN CAPS

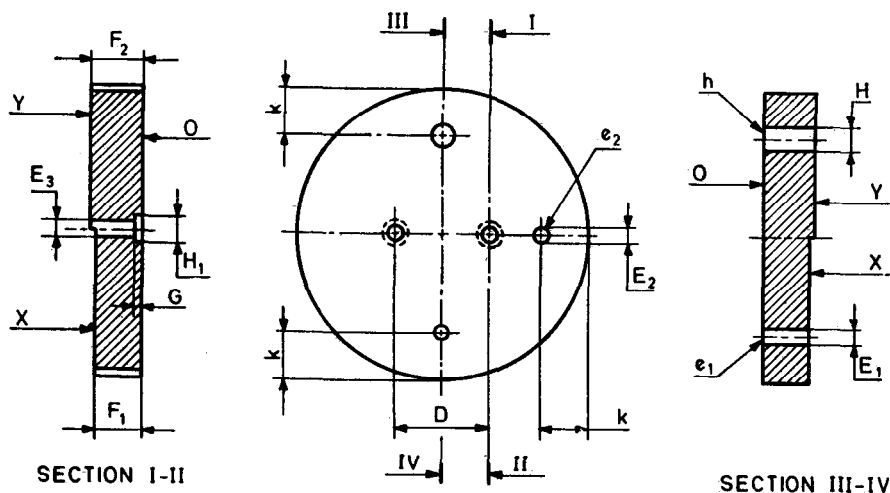
3.1 On Unfinished Lamps — The pins of the caps shall enter the gauge at surface O and when fully inserted, the surfaces of cap and gauge shall contact. In this position the ends of the pins shall not be below surface X nor shall they project beyond surface Y . The individual pin shall enter the hole e_2 until the boss of the pin and the surface of the gauge contact, but it shall not enter the hole e_1 . The boss of the pin shall enter the hole h until the surfaces of cap and gauge contact (*see Table 1 and Table 3*).

3.2 On Finished Lamps — The pins of the caps on finished lamps shall enter the gauge at surface O and when fully inserted, the surfaces of cap and gauge shall contact. In this position the ends of the pins shall not be below surface X nor shall they project beyond surface Y . The individual pin shall enter hole e_1 , until the boss of the pin and the surface of the gauge contact (*see Table 2 and Table 4*).

**TABLE 1 GO AND NO-GO GAUGES FOR BIPIN CAP G-5
(NOT FOR USE ON FINISHED LAMPS)**

(*Clauses 2.1 and 3.1*)

All dimensions in millimetres.



REFERENCE

DIMENSIONS

TOLERANCE

D	4.75	+0.005 -0.005
E_1	2.29	+0.0 -0.01
E_2	2.44	+0.01 -0.0
E_3	2.60	+0.01 -0.0
F_1	6.60	+0.0 -0.025
F_2	7.29	+0.025 -0.0
G	1.27	+0.025 -0.0
H	3.30	+0.01 -0.0
H_1	3.61	+0.025 -0.0
k	3 Max	—

NOTE 1 — This gauge is for the control of dimensions E Min, E Max, F Min, F Max (1), G Max, H Max and the combined pin diameter and displacement of pins (including bosses) as specified in IS : 2418 (Part III)-1977*.

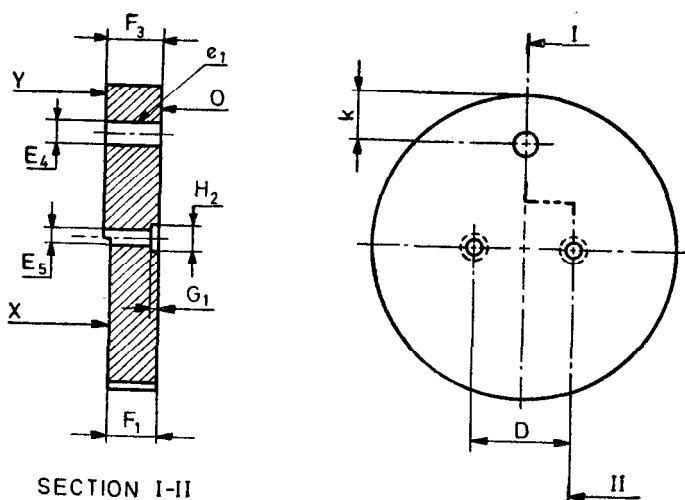
NOTE 2 — The control of dimensions F Max only applies when soldering is used in fastening the lead wire.

*Specification for tubular fluorescent lamps for general lighting service: Part III Dimensions of G-5 and G-13 bipin caps (first revision).

**TABLE 2 GO AND NO-GO GAUGES FOR BIPIN CAP G-5
(FOR USE ON FINISHED LAMPS)**

(*Clauses 2.1 and 3.2*)

All dimensions in millimetres.



REFERENCE	DIMENSION	TOLERANCE
D	4.75	+0.005 -0.005
E_4	2.67	+0.01 -0.0
E_5	2.79	+0.01 -0.0
F_1	6.60	+0.0 -0.025
F_3	7.77	+0.025 -0.0
G_1	1.5 Approx	--
H_2	4 Approx	--
k	3 Max	--

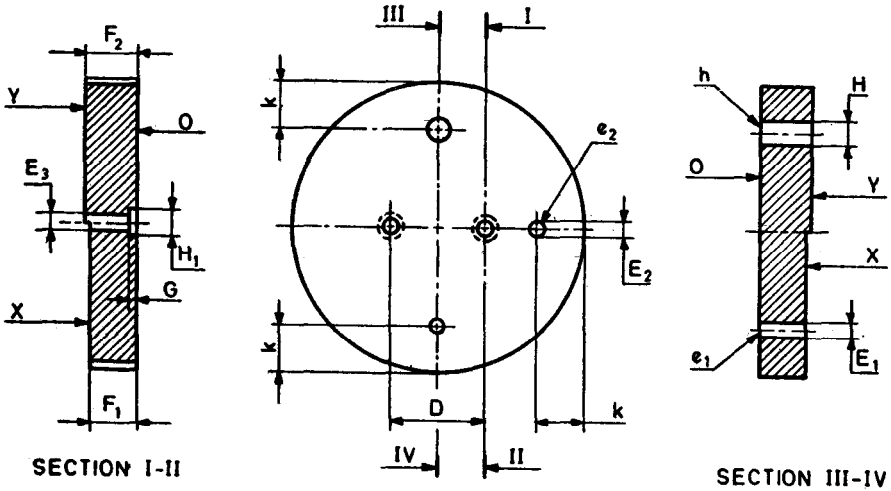
NOTE — This gauge is for the control of dimensions E Max, F Min, F Max and the combined pin diameter and displacement of pins (including bosses) as specified in IS : 2418 (Part III)-1977*.

*Specification for tubular fluorescent lamps for general lighting service: Part III Dimensions of G-5 and G-13 bipin caps (first revision).

**TABLE 3 GO AND NO-GO GAUGE FOR BIPIN CAP G-13
(NOT FOR USE ON FINISHED LAMPS)**

(*Clauses 2.1 and 3.1*)

All dimensions in millimetres.



REFERENCE

DIMENSIONS

TOLERANCE

 D

12.70

+0.005

 E_1

2.29

-0.005

 E_2

2.44

+0.0

 E_3

2.60

-0.01

 F_1

6.60

+0.01

 F_2 (1)

7.29

-0.0

 G

1.27

+0.01

 H

3.30

-0.0

 H_1

3.61

+0.025

 k

11 Max

-0.0

+0.025

-0.0

+0.025

-0.0

+0.01

-0.0

+0.025

-0.0

NOTE 1 — This gauge is for the control of dimensions E Min, E Max, F Min, F Max (1), G Max, H Max and the combined pin diameter and displacement of pins [including the bosses as specified in IS : 2418 (Part III)-1977*].

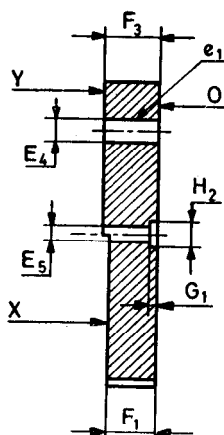
NOTE 2 — The control of dimension F Max only applies when soldering is used in fastening the lead wire.

*Specification for tubular fluorescent lamps for general lighting service: Part III Dimensions of G-5 and G-13 bipin caps (first revision).

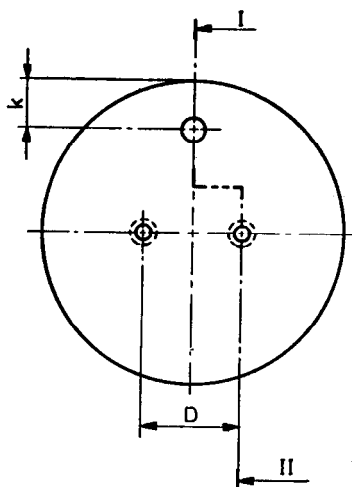
**TABLE 4 GO AND NO-GO GAUGE FOR BIPIN CAP G-13
(FOR USE ON FINISHED LAMPS)**

(*Clauses 2.1 and 3.2*)

All dimensions in millimetres.



SECTION I-II



REFERENCE	DIMENSION	TOLERANCE
<i>D</i>	12.70	+0.005 -0.005
<i>E₄</i>	2.67	+0.01 -0.0
<i>E₅</i>	2.79	+0.01 -0.0
<i>F₁</i>	6.60	+0.0 -0.025
<i>F₃</i>	7.77	+0.025 -0.0
<i>G₁</i>	1.5 Approx.	—
<i>H₂</i>	4 Approx.	—
<i>k</i>	11 Max	—

NOTE — This gauge is for the control of dimensions *E Max*, *F Min*, *F Max* and the combined pin-diameter and displacement of pins (including bosses) as specified in IS : 2418 (Part III)-1977*.

*Specification for tubular fluorescent lamps for general lighting service: Part III Dimensions of G-5 and G-13 bi-pin caps (*first revision*).

(Continued from page 2)

Panel for Tubular Fluorescent Lamps, ETDC 23: P4

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