



DPC: 19/30374200 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: +44 (0)20 8996 9000

Fax: +44 (0)20 8996 7400

www.bsigroup.com

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Project No. 2018/00600

Responsible committee: EPL/76 Optical radiation safety and laser equipment

Interested committees:

Title: Draft BS IEC 60825-18 Ed.1.0 Guided beam delivery systems.

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

WARNING: THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A BRITISH STANDARD. THIS DRAFT IS NOT CURRENT BEYOND 30 August 2019

This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

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Information on the co-operating organizations represented on the committees referenced above may be obtained from <https://standardsdevelopment.bsigroup.com/>.

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



76/636/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER:

IEC 60825-18 ED1

DATE OF CIRCULATION:

2019-08-02

CLOSING DATE FOR COMMENTS:

2019-09-27

SUPERSEDES DOCUMENTS:

76/590/NP, 76/597/RVN

IEC TC 76 : OPTICAL RADIATION SAFETY AND LASER EQUIPMENT

SECRETARIAT:

United States of America

SECRETARY:

Mr William Ertle

OF INTEREST TO THE FOLLOWING COMMITTEES:

PROPOSED HORIZONTAL STANDARD:



Other TC/SCs are requested to indicate their interest, if any, in this CD to the secretary.

FUNCTIONS CONCERNED:

☐ EMC

☐ ENVIRONMENT

☐ QUALITY ASSURANCE

☒ SAFETY

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

TITLE:

IEC 60825-18: Guided beam delivery systems

NOTE FROM TC/SC OFFICERS:

This CD is being circulated for 8 weeks so as to have comments received for discussions at our upcoming Plenary Meeting in Raleigh, NC, from September 29 - October 4. The CC will be circulated immediately upon

the closing of the CD, without the Observations of the Secretariat, so that National Committees can review the

comments for Raleigh. A revised CC, with the Observations of the Secretariat, will be circulated approximately

30-days post Raleigh.

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SAFETY OF LASER PRODUCTS –

Guided beam delivery systems

1 Scope

This International Standard gives requirements for the arrangement, installation and use of guided beam delivery systems. Laser beams can be propagated through air, gas or vacuum, whether enclosed or not (free space), and through fibre optic cables in laser processing applications.

This International Standard is applicable to the protective measures implemented to protect personnel against laser radiation hazards for guided beam delivery systems after the output coupler and/or the protective housing of the laser product (the requirements of which are specified in IEC 60825-1).

This International Standard compliments the requirements applicable to the laser guards for high power laser applications which are specified in IEC 60825-4.

This International Standard specifies methods for assessing the risks (including reasonably foreseeable use, abuse and misuse) and provides examples of control measures to meet the normative requirements of IEC 60825-1 and this document.

This International Standard is not applicable to:

- Embedded beam delivery components and systems inside the protective housing of the laser radiation generator;
- communications applications;
- Medical applications;
- electrical power distribution applications.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60825-1:2014 *Safety of laser products – Part 1: Equipment classification and requirements*

IEC 60825-4 *Safety of laser products — Part 4: Laser guards*

IEC 61508 *Functional safety of electrical/electronic/programmable electronic safety-related systems – ALL PARTS*

ISO 12100 *Safety of machinery -- General principles for design -- Risk assessment and risk reduction*

ISO 13849-1 *Safety of machinery -- Safety-related parts of control systems -- Part 1: General principles for design*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply. They are in addition to those given in IEC 60825-1 or other parts of IEC 60825.