

INTERNATIONAL STANDARD

NORME INTERNATIONALE

QC 910005XX0003

**Fibre optic interconnecting devices and passive components – Connectors for optical fibres and cables –
Part 19-3: Fibre optic adaptor (duplex) type SC for multimode fibre connectors –
Detail specification**

**Dispositifs d'interconnexion et composants passifs à fibres optiques –
Connecteurs pour câbles et fibres optiques –
Partie 19-3: Adaptateur (duplex) pour fibres optiques de type SC pour
connecteurs pour fibres multimodes – Spécification particulière**



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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – CONNECTORS FOR OPTICAL FIBRES AND CABLES –

Part 19-3: Fibre optic adaptor (duplex) type SC for multimode fibre connectors – Detail specification

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International Standard IEC 60874-19-3 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 1999. It constitutes a technical revision and the modal condition for the measurement is harmonised with IEC 61300-1.

The text of this standard is based on the following documents:

FDIS	Report on voting
86B/2599/FDIS	86B/2641/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has not been drafted in complete accordance with the ISO/IEC Directives, Part 2.

The QC number that appears on the front cover of this publication is the specification number in the IEC Quality Assessment System for Electronic Components (IECQ 910005XX0003).

A list of all parts of the IEC 60874 series, published under the general title *Fibre optic interconnecting devices and passive components – Connectors for optical fibres and cables*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

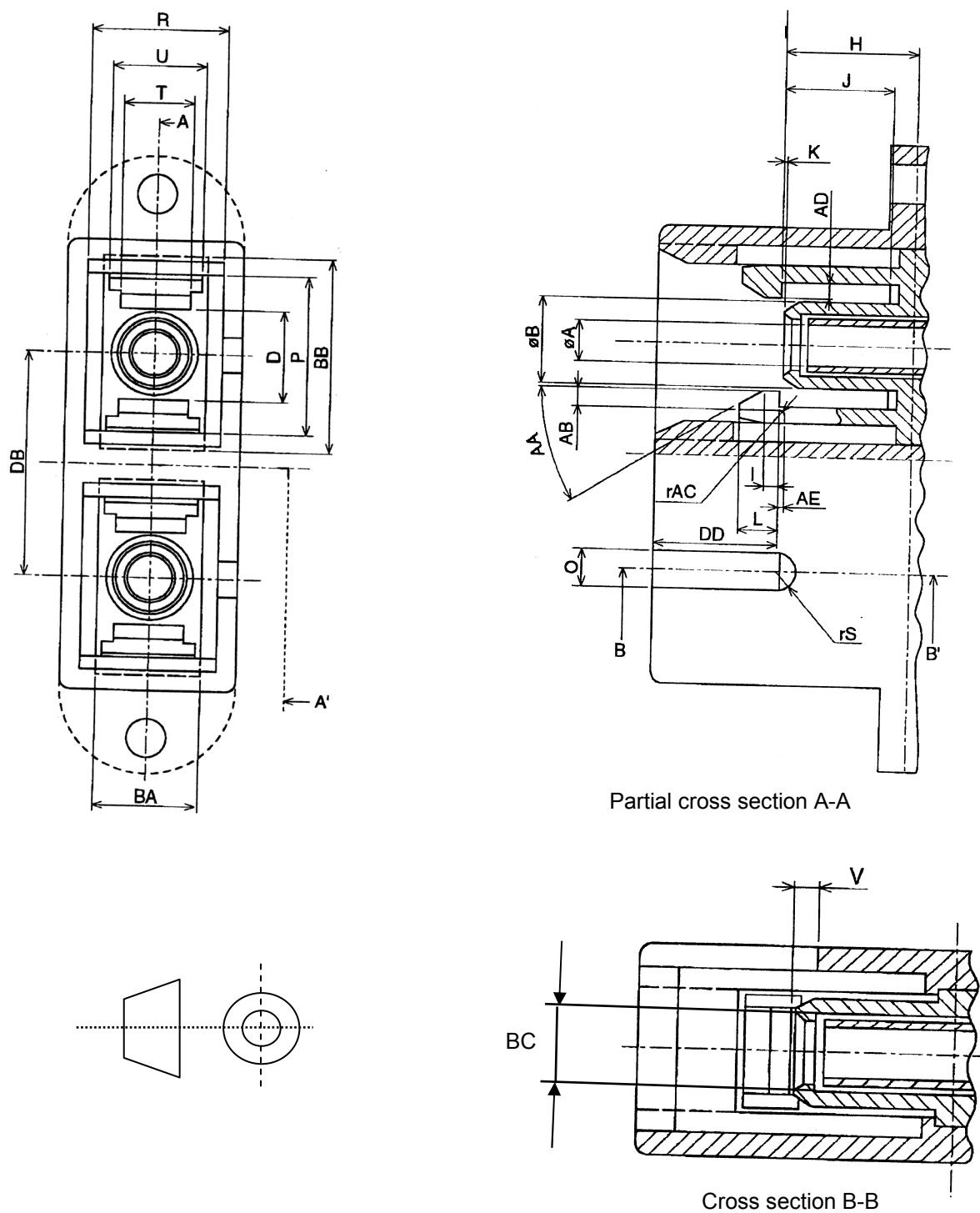
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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – CONNECTORS FOR OPTICAL FIBRES AND CABLES –

Part 19-3: Fibre optic adaptor (duplex) type SC for multimode fibre connectors – Detail specification

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – CONNECTORS FOR OPTICAL FIBRES AND CABLES Part 19-3: Fibre optic adaptor (duplex) type SC for multimode fibre connectors – Detail specification	
NATIONAL STANDARDS ORGANIZATION:	 Date
DETAIL SPECIFICATION IEC QC 910005XX0003 FIBRE OPTIC COMPONENT OF ASSESSED QUALITY IN ACCORDANCE WITH ☐ GENERIC SPECIFICATION: QC 910000 (IEC 60874-1) ☐ BLANK DETAIL SPECIFICATION: QC 910004 (IEC 60874-1-1) FIBRE OPTIC ADAPTOR	
CLASSIFICATION: Type: Name: SC-(duplex) for multimode connectors For use in datacom applications as specified in ISO/IEC International Standard 11801:2002, Information technology – Generic cabling for customer premises and as defined in category C of IEC 61753-1, Fibre optic interconnecting devices and passive components performance standard – Part 1: General and guidance for performance standards	
Configuration: plug-adaptor-plug Coupling: push-pull Control dimensions: – Adaptor: see Figures 1, 2, 3 and 5 – Gauge: see Figure 4 Style: Resilient sleeve alignment Variants: See page 10 Climatic category: 10/60/4 Environmental category: 4 (category C of IEC 61753-3) Assessment level: A	
QUALIFICATION PROCEDURE: Fixed sample procedure	
SAFETY WARNING: Take care when handling small diameter optical fibre to prevent puncturing the skin, especially in the eye area. Direct viewing of the end of an optical fibre when it is propagating energy is not recommended unless prior assurance is obtained as to the safe energy output level.	



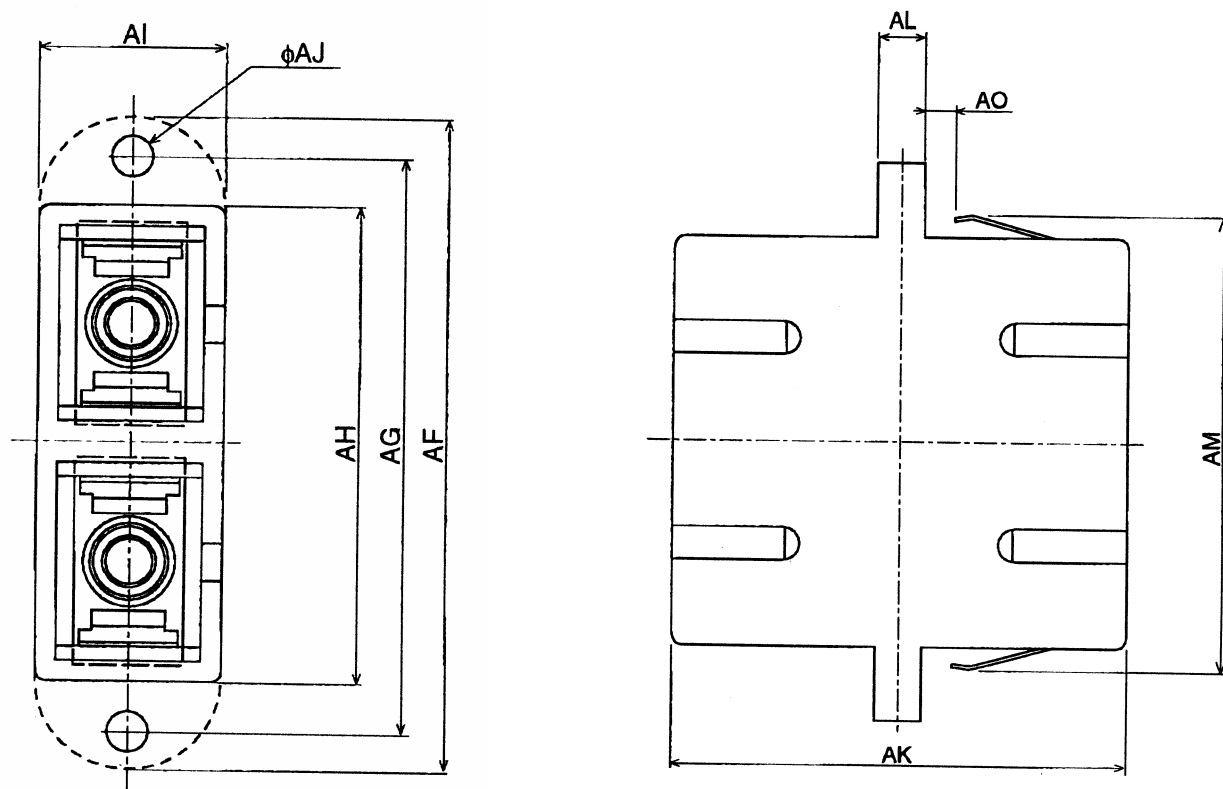
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NOTE The dotted lines are for information only and represent the outer shape of the fixture of the adaptor.

Figure 1 – Adaptor mating face dimensions

Reference	Dimension		Notes
	Minimum	Maximum	
A	—	—	a, Diameter Diameter 1
B	4,59 mm	4,69 mm	
D	4,90 mm	5,50 mm	
H	6,90 mm	7,10 mm	
I	0,40 mm	0,80 mm	
J	5,51 mm	5,90 mm	
K	0,06 mm	1,00 mm	
L	1,90 mm	2,10 mm	
O	2,00 mm	2,20 mm	
P	9,00 mm	9,10 mm	
R	7,40 mm	7,50 mm	Radius
rS	1,00 mm	1,10 mm	
T	3,80 mm	4,04 mm	
U	5,00 mm	5,30 mm	
V	0,60 mm	1,60 mm	
AA	27°	33°	
AB	0,80 mm	1,00 mm	
AC	0,40 mm	0,60 mm	
AD	0,70 mm	0,80 mm	
AE	0,40 mm	0,60 mm	
BA	5,40 mm	5,60 mm	Diameter
BB	10,80 mm	11,20 mm	
BC	2,70 mm	2,80 mm	
DB	12,65 mm	12,75 mm	
DD	5,60 mm	6,99 mm	
NOTE 1 Where a tolerance of form is not specified, the limits of the dimensions for a feature control the form as well as the size.			
NOTE 2 Where interrelated features of size (features shown with a common axis or centre plane) have no geometric tolerance of location or run-out specified, the limits of the dimensions for a feature control the location tolerance as well as the size.			
NOTE 3 Where perpendicular features (features shown at right angles) have no geometric tolerance of orientation or run-out specified, the limits of the dimensions for a feature control the orientation tolerance as well as the size.			
a The connector alignment feature is a resilient alignment sleeve. The gauge retention force shall be measured with two gauge pins, each inserted into the middle of the alignment feature. The gauge retention force shall be from 2,0 N to 5,9 N.			

Figure 1 – Adaptor mating face dimensions (continued)



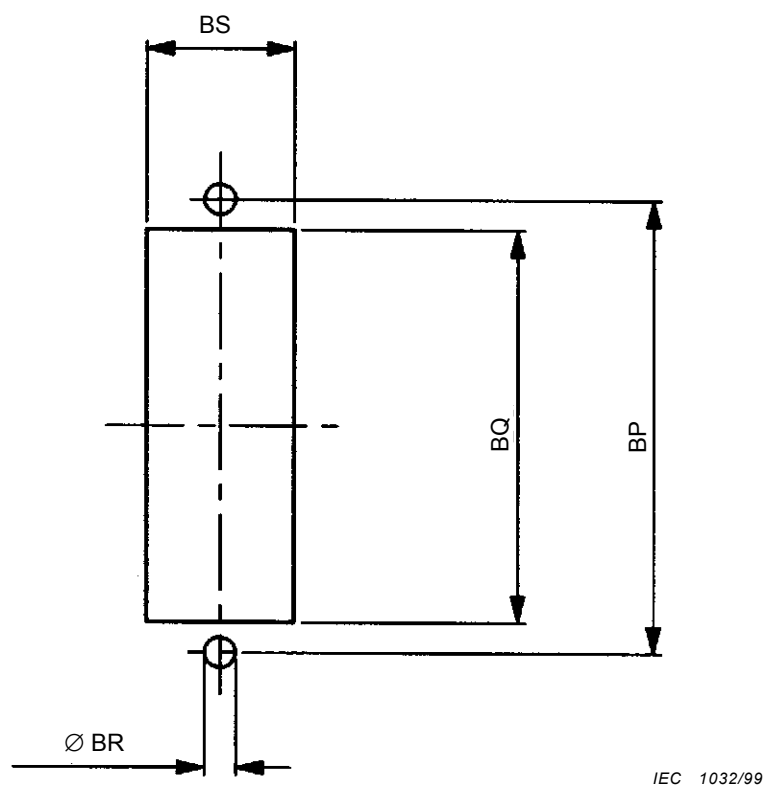
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Reference	Dimension mm		Notes
	Minimum	Maximum	
AF	34,50	35,20	1
AG	30,20	31,20	
AH	25,20	25,90	
AJ	2,20	2,40	
AI	9,20	9,40	1
AK	27,00	27,80	
AL	2,80	3,20	
AM	27,50	29,50	a
AO	1,70	2,00	

NOTE 1 The dotted lines are illustrative only, the flange may be radiused or have square corners.

^a The thickness of the panel shall be 1,6 mm when the adaptor is mounted using the spring hook.

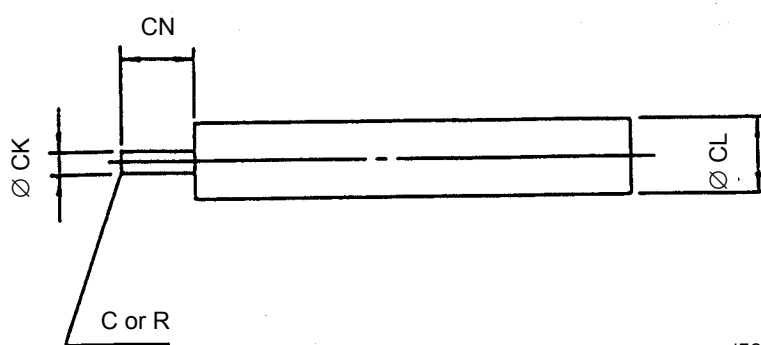
Figure 2 – Adaptor dimension



Reference	Dimensions mm	
	Minimum	Maximum
BP	30,60	31,20
BQ	26,20	26,40
BR	2,40	2,60
BS	9,50	10,00

If the adaptor is mounted using bolts only, this hole shall be threaded M2.

Figure 3 – Panel piercing and mounting detail



IEC 1033/99

Reference	Dimensions mm		Notes
	Minimum	Maximum	
CK	2,498 5	2,499 5	a, b
CL	2,80	4,80	
CN	7	—	

a Surface roughness grade N4 (0,2 μm Ra).

b The difference between maximum diameter and minimum diameter of the two pin gages shall not exceed 0,0002 mm.

Figure 4 – Dimension of a pin gauge for an adaptor

VARIANT IDENTIFICATION NUMBERS NUMBER: XXXXXXXXXXXXXXXX				
ZZZZ	Component name	Variant feature		
		Housing part material	Sleeve material	Preferred housing colour/indicator
1001	Adaptor MMF	Plastic	Zirconia	Beige
1002	Adaptor MMF	Plastic	Phosphor bronze	Beige
1003	Adaptor MMF	Metal	Zirconia	NA
1004	Adaptor MMF	Metal	Phosphor bronze	NA

SUPPLEMENTARY INFORMATION
Colour: For MMF: beige according to RAL 1013. Component marking: The name and/or manufacturer's identification mark may be permanently identified. Figure 5 shows an example of the location of component marking.

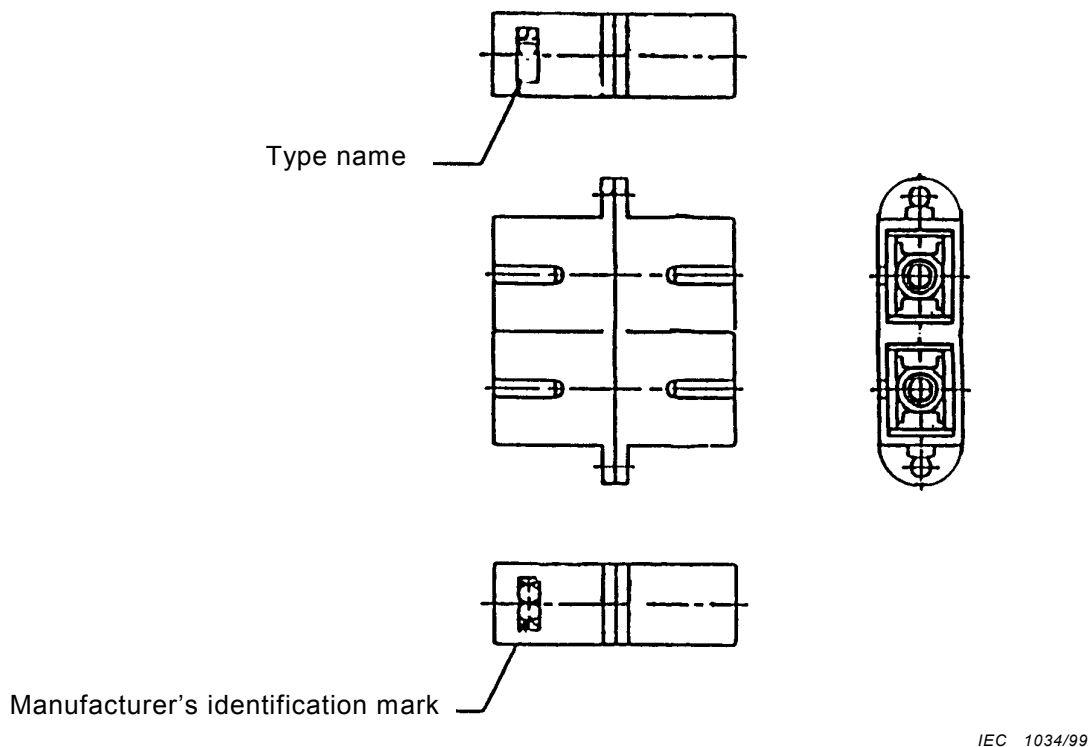


Figure 5 – Example of component marking