Index of part numbers

Properties of materials used for BJB products

Insulating materials for lampholders

Thermal properties	Thermoplastic						
	PC	PBT	PET	PA	POM	PPS	LCP
permissible continuous thermal stress in °C to the IEC standards for lampolders	up to 110°C	up to 180°C	up to 210°C	120°C*	approx. 85°C	up to 250°C	up to 270°C

***Limited temperature according to IEC 60598**

Chemical properties							
Weak acids	+	+/0	0	-	+	+	+
Strong acids	0/-	-	0/-	-	0/-	-	0
Weak alkalies	-	0	0	+	+	+	+
Strong alkalies	-	-	0/-	-	+/0	-	0/-
Alcohol	0/-	+	+/0	+/0	+	+/0	+/0
Ketones	-	-	0/-	+	0	0	+
Esters	-	0	0/-	+	+/0	0	0
Ether	-	+	0	+	+	+/0	
Hydrocarbon chloride	-	+/-	0/-	+/0	+	0	
Benzol	-	0/-	+	+	0	0	
Cleaning benzin (aroma free)	+	+	+	+	+	+	+
Fuel mixes	0/-	+	+/0	+	+	+	+/0
Mineral oils	+/0	+	+	+	+	+	+
Animal and vegetable oils	+	+	+	+	+	+	

+ = resistant 0 = limited resistance - = not resistant

In applications the chemical resistance is dependent on many parameters, therefore this data can only be sonsidered as recommended value.

Information on material for gaskets of waterproof lampholders for fluorescent lamps

Type	Oil resistance	Resistance to ozone- and weather	Continuous operating temperature	Resistance to chemicals
CR (Chloropren- /Chlorbutadien Rubber) "Neoprene","Perbunan"	good	good	100°C	good
EPDM /APTK (Ethylen-Propylen-Dien-Copolymerisat Rubber)	moderate	good	130°C	good
Silicon-Rubber (Methyl-Vinyl-Polysiloxan) "Silicone", "Silopren", "Silastic"	fairly good	good	220°C	moderate
SBR (Styrol-Butadien-Rubber) "Buna-Hüls", "Solprene"	moderate	fairly good	80°C	good-fairly good

Technical properties

	Insulation material				
	PVC	Silicone	FEP	PTFE, PFA	Glass silk
	Conductor material				
	Cu/Cu tin plated	Cu tin plated	Cu tin plated	Cu nickel plated	Nickel or Cu with 27% nickel plated
	Temperature resistance				
Properties	-30°C - +105°C	-60°C - +180°C	-100°C - +180°C	-190°C - +250°C	-60°C - +450°C
Thermal resistance	-	+	+	++	+++
Electrical strength	+	++	+++	+++	++
Mechanical strength	0	-	++	++	++
Chemical resistance	-	+	++	++	++
Notched charpy impact strength	-	-	+	+	++
Fracture strength, abrasion resistance	-	0	+	+	++
Abrasion	-	0	+	+	+
Flexibility	+	++	0	0	-
Weather-, ozone- and ageing resistance	-	+	+	+	+
Not inflammable	-	-	+	+	++
Halogen free	-	+	-	-	+
Light resistant (also UV)	-	0	+	+	+
Pyrolysis	-	-	-	-	+
Price	++	+	0	-	--
Applicability for ignition voltage	0	++	+	+	++
Usual characteristics (examples)					
Nominal cross section	0.5 mm^2	0.75 mm^2		1.0 mm^2	0.5 mm^2
Outer diameter	2 mm	2.4 mm	1.6-1.8 mm	1.8-2.0 mm	2.5 mm
Nominal voltage	300 V			300 / 600 V	

0 = adequate + = good ++ = better +++ = very good - = bad -- = very bad
In applications these properties are dependent on many parameters, therefore this data can only be sonsidered as recommended value.

Comparison of AWG cross sections to metric cross sections for multi stranded, fine stranded and finest stranded wires

AWG	approx. mm^2
23	0.34
22	0.35
20	0.5
19	0.75
18	1
16	1.5
14	2.5
12	4
10	6

Types of protection against dust and water in accordance with VDE and IEC regulations (extract)

The types of protection for electrical products e.g. protection against foreign bodies, dust and water, are stated in the VDE standards and relevant publications issued by the IEC. For full details see IEC 60529 from which the following is an extract.

Symbol for luminaires according to IEC 60598	Type of protection according to IEC	Abbreviation according to IEC	Brief details of the degrees of protection	
			1st digit: protection against foreign bodies	2nd digit: protection against water
No symbol	Ordinary	IP 20	Fingers or similar objects not exceeding 80 mm in length. Solid objects exceeding 12 mm in diameter.	No special protection.
	Drip proof	IP 21	Fingers or similar objects not exceeding 80 mm in length. Solid objects exceeding 12 mm in diameter.	Dripping water (vertically falling drops) shall have no harmful effect.
	Rain proof	IP 23	Fingers or similar objects not exceeding 80 mm in length. Solid objects exceeding 12 mm in diameter.	Water falling as a spray at an angle up to 60° from the vertical shall have no harmful effect.
No symbol	Protected against solid objects greater than 1.0 mm	IP 40	Wires or strips of thickness greater than 1.0 mm. Solid objects exceeding 1.0 mm in diameter.	No special protection.
	Splash proof	IP 44	Wires or strips of thickness greater than 1.0 mm. Solid objects exceeding 1.0 mm in diameter.	Water splashed against the enclosure from any direction shall have no harmful effect.
	Dust proof	IP 50	Ingress of dust is not totally prevented but does not enter in sufficient quantity to interfere with satisfactory operation of the equipment.	No special protection.
	Dust and rain proof	IP 53	Ingress of dust is not totally prevented but does not enter in sufficient quantity to interfere with satisfactory operation of the equipment.	Water falling as a spray at an angle up to 60° from the vertical shall have no harmful effect.
	Dust and splash proof	IP 54	Ingress of dust is not totally prevented but does not enter in sufficient quantity to interfere with satisfactory operation of the equipment.	Water splashed against the enclosure from any direction shall have no harmful effect.
	Dust tight and jet proof	IP 65	No ingress of dust.	Water projected by a nozzle against the enclosure from any direction shall have no harmful effect.
	Dust tight and water tight (immersible)	IP 67	No ingress of dust.	Ingress of water in a harmful quantitiy shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time.

Technical information for embodiment of our products

BJB lampholders are in accordance with IEC regulations and are designed to IEC 60061-2 publication.

Where no electrical data is stated then:
- according to IEC 60238 / VDE 0616 part 1, Edison lampholders E14 rated 250 V / 2 A conform to overload capacity category II, E27 rated 250 V / 4 A voltage and E40 conform to voltage overload capacity category III ,
- according to IEC 60400 / VDE 0616 part 3 fluorescent lampholders and starter holders rated 250 V / 2 A conform to voltage overload capacity category II
- Halogen lampholders designed according to IEC 60838 / VDE 0616 part 5, conform to voltage overload capacity category II
- Bayonet lampholders according to the requirements IEC 61184 / VDE 0616 part 2 conform to voltage overload capacity category II,
- Lampholder outer threads conform to IEC 60399.

When regulations devitate from IEC, e.g. UL, other ratings may be possible.
Please consult us before use.

Through our work with the relevant standardisation committees, we ensure our lampholders are developed and tested to the latest specifications.

All technical product drawings shown in this catalogue indicate only the main important dimensions and tolerance values. As a rule only where this is of importance for the intended application.

All measurements stated without tolerances are nominal.
Limit values are:
- DIN 16901, size 130 for moulded parts
- DIN ISO 2768-m for metal parts
- DIN 40680, medium for ceramic parts

Weights of single items stated in this catalogue are rounded up or rounded down to the nearest gram, therefore the final weight of a pack quantitiy may differ. The weights shown are only a guide and should not be used for order or shipping specification purposes.

The choice of product and correct technical embodiment in accordance with the corresponding regulations (e.g. IEC 60598 / VDE 0711, IEC 60335 / VDE 0700) is the sole responsibility of the user.
Specific attention must be given to:
- Temperature limits which must be observed in accordance with the corresponding regulations (e. g. T-markings);
- The necessary creepage and clearance distances as well as distances through insulation;
- The connecting cable and wires, which must have the correct heat and UV resistance, mechanical strength, voltage rating and a current carrying capacity corresponding to the conditions of the intended application;
- Protection against contact with live parts;
- Connectors, e.g. tab terminals, which must be selected in accordance with the requirements of their intended use (e.g. temperature, current carrying capacity, corrosion resistance);
- The influence of control gear, transformers, starters / ignitors and other circuit components, must always be taken into consideration.

The catalogue also contains technical information, to which attention must be paid during project development, construction and electrical installation or when operating lighting installations. This information must be passed on, e.g. in an installation instruction.

To ensure snap fix products locate correctly and securely, consideration must also be given to the cut-out and where applicable, attention must be paid to special requirements (e.g. degree of burr, direction of punching, radii, etc.).

Consideration must also be given to the area required around the cut-out, to allow correct insertion. Different components may require to be inserted at different angles.

During fixing, it must be ensured that the fixing surface is correctly sized.

Information regarding light fitting wall thickness, should always be interpreted as inclusive of a coating, unless stated otherwise.

If there is a requirement for one of our products to be embodied in a way other than shown in our catalogue, please contact us.

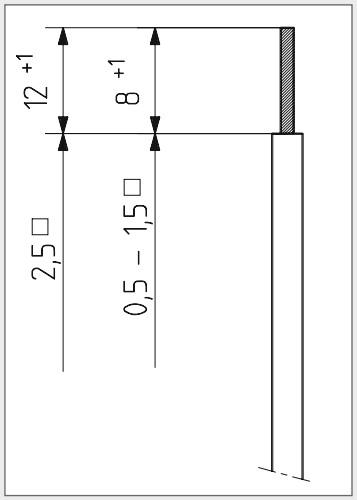
Attention must also be given to the IEC lamp standards, as well as the technical instructions of the lamp manufacturers in respect of the embodiment and correct operation of lamp.

In accordance with our policy of continual product development and improvement, we reserve the right to make design modifications.

Due to the amount of information involved in compiling this catalogue, it is not always possible to avoid printer's errors or minor mistakes. Although every care is taken, BJB accepts no responsibility for the accuracy of the contents. If in doubt, or if you require confirmation of specific information, please contact us.

Edition 2008

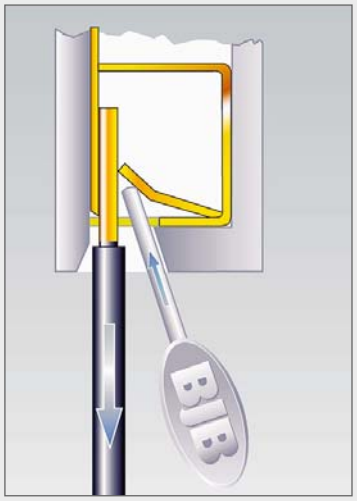
Stripping and releasing of cables



Stripping of conductors

Pushwire contacts for solid core and tinned wires:
0.5 - 1.5 mm^2 = 8 + 1.0 mm
2.5 mm^2 = 12 + 1.0 mm

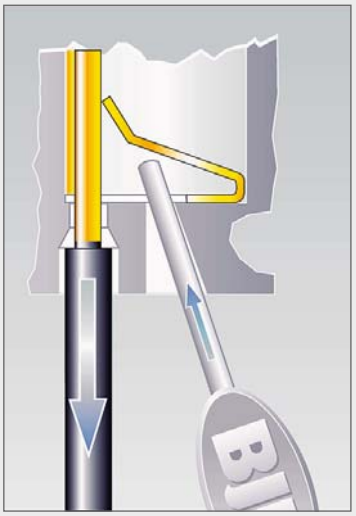
Should other terminations need to be used e.g. ferrules, you will find the relevant information in the product description.

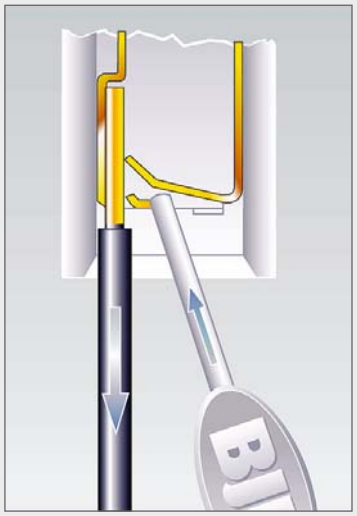


Methods of releasing wires

Pushwire contacts with a key or oval hole in the housing:
The release probe, which we can gladly provide upon request, is placed behind the conducting wire, thereby opening the leaf spring. The wire can be pulled out.
(when pressing the leaf spring down, extreme care must be taken in order that the contact does not become distorted)*.

Simplest way:
Pull out the release probe and the wire at the same time.





Pushwire contacts with a round hole or release slot in the housing:
A release probe or screwdriver is inserted into the release slot and a slight pressure applied to the leaf spring (when pressing the leaf spring down, extreme care must be taken in order that the contact does not become distorted)*.
The wire is easily removed.

* Under light fitting production conditions, we recommend not to use unassembled lampholders again.

BJB Numbering system

	Product category	Product type	Running development number	Version	Colour/ Finish
Example	**26.**	**290.**	**4012.**		**50**
Position	1 + 2	3	4 + 5	6 - 9	10 + 11
	Fluorescent lampholders for indoor use	Push in and push through lampholders	Development of product type	without locating pin/ without starter holder	white

Position 1 + 2 — **Product category**

Lampholders

22 Moulded lampholders
24 Moulded bayonet type lampholders
25 Halogen lampholders and lampholders for discharge lamps
26 Fluorescent lampholders - indoor use
27 Fluorescent lampholders - water and dustproof
29 Porcelain lampholders

Switches / Terminal blocks / LED

43 Switches
46 Terminal blocks
47 Connecting pieces LED - Lighting and connection technology
48 Terminal blocks without fuse
49 Terminal blocks with fuse

Oven lamps*

77 Complete assemblies

*** see catalogue for domestic appliances**

Position 3 — **Product type**

22.2 E12, E14, E17
22.3 E26, E27
22.5 Shade rings E14
22.7 Shade rings E27
22.9 Insulating caps
24.3 B22d
24.6 B22d
24.9 B22d
25.1 Low voltage halogen
25.2 Low voltage halogen
25.4 Low voltage halogen
25.7 Lampholders for discharge lamps
25.8 Lampholders for mains voltage halogen and for discharge lamps
25.9 Low voltage halogen
25.9 Accessories for low voltage
Accessories for mains voltage
Accessories for discharge lamps
26.1 Compact fluorescent lampholders
26.2 G13 Fluorescent lampholders
26.3 G13 Fluorescent lampholders
26.4 G13 Fluorescent lampholders
26.4 Accessories for fluorescent lampholders
26.5 Starter holders
26.6 G5 Fluorescent lampholders
W4.3 x 8.5d Fluorescent lampholders
26.7 Compact fluorescent lampholders
Circular fluorescent lampholders
26.7 Accessories for compact fluorescent lampholders
26.8 Fluorescent lampholders
26.9 Accessories for fluorescent lampholders
Accessories for compact fluorescent lampholders
27.2 Water and dustoproof lampholders
27.5 Water and dustproof starter holders
27.6 Water and dustproof lampholders
29.3 E26, E27
29.4 E40
29.9 Insulating caps
43.4 Rocker switches
46.2 Capacitor connectors
46.4 Terminal blocks
Accessories for terminal blocks
46.9 Accessories for terminal blocks
47.3 LED-Connecting pieces
48.1 Terminal blocks
48.2 Terminal blocks
48.2 Connectors
48.3 Terminal blocks
48.5 Connectors
48.9 Accessories for connectors
49.1 Fused terminal blocks
49.2 Fused terminal blocks
49.3 Fused terminal blocks
49.5 Connectors
77.2 Oven lamps with lamp E14
77.7 Oven lamps with lamp E14,
Oven lamps with lamp G4,
Oven lamps with lamp G9,
Accessories for oven lamps
77.9 Oven lamps with lamp E14,
Oven lamps with lamp G4,
Oven lamps with lamp G9,
Oven lamps with lamp E26
78.7 Accessories for oven lamps

Position 10+11 — **Colours/Finishes**

10 Raw steel/ iron
12 Nickel plated
14 Zinc plated
18 Copper plated, nickel plated
21 Brass plated, nickel plated
23 Aluminium plated
50 white
51 Natural colour
55 Painted gold
76 Silvergrey
80 Black
81 Grey
83 Brown
84 Red
85 Uncoloured
88 Gold
90 Anthracite