

PRODUCT FAMILY DATASHEET

LED Sign Modules

Injection-moulded, potted LED modules for channel letters, 3D luminous characters and light boxes. Every model publishes its module size, the sign depth it is designed for, its beam angle, its IP rating and how many modules may be cascaded before power has to be fed again.



What This Family Is For

The core range: sealed low-voltage modules that sit behind an acrylic face and light it evenly. Choose by the internal depth of the sign first, then by the brightness the face needs.

Products In This Family

Product	Group	Summary
JDS-6515RGB/W	Bezel-Free Series 6515RGB/RGBW+IC	Addressable RGB/RGBW module with a built-in IC, 65 x 15 x 10 mm, IP68, for medium-sized signs 80 to 120 mm deep.
JDS-6515B	Bezel-Free Series 6515B	150 lm/W single-colour module, 65 x 15 x 10 mm, IP68, dual 12 V / 24 V input, for signs 80 to 120 mm deep.
JDS-3828D	Bezel-Free Series 3828D	Double-sided 1.5 W module at 93 lm/W, IP67, 8 pieces per metre, for signs deeper than 60 mm.
JDS-3828B	Bezel-Free Series 3828B	1.5 W backlit module at 93 lm/W, IP67, rated -40 to +60 C, for signs deeper than 60 mm.
JDS-7420V	Bezel-Free Series 7420V	3 W side-emitting module, 300 lm per piece, IP67, for single-sided boxes 50 to 100 mm and double-sided boxes 60 to 200 mm deep.
JDS-4035V	Bezel-Free Series 4035V	120 lm/W side-emitting module at 3 W and 360 lm per piece, IP67, eight pieces per metre.
JDS-3828V	Bezel-Free Series 3828V	1.5 W side-emitting module, 140 lm per piece, IP67, for light boxes where 3 W per piece would over-light the face.
JDS-6615RGB/RGBW	JDS-6615RGBW	6.5 mm-thin RGB/RGBW module with a bat-wing lens, 60 lm, IP67, 50 modules per chain.
JDS-3636RGB/RGBW	Bezel-Free Series 3636RGBW	1.44 W RGB/RGBW module at 100 lm/W, IP67, nine pieces per metre, for signs deeper than 150 mm.
JDS-3208B	Bezel-Free Series 3208B	208 lm/W mini module, 32 x 8 x 8.5 mm, IP68, 100 modules per double-ended run, for signs 30 to 50 mm deep.
JDS-1208B	Bezel-Free Series 1208B	The smallest module published here at 12 x 8 x 8.5 mm, 0.36 W, IP68, for narrow strokes in signs 30 to 50 mm deep.
JDS-6616B/AC120V/220V	Bezel-Free Series 6616B/AC120V/AC220V	Mains-driven module at AC 120 V or 220 V, 1.5 W, IP67, no DC driver needed inside the sign.
JDS-3939B/AC120V/220V	Bezel-Free Series 3939B/AC120V/AC220V	Square four-lens mains module, 39 x 39 x 9 mm, 2 W at AC 120 V or 220 V, IP67, for signs 120 to 200 mm deep.
JDS-7618B	Bezel-Free Series 7618B	Three-lens 76 mm module, 360 lm per piece at up to 170 lm/W, IP67, for signs 40 to 70 mm deep.

Product	Group	Summary
JDS-5118B	Bezel-Free Series 5118B	Two-lens 51 mm module, 240 lm per piece at up to 170 lm/W, IP67, for signs 30 to 60 mm deep.
JDS-4543B	Bezel-Free Series 4543B	Four-lens square module, 480 lm per piece at up to 4 W, IP67, the brightest single module published here.
JDS-2618B	Bezel-Free Series 2618B	Single-lens 26 mm module at 170 lm/W, IP67, rated for signs 25 to 50 mm deep - the shallowest depth in the high power family.
JDS-6616B	Bezel-Free Series 6616B	Three-lens 66 mm module at 170 lm/W and IP68, for deep channel letters and light boxes 80 to 120 mm deep.
JDS-4116B	Bezel-Free Series 4116B	Two-lens 41 mm module at 170 lm/W and IP68, for signs 50 to 80 mm deep.
JDS-3939B	Bezel-Free Series 3939B	Square four-lens DC module, 245 lm per piece, IP68, for deep signs 120 to 200 mm behind the face.
JDS-1812B	Bezel-Free Series 1812B	Single-lens mini module, 18 x 12 x 9 mm at 170 lm/W and IP68, 100 modules per double-ended run.

Published Specification

Property	Value
Model	JDS-6515RGB/W
Series	Bezel-Free Series 6515RGB/RGBW+IC
Module size	65 x 15 x 10 mm
Input voltage	DC 12 V
Power	0.96 W per piece (RGBW), 0.72 W (RGB)
Luminous efficacy	83 lm/W
Luminous flux	RGB 60 +/-3 lm per piece; RGBW 80 +/-3 lm per piece
Beam angle	175 deg
Ingress protection	IP68
Cascade limit	50 modules, single-ended power feed
Colour options	RGB or RGBW
Sign depth designed for	80-120 mm
Operating temperature	-20 to +50 C
Storage temperature	-30 to +80 C
Warranty	5 years
Packing	50 pcs per bag, 100 pcs per box, 1500 pcs per carton
Carton weight	19 kg
Carton dimensions	50 x 35 x 30 cm

Figures are reproduced from the manufacturer's published specification and may be revised. Rows reading 'not published' are figures the source specification does not publish; they are confirmed in writing rather than estimated. Confirm the current revision with your quotation.

Why Buyers Choose This Range

- Every model publishes its own depth band, cascade limit and IP rating
- IP68 on the 16 mm and 15 mm bodies, IP67 across the rest
- Five year warranty on the DC range
- Colour binning held to 3 SDCM on the models that publish a bin

Problems It Solves

- A module chosen on price alone that turns out to be rated for a cavity half the depth of the sign being built.
- A supplier who publishes lumens per module but not the cascade limit, so the run length is guesswork until the sign is wired.
- Mixed cartons that do not match in colour across one fascia.
- An IP figure quoted for the range but never tied to a specific model.

Who It Is For

- Sign fabricators who cut, weld and face their own letters
- Light box manufacturers specifying pitch against face material
- Signage distributors holding stock across several depth bands
- Contractors retrofitting an existing illuminated fascia

Application Scenarios

- Shop front channel letters on a retail unit
- Three-dimensional luminous characters on a building parapet
- Double-sided projecting signs
- Illuminated light box panels at a building entrance

Materials

- Injection-moulded housing with the optic moulded in, rather than a lens glued on afterwards.
- Potting compound filling the cavity around the board, which is what carries the IP rating.
- Pre-tinned lead wires on both ends for cascading, cut to the published module pitch.
- 3M backing tape on the models where the specification lists it, for direct mounting to the inside of a return.

Manufacturing Process

1. Patch - SMT placement of the emitters onto the module board, photographed as stage one on the factory's own process board.
2. Solder wire - Lead wires are soldered and strain-relieved before the housing is closed.
3. Injection moulding - The housing and the optic are moulded together, then the cavity is potted.
4. Testing - Electrical test under load before the module leaves the line.
5. Back glue - 3M backing tape is applied to a cleaned housing on the models specified with it.
6. Aging - Finished modules are run on the aging rack before packing.

Customisation Options

- Colour temperature selected per order from the published options rather than held as one stock colour.
- Lead wire length and module pitch cut to the sign layout instead of a default spacing.
- OEM and ODM work: the source site states that OEM and ODM are supported for customers in all markets.
- Packing quantity per bag and per carton adjusted to how the modules will be issued on the fabrication floor.

Certification Standards

Production follows CE, RoHS, LVD, IP68 test report, UL. Certificates are sent per model and destination market on request.

Questions Buyers Ask

How do I choose between the models in this family?

By the internal depth of the sign, then by how bright the face has to be. The depth band is published on every product page; the lumens per module figure decides the pitch once the depth is fixed.

Are these modules IP67 or IP68?

It depends on the model, and each product page states which. The 6616B, 4116B, 3939B, 6515B, 3208B, 1208B and 1812B publish IP68; the rest of the range publishes IP67.

What voltage do they run at?

Most of the range takes DC 12 V or DC 24 V. Two models run straight off AC 120 V or AC 220 V and are listed separately under AC LED Modules.

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