

BrightConnX™ Zhaga Book 20 FLM Series DALI Connectors

DALI INTERFACE CONNECTORS FOR INDOOR LUMINAIRES

The BrightConnX™ FLM Series products are compliant with the Zhaga Book 20. Zhaga Book 20 specifies 2 position connectors identified as Luminaire Extension Module Receptacles (LEX-MR) and Luminaire Plugs (LEX-LP), used for DALI-2 (Digital Addressable Lighting Interface) applications.

- Dimple latching with Poka-Yoke mating alignment feature
- DALI-2 bus enables bi-directional communication between luminaires and modules
- Plug available with tool-less poke-in termination
- Compliant with all Zhaga DALI Book 20 applications
- LEX-LP connector provides finger-proof contact protection



TARGET MARKETS



FEATURES

- 2 position separable interface with Poka-Yoke features
- Integrated low-profile dimple latch feature provides 5N minimum retention
- SMT Receptacles are available in Right Angle and Vertical configurations
- SMT receptacles feature diamond shaped molded alignment pegs
- Plug available with crimp socket contacts (available on reel) or poke-in wire termination options
- LEX-LP connector is IP20 finger-proof design

BENEFITS

- Enables DALI-2 protocol and ensures correct mating alignment
- Provides secure mating, with easy unmating
- Versatile design options
- Holds SMT connectors to board in secure orientation during soldering process
- Options allow high volume assembly, or easy field assembly/servicing
- Housing protects contacts in unmated condition

TECHNICAL INFORMATION

MATERIAL

- Housings: High temperature resistant thermoplastic, UL94V-0
- Contacts: Copper Alloy, plated with matte tin over Nickel

MECHANICAL PERFORMANCE

- Mechanical Shock: 50G, ½ sine, 11ms, per EIA-364-27
- Vibration: Cond VII, Letter D per EIA-364-28
- Durability: 25 Mating cycles, per EIA-364-09

ELECTRICAL PERFORMANCE

- Current Rating:
 - 7A max. per circuit with 18AWG wire
 - 5A max. per circuit with 20AWG wire
 - 3A max. per circuit with 22AWG wire
- Voltage Rating: 250VAC/VDC
- Contact Resistance (LLCR): $\Delta 20m\Omega$ max. after environmental exposure
- Insulation Resistance: 500M Ω min. @ 500VDC test voltage
- Dielectric Withstanding Voltage: 1500VAC

PACKAGING

- Tape and Reel (PCB Mount Receptacles)
- Reel (Crimp Contacts)
- Bulk Pack (Wire Termination Housings)

SPECIFICATION

- Zhaga Interface Specification Book 20
- Amphenol Product Specification S6172C
- RoHS Compliant per EU Directive 2011/65/EU and amendments

ENVIRONMENTAL

- Operating Temperature Range: -40°C to +105°C
- Thermal Shock: 25 cycles between -40°C and +105°C, per EIA-364-32
- Temperature Rise: 30°C max. ΔT @ rated current, per EIA-364-70

APPROVALS AND CERTIFICATIONS

- UL Approved

TOOLING INFORMATION

- Crimp contacts to be terminated in accordance with Amphenol Application specification S6174C, using Hand tool FLH-CT-0-03 or Semi Automated machine FLH-CT-0-02

TARGET MARKETS/APPLICATIONS



Light Level Sensing
 Presence Detection
 Air Quality Monitoring
 Push Button Controls
 Wireless Networking
 People Counting
 Temperature Sensing
 Audio Sensing

PART NUMBERS

| Description | Part Numbers |
|---|-----------------|
| Receptacle Housing, FLM Series, Zhaga Book 20, LEX-MR for Crimp Socket Contacts | FLM-P21-X0 |
| Receptacle, FLM Series, Zhaga Book 20, LEX-MR Right Angle SMT | FLM-P22-X0 |
| Receptacle, FLM Series, Zhaga Book 20, LEX-MR Vertical SMT | FLM-P25-X0 |
| Receptacle, FLM Series, Zhaga Book 20, LEX-MR, Poke-in Wire Termination | FLM-P23-X0 |
| Plug Housing, FLM Series, Zhaga Book 20, LEX-LP for Crimp Pin Contacts | FLM-S21-X0 |
| Plug, FLM Series, Zhaga Book 20, LEX-LP, Poke-In Wire Termination | FLM-S23-X0 |
| Pin Contact, Crimp, FLH Series, Reel, 22AWG - 18AWG Tin Plated | FLH-PC136-1-T01 |
| Socket Contact, Crimp, FLH Series, Reel, 22AWG - 18AWG, Tin Plated | FLH-SC136-1-T01 |

| X | Housing Color |
|---|------------------|
| 0 | Black (Standard) |
| W | White |