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Flexi-Mate™ 24 AWG cable assemblies maximise design flexibility, simplify wiring production and provide end-to-end space savings for LED panel-lighting applications

The Flexi-Mate™ family meets the Solid State Lighting (SSL) Industry's needs for flexibility and space savings in applications requiring placement of LEDs on interconnecting panels across the width of the display or lighting fixture. The low-profile, 3.00mm mated height, of the connectors does not interfere with the luminescence angle of PCB mounted LEDs, ensuring light uniformity of the finished panel.

Flexi-Mate 24 AWG cable assemblies are supplied pre-crimped in standard cable lengths, meeting the needs of lighting panel manufacturers who typically lack crimping capabilities. The system comprises board-to-board harnesses used to connect LED light panels and driver-to-board harnesses to connect LED panels to the main power board. A wire loop configuration can complete an open-loop signal. The cable assemblies mate with existing Flexi-Mate receptacles.

Key features of the compact, low-profile Flexi-Mate connectors include a dual-contact terminal design for secure electrical contact, space-saving positive side locks and mating guide features. Connectors meet IEC60838-2-2 requirements for LED modules. For additional information visit: www.molex.com/link/fleximate.html

Flexi-Mate™ 24 AWG Cable Assemblies

Board-to-Board
68801-4593
68801-4594
68801-4595

Wire Loop
68801-4596

Driver-to-Board
68801-4645
68801-4648

Flexi-Mate™ 24 AWG Cable Assemblies

Features and Benefits

24 AWG cable assemblies in white	Cable gauge and colour support lighting market preferences
Flexible board-to-board, wire-to-board and cable-loop options	Meets needs of lighting designs that use interconnecting LED panels
Low-halogen materials	Meets lighting industry environmental regulations
3.00mm mated height and 3.70mm pitch	Compact, low profile system achieves space savings
Positive side latches on crimp housing	Space savings and easy mating/unmating
Dual-contact terminal design	Ensures reliable electrical connection
Headers designed with extended wall to ensure >3mm creepage distance	Meets UL approval requirements
Shrouded contacts	Protects contact area

Applications

Lighting:

- LED panel-lighting applications
  - Downlight modules
  - Linear lights / lighting strips
  - Track lighting
  - Office lighting
  - Industrial lighting

LED office lighting

LED panel-lighting applications

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Flexi-Mate™ 24 AWG Cable Assemblies

Specifications

REFERENCE INFORMATION: CABLE ASSEMBLIES
Packaging *(cables)*: Bags
UL Approved: Yes
Mates With: Receptacle: 503471
(For low-halogen mating receptacle – contact GPM)
Designed In: mm
RoHS: Yes
Low Halogen: Yes

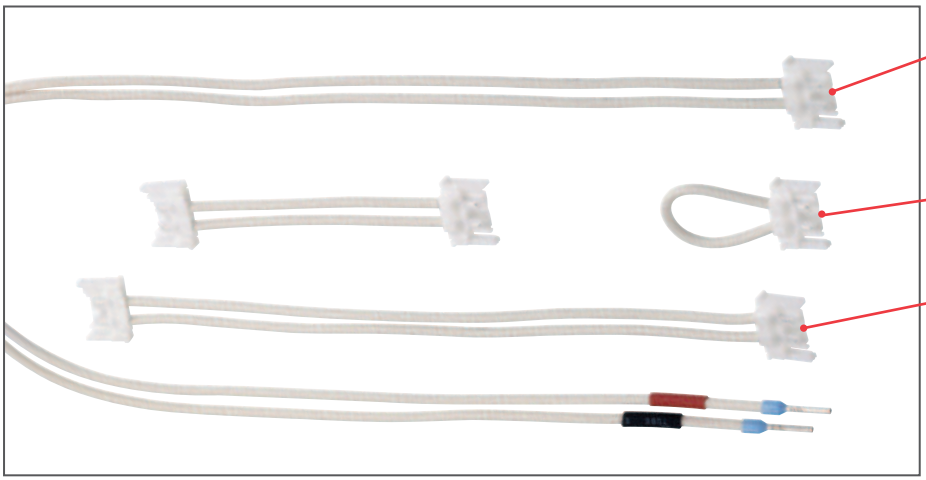
MECHANICAL
Durability (min.): 15 cycles

PHYSICAL
Housing: PBT, White
Terminal: Copper Alloy
Plating:
Contact Area — Tin (Sn)
Operating Temperature:
-40 to +85°C

ELECTRICAL
Voltage (max.): 500V
Current (max.): 2.0A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage:
1500V AC min.
Insulation Resistance:
1000 Megaohms min.

CABLE SPECIFICATIONS
AWG: 24
Jacket Material: MPPE
Conductor material:
Tinned Copper wire stranded
Colour: White

Flexi-Mate 24 AWG cable assemblies



Driver-to-board
Flexi-Mate cable assemblies
68801-4645 / 68801-4648
(350 and 600mm lengths)

Flexi-Mate wire loop
68801-4596

Board-to-board Flexi-Mate
cable assemblies
68801-4593 / 68801-4594 /
68801-4595
(46, 115 and 190mm lengths)

Ordering Information

Order No.	Configuration		Cable Length
68801-4593	Flexi-Mate to Flexi-Mate	Board-to-board	46mm
68801-4594			115mm
68801-4595			190mm
68801-4596	Flexi-Mate wire loop	-	-
68801-4645	Flexi-Mate to ferrule	Driver-to-board	350mm
68801-4648			600mm

www.molex.com/link/fleximate

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