

Tech Sheet #071812

Using EZ-Wiring with DALI lighting controls

Digital Addressable Lighting Interface (DALI) is an intelligent lighting management system that delivers improved energy savings and maximum control and flexibility of building lighting controls. DALI is an industry standard that allows DALI-compliant components (ballasts, sensors, switches etc.) from different manufacturers to be integrated into a complete system.

DALI protocol requires a single pair of wires to form a network bus to communicate to lighting devices. This control wiring can be run in the same cable or conduit as power wiring as long as a clear method for identification is used throughout.






























Electec's EZ-Wiring® modular wiring system (MWS) is a proven connectivity solution for DALI lighting projects. **EZ-Wiring is constructed with ULTRALX® AC90/MC armoured cable and includes uniquely keyed and colour-coded DALI configurations for 125, 277 and 347 volt systems.**

Electec identify the DALI control wires in the EZ-Wiring system with violet and violet/yellow striped wire insulation.

Using EZ-Wiring, the connection of a DALI lighting management system is efficient and cost-effective due to **safe and reliable integrally moulded connectors.**

H-Series | Up to 8 wire applications

Include: power distribution, furniture systems, luminaires, switches, receptacles and other branch circuit equipment up to 4 circuits.

	Power Distribution							
	Sw Distribution				Compatible Branch Circuiting Options			
	(4L, 2N, 2G)	(3L, 3N, 2G)	(4L, 2N, G)	(2L, 2N, 2G)	(3L, N, G)	(2L, N, G)	(L, N, 2G)	(L, N, G)
125/250V 20A								
	1H-22-4220	1H-22-3320	1H-22-4210	1H-22-2220	1H-22-3110	1H-22-3110	1H-22-1120	1H-22-1110
	Lighting							
	3Ph 4W	Dual/Split Circuit	Single Circuit	3,4-Way Switch	Switch	3Ph 4W w/DALI	Single Cct w/DALI	
125/250V 20A								
	1H-22-3110	1H-22-2110	1H-22-1110	1H-22-1012	1H-22-1011	1H-2D-3112	1H-2D-1112	
277/480V 20A								
	1H-42-3110	1H-42-2210	1H-42-1110	1H-42-1012	1H-42-1011	1H-4D-3112	1H-4D-1112	
347/600V 20A								
	1H-62-3110	1H-62-2210	1H-62-1110	1H-62-1012	1H-62-1011	1H-6D-3112	1H-6D-1112	

EZ-Wiring components include:

Primary Distribution Module (PDM)

The PDM enclosure is typically located just outside of the electrical room. The PDM includes flush-mount EZ-Wiring Receptacles pre-wired to terminal strips. Electrical circuits and DALI busses are connected to the terminal strips on site. Electrical designers often coordinate 3 power circuits per DALI bus (L1, L2, L3, N, G, D1, D2)

Multi Circuit Extender Cable

Carrying 3 power circuits and 2 DALI control wires; Multi Circuit Extender Cables connect PDM Receptacles to SDM Plug inputs.

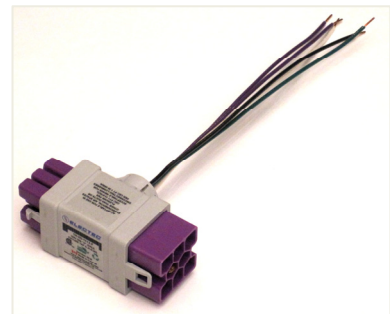
Secondary Distribution Module (SDM)

The secondary zone enclosure is located closer to end-use equipment and is prewired with EZ-Wiring Plugs and Receptacles, delivering a full plug-and-play installation on site. Typically, the SDM Plug input is split into 3 single circuit outputs with a common DALI bus.



Single circuit Extender Cable

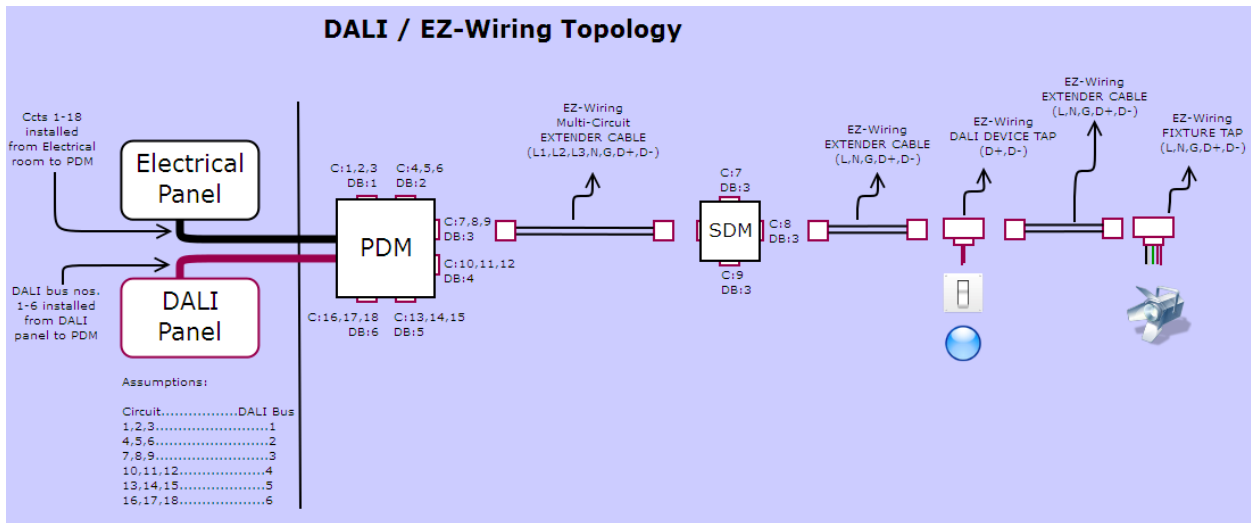
Carrying a single circuit and 2 DALI control wires, these Extender Cables are used to connect the components located on the DALI bus, this includes luminaires, sensors, switches etc. equipped with an EZ-Wiring Tap as shown below.



DALI Device Tap/Fixture Tap

Compact “T-bus” devices enable connections to equipment such as ballasts, sensors, switches etc. Taps are installed via ½” trade knockouts and 8” prepped TFN leads. Lead wiring can include cable for hanging fixtures or switch installations in walls.

The image below is representative of DALI/EZ-Wiring system topology.



For more information on EZ-Wiring, contact Electec at support@electeconline.com or 613-836-0300

For information on DALI click on <http://www.dali-ag.org/>