

SectorFlex vs Dimming Ballasts

Product: Sector[®] Ballasts

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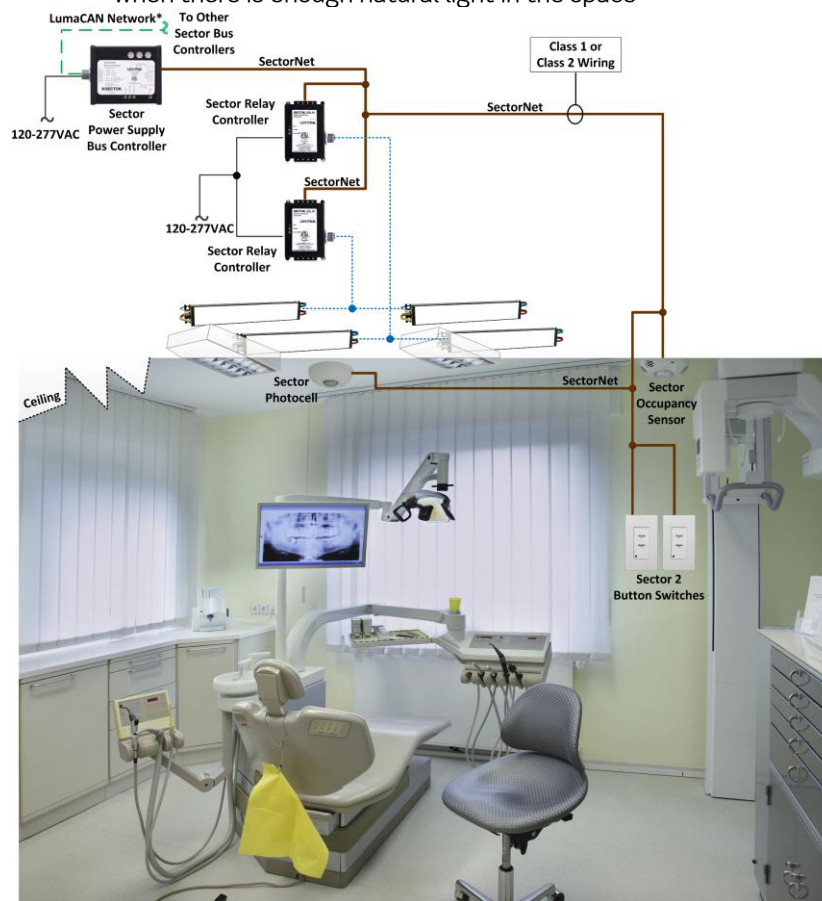
Summary: This article will compare using SectorFlex for bi-level switching versus Sector Dimming Ballasts for lighting control.

Information: SectorFlex switching ballasts and Sector dimming ballasts will achieve energy-saving results but will differ slightly in equipment, install costs and user experience. For this example, the application is a dentist office patient room with (2) fixtures located in the ceiling. The room has an Occupancy Sensor to ensure the lights are OFF when the room is vacant, and a photocell both for lumen-maintenance and daylighting purposes.

System Example #1 - Switching Ballasts (SectorFlex)

The SectorFlex example below includes:

- Sector Bus Controller connected to Sector Relays: controls existing switching ballasts
- Two wall switches: one to control the first set of lights to go from 0-50% and the second to control the second set of lamps which will take the lighting to 100%
- Occupancy Sensor: minimizes the energy usage by ensuring lighting is only ON when the exam room is occupied
- Photocell: operates in switching daylight harvesting mode, turning OFF lights to save energy when there is enough natural light in the space



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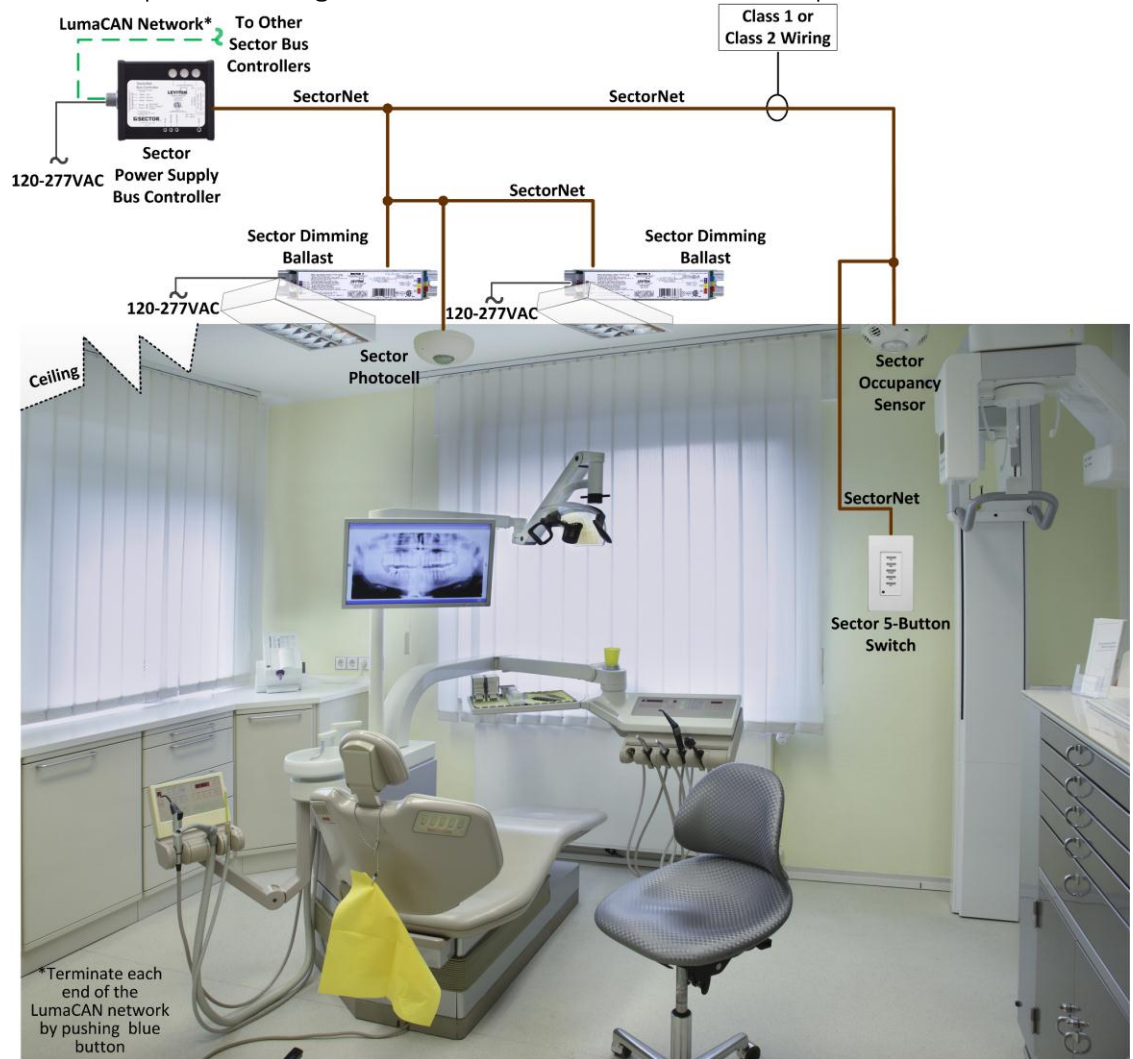
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System Example #2 - Sector Dimming Ballasts

In this example, we have upgraded the system from a switching-only system to a full-range dimming system by replacing the relay and switching ballasts with Sector full range dimming ballasts.

- Wall Switch: changed from (2) ON/OFF switches in the System Example #1 to (1) switch offering ON/OFF control and raise/lower control
- Occupancy Sensor: minimizes the energy usage ensuring lighting is only in use when the exam room is occupied
- Photocell: dims the lighting when ambient light exceeds target

In this example, the dimming will be smooth and unobtrusive to the occupants.



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Bi-Level Switching and Full-Range Dimming Cost

The choice between bi-level switching and full-range dimming in an application is similar in cost, but with several key differentials. See the table below for an itemized list of the costs involved in employing each Sector application into the dental office example. Whichever system you choose to accommodate your project's needs, Sector is a cost-effective and flexible option for an array of applications.

Equipment	Trade	Qty	Bi-Level Switching	Full Range Dimming
Switching Ballast	\$ 13	4	\$ 50	
Dimming Ballast	\$ 49	2		\$ 98
Fixture Cost (less ball)	\$ 63	2	\$ 125	\$ 125
Switch – Sector 2 Button	\$ 156	2	\$ 313	
Switch – Sector 5 Button	\$ 156	1		\$ 156
Occupancy Sensor	\$ 125	1	\$ 125	\$ 125
Photocell	\$ 188	1	\$ 188	\$ 188
Power Supply Bus Controller	\$ 344	1/8	\$ 43	\$ 43
Sector Relay	\$ 56	2	\$ 113	
Equipment			\$ 955	\$ 734
Install Cost			\$ 3,378	\$ 3,304
Commissioning Cost			\$ 100	\$ 100
TOTAL			\$ 4,434	\$ 4,139
\$/SqFt			\$ 7.29	\$ 6.81

NOTE: Chart based on 608 sq ft dental exam room; install estimates electricianpdq.com

Contact: If you have any questions or concerns, please call LES technical support at (800) 959-6004.