

PRODUCT BULLETIN

Introducing the TRANS Occupancy Sensors for Bi-Level Control



INTRODUCTION

Occupancy sensor based bi-level lighting control is becoming more popular due to its proven performance in energy saving, while still maintaining safe levels of light. To achieve maximum energy saving performance, selecting an occupancy sensor with bi-level control capabilities has become an important task for energy management professionals.

To fulfill the increasing demand for bi-level light control, IR-TEC offers a second-to-none wide range of bi-level occupancy sensors for today's market. The following table highlights the TRANS occupancy sensors available for bi-level lighting control.

Product Code	Power	Setting	Control	Driver	Ballast	Application Notes
COS-316Sxx COS-516Sxx	12-48VDC	MODE TIME DIM	Regulated DC	CV	N/A	8 control modes selectable. Available for bi-level control of LED lighting powered by CV driver.
BOM-314Sxx BOM-514Sxx	5-12VDC	TIME LUX	Dual digital	CV/CC*	PS*	For multi-channel bi-level or daylight harvesting control with, or without, a BMS.
BOM-315Sxx BOM-515Sxx	12-24VDC	TIME LUX	Dual digital	CV/CC*	PS*	For multi-channel bi-level or daylight harvesting control with, or without, a BMS. IR-TEC power pack applicable.
LOD-300Sxx LOD-500Sxx	100-277VAC	MODE TIME DIM	Switched Line Voltage, 0-10V analog	0-10V dimmable		8 control modes selectable. Line voltage power control.
BOA-316Sxx BOA-516Sxx	12-24VDC	MODE TIME DIM	0-10V analog	0-10V dimmable		8 control modes selectable. Low voltage power supply.
BOA-317Sxx BOA-517Sxx	12-24VDC	TIME LUX	0-10V analog, Digital	0-10V dimmable		30% factory default low dim can be altered upon special request.

* CV – Constant Voltage, CC – Constant Current, PS – Programmed Start

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CONTROL MODES

Depending on the requirements, different areas may require different bi-level control modes to achieve the best level of control. To provide maximum flexibility in design, and installation, all COS, LOD and the BOA-316/516 series of TRANS occupancy sensors feature 8 control modes selectable via a rotary DIP switch. These features enable each sensor to be individually configured to control the connected light per the modes described below.

SW	Mode	Sensor Operation	Chart
A	TEST	<ol style="list-style-type: none"> Turn on the light for 5 seconds at every motion detected. Dim the light for 10 seconds and then turn off. 	
B	OSO	<ol style="list-style-type: none"> Ambient light sensor disabled. Turn on the light per TIME DELAY set under occupancy. Dim the light to LOW DIM set all time under vacancy. 	
C	OSLA	<ol style="list-style-type: none"> Light off while ambient light is higher than 50 lux. Dim the light to LOW DIM set under vacancy and turn on the light per TIME DELAY set under occupancy while ambient light is lower than 20 lux. 	
D	OSMA	<ol style="list-style-type: none"> Light off while ambient light is higher than 130 lux. Dim the light to LOW DIM set under vacancy and turn on the light per TIME DELAY set under occupancy while ambient light is lower than 80 lux. 	
E	OSHA	<ol style="list-style-type: none"> Light off while ambient light is higher than 600 lux. Dim the light to LOW DIM set under vacancy and turn on the light per TIME DELAY set under occupancy while ambient light is lower than 500 lux. 	
F	OSLATO	<ol style="list-style-type: none"> Light off while ambient light is higher than 50 lux. Light off all time under vacancy, and turn on the light per TIME DELAY set under occupancy, dim the light to LOW DIM set for 10 minutes Time Off while ambient light is lower than 20 lux. Turn on the light on as TIME DELAY set if occupancy detected during Time Off. Turn off the light if no occupancy detected during Time Off. 	
G	OSMATO	<ol style="list-style-type: none"> Light off while ambient light is higher than 130 lux. Light off all time under vacancy, and turn on the light per TIME DELAY set under occupancy, dim the light to LOW DIM set for 10 minutes Time Off while ambient light is lower than 80 lux. Turn on the light on per TIME DELAY set if occupancy detected during Time Off. Turn off the light if no occupancy detected during Time Off. 	
H	OSHATO	<ol style="list-style-type: none"> Light off while ambient light is higher than 600 lux. Light off all time under vacancy, and turn on the light per TIME DELAY set under occupancy, dim the light to LOW DIM set for 10 minutes Time Off while ambient light is lower than 500 lux. Turn on the light on per TIME DELAY set if occupancy detected during Time Off. Turn off the light if no occupancy detected during Time Off. 	