

ELECTRONIC DIMMING BALLASTS WITH ANALOG DIMMING CONTROL (0-10V) FOR TWO (2) LAMP FIXTURES

Cooper Controls Electronic Dimming Ballasts, powered by Fifth Light Technology, offer cost-effective, reliable dimming control for linear fluorescent lamps, down to 3% for T5/T5HO and T8 lamps. These multi-lamp ballasts cover two-lamp fixtures over a range of lamp types and lengths installed in Cooper Lighting fluorescent lighting fixtures. All of the ballasts have tightly regulated current control to the lamp, quick programmed rapid start circuits, active power factor correction and lamp end-of-life protection. When used in two-lamp fixtures, the ballast operates in parallel-lamp mode, where if one lamp fails, the other stays lit. In addition, the Specification Grade ballasts perform true parallel-lamp dimming, ensuring start-up, dimming, and cut-off of the lamps are tightly coordinated and regulated. The ballasts are ideal for direct integration with Cooper Controls solutions and compatible with a wide variety of analog controls and photocells.

FEATURES

Ideal for use with 0-10V energy-management systems, daylight harvesting and local controls	Programmed Rapid Start maximizes lamp life
Helps meet energy codes, including ASHRAE 90.1 and California Title 24, when applied properly	End-of-lamp-life Shutdown circuit with Auto-reset for safe, long-term operation
Compatible with Energy-Saving and Low-Mercury Lamps	Active Power-factor Correction for maximum energy savings
120-277V input for easy ordering and universal application	Control inputs protected against mis-wiring with built-in line voltage protection
Dimming Range: 3% for T5/T5HO and T8	Starts at any dimmed level without flashing

STANDARDS AND LISTINGS

cULus Listed (Class P, Type 1 Outdoor, Type CC)	National Electrical Manufacturers Association (NEMA) Premium Rated
Meets ANSI Standard C82.11	Meets FCC CFR 47 Part 18 for EMI and RFI Non-consumer limits
Meets ANSI Standard C62.41	No PCBs
Restriction of Hazardous Substances Directive (RoHS) Compliant	Sound Rated, Class A
Ballast must be grounded in accordance with national and local electrical codes	Control can be wired as Class I or Class II
Complies with Consortium for Energy Efficiency (CEE) standards	

PERFORMANCE AND ELECTRICAL CHARACTERISTICS FOR ALL SINGLE-LAMP BALLASTS

Minimum Dimming Temperature: 50°F (10°C). Energy Saving Lamps: 60°F (16°C)	Minimum Starting Temp: 0°F (-18°C)
Maximum Ambient Temperature: 104°F (40°C)	Maximum Case Temperature: 167°F (75°C)
Ballast Factor: 1.0	Power Factor: > .98
Crest Factor: < 1.7	Total Harmonic Distortion (THD): < 10%
Start time: less than 700ms	

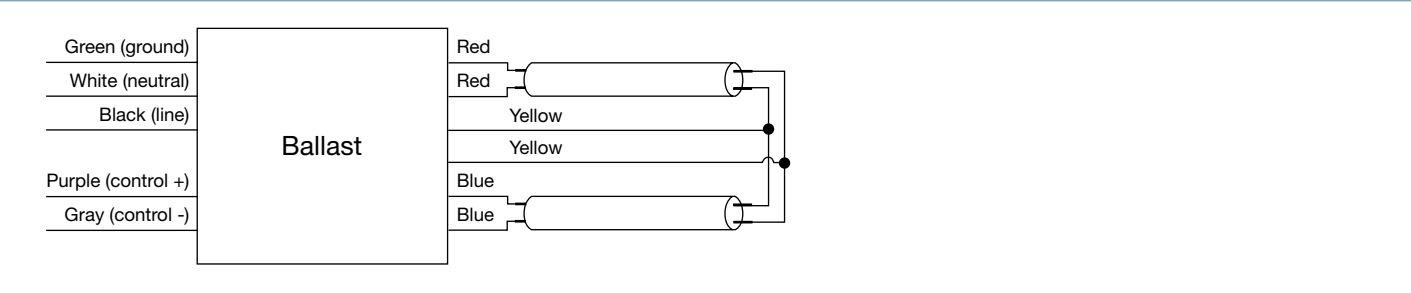
PERFORMANCE AND ELECTRICAL CHARACTERISTICS BY LAMP TYPE

Cooper Part Number	Lamp Type	Specific Lamp	Lamp Watt	Lamp Length	Lamp Operation	Voltage	Input Amps -120V	Input Amps -277V	BEF - 120V	BEF - 277V	Dimming Performance
FLT-232PSUNVS010-R1-C	T8	T8	40	4	Parallel	120-277	0.59	0.25	1.24	1.24	3%
		T8	32	4			0.47	0.2	1.53	1.53	
		T8	28	4			0.4	0.17	1.81	1.81	
		T8	25	3			0.36	0.15	2.02	2.02	
		T8	17	2			0.25	0.11	2.81	2.81	
		T8U	32	U			0.49	0.21	1.50	1.50	
		T8ES	32 (30)	4			0.44	0.19	1.61	1.61	
		T8ES	32 (25)	4			0.37	0.16	1.98	1.98	
FLT-228PSUNVS010-R1-C	T5	T5	28	4	Parallel	120-277	0.55	0.23	1.59	1.59	3%
		T5	21	3			0.42	0.17	2.13	2.13	
		T5	14	2			0.29	0.12	3.03	3.03	
		T5ES	28 (26)	4			0.52	0.22	1.75	1.75	
		T5ES	28 (25)	4			0.51	0.21	1.75	1.75	
FLT-254PSUNVS010-R1-C	T5HO	T5HO	54	4	Parallel	120-277	0.94	0.41	0.89	0.89	3%
		FT55W	55	4			0.88	0.38	0.86	0.86	
		FC55T5HO	55	4			0.83	0.38	0.87	0.87	
		T5HOES	54 (49)	4			0.89	0.37	0.99	0.99	

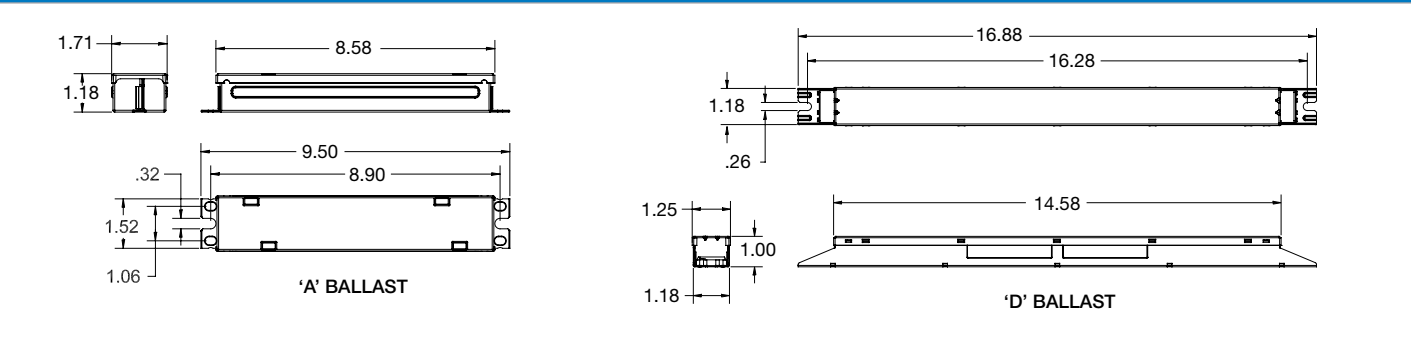
DIMMING CONTROL APPLICATIONS AND SPECIFICATIONS

Use Purple (+) and Gray (-) for connection to 0-10VDC	0V = Minimum Light Output
Wiring Purple and Gray together provides 3% light output	Can be wired Class I or Class II
Capping Purple and Gray separately provides 100% light output	Ballast will source a maximum of 250µA for control needs
Built-in line voltage protection: Minimum Light Output level will occur if line voltage is applied	Control must be capable of sinking current supplied by ballast
10VDC = Maximum Light Output	

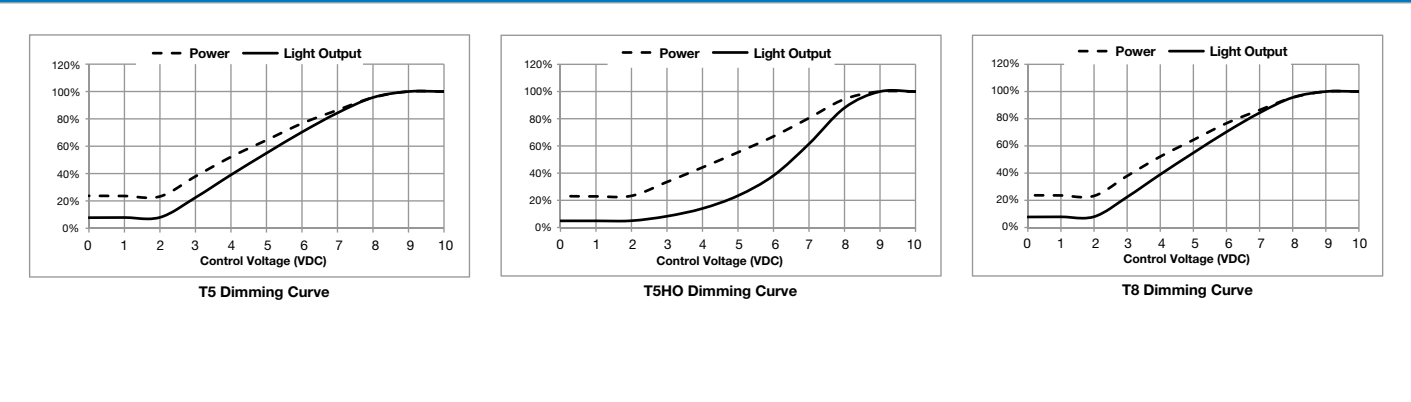
WIRING DIAGRAM



BALLAST DRAWINGS



DIMMING CURVES



WARRANTY AND SUPPORT INFORMATION

Cooper Lighting warrants to the purchaser that each factory-installed electronic ballast will be free from defects in material or workmanship for a period of five (5) years from the date of manufacture when properly installed and under normal conditions of use.

Call (800) 955-4946 or email ballast@cooperindustries.com for warranty information and support.