

MERCURY VAPOUR CONTROL GEAR



EYE Lighting has a range of mercury vapour control gear products (IEC 60188) that are suitable for operating Mercury Vapour lamps and EYE "ACE" retrofit type lamps. Versions are available in Gear Tray, Cast Box and Sturdigear configurations.

MERCURY VAPOUR REQUIREMENTS

Mercury Vapour (MV) control gear is simpler in concept than many other types. It consists of a Reactor ballast (also commonly called a "choke") and a capacitor which adjusts the power factor to within acceptable parameters. In industrial and exterior settings "ferromagnetic" types are used because of their ability to withstand heat and vibration. No ignitor is included with mercury vapour control gear. Note that EYE "ACE" lamps feature an "internal ignitor" inside each lamp so although they are designated as either metal halide and high pressure sodium types they will still operate with MV gear.

GEAR TRAY TYPE

Gear Trays (GTS) are designed to be easily installed inside poles, walls, cabinets and other structures away from weather and other potential hazards. They do not have an IP rating. Gear Trays come in two basic footprints depending on the wattage see Figures 1 and 2 for the dimensions.

CAST BOX TYPE

Cast Box (CB) types are IP65 certified and are fully enclosed in a cast aluminium casing allowing fitment in exterior locations that are exposed to the weather. Cast boxes also come in two basic footprints depending on the wattage; see Figures 3 and 4 for the dimensions.

STURDIGEAR

Sturdigear types are like Cast Boxes but with the added protection of anti-vibration features allowing fitment in more demanding industrial locations or situations. Sturdigear is focused on higher wattage industrial situations so comes in one basic footprint; see Figure 5 for the dimensions.

WHY IS CONTROL GEAR NEEDED?

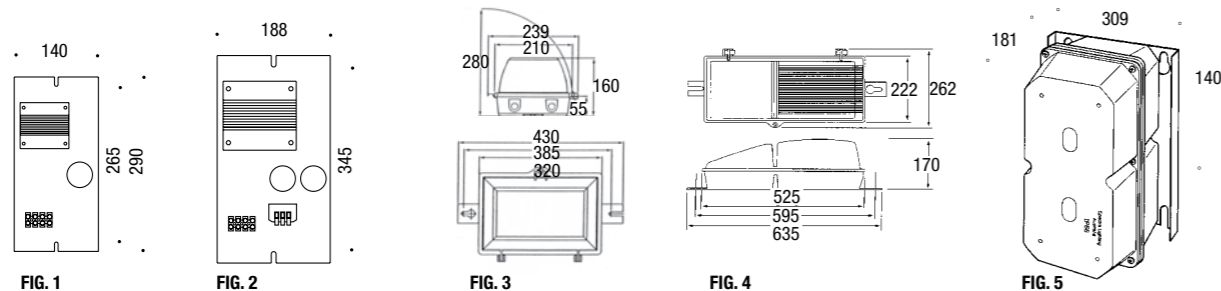
Mercury Vapour lamps cannot function directly on mains voltage supply (eg, 240V 50Hz AC). Control gear is required to:

- ensure the lamp will continue to operate even though twice during each AC cycle the voltage is effectively zero;
- regulate and stabilise the current flow (this is because MV arc tubes have a "negative resistance" and without regulation will draw current until they self-destruct).

CAUTION

Control gear is designed to match the characteristics of particular lamp types and brands. The ballast (also known as a "choke") and ignitor requirements are different for many American, European and Japanese lamp types, and care is required to correctly match the lamp / choke / ignitor / supply voltage / combination. Mis-matched lamp / gear combinations can cause short life, reduced light output, colour shift, cycling and overheating of the components.

MEASUREMENTS



Product Code	Description	Input Volts	Supply Current (at 0.9PF)		Lamp Values		Weight (kg)	Fig	Compatible Lamps
			Start Current	Run Current	Lamp Volts	Lamp Current			
125W									
253500	H125 GTS	240	0.961	0.634	125	1.15	2.15	1	HF125PD
253100	RH125 CB	240	0.961	0.634	125	1.15	4.75	3	HRF125PD
250W									
253505	H250 GTS	240	1.85	1.25	130	2.13	3.05	1	HF250PD
253105	RH250 CB	240	1.85	1.25	130	2.13	6.3	3	HRF250PD
400W									
253510	H400 GTS	240	3.15	1.98	135	3.25	3.75	1	HF400PD
253115	RH400 CB	240	3.15	1.98	135	3.25	7	3	HRF400PD
251210	STURDIGEAR 400W MV	240	3.15	1.98	135	3.25	13.5	5	
700W									
-	H700 GTS	240	5.7	3.4	140	5.4	6.8	2	HF700PD HR-F700PD
253125	RH700 CB	240	5.7	3.4	140	5.4	9.2	4	
1000W									
253515	S940 GTS	240	6.35	4.54	145	7.5	9.2	2	HF1000PD
253235	RS940 CB	240	6.35	4.54	145	7.5	14	4	HRF1000PD
253135	RH1000B CB 415V	415	4.72	2.78	265	4.2	14	4	M1000LE MF1000LE HF1000BPD

MERCURY VAPOUR - BARE CHOKE

Product Code	Description
510130	EH50
510131	EH80
510132	EH125
510133	EH250
510134	EH400
510270	EH700
510128	EH1000

