Pulsed Beacons

techNOTE

A pulsed or flashing beacon is a type of device that draws attention to itself by emitting light to warn of danger or signify an alarm. Inside a pulsed beacon, an electronic circuit controls the light source, turning it on and off constantly for periods of time according to the flash rated of the individual beacon.

Pulsed beacons generally fall into two types: Filament Bulb, Including Halogen, and LED.

Filament Bulb / Halogen	**LED**
Pros	
Cheaper	Lower power consumption
Bulb gives even overall illumination	Small amount of heat generated
	Fast pulsing possible (The filament in a normal bulb takes a certain amount of time achieve full brightness, whereas LED is a lot lot faster and can therefore flash more per second)
	Various pure colours available (Coloured LED's that match coloured dome. Minimal light reduction light output as a result)
	Multiple colours can be used in single unit (For example, Red/Amber/Green LED's in one unit with clear dome to flash from Red to Amber to Green, as required)
	High efficiency
	Long life
Cons	
High power consumption	Higher initial cost
Large amount of heat generated	Some LED's are directional so do not give 360 degree illumination like a filament bulb, however this can be an advantage in certain applications
Slow pulsing speed (takes a set amount of time for the filament to achieve full brightness)	
Relatively short bulb life	
Bulb filament susceptible to shock and vibration	
Light output reduced by colour domes (as bulbs are clear with white light)	

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