

Revolutionary technology for low Mercury and Amalgam lamps

In recent years, as a direct result of environmental concerns, the Mercury content of fluorescent lamps has been steadily reduced to lessen the impact on the environment when the lamps reach their end of life and require recycling or safe disposal. The RoHS directive imposes strict limits on the amount of potentially hazardous substances that can be used in the manufacture of products and Mercury is one of the six hazardous substances identified in this directive. Lamp manufacturers are required to comply with these limits and have initiatives to remove all Mercury from fluorescent lamps in the near future.

Since its introduction five years ago, MHI's **Perferm™** technology range of emergency modules, which incorporate enhanced striking technology and permanent heating of the lamp cathodes in emergency mode, have gained favour with many of the major emergency lighting companies within Europe and the Middle and Far Eastern countries. **Perferm™** modules operate with most standard Mercury, reduced Mercury and Amalgam based fluorescent lamp types and thus offer customers who supply emergency lighting luminaires a safeguard against potential compatibility problems when lamps are replaced with lower Mercury level lamps, at a later date.

This is becoming more of an issue because as the Mercury levels in fluorescent lamps continue to fall, conventional modules without **Perferm™** technology are already failing to provide correct emergency operation, which at best dramatically reduces the lamp life and can lead to poor colour rendition or 'pink limbs' on some compact fluorescent lamps and in some extreme instances, no light from the lamp in emergency conditions.

We now offer two alternative versions of the **Perferm™** with the PH4000 and PL4000 series offering all the advantages of **Perferm™** without the additional mains ballast delay control relay found in the PLR5000 and PHR5000 **Perferm™** Plus modules. These have been designed specifically for use with multi-lamp or dimmable electronic ballasts where 'lock out' can be a problem (supply present but the ballast has shut down because the emergency lamp has been temporarily disconnected from the ballast during testing). This is the case where a keyswitch is used to fail the permanent supply (to test the emergency lighting), whilst the switched supply is still present at the electronic ballast. The additional relay introduces a small time delay before the power is reconnected to the electronic ballast, allowing it time to reset correctly after the emergency test.

