

**TECHNICAL FEATURES OF
BINAY
INDUSTRIAL SERIES LED MODULES**

The BINAY INDUSTRIAL SERIES LED Module pilot light is particularly designed for use in industrial environments, and incorporates the benefits gained from Binay's 20-year experience in LED semiconductor technology

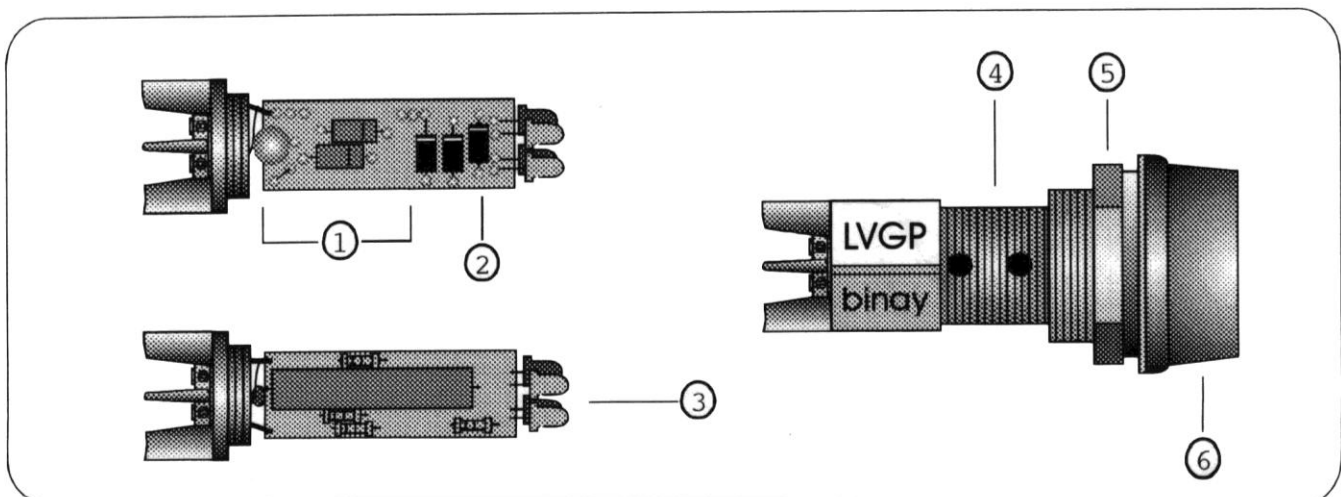
Binay Industrial Series LED Modules offer the following advantages:

- Binay's patented Low Voltage Glow Protection (LVGP) circuit prevents the LED from glowing below 40V as a result of stray leakage voltages induced in long parallel runs of cabling. This is extremely important, particularly in large industrial complexes which have such long runs of parallel cabling. While the existing filament bulb will not glow at these small induced leakage voltages due to the thermal inertia of the filament, LEDs will glow readily, giving rise to false 'ghost' indications

Relevance: Very important to prevent false indication in line OFF conditions, which can lead to a hazardous situation for personnel

The LVGP feature is covered under our patent application. As such, this feature is proprietary under the intellectual properties laws of the Government of India, and any other party offering OR utilising the same will be in contravention of our patent and liable to legal action.

- The body of the unit is made of heat resistant, fire-retardant, non-hygroscopic, **THERMOSET DMC** material, as per UL-94 V2
Relevance: Body should not melt on possible overheating; very important in case of accidental fire
- In-built surge suppression and transient (spike) protection circuitry is provided
Relevance: Provides inherent protection to the fragile LED semiconductor chip from line surges, noise, and harmonics
- An internal fuse is provided for protection of online equipment in case of a short circuit
Relevance: Important to prevent damage to external components and circuitry in case of short inside LED pilot light
- Internal components are mounted on a double-sided fire-retardant glass-epoxy printed circuit board for greater reliability
Relevance: PCB assembly provides high reliability
- High intensity industrial grade LEDs/multichip LED Chip-On-Board construction is used for reliable light emission
Relevance: Ensures proper visibility. Latest InP/GaP Technology LEDs offer greatest Mean Time Between Failures
- The Module is designed to IP65 requirements (i.e., water and dust penetration from top surface of Module)
- The Module can withstand a high voltage test of 2.5 KV between body and terminal for one minute.



1. LVGP, Surge Suppression, and Fuse Protection circuitry
2. Fire-retardant **THERMOSET DMC** glass epoxy PCB
3. Industrial grade InP/GaP Technology LEDs

4. Heat resistant, fire-retardant, non-hygroscopic DMC material
5. Durable moulded MEP bezel
6. Polycarbonate lens



binay opto electronics private ltd.

44, Armenian Street, Calcutta 700 001, India
Telephone: (033) 22429082, 22102039, 22103807

Fax: 91-33-22421493

www.binayLED.com

email: info@binayLED.com, binay@vsnl.com