Pilot devices
Modular LED blocks MLBL*

ABB pilot devices are engineered for total reliability. Our products are tested to extremes and proven in the toughest environments. Their innovative designs simplify the entire process, from selection to installation.

The modular LED blocks MLBL* is our most versatile range with high level of flexibility and market-leading electrical ratings. Engineered for total reliability, longer lifetime, and highest mechanical durability. Self-cleaning contacts ensure reliable operation without the need for maintenance, increasing uptime. High degree of protection guarantee reliability in extreme environments. The innovative design simplifies the entire process, from selection to easy and quick, tool-free installation. The perfect solution for every application.

Product conformity & compliance

REACH (Regulation EC 1907/2006)
The modular LED blocks MLBL* and related accessories were classified as articles and, during normal and reasonably foreseeable conditions of use, do not intentionally release any substance or preparation. ABB continuously undertakes communications throughout its supply chain in order to collect information about suppliers’ compliance with REACH regulation.

SVHC (Regulation EC 1907/2006 REACH)
ABB continuously assesses its products for content of Substances of Very High Concern (SVHC), as included in the “Candidate List” by the European Chemicals Agency (ECHA). According to our best knowledge, Modular LED blocks MLBL* and related accessories do not contain SVHC substances exceeding 0.1 % w/w.

RoHS II
The modular LED blocks MLBL* and related accessories are within the scope of directive 2011/65/EU (RoHS II) and amendment 2015/863, starting from July 22 2019.

WEEE
**Material declaration**

The charts below show the constituents of MLBL-10R which represent the range of modular LED blocks MLBL*. The constituent materials are distributed as follows.

**MLBL-10R. The total weight of the product is 9.88 gr.**

<table>
<thead>
<tr>
<th>Material</th>
<th>% wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PA</td>
<td>53.5 %</td>
</tr>
<tr>
<td>2 Steel</td>
<td>38.0 %</td>
</tr>
<tr>
<td>3 PCBA</td>
<td>8.5 %</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100 %</td>
</tr>
</tbody>
</table>

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**Product safety**

Compliance with essential health and safety requirements has been assured by compliance with the applicable product and safety standards. The validation according to the product and safety standards is carried out by third party tests laboratory (Intertek Semko) in respect of the EN ISO/IEC 17025 European standard, according to IECEE CB scheme. CB certificate has been issued.

**Standards:**
- UL508
- CSA C22.2 No.14
- IEC/EN60947-1
- IEC/EN60947-5-1
- IEC/EN 60073
- IEC/EN 60529

**Directives:**
- Low Voltage Directive No. 2014/35/EU
- EMC Directive No. 2014/30/EU
Packaging

The charts below provide information for each packaging material used. The cardbox and the paper used for the product material are made of recycled fibers and are 100% recyclables. The polymer films used are marked with the proper identification code and are recyclable.

**MLBL-10R packaging material composition: total weight = 2 gr.**

<table>
<thead>
<tr>
<th>Material</th>
<th>% wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymers</td>
<td>97%</td>
</tr>
<tr>
<td>Paper</td>
<td>3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>

End-of-life

At the end of operating life, constituent components of modular LED blocks MLBL* have been optimized in order to reduce waste amount and increase recovery of the material. Metals and polymers contained into modular LED blocks MLBL* are characterized by high recycling rates. Most plastic parts are marked for easy sorting.