OPTIMA™
Overcurrent Protection Module - Fuseholder
for 1\(\frac{3}{32}\)” x 1\(\frac{1}{2}\)” (10mm x 38mm) Fuses

Physical Characteristics:
- Small size matches 45mm IEC starter width.
- Fits #8-18 AWG stranded wire, #10-18 AWG solid wire.
- 3-pole version.

Product Features:
- “Open” fuse indication lights. (Min. 100V required)
- Cam action handle for easy removal.
- Finger safe terminals. (Qualified as IP20 per IEC529)
- Removable module for convenient fuse loading.
- 35mm DIN-rail or screw panel mounting (#8 screw, 1\(\frac{1}{2}\)” long).
- Dead front construction.

Additional Features:
- Option for remote “open fuse” status indication feature available (less downtime).
- Offered with Class CC rejection clips or European 10mm x 38mm clips to meet global needs.
- Wire ready: Saves time as terminals are ready to accept wires.

Materials: Grey Thermoplastic
UL Flammability: UL 94VO
Agency Information:
UL - see table below
CSA Certified: C22.2 No. 39, Class 6225-01, File 47235
IEC - see table below

Shipping Weight: Approx. 213g (.47 lb.)
Carton Quantity: 1

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Electrical Rating</th>
<th>SC Rating</th>
<th>Clips</th>
<th>Remote Open Fuse Indication</th>
<th>UL Information Std.</th>
<th>File</th>
<th>Guide</th>
<th>IEC</th>
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<tbody>
<tr>
<td>OPM-1038</td>
<td>30A, 600V UL/CSA** (Max. 3 Watts per fuse) 32A, 660V IEC</td>
<td>*</td>
<td>Non-rejection, 10 x 38mm or 13/32” x 1-1/2”</td>
<td>No</td>
<td>Recognized</td>
<td>UL 512 E14853 IZLT2</td>
<td>IEC 269-2-1</td>
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<tr>
<td>OPM-1038R</td>
<td>30A, 600V UL/CSA**</td>
<td>200kA</td>
<td>Rejection, Class CC</td>
<td>No</td>
<td>Listed</td>
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<td>OPM-1038C</td>
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<td>Yes</td>
<td>Recognized</td>
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<td>IEC 269-2-1</td>
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<tr>
<td>OPM-1038RC</td>
<td>30A, 600V UL/CSA**</td>
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<td>UL 512 E14853 IZLT</td>
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</table>

*Rating varies depending on fuse used in module.
**DC Voltage Rating: 600V UL/CSA

CE logo denotes compliance with European Union Low Voltage Directive (50-1000Vac, 75-1500Vdc). Refer to Data Sheet: 8002 or contact Bussmann Application Engineering at 636-527-1270 for more information. Applies to OPM-1038 and OPM-1038R.

Recommended Fuse Types:
- Class CC: Midget (non-rejection)
  - LP-CC: KTK
  - KTK-R: FNM
  - FNQ-R: FNQ

WARNING
Do not open or install when energized
OPTIMA™
Overcurrent Protection Module - Fuseholder
for 13/32" x 11/2" (10mm x 38mm) Fuses

Dimensional Data

Spare Fuseholder: Part No. 5TPH
**OPEN FUSE INDICATION**

**Status Output Specifications:**
- Minimum operating voltage: 460 Vac, 3-phase
- Maximum operating voltage: 620 Vac, 3-phase
- Status output maximum conducting current: 40 mA
- Status output maximum resistance: 35 ohms @ 40 mA
- Status output typical off resistance: > 10 Mohm
- Status output maximum turn-on and turn-off delay: 850 millisecond

**Status Output Interface Specifications:**
- Rated Voltage: Recommended 5-35 Vdc, 300 Vac max.
- Rated Current: 40 mA max.
- Wire Size: #28-14 AWG
- Torque: 2.25 lb. in.

**Open Fuse Indicator Status Output Description:**
The open fuse indicator status output acts very much like an on/off switch. With all three fuses in place and operating properly, this status output has a high resistance value of greater than ten mega-ohms. When one or more of the fuses are open, the status output becomes turned-on with a resistance value less than 35 ohms. This status output withstands voltage (AC or DC) up to 35 volts at off-state and conducts current up to 40 milli-amps at on-state. Applying voltage and current exceeding these limits will result in damage to the components inside this status output device permanently. There is some time-delay when the status output changes on/off state. The open fuse communications or status output device includes optical isolators within the unit.

Communications output states:
- Fuse Good: NO - High Resistance, >10 mega-ohms
- Opened Fuse: NC - Low Resistance, < 35 ohms

**Note:** Operating this device beyond the above limits will cause permanent damage to the components on the board.

For applications requiring status output below a system voltage of 460V, contact Bussmann.

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The examples shown below illustrate typical interface to Programmable Logic Controllers.

**EXAMPLE 1: DIRECT INTERFACE TO PC/PLC**

```
PC / PLC

Vcc (5V to 35V)
Pull up Resistor (>1K)

TTL Digital Input

STATUS OUTPUT
```

**EXAMPLE 2: INTERFACE TO PC / PLC WITH OPTICAL ISOLATION**

```
PC / PLC

Vcc (5V to 35V)
Pull up Resistor (>1K)

TTL Digital Input

Optical Isolator

Current-Limiting Resistor

ISOLATED AC OR DC POWER SOURCE
```

**Note:** When energized, a low load terminal voltage will be present when fuses are open or when pullout module is removed. The leakage current is limited to .5 mA maximum.

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**Example of Output Voltage with three open fuses or pullout module removed.**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Type of Indication</th>
<th>OPM-1038, OPM-1038R Standard</th>
<th>OPM-1038RC, OPM-1038RC Communication</th>
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<tbody>
<tr>
<td>System Voltage</td>
<td>Load Terminal Voltage</td>
<td>(271-472-673)</td>
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<tr>
<td>125 Vdc *</td>
<td>12 Vdc *</td>
<td>26 Vdc</td>
<td>31 Vdc *</td>
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<tr>
<td>480 Vdc, 3-phase</td>
<td>66 Vdc</td>
<td>56 Vdc</td>
<td>88 Vdc</td>
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<tr>
<td>600 Vdc, 3-phase</td>
<td>33 Vdc</td>
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<td></td>
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</tbody>
</table>

*The communication device requires a minimum circuit voltage (L1-L2-L3) of 460 volts for the status indicating device to operate. Below 460 volts, but above 120 volts the indicator lights will luminate, but there will not be any communication status output.

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