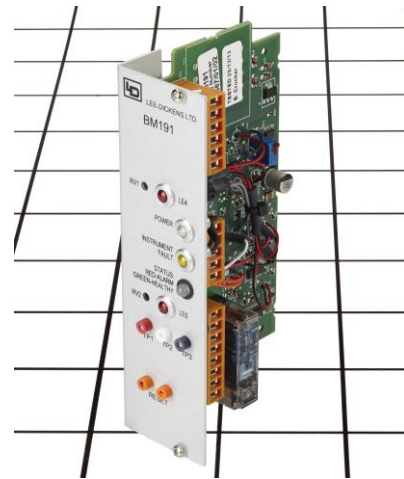


Function: The BM191 is a Flowmeter Alarm Unit module suitable for use with a number of different VA Flowmeters. These modules can be panel mounted or used with the **Lee-Dickens Multi-way enclosures** (please see BM191E). The BM191 can be configured for use as a Low or a High Flow Alarm, as required. Each different VA Flowmeter will require a different sensor head for mechanical reasons but in all cases the operation of the Alarm Unit is the same. The sensor heads supplied come with 5M of cable for connection to the Alarm Unit. The BM191 has an "Instrument Fault" indication LED (Amber) which is triggered following loss of power or loss of connection to the Head. This LED can only be cleared by restoring power or replacing the head, passing the float from the Alarm State to the Healthy State and pressing the RESET button (mounted separately) to initiate the "Stable" condition. The BM191 incorporates a sensitivity adjustment to cater for different VA Flowmeters. For enclosed standalone units please refer to the BU191.

**Please note:** VA Flowmeters are not supplied with the Alarm Unit.



## SPECIFICATIONS

### INPUTS:

#### VA Flow Meters

Emerson 1100  
Emerson 1300  
Yokogawa RAGK  
And others to be advised

#### Sensitivity Pots

1 per channel  
For minimum sensitivity wind sensitivity potentiometer fully anti-clockwise

#### Installation

BM191 has been designed to be easily retro-fitted to existing VA Flowmeters

### OUTPUTS:

#### Alarm Relay

Type: G7SA3A1B Omron  
EN50205 Class A approved  
4 Pole Single Throw Relay  
3 x Normally Open  
1 x Normally Closed

#### Contact Ratings:

Rated Load:  
6A at 230 Volt AC  
6A at 30 Volt DC  
Rate Carry Current: 6A  
Max Switching Voltage:  
250 Volt AC, 125 Volt DC  
Max Switching Current: 6A  
Max Switching Capacity:  
1,500 VA, 180 W

### SUPPLY:

#### Power Supply

22 to 28 Volt DC

#### Power Required

40mA

### PANEL INDICATIONS:

#### Pilot Light

White LED indicates Power ON

#### Instrument Fault Light

Amber LED

#### Flow Alarm State Light

Green = Healthy  
Red = Alarm

### GENERAL:

#### Operating / Storage Temperature Range

0 to +45°C / -20 to +60°C

#### Operating & Storage Humidity Range

0 to 95% RH non-condensing

#### EMC

EN 61000-6-2:2001 Industrial  
EN 61000-6-4:2001 Industrial

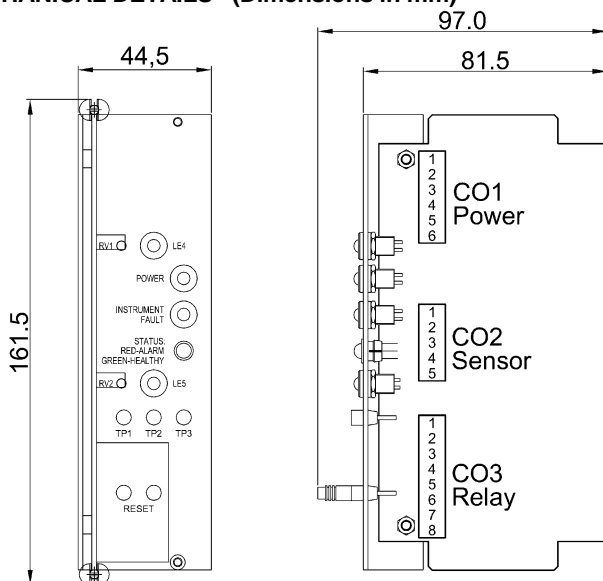
#### Weight

120 gms

#### IEC 61508 – SIL Rating

SIL 2 or better

### MECHANICAL DETAILS (Dimensions in mm)



### TERMINATION DETAILS

#### CO1 POWER SUPPLY

- 1 Unused
- 2 Unused
- 3 Unused
- 4 Earth
- 5 -ve DC
- 6 +ve DC

#### CO2 SENSOR HEAD

- |                |        |
|----------------|--------|
| 1 Light Source | Red    |
| 2 Sensor 2     | Green  |
| 3 Sensor 1     | Yellow |
| 4 Common       | Blue   |
| 5 Screen       |        |

#### CO3 RELAY OUTPUT

- 1 Normally
- 2 Open Pair 1
- 3 Normally
- 4 Open Pair 2
- 5 Normally
- 6 Open Pair 3
- 7 Normally
- 8 Closed Pair 1

### ORDERING DETAILS

- a) Give identification code, i.e. BM191
- b) Give all details of VA Flowmeter with which it is to be used
- c) State if the Alarm is to be a High Flow or a Low Flow alarm

### DOCUMENTATION

- a) O & M Manual
- b) Independent EMC Testing Report
- c) FMEDA SIL Rating Report

