

ML-2140.IS MAXLOGIC CONVENTIONAL SYSTEM MULTISENSOR (PHOTOELECTRIC SMOKE + HEAT) DETECTOR, INTRINSICALLY SAFE



It has been designed according to **EN IEC 60079-0:2018, EN 60079-11:2012 and EN ISO/IEC 80079-34:2020** standards as **intrinsically safe (I.S)** for use in **hazardous environments**. It also meets the requirements of the **EN 54-5 and EN 54-7** standard.

ML-2140.IS intrinsically multi-sensor detector has an infrared photoelectric smoke detection chamber utilizing the infrared light scatter sensing principle and a temperature-sensitive **thermistor**. If the ambient temperature reached **60°C** or there is a **temperature increase specified in EN54-5 standard** and/or if there is smoke in the optical chamber, the fire is detected and fire alarm signal is generated. There are **two red LEDs** on the products that provide 360° viewing angle. These LEDs light up continuously in case of **Alarm**, flash once in 8 seconds in **Normal Operation** and 2 times in 8

seconds in case of **Fault (pollution or measurement fault..etc.)**.

GENERAL FEATURES

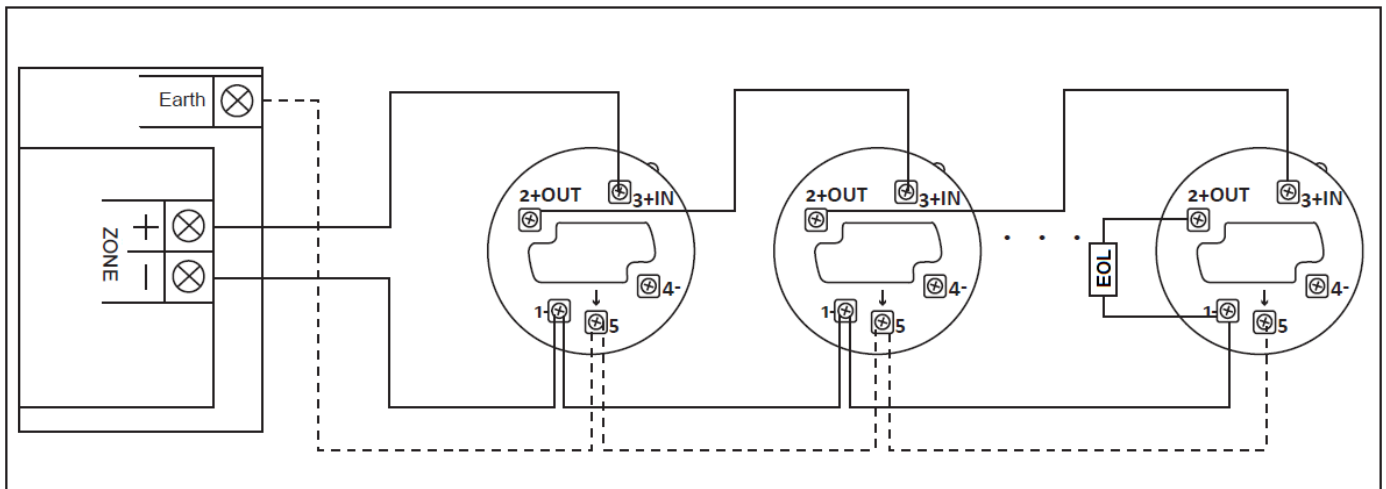
- Complies with ATEX directive **EN IEC 60079-0:2018, EN 60079-11:2012 and EN ISO/IEC 80079-34:2020** standards.
- It is designed according to the classification of **ATEX Ex II 1G EX ia IIC T5 Ga -10°C≤Ta≤55°C**.
- It can be used in **Category 1, 2 or 3 hazardous atmosphere environments** with temperatures up to **55°C**.
- Complies with Construction Product Regulation **EN 54-5 and EN 54-7** standard.
- It has **2 red LEDs**. These LEDs allows us to monitor different situations by flashing continuously in case of **Alarm**, once in 8s in **Normal Operation**, and twice in 8s in case of **Fault (pollution or measurement fault..etc)**.

TECHNICAL FEATURES

| | |
|---|-----------------------------------|
| Supply Voltage | 14 - 28.5V DC |
| Detection Source | Optical Chamber + Dual thermistor |
| Quiescent / Alarm Current (max.) | 220µA / 95mA |
| Remote Indicator Output (max.) | 35mA |
| Heat Class | A1R |

| | |
|----------------------------|--|
| Alarm Indicator | 2 Red LED |
| Operating Temp | (-10°C) - (+55°C) |
| Storage Temp | (-30°C) - (+60°C) |
| Relative Humidity | %0 – 95 Rh (@40°C non-condensing) |
| IP Protection Class | IP20 |
| Dimensions | Ø:106mm, h:51mm |
| Weight | 141gr |
| Compatible Base | ML-0140.IS |
| Cable | 1x2x0,8+0,8JH(st)H 1x2x1,0+1,0JH(st)H 1x2x1,5+1,5JH(st)H |

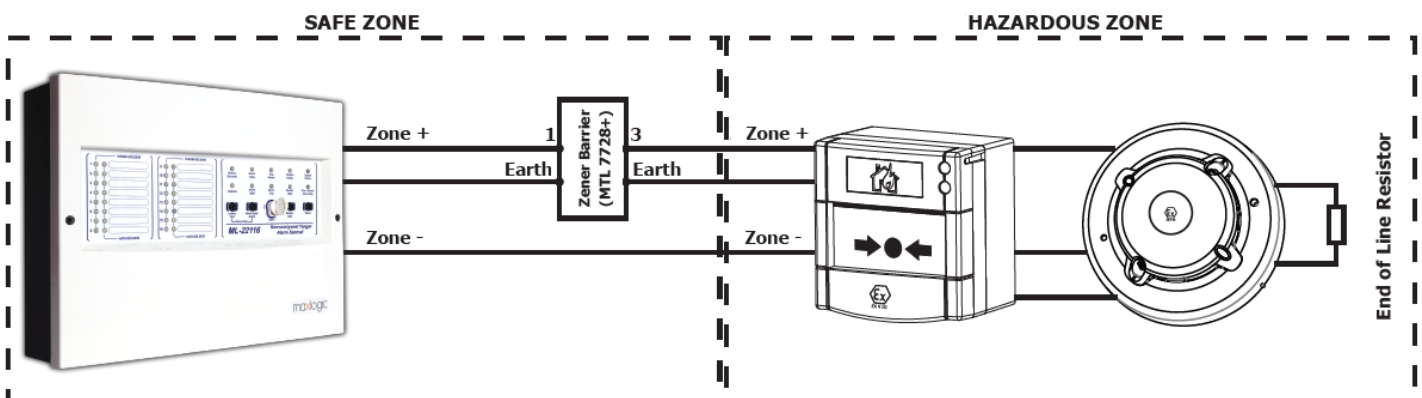
CONNECTION SCHEME



EOL: End Of Line Resistor

CONNECTION TO HAZARDOUS ZONE WITH ZENER BARRIER

- CONNECTION WITH MTL 7728+



* Max. 20 pieces detector or max. 32 pieces manual call point, total product quantity can not exceed 32.

Important Note:

- * The earth connection of the system must be made.
- ** The Earth Connection of Safe Zone or Hazardous Zone must be provided with "Zener Barrier".

MAXIMUM CABLE LENGTH

| Cable ($\mu\text{F}/\text{km}$) | Group IIC | Group IIB | Group IIA |
|---|--|---|---|
| 1x2x0,8+0,8JE-H(st)H ($<100\text{nF}/\text{km}$) | $0,083\mu\text{F}/(100\text{nF}/\text{km})=$ 800m | 1 km (0,8mm cable for maximum length) | 1 km (0,8mm cable for maximum length) |
| 1x2x0,8+0,8J-H(st)H ($<100\text{nF}/\text{km}$) | $0,083\mu\text{F}/(100\text{nF}/\text{km})=$ 800m | 1 km (0,8mm cable for maximum length) | 1 km (0,8mm cable for maximum length) |