

# PYROELECTRIC FOUR ELEMENT DETECTORS FOR CEILING MOUNT

PYROELECTRIC DETECTORS FOR MOTION SENSING ■



## LHI 1128, PYQ 1398

### Applications

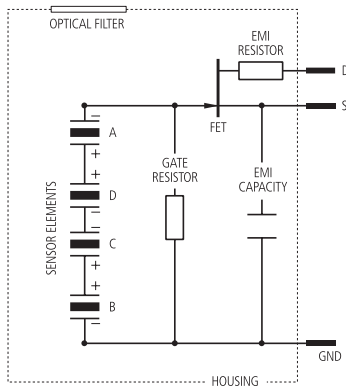
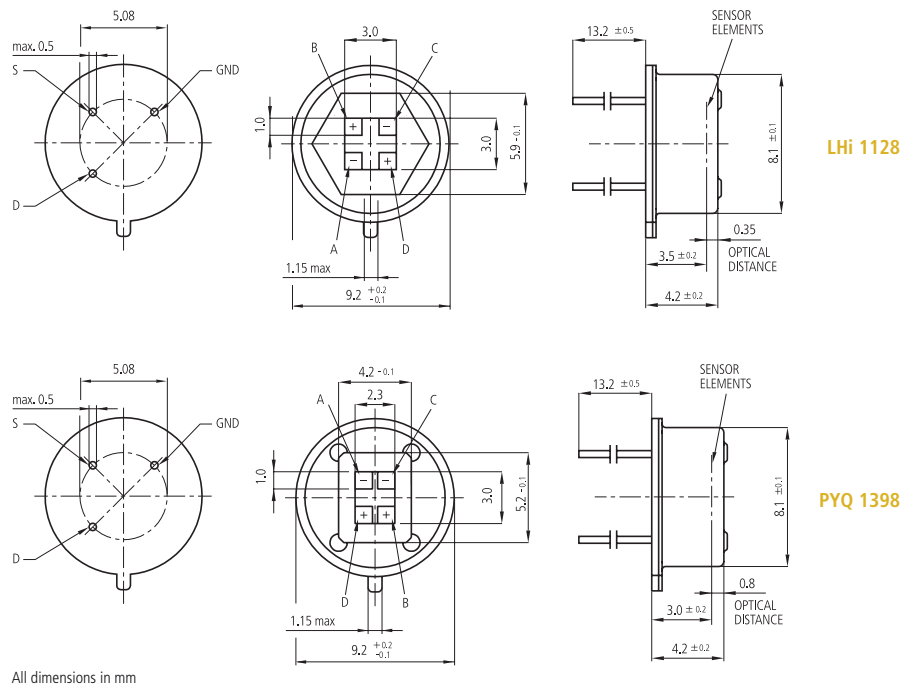
- Ceiling mount alarms
- Ceiling mount light switch

### Features and Benefits

- TO-5 metal housing
- Different window sizes
- Single channel output

### Product Description

This series of four element “Quad” detectors provides all four elements connected to one common output. This configuration enables specific applications in ceiling mount location when applied with suitable lens or mirror optics designs. Two different window options are provided: Large window or standard rectangular window size. For better EMI protection, the built-in capacitor option is available.



### LHI 1128, PYQ 1398

| Parameter                 | Symbol    | LHI 1128   | PYQ 1398   | Unit                                   | Remark                |
|---------------------------|-----------|------------|------------|--|-----------------------|
| Responsivity, min.        | $R_{min}$ | 5.4        | 5.4        | kV/W                                   | $f = 1 \text{ Hz}$    |
| Responsivity, typ.        | R         | 6.5        | 6.5        | kV/W                                   | $f = 1 \text{ Hz}$    |
| Match, max.               | $M_{max}$ | 10         | 15         | %                                      |                       |
| Noise, max.               | $N_{max}$ | 100        | 100        | $\mu\text{V}_{pp}$                     | 0.4...10 Hz / 20°C    |
| Noise, typ.               | $N_{typ}$ | 30         | 40         | $\mu\text{V}_{pp}$                     | 0.4...10 Hz / 20°C    |
| Spec. detectivity         | $D^*$     | 8          | 14         | $10^7 \text{ cm}^* \sqrt{\text{Hz/W}}$ | 1 Hz / 1 Hz BW / 20°C |
| Field of view, horizontal | FoV       | 156°       | 103°       |  | Unobstructed          |
| Field of view, vertical   | FoV       | 125°       | 97°        |  | Unobstructed          |
| Source voltage            |           | 0.2 - 1.55 | 0.2 - 1.55 | V                                      | 47 kΩ / 20°C / 5 V    |
| Operating voltage         |           | 2.0 ... 12 | 2.0 ... 12 | V                                      | 47 kΩ / 20°C          |