

SINGLE ELEMENT PYROS FOR GAS MONITORING



LHi 807, PYS 4198 – High Sensitivity Pyro

Applications

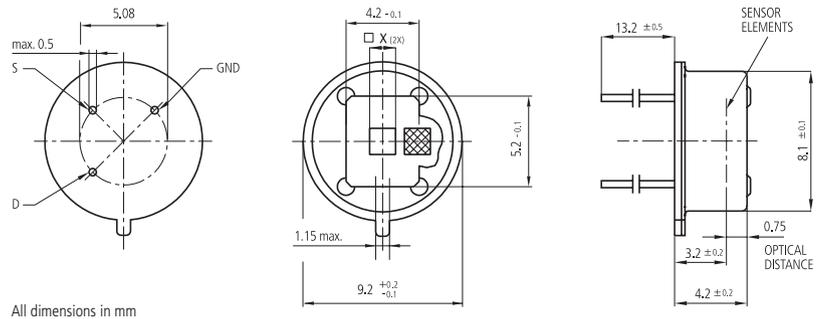
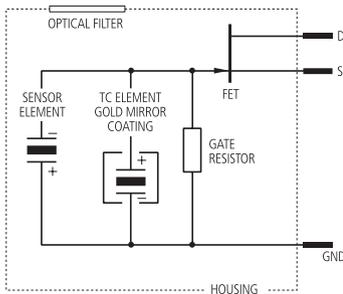
- Gas sensing and monitoring

Features and Benefits

- TO-5 metal housing
- Selection of narrow band filters
- Thermal compensation

Product Description

The LHi 807 TC series has become a standard solution for gas-sensing applications. It is available with a range of narrow band filters, as specified on page 7 of this catalog for various gas species. The LHi 807 is usually supplied with temperature compensation by a separate “blind” sensing element. Similar features and benefits are included with the PYS 4198 which has large element size of 2 x 2 to offer more signal for non-focused optical systems. It is offered with the thermal compensation element for compensation of thermal effects caused by temperature changes of the housing.



LHi 807, PYS 4198 – High Sensitivity Pyro

| Parameter | Symbol | LHI 807 TC | PYS 4198 TC | Unit | Remark |
|---------------------------|-----------|-------------|-------------|-------------------------|-----------------------------|
| Responsivity, min. | R_{min} | 2.2 | 1.2 | kV/W | f = 1 Hz |
| Responsivity, typ. | R | 3.5 | 2.0 | kV/W | f = 1 Hz |
| Match, max. | M_{max} | - | - | % | |
| Noise, max. | N_{max} | 50 | 50 | μV_{pp} | |
| Noise, typ. | N_{typ} | 15 | 10 | μV_{pp} | 0.4...10 Hz / 20° C |
| Spec. detectivity | D^* | 17 | 23 | $10^7 cm^* \sqrt{Hz/W}$ | 0.4...10 Hz / 20° C |
| Field of view, horizontal | FoV | 135° | 126° | | |
| Field of view, vertical | FoV | 122° | 105° | | |
| Source voltage | | 0.2 ... 1.5 | 0.2 ... 1.5 | V | 47 k Ω / 20° C / 5 V |
| Height | h | 4.2 | 4.2 | mm | |
| Optical element location | he / ho | 3.2 / 0.75 | 2.9 / 1.1 | mm | |
| Filter size | X / Y | 5.2 / 4.2 | 5.2 / 4.2 | mm | |