

SINGLE ELEMENT PYROS FOR GAS MONITORING



LHi 807, PYS 4198 – High Sensitivity Pyro

Applications

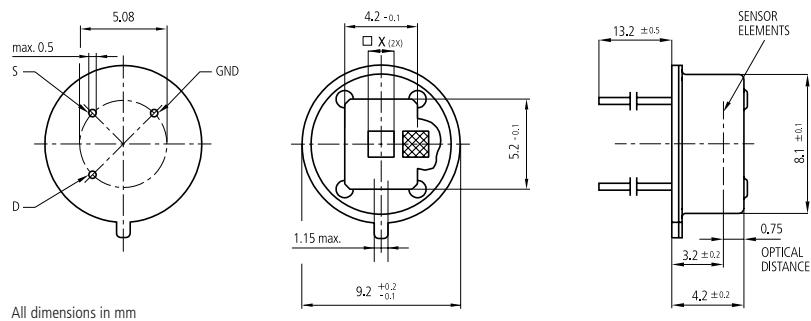
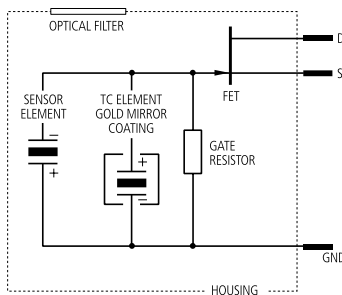
- Gas sensing and monitoring

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.



All dimensions in mm

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 | |