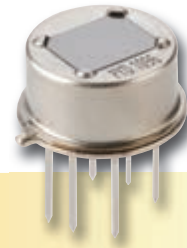


Smart Detectors

All Electronics for Motion Detection Included



PYD 1096 – Dual-Element, Smart DigiPyro®
PYQ 1046 – Quad-Element, Smart DigiPyro®

Target Applications

- Simple motion Switches
- Auto Light Switch
- Wall Switch

Features and Benefits

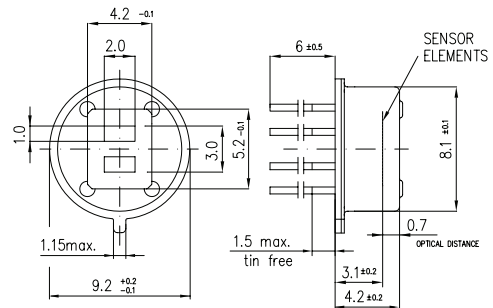
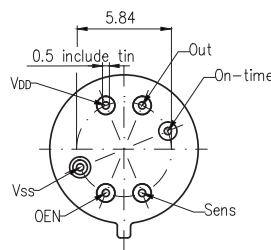
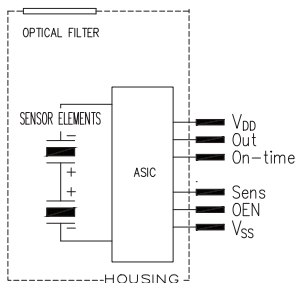
- TO-5 metal housing
- All electronics included
- Dual Element: PYD 1096
- Quad Element: PYQ 1046

Product Description

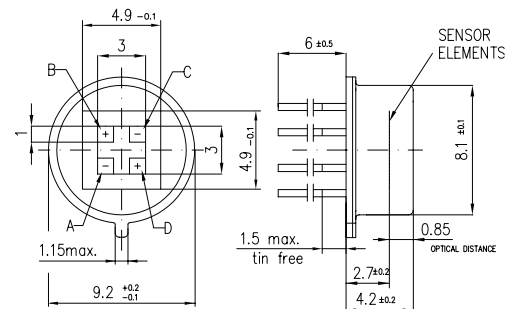
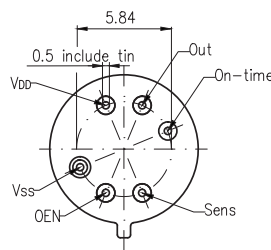
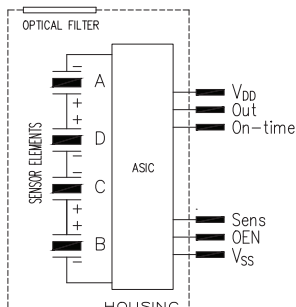
The Smart DigiPyro® family provides for a complete motion detector solution, with all electronic circuitry built-into the Detector housing. Only power supply and power-switching components need to be added to make the entire motion switch, a timer is included. The series has versions which can include ambient light level and sensitivity adjustments.

Both PYD 1096 and PYQ 1046 offer the complete setting feature of Time, Sensitivity and Light level. For the light level input, a Photocell is to be connected externally, please refer to the application notes on this product.

PYD 1096



PYQ 1046



PYD 1096 and PYQ 1046

| Parameter | Symbol | PYD 1096 | PYQ 1046 | Unit | Remarks |
|----------------------------------|--------------------|-----------|---------------------------------------------------|------------------|-----------------------------------------------------|
| Responsivity, min. | R _{min} | 3,3 | 5,4 | kV/W | f = 1Hz |
| Responsivity, typ. | R | 4,0 | 6,5 | kV/W | f = 1Hz |
| Match, max. | M _{max} | 10 | 10 | % | |
| Field of View, horizontal | FoV | 100° | 119° | | unobstructed |
| Field of View, vertical | | 100° | 119° | | unobstructed |
| Operating Voltage | V _{DD} | 2,7...3,3 | 2,7...3,3 | V | |
| Supply Current | I _{DDmax} | 15 | 15 | µA | V _{DD} < V _R , Outputs unloaded |
| Sensitivity Threshold | | 120 | 120...530 | µVp | |
| Noise, max. | | 50 | 100 | µV _{pp} | 0,4...10Hz/20°C |
| On-Time | | 2...4194 | 2...4194 | s | |
| OEN (ambient light control) | | n. a. | Low<0.2*V _{DD} ; High>0.8V _{DD} | V | |
| Output Driving Current | | 1 | 1 | µA | |
| Filter, Signal Processing | | | | | |
| Digital Filter, cut on | | 0,4 | 0,4 | Hz | |
| Digital Filter, cut off | | 7 | 7 | Hz | |