

1.4.3.2 Standard Pyroelectric Customized Solutions (OEM) Sensors

<0.1μJ to 40J

Features

- Performance identical to standard PE-C sensors (see section 1.2)
- Analog or RS232 output
- Wide dynamic range, switchable ranges
- Selectable wavelengths
- Compact non amplified versions available



Pyroelectric Customized Solutions OEM products – Examples only – many variations are possible

Category	Non amplified sensor. Can be very compact	Standard PE-C with built in digital or analog output. No need for meter or PC interface	PE-C smart sensor with remote electronics module allowing very compact sensor head
Model	PE10-C-RE	PE XX-C-RS232	PE-C-RE
Features	Very compact	Digital output with no need for meter or PC interface	Possibility of smart sensor with very compact sensing head
Absorber Type	Metallic with AR coating	Choose from std PE-C	Metallic or BF
Aperture mm	Ø12	Choose from std PE-C	Usually 10mm
Spectral Range μm ^(a)	0.19 – 10.6μm	Same as std PE-C	0.19 – 10.6μm
Calibration Accuracy ±% at calibrated wavelength	Usually customer calibrated	3	3
Max Pulse Width	Configurable ^(b)	Same as std PE-C	Same as similar std PE-C
Max Repetition Rate	Configurable ^(b)	Same as std PE-C	Same as similar std PE-C
Sensitivity	Typical 40V/J	Same as std PE-C	Same as similar std PE-C
Noise Equivalent Energy	~100nJ	Same as std PE-C	Same as similar std PE-C
Max energy density for 10ns pulses	100mJ/cm ² typical	Same as std PE-C	Same as similar std PE-C
Max Average Power Density	3W/cm ²	3W/cm ²	3W/cm ²
Power Supply Requirements	NA	7 – 12VDC (in special cases up to 24V)	Power supplied by smart meter or PC interface
Cooling	Conduction	Air or Conduction	Air or Conduction
Output	Flying leads typical	RS232 or analog	DB15 smart connector
Dimensions	Ø22 x 7.5mm	Same as std PE-C	Sensor head can be very small, see example below. Remote electronics module dimensions
Compliance	RoHS, China RoHS	RoHS, China RoHS	RoHS, China RoHS
Part Number	Consult Ophir Representative	Consult Ophir Representative	Consult Ophir Representative

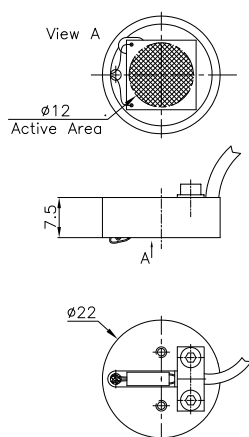
Note: (a)

Unit can be calibrated for one or more wavelengths in this range

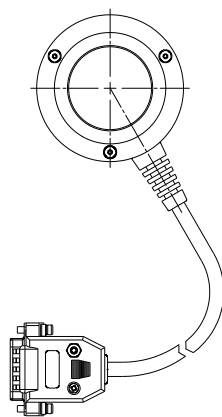
Note: (b)

By choosing circuit capacitance and resistance, maximum pulse rate and width can be optimized. This is usually limited by the condition (max pulse width)*(max pulse rate) < 0.1

PE10-C-RE (example)



PE XX-C-RS232 (example)



DB 15 Connector Pinout:
Pin 2: Rx/D for PC
Pin 3: Tx/D for PC
Pin 5: Ground

Miniature PE9-C-RE (example)

