

UDT Series 19830-2L-Flex Photometric Sensor Head



The UDT 19830-2L-Flex Series from Gamma Scientific includes thermoelectrically cooled photodetector heads that work in conjunction with our model 400-C Series optical meters to measure a wide variety of light levels. These photodetector heads provide direct readings in the spectral range of 200 to 1800 nm and feature active temperature control.

Our wide range of light measurement tools is complemented by ISO/IEC 17025 accreditation by NVLAP (NVLAP lab code 200823-0), resulting in unmatched performance and custom configuration as required.

Photodetector Specifications

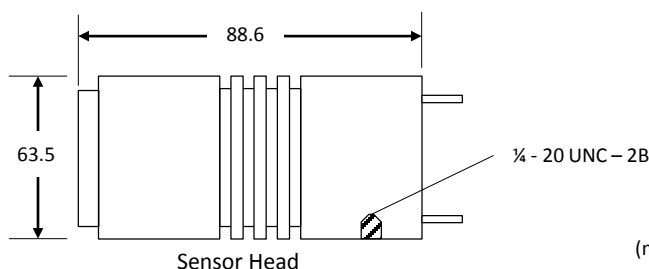
Wavelength Range	190 to 1100 nm
Photodetector Type	Silicon
CIE V (λ) Function ⁽¹⁾	$f1' \leq 2\%$
Active Area	10 mm x 10 mm, 8mm aperture
Dynamic Range	1×10^{-6} to 1×10^4 lux
Photo Sensitivity at Peak	0.5 A/W at 900 nm
Reverse Voltage (max)	5 V
Shunt Resistance	0.2 G Ω
Operating Temperature	20 to +60° C
Storage Temperature	-20 to +80° C
Nominal Field of View	8.2°
Calibration	ISO17025, NIST Traceable
Available Accessories	Luminance Hood 1120V Removable VLAM filter @ 5°

(1) When equipped with Photometric filter p/n 19629

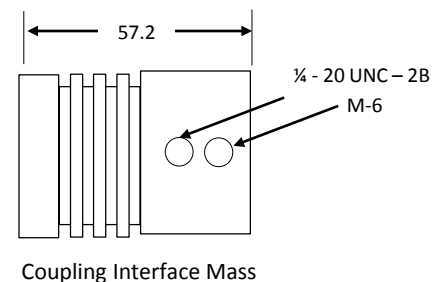
Photodiode Specifications

Number of TE Coolers	2
Photosensitivity	λ_p : 0.5 A/W Min: 0.10 A/W at 200 nm Typ: 0.12 A/W at 200 nm 0.33 A/W at 633 nm 0.50 A/W at 930 nm
Short Circuit Current at 100 lx	65 μ A min 78 μ A typ
Max Dark Current	200 pA @ 10 mV reverse voltage
Temp Coefficient, Dark Current	1.15 x per °C
Rise Time	3 μ sec Reverse Voltage 0 V, Load 1k Ω
Terminal Capacitance	1100 pF Reverse Voltage 0V, 10 kHz
Shunt Resistance	0.2 G Ω typ. 0.05 G Ω min Reverse Voltage 10 m
Noise Equivalent Power	1.8×10^{-14} W/Hz ^{1/2}

Specifications are subject to change without notice.



(mm)



Coupling Interface Mass