



# Heat Flux Transducer (HFT) with 180° View Angle

For Convective and Radiant Heat Flux Measurement

Series CR

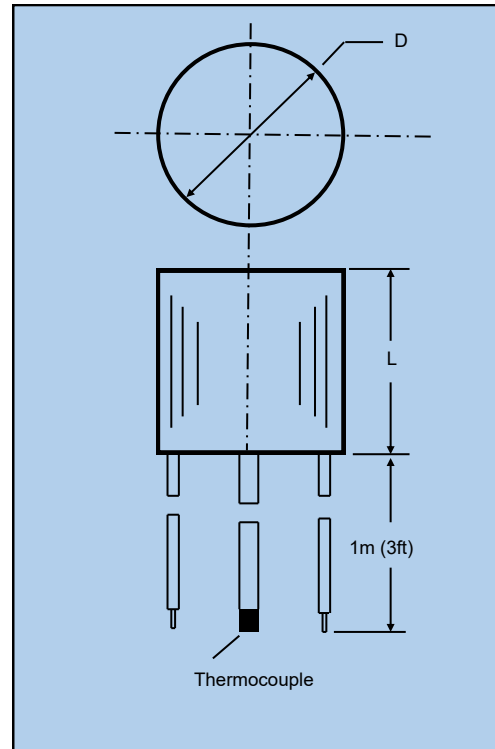
## Features:

- 180 Degree View Angle
- Direct Heat Flux Readout
- Self-generating output - requires no Amplifier nor Power Supply or Reference Junction
- Optional with Thermocouple Type T or K
- Easy to install

## Description:

This Type CR-Heat Flux Transducer is designed primary for "flush mounting" with surface under examination. Therefore, it lends itself for measurement of Heat Convection with or without the presence of Heat Radiation. But, the CR transducer may also be employed as a "free standing" Radiometer.

Its emf millivolt (mV) output is directly proportional to the thermal energy entering its sensor surface. An optional body Thermocouple serves as reference temperature measurement means.



## Specifications:

View Angle: ..... 180 Degree, flat  
Time Response (63% step chg): .....  $t^* = 2$  Sec.  
Spectral response: ..... 0.92, flat, Gray Body  
Pressure Sensitivity: ..... impervious  
Leads, TFE covered, stranded: : ..... 1m, (3ft)  
Body temperature, max: ..... 140°C, (300°F)  
Body/HSG. Thermocouple, optional: ..... Type T or K 1 m (3ft) long  
Housing Material: ..... Alum anodized  
Calibration constant ..... is supplied with each unit, NIST traceable  
Heat Flux max.: ..... 15 KW/m<sup>2</sup> (48000 BTU/ft<sup>2</sup>Hr)

## Applications:

- Submarines and Vessels
- Industry
- Material Research
- Pipes and Ducts
- Refineries and Reactors
- Aero-Space

Order number	Model	D Inch (mm)	L Inch (mm)	Hsg. T/C Type	Nominal Sensitivity		Output
					(BTU/ft <sup>2</sup> Hr)/mV	(w/m <sup>2</sup> )/mV	
C01-400-100	CR-100	0.50 (12,70)	0.60 (15,24)	-	100	315	48
C01-400-110	CR-100-T			T			
C01-400-120	CR-100-K			K			
C01-400-200	CR-40	0.75 (25,4)	0.75 (19,05)	-	40	126	120
C01-400-210	CR-40-T			T			
C01-400-220	CR-40-K			K			
C01-400-300	CR-20	1.00 (25,4)	0.75 (19,05)	-	20	63	240
C01-400-310	CR-20-T			T			
C01-400-320	CR-20-K			K			
<b>Cable Options (Standard cable length is 3 ft / 1m)</b>							
C01-401-100	cable	3 ft. (1m) additional cable length					