02/2024 • We reserve the right to make technical changes.

Digital sensor for color temperature and illuminance FLAD23CCT with ALMEMO® D6 plug



- Color temperature and illuminance are determined as a means to plot and evaluate lighting systems.
- Compact sensor, particularly suitable for mobile applications
- Continuous measuring and updating of measured values
- Digital color temperature sensor with "TrueColorSensorchip" and integrated signal processor. The TrueColorSensorchip (3 sensors on 1 chip) detects separately each of the three colors red, green, blue (RGB). The respective sensitivities of these 3 color sensors are adapted to the standard spectral curves as per CIE and DIN. (see Figure) On the basis of these RGB values the computer calculates the color point within the RGB range in terms of coordinates X and Y and determines the correlated color temperature (CCT) in Kelvin.
- The display shows simultaneously both this color data and the illuminance in lux (lx) or kilolux (klx).
- Freely selectable measurable Two measuring channels are programmed (at our factory): Color temperature (CCT, K), Illuminance (Ev, lx) Other measurable variable can also selected: Illuminance X-value, Y-value (Ev, klx), The configuration is performed on the ALMEMO® V7 measuring instrument or directly on the PC using the USB adapter cable ZA1919AKUV (see chapter "ALMEMO® Network technology").

Technical data:

Spectral sensitivity	380 to 720 nm	
Sensor system	TrueColor, 3 sensors on 1 chip	
Measuring ranges		
Correlated color temperature (CCT) 54 to 30,000 K		
	(at 120 lx to 170 klx)	
Accuracy	< 10% in range 1600 to 17000 K	
Coordinates resolution $(dx, dy) < 0.005$		
Illuminance (V-lambda)	10 to 65,000 lx (factory setting)	
	or 0.05 to 170.00 klx	
Accuracy	< 10% in range 120 lx to 170 klx	
Cosine correction	8 mm diffuser plate	
Cosine error	< 3%	
Measuring duration	< 3 seconds	
Nominal conditions	23 °C \pm 3 K, 0 to 90 % RH	
	(non-condensing)	
Operating temperature	-10 to +40 °C	
Dimensions	Diameter 25 mm, length 134 mm	
ALMEMO® connecting cable Fixed cable, 1.5 meters,		
	with ALMEMO® D6 plug	
ALMEMO® D6 plug		
Refresh rate	1.5 seconds for all channels	
Setting time	3 seconds	
	(In order to run the data logger in	
	sleep mode a wakeup delay of	
	3 seconds must be programmed.)	
Supply voltage	6 to 13 VDC	
Current consumption	approx 4 mA	

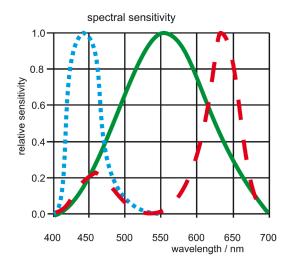


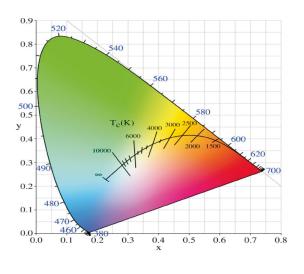
Color temperature sensor with ALMEMO® 2590-2 (example)

Variants Order no.

Digital sensor for color temperature and illuminance, fitted cable, 1.5 meters with ALMEMO® D6 plug

FLAD23CCT





Accessories

Ulbricht integrating sphere



- Ulbricht integrating sphere, for measuring total radiation from any light source
- Especially suitable for measuring operations on site for light sources that have already been installed. This minimizes interference from extraneous light in the environment.
- Dimensions

Measuring aperture 13.5 mm Sphere diameter 40 mm

Housing diameter 44.5 mm, length 44 mm

Accessories	Order no.
An Ulbricht integrating sphere can be attached to color temperature sensor FLAD23CCT	ZB9623KU