

# TRANSMITTERS FOR ILLUMINANCE (Lux), LUMINANCE & IRRADIANCE MEASUREMENTS

Model : HD 2021T .....

The HD 2021T series allows conversion of photometric & radiometric quantities as illuminance (Lux), luminance (cd/m<sup>2</sup>) and irradiance (W/m<sup>2</sup>) - across UV, UVA, UVB, UVC spectral regions and 400-950nm band - into a 0 ÷ 10 voltage signal. The voltage output 0÷10V (0÷1V, 0÷5V, 4÷20mA on request for substantial orders ) comes factory set calibrated to the full scale range specified at the time of order HD 2021T transmitters wide range of applications include:

- Measurement of illuminance (HD 2021T) & Luminance (HD 2021T.6) in offices and laboratories, manufacturing plants and production areas, commercial sites, theaters, museums, sports lighting, roadway lighting, tunnels & nursery gardening systems.
- Measurement of solar irradiance, within 400nm -950nm spectral band (HD 2021T.1).
- Monitoring tanning lamps irradiance, within UVA (HD 2021T.2) and UV (HD2021T.5) spectral regions, as well as efficiency control in filters for high pressure UV lamps.
- Efficiency control in UV lamps used in water purification plants, where UVC (HD2021T.4) band irradiance needs to be constantly monitored.

HD 2021T transmitter can be installed either for indoor or outdoor applications (Protection : IP67). Transmitters sensitivity can be modified "on site" (1/100 ratio) using a multiturn potentiometer accessible from the outside. In case of extremely intense light sources measuring, the transmitter sensitivity can be reduced upon request. The HD 2021T series employs filters and photodiodes especially studied to adjust spectral response to a specific region of interest.

## Order Code :

\*The full scale value can be selected in the fields A, B, C and adjusted by the user in one of the following ranges

MODEL	A	B	C	X
HD 2021T	0.02~2Klux	0.2~2Klux	2~200Klux	The full scale value can be set on a fixed value within the available ranges.
HD 2021 T1	0.2~20 W/m <sup>2</sup>	2~200 W/m <sup>2</sup>	20~2000 W/m <sup>2</sup>	
HD 2021 T2	0.2~20 W/m <sup>2</sup>	2~200 W/m <sup>2</sup>	20~2000 W/m <sup>2</sup>	
HD 2021 T3	2~200 W/m <sup>2</sup>	20~2000 W/m <sup>2</sup>		
HD 2021 T4	2~200 W/m <sup>2</sup>	20~2000 W/m <sup>2</sup>		
HD 2021 T5	0.2~20 W/m <sup>2</sup>	2~200 W/m <sup>2</sup>	20~2000 W/m <sup>2</sup>	
HD 2021 T6	20~2000 cd/m <sup>2</sup>	0.2~20 kcd/m <sup>2</sup>	2~200 klux	

\*\*For voltage output 0÷10Vdc please indicate : V.

For current output 4÷20mA please indicate : A.

i.e. HD 2021 TBA : Transmitter for illuminance range 0,2....20k lux output 4÷20 mA.



## HTA INSTRUMENTATION (P) LTD.,

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ISO 9001:2015 CERTIFIED  
Certificate No. IQSC202010014

## Technical Specifications :

	HD 2021T	HD2021T.1	HD2021T.2	HD2021T.3	HD2021T.4	HD2021T.5	HD2021T.6
<b>Sensor</b>	Photodiode Si	Photodiode Si	Photodiode Gap	Photodiode SiC	Photodiode SiC	Photodiode Gap	Photodiode Si
<b>Spectral range</b>	Curve V (I)	450÷950 nm	UVA	UVB	UVC	UV	Curve V(I)
<b>Viewing angle</b>	Corrected in accordance with the Cosine law						20 degrees in accordance with CIE 88/90
<b>Sensitivity</b>	5 - 500 mV/lux	1 - 100 mV (mW/m <sup>2</sup> )	1 - 100 mV (mW/m <sup>2</sup> )	0.1 - 10 mV (mW/m <sup>2</sup> )	1 - 100 mV (mW/m <sup>2</sup> )		0.5 - 50 mV/(cd/m <sup>2</sup> )
<b>Output signal</b>	0 ÷ 10V (0 ÷ 1V, 4 ÷ 20mA on request)						
<b>Power Supply</b>	16÷40 Vdc or 24Vac, output 0÷10V – 10÷40 Vdc for 4÷20mA output						
<b>Power absorption</b>	10 mA						
<b>Working Temp.</b>	-20 ÷ 60°C						
<b>Electrical protection</b>	Protected against polarity inversions						
<b>Maximum dimensions</b>	58mm × 65mm × 52mm						58×65×145mm
<b>Degree of protection</b>	IP 67						
<b>Maximum cable length</b>	150m						

## Dimensions :

