

## TILP OUTDOOR ILLUMINANCE TRANSMITTER

Photometric and radiometric transmitter with normalized output 4/20 mA or 0/10V, for use in outdoor environments -20 ... + 60°C. All the transmitters of this series are provided with a diffuser for cosine correction and dome. The heating option (R), allows installation in areas with low ambient temperatures -40 ... + 60°C. Connections with M12 male 4P, 8P heated version. The silica gel, once exhausted, is replaceable. Power supply 10 ... 30VDC output 4/20mA; 15 ... 30VDC output 0/10Vdc



### TILP PHOT3°C (4/20mA) - TILP PHOT3\*T (0/10V)

Lux illuminance measurement, equal to the ratio between the luminous flux lumen passing through a surface and the area of the same surface in m<sup>2</sup>. The spectral response curve is similar to that of the human eye (the photopic curve). The difference in spectral response between the probe and the photopic curve is evaluated through the calculation of the error f. The probe is calibrated by comparison with a lux meter traceable by a Primary Metrological Institute, under the procedure EIC No 69/1987.

Range:	0...150 klux
Typical sensitivity:	0.5...1.5 mv/klux
Calibration accuracy:	<4%
f1:	agreement photopic response <6%
f2:	response as cosine law <3%
f3:	linearity <1%

### TILP RAD3°C (4/20 mA) - TILP RAD3\*T (0/10V)

Radiometric probe for the measurement of irradiance W / m<sup>2</sup> defined as the ratio between the energy flow W through a surface and the surface area m<sup>2</sup> considered in the spectral region VIS-NIR 400 ... 1050 nm.

Range:	0...2000 W/m <sup>2</sup>
Typical sensibility:	1...2.5 μV/(μW/cm <sup>2</sup> )
Calibration accuracy:	<5%
f2:	response as cosine law <3%
f3:	linearity <1%

### TILP PAR3°C (4/20 mA) - TILP PAR3\*T (0/10V)

Radiometric probe for the measurement of the photon flow in the photosynthesis of chlorophyll PAR, in the spectral range 400 ... 700 nm coming in a second on the surface. The probe calibration is performed with a halogen lamp which is identified as the spectral irradiance. Temperature affects negligibly on the response of the probe.

Range:	0...5000 μmol/m <sup>2</sup> s <sup>-1</sup>
Typical sensibility:	1...2.5 μV/(μW/cm <sup>2</sup> )
Incertezza di taratura:	<5%
f2:	response as cosine law <3%
f3:	linearity <1%

### TILP UVA3°C (4/20 mA) - TILP UVA3\*T (0/10V)

Radiometric probe for the measurement of irradiance W / m<sup>2</sup> is defined as the ratio between the energy flux W through a surface and the surface area considered m<sup>2</sup>, in the spectral region of UVA, 315 ... 400 nm, peak 365 nm. No interferences due to visible and infrared light thanks to the use of a particular type of photodiode. The calibration is performed using the emission line at 365 nm of a Xe-Hg lamp, with interferential filter. The measurement is carried out by comparison with one sample meter of the first line certified.

Range:	0...200 W/m <sup>2</sup>
Typical sensibility:	70...200 μV/(μW/m <sup>2</sup> )
Incertezza di taratura:	<6%
f2:	response as cosine law <3%
f3:	linearity <1%



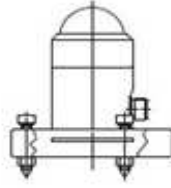
**SATEMA**

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## WIRING CONNECTIONS



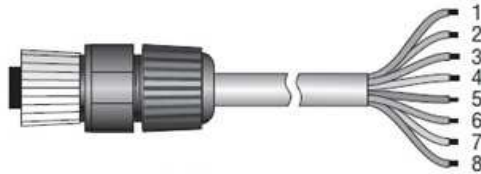
### Cable socket M12 4-pole

#### Standard version 0/10V

Connector	Function	Color
1	(+) Vout	Red
2	(-) Vout and (Vdc)	Blu
3	(+) Vdc	White
4	Shield	Black

#### Standard version 4/20mA

Connector	Function	Color
1	Positive(+), +Vdc	Red
2	Negative (-), -Vdc	Blu
3	-	White
4	Shield	Black



### Cable socket M12 8-pole

#### Heated version 0/10V

Connector	Function	Color
1	(+) Vout and (-) Vdc	Red
2	Vout (+)	Blu
3	-	
4	(+) Vdc	Shield
5	NTC 10K	Brown
6		White
7	heater	Black
8		Green

#### Heated Version 4/20 mA

Connector	Function	Color
1	Positive (+), + Vdc	Red
2	Negative (-), - Vdc	Blu
3	-	
4	Shield	Braid
5	NTC 10K	Brown
6		White
7	heater	Black
8		Green



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