

# Ultraviolet (Housings & Starter Kit) TOCON Datasheets



- **UV photodiode with integrated preamplifier**
- **SiC based UV sensors with 0 to 5 V voltage output**
- **measures intensities from 1.8pW/cm<sup>2</sup> up to 18W/cm<sup>2</sup>**



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# TOCON\_housing24V

Miniature Housing with M12x1 Thread and Plug Connector

## GENERAL FEATURES



### Properties of the TOCON\_housing24V

- Optional feature for all TOCON detectors
- 7–24V supply voltage
- Robust stainless steel M12x1 thread body
- EMC-safe
- Integrated sensor connector (Binder 4-Pin plug)
- Comes with 2 m connector cable
- Easy to mount and to connect

### Features of the integrated TOCON amplified UV photodetectors

The TOCON devices are using modern hybrid technology to reduce unwanted signal disturbances caused by moisture or electromagnetic radiation. The stable 4.75V output voltage can be directly connected to a SPC controller or a voltage multimeter. No amplifier is needed.

## SPECIFICATIONS

Parameter	Symbol	Value	Unit
<b>Spectral Characteristics</b>		According to applied TOCON	
<b>General Characteristics (T=25°C, V<sub>supply</sub>=+7 V)</b>			
Supply Voltage	V <sub>Supply</sub>	7 ... 24	V
Max. Output Voltage (non depending on V <sub>supply</sub> )	V <sub>Out</sub>	4.75	V
Temperature Coefficient at Peak for SiC	T <sub>c</sub>	-0.3	%/K
Temperature Coefficient at Peak for GaP	T <sub>c</sub>	-0.5	%/K
Current Consumption	I <sub>max</sub>	According to applied TOCON	
<b>Maximum Ratings</b>			
Operating Temperature	T <sub>opt</sub>	-25 ... +85	°C
Storage Temperature	T <sub>stor</sub>	-40 ... +100	°C

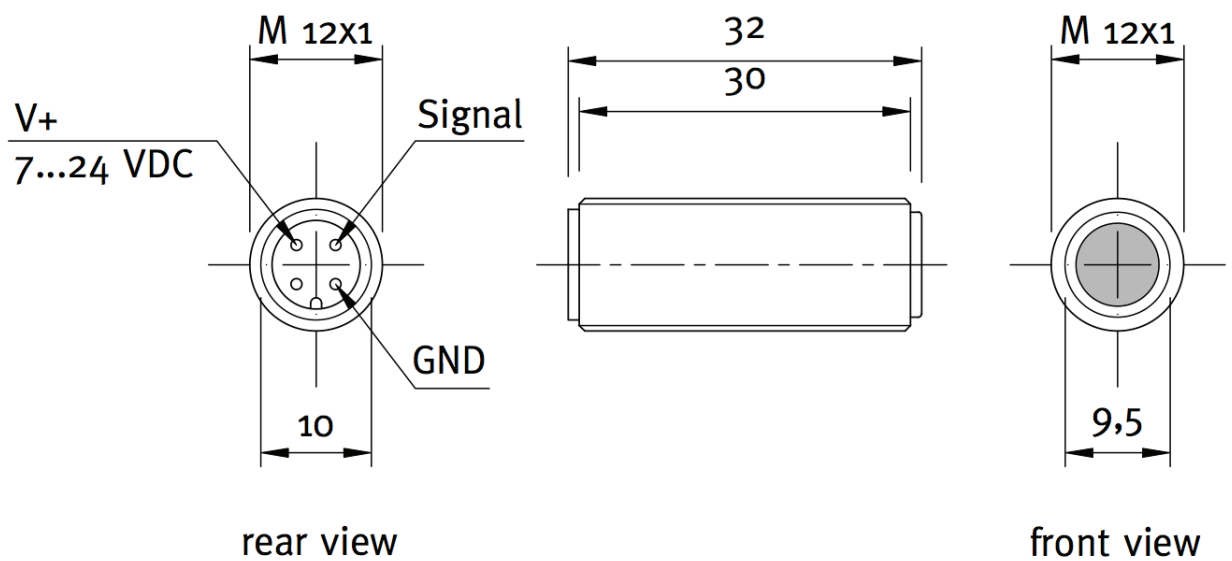
# TOCON\_housing24V

Miniature Housing with M12x1 Thread and Plug Connector

## FIELD OF VIEW

According to applied TOCON

## DRAWING



cable configuration :  
black : V+  
white : ground  
blue : signal

# TOCON\_PTFE\_housing24V

Miniature Housing with M12x1 Thread and Plug Connector



## GENERAL FEATURES



### Properties of the TOCON\_PTFE\_housing24V

- Optional feature for all TOCON detectors
- 7–24V supply voltage
- Teflon (PTFE) M12x1 thread body, dirt-repellent, water proof at wetside (IP68)
- Wide field of view
- EMC-safe
- Integrated sensor connector (Binder 4-Pin plug)
- Comes with 2 m connector cable
- Easy to mount and to connect, cleanable

**The PTFE housing reduces the signal output by 95%.**

### Features of the integrated TOCON amplified UV photodetectors

The TOCON devices are using modern hybrid technology to reduce unwanted signal disturbances caused by moisture or electromagnetic radiation. The stable 0...4.75V output voltage can be directly connected to a SPC controller or a voltage multimeter. No amplifier is needed.

## SPECIFICATIONS

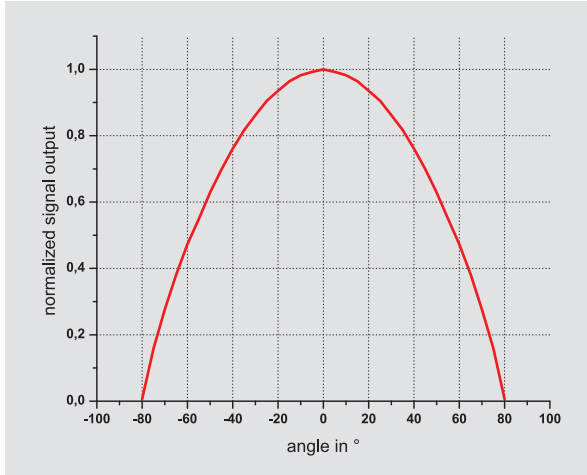
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# TOCON\_PTFE\_housing24V

Miniature Housing with M12x1 Thread and Plug Connector



## FIELD OF VIEW

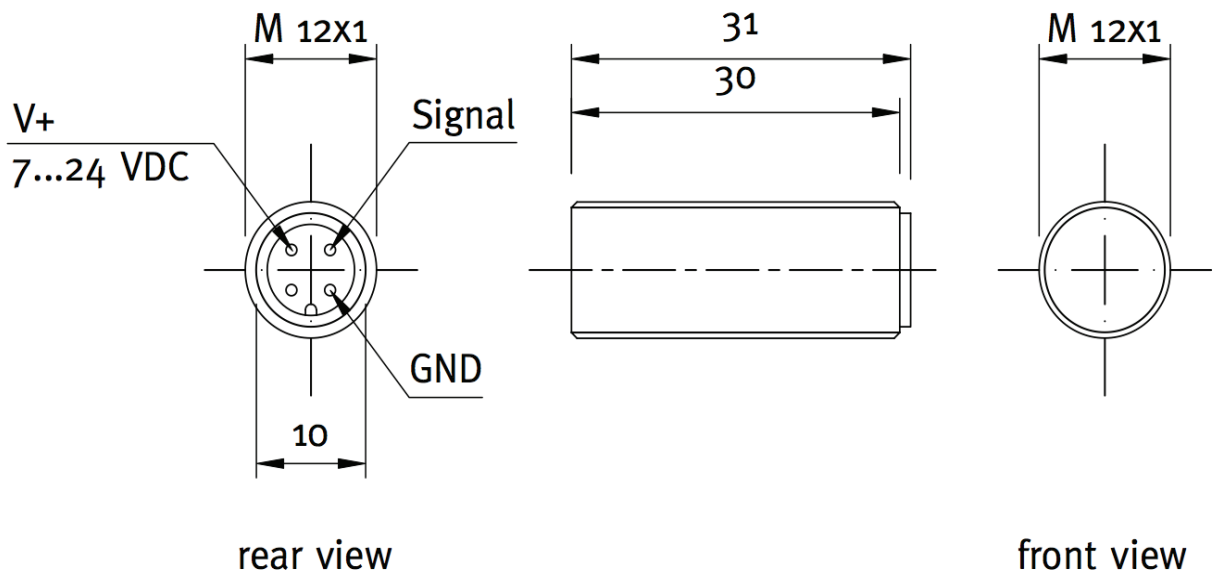


Measurement Setup:

lamp aperture diameter: 10 mm distance lamp aperture to second aperture: 17 mm second aperture diameter: 10 mm distance second aperture to detector: 93 mm

pivot level = top surface of the detector window

## DRAWING



cable configuration :  
black : V+  
white : ground  
blue : signal

# TOCON\_PTFE\_housing24V

Miniature Housing with M12x1 Thread and Plug Connector



## GENERAL FEATURES



### Properties of the TOCON\_PTFE\_housing24V

- Optional feature for all TOCON detectors
- 7–24V supply voltage
- Teflon (PTFE) M12x1 thread body, dirt-repellent, water proof at wetside (IP68)
- Wide field of view
- EMC-safe
- Integrated sensor connector (Binder 4-Pin plug)
- Comes with 2 m connector cable
- Easy to mount and to connect, cleanable

**The PTFE housing reduces the signal output by 95%.**

### Features of the integrated TOCON amplified UV photodetectors

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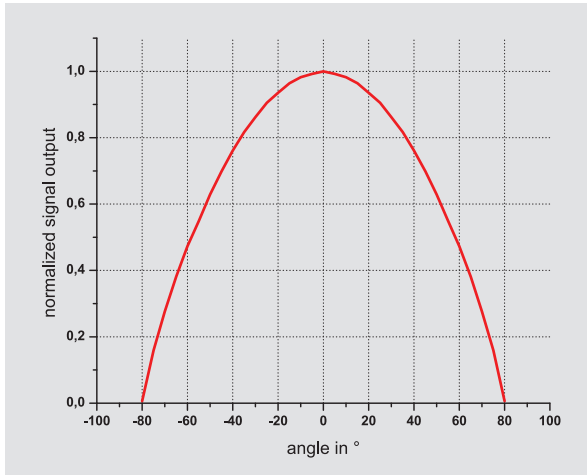
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# TOCON\_PTFE\_housing24V

Miniature Housing with M12x1 Thread and Plug Connector



## FIELD OF VIEW

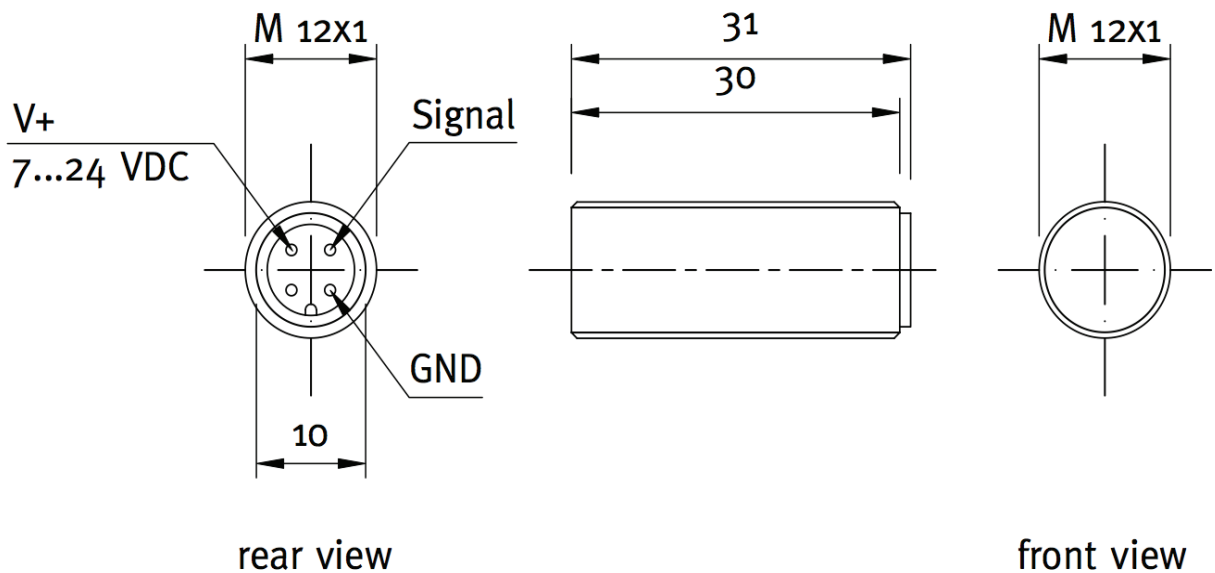


Measurement Setup:

lamp aperture diameter: 10 mm distance lamp aperture to second aperture: 17 mm second aperture diameter: 10 mm distance second aperture to detector: 93 mm

pivot level = top surface of the detector window

## DRAWING



cable configuration :  
black : V+  
white : ground  
blue : signal

# TOCON\_water24V

Water Pressure Proof Housing with G1/4" Thread and Plug Connector

## GENERAL FEATURES



### Properties of the TOCON\_water24V

- Optional feature for all TOCON detectors without lens cap
- 7–24V supply voltage
- Teflon (PTFE) G1/4" thread body, up to 10 bar water pressure proof
- Wide field of view
- EMC-safe
- Integrated sensor connector (Binder 4-Pin plug)
- Comes with 2 m connector cable
- Easy to mount and to connect, cleanable

**The PTFE housing reduces the signal output by 95%.**

### Features of the integrated TOCON amplified UV photodetectors

The TOCON devices are using modern hybrid technology to cancel unwanted signal disturbances caused by moisture or electromagnetic radiation. The stable 0...4.75V output voltage can be directly connected to a SPC controller or a voltage multimeter. No amplifier is needed.

## SPECIFICATIONS

Parameter	Symbol	Value	Unit
<b>Spectral Characteristics</b>		According to applied TOCON	
<b>General Characteristics (T=25°C, V<sub>supply</sub>=+7 V)</b>			
Supply Voltage	V <sub>Supply</sub>	7 ... 24	V
Max. Output Voltage (non depending on V <sub>supply</sub> )	V <sub>Out</sub>	4.75	V
Temperature Coefficient at Peak for SiC	T <sub>c</sub>	-0.3	%/K
Temperature Coefficient at Peak for GaP	T <sub>c</sub>	-0.5	%/K
Current Consumption	I <sub>max</sub>	According to applied TOCON	
<b>Maximum Ratings</b>			
Operating Temperature	T <sub>opt</sub>	-25 ... +85	°C
Storage Temperature	T <sub>stor</sub>	-40 ... +100	°C

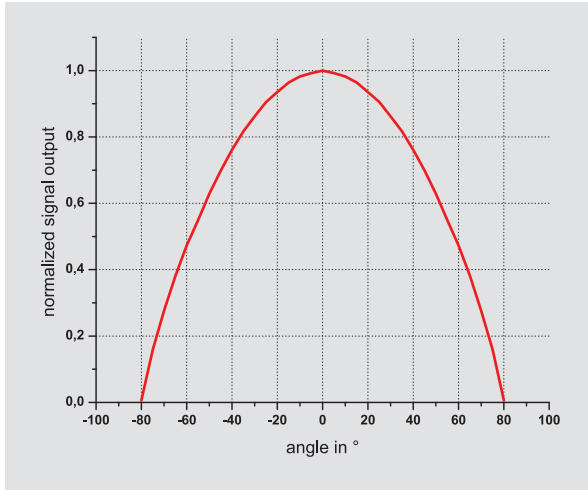


# TOCON\_water24V

Water Pressure Proof Housing with G1/4" Thread and Plug Connector



## FIELD OF VIEW

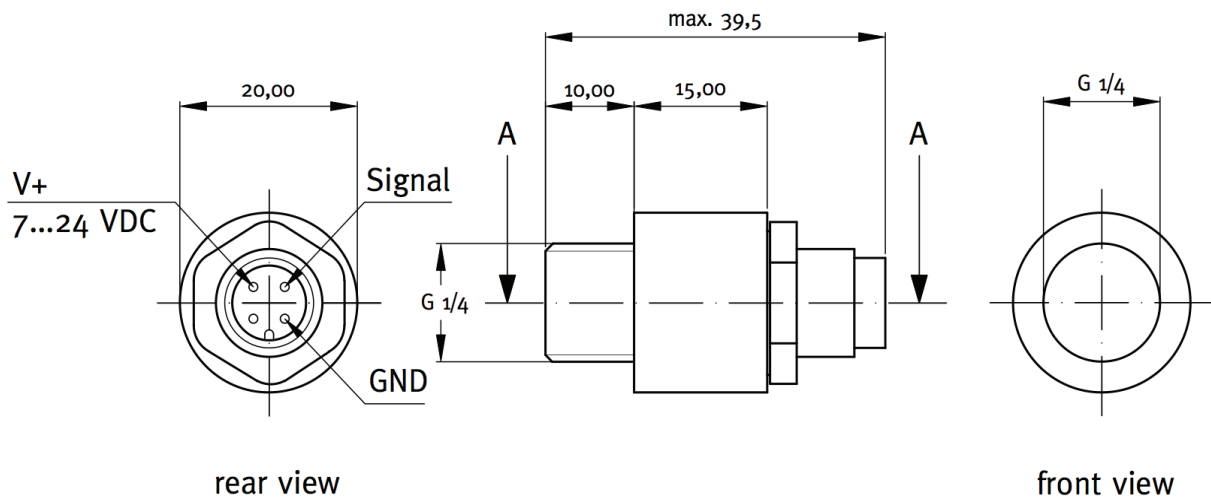


Measurement Setup:

lamp aperture diameter: 10 mm distance lamp aperture to second aperture: 17 mm second aperture diameter: 10 mm distance second aperture to detector: 93 mm

pivot level = top surface of the detector window

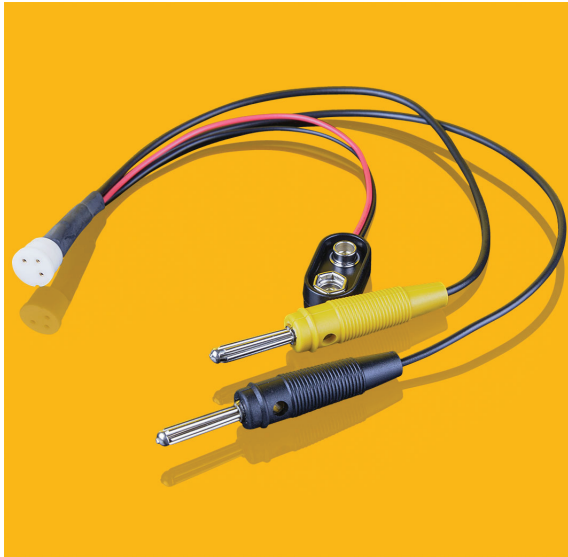
## DRAWING



cable configuration :  
black : V+  
white : ground  
blue : signal

# TOCON starter kit

optional TOCON accessory



## ▶ PROPERTIES OF THE TOCON STARTER KIT

- kit for initial testing setup - take a standard voltmeter from your toolbox and get into the world of UV radiometry
- output voltage 0 ... 5 V
- usable with all TOCON detectors (not included)
- 9 V block battery included, typical runtime 3000 hours
- separate 4 mm banana plug ground and signal cable for easy connection

## ▶ HOW TO CONNECT

- put a TOCON into the 3 pin transistor socket
- connect the 9 V battery
- put the 4 mm banana plug connectors into your voltmeter

yellow = signal voltage out = plus terminal of the voltmeter

black = ground = ground terminal of the voltmeter