

# OptoProg



## Optical communication interface for WM analyzers and ET family



### Benefits

- **Suited for complex situations.** Lightweight and small, it easily connects to the analyzer without additional wiring or serial port use to provide safer work.
- **Quick configuration.** Lets you quickly upload/download a configuration from/to an analyzer, speeding up configuration operations especially with several complex programmable devices.
- **Autonomy and low consumption.** It does not require an additional power supply because the rechargeable built-in battery guarantees up to one month of operations. Bluetooth technology and the sleep mode reduce consumption.

### Description

Optical communication interface to configure WM20, WM30, WM40, WM50, ET112, ET330, ET340 analyzers and to monitor measurements. Equipped with Bluetooth and micro-USB port, OptoProg is a plug and play device that extends analyzer communication capacity: it can be used as a connection between the analyzer and computer (or other mobile devices).

### Applications

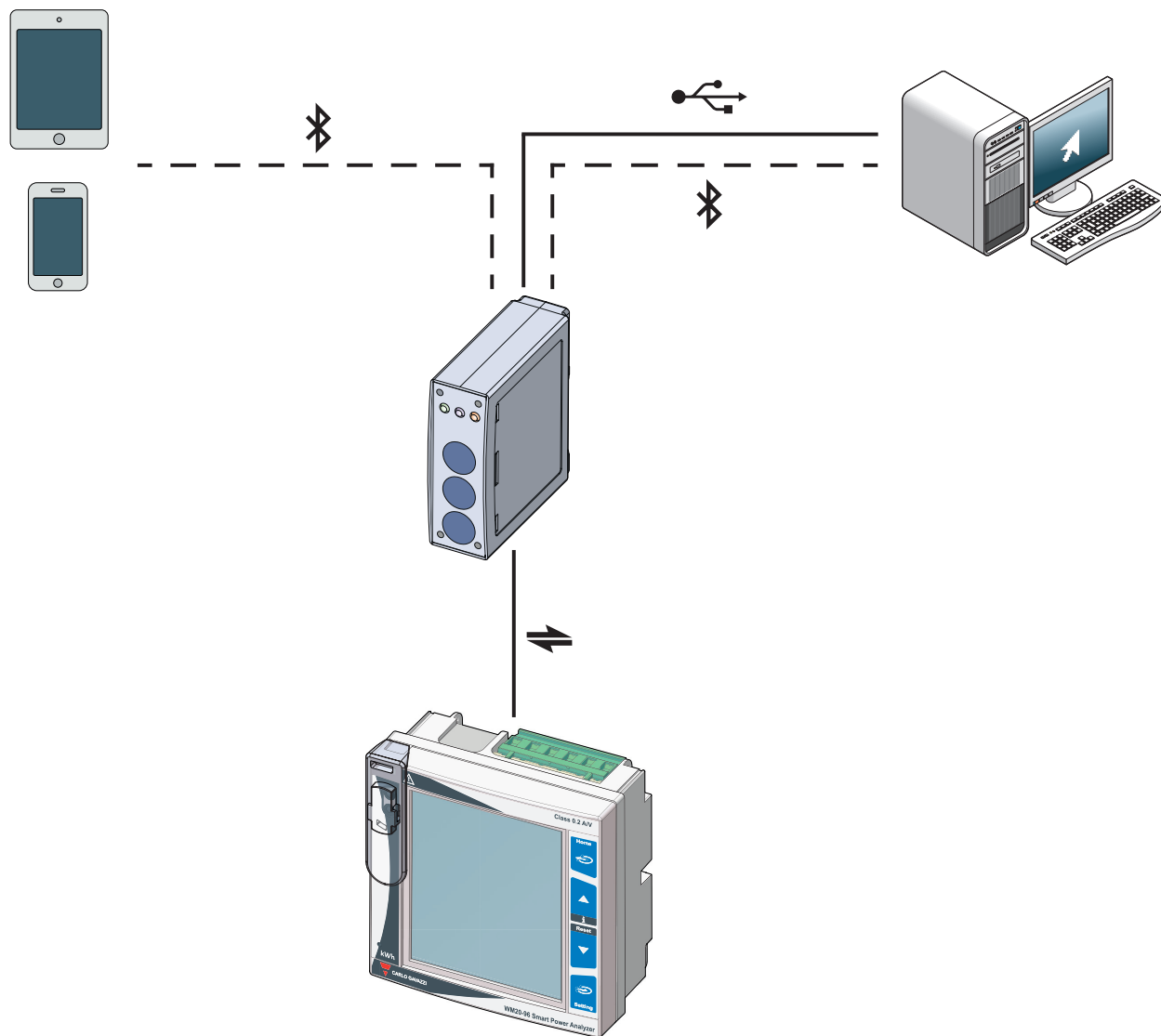
Suited for commercial and industrial solutions, it is especially ideal:

- for field work in difficult conditions and/or with limited available space, where wired device installation would be difficult.

### Main functions

- Configure analyzers via optical port without wiring
- Connect the analyzer to UCS software (WM20, WM30, WM40, WM50, ET112, ET330, ET340) or app (only WM20, WM30, WM40, WM50) via micro-USB or Bluetooth to configure the device, view measurements in real-time

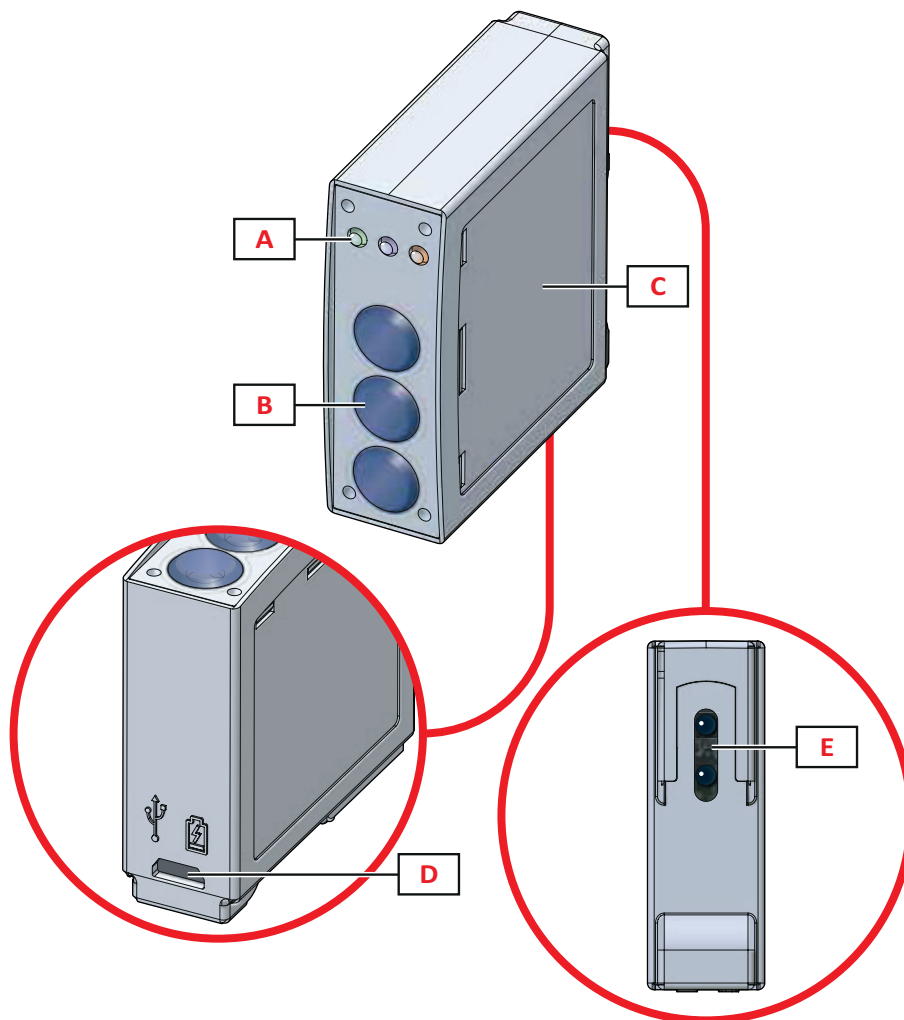
**Architecture**



**Main features**

- Use mode: bridge
- Built-in lithium battery power supply that guarantees up to one month of operations
- Sleep mode for energy savings
- Status LED that signal any configuration or connection errors
- Bluetooth 2.0, 2.1, 3.0 and 4.0 connectivity
- Optical port
- Micro-USB B port

▶ Structure



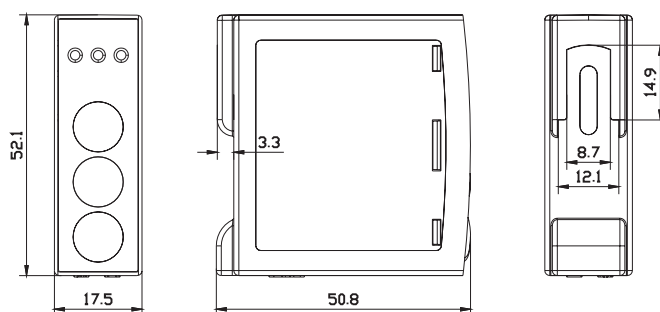
Area	Description
A	Status LED green: power supply status blue: Bluetooth communication status red: optical communication status
B	Function keys (from top to bottom) 3: not in use 2: Bluetooth on/off 1: on/off
C	Label: LED and key description serial number
D	Micro-USB B port
E	Optical port



# Features

## General

<b>Material</b>	Transparent polycarbonate
<b>Protection degree</b>	Front: IP51 Micro-USB port: IP40
<b>Pollution degree</b>	2
<b>Mounting</b>	Mechanical on the analyzer
<b>Weight</b>	140 g



## Environmental

<b>Operating temperature</b>	From -10 to +55 °C / from 14 to +131 °F
<b>Storage temperature</b>	From -20 to +70 °C / from -4 to +158 °F
<b>Maximum altitude</b>	4000 m

NOTE: R.H. < 90 % non-condensing @ 40 °C / 104 °F.

## Compatibility and conformity

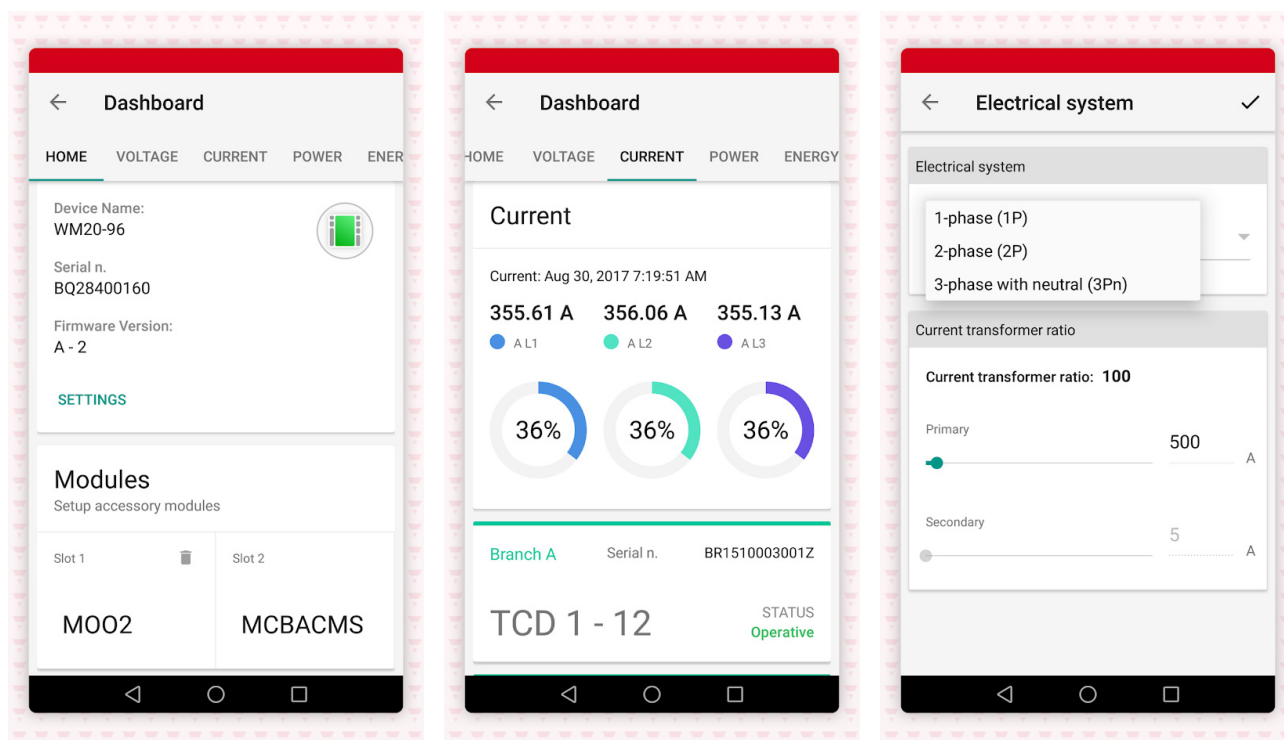
<b>Directives</b>	2011/65/EU (RoHS) 2014/53/EU (RED)
<b>Standards</b>	FCC ID: SNJOPT IC: 7118D-OPT Bluetooth 4.0
<b>Approvals</b>	

**Power supply**

<b>Battery</b>	1 Li-ion non-replaceable battery; 4.44 Wh
<b>Charge</b>	Via power supply or PC
<b>Power supply connection</b>	USB A 2.0 port USB power supply connection cable (5 V, 500 mA)
<b>Autonomy</b>	Up to 20 days
<b>Working life</b>	1,000 charge/discharge cycles

Note: The device contains Li-ion batteries. For the shipment, you must comply with the relevant packaging and labelling regulation.

**UCS Mobile App**





# Communication

## ▶ Optical port

<b>Protocol</b>	Modbus RTU (slave function)
<b>Communication type</b>	Infrared, bidirectional
<b>Connection with analyzer</b>	Direct via mechanical mount
<b>Baud rate</b>	9.6 kbps
<b>Data refresh time</b>	0.5 s
<b>Read command</b>	50 words available in a read command
<b>Axial distance between LED</b>	6.5 mm
<b>LED function</b>	Upper: receiver Lower: transmitter
<b>Port function</b>	Configuration data transmission from analyzer to OptoProg and vice versa Log data transmission from analyzer to OptoProg

## ▶ Micro-USB B port

<b>Type</b>	Micro-USB B
<b>Maximum absorption</b>	500 mA
<b>Mode</b>	Hot swap
<b>Connection with PC</b>	Via USB cable Type: Micro-USB B and USB A 2.0 plug Length: 1.5 m
<b>Baud rate</b>	115.2 kbps

## ▶ Bluetooth

<b>Type</b>	Unclassified ("Unknown")
<b>Class (COD)</b>	0x000000
<b>Conformity</b>	Bluetooth version 2.0, 2.1, 3.0, 4.0
<b>Baud rate</b>	Up to 115.2 kbps
<b>Find/activate device</b>	Automatic and manual
<b>Function</b>	Data transmission from OptoProg to PC and/or smartphone and vice versa

## References



### OPTOPROG



#### Further reading

Information	Document	Where to find it
Instruction manual	Instruction manual - OptoProg	www.productselection.net
Compatible analyzer datasheets	Datasheet: WM20 WM30 WM40 WM50 ET112 ET330 ET340	www.productselection.net
Compatible analyzer installation and use instructions	Installation and operating instruction: WM20 WM30 WM40 WM50 ET112 ET330 ET340	www.productselection.net



#### UCS Mobile App



UCS Mobile Android App



#### CARLO GAVAZZI compatible components

Purpose	Component name/code key	Notes
Configuring analyzers and monitoring measurements taken	WM20	See relevant datasheet
	WM30	See relevant datasheet
	WM40	See relevant datasheet
	WM50	See relevant datasheet
	ET112	See relevant datasheet
	ET330	See relevant datasheet
	ET340	See relevant datasheet



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