

## Optical – Acoustic Signaller

# LTT 2

Product code: PW-091-X



**Reliability**



**Innovation**



## Information about the product

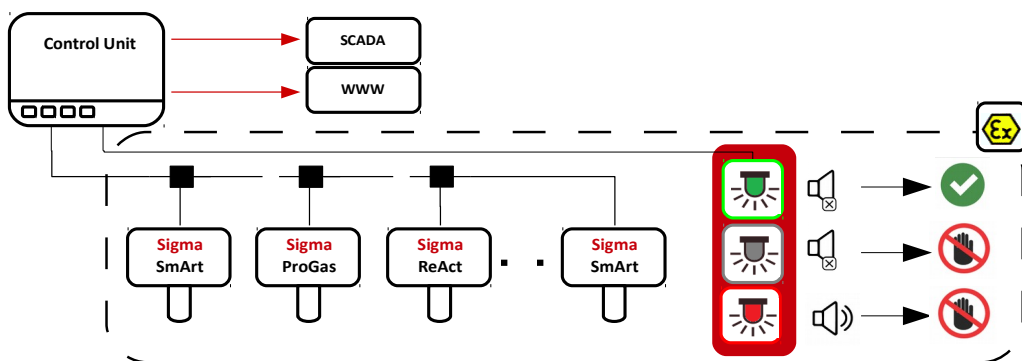
Signaller LTT2 is a device dedicated to optical and acoustic signaling of the presence of hazards in the particular industrial installation.

Device can be installed in Zone 2 (II3G 3D) of gas and dust hazardous areas.

### Main features of the device:

- two light segments, available in 5 different colours. Segment could be 2-coloured,
- continuous / intermittent (blinking) signalling,
- flash light in red or yellow,
- acoustic signaller:
  - one level of sound intensity (type PW-091-C),
  - two level's of sound intensity (type PW-091-S, PW-091-M),
- signalling up to two different alarm levels, with communicating the proper operational state (no failures) by the green colour,
- connections and control by on/off signals or by RS-485 (Modbus),
- installer friendly. Mistakes and errors in connections does not result in device damage,
- device can also easily communicate a proper operation of the connected (controlling) devices, including connection / control lines (type PW-091-S and PW-091-M).

## Location and role of the device in Gas Safety System

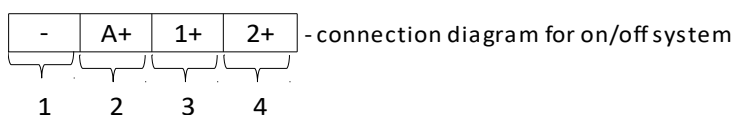
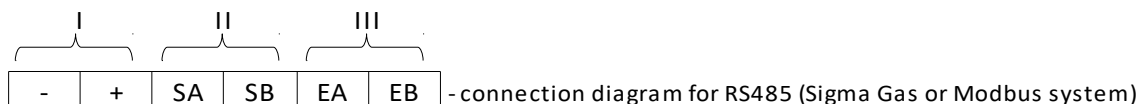


## User interface

### Example of the configuration

	Segment	Operation	Failure	Alarm I	Alarm II
2	Red/blinking/flash	○	○	○	○
1	Green/red	●	○	○	●
-	Acoustic signaller (sound)	off	off	Reduced intensity	Full intensity

## Electrical interface



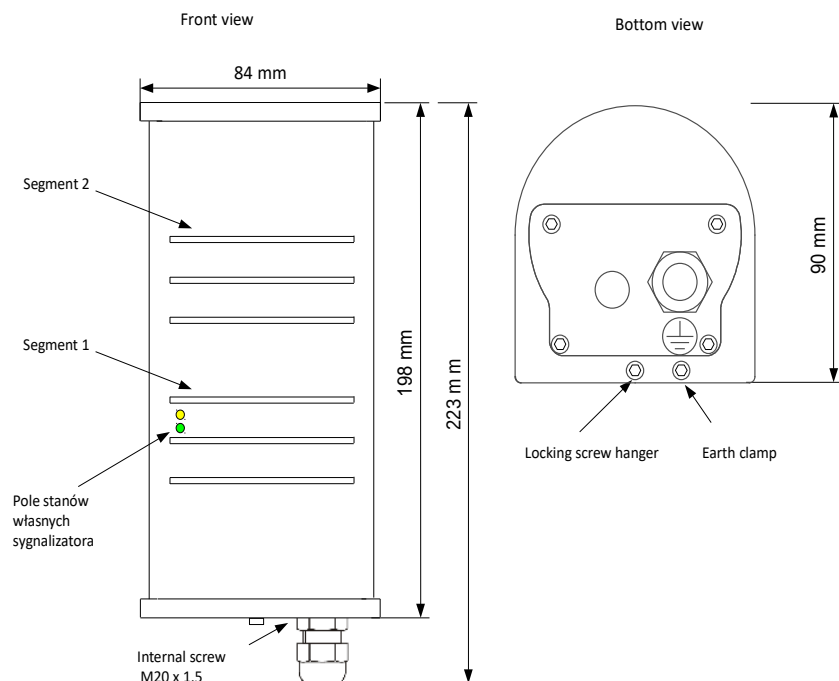
PW-091-S, PW-091-M

No	Name	Pin	Description
I	Power Supply		Signaller power supply port
		-	Negative
		+	Positive
II	SBUS		System communication port. Used for data exchange between devices in Sigma Gas system and for signaller with Modbus interface configuration (PW-091-M-X)
		SA	Signal line A
		SB	Signal line B
III	ExBUS		System communication port. Used for data exchange between external systems (e.g.: SCADA, PLC) and for signaller with Modbus interface configuration (PW-091-M-X)
		EA	Signal line A
		EB	Signal line B

PW-091-C

No	Name	Pin	Description
1		-	Negative
2		A+	Activation of the acoustic signaller
3		1+	Activation of the lower LED segment
4		2+	Activation of the upper LED segment

## Dimension

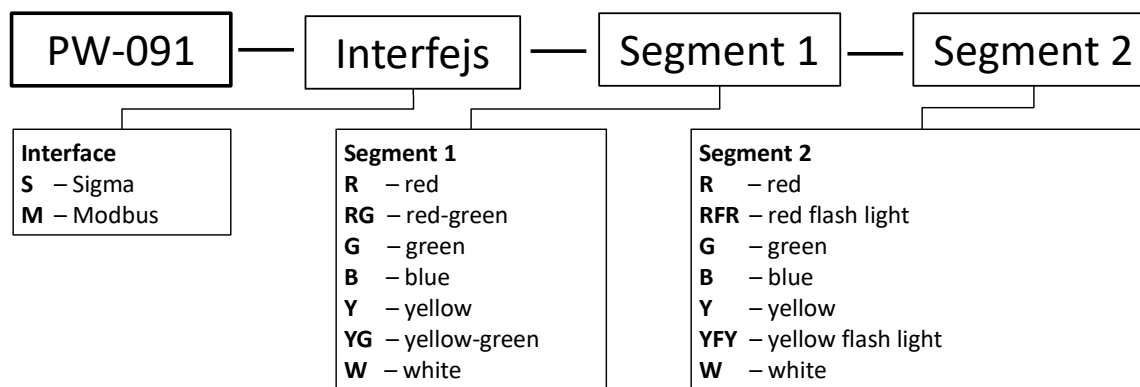


## Technical specification

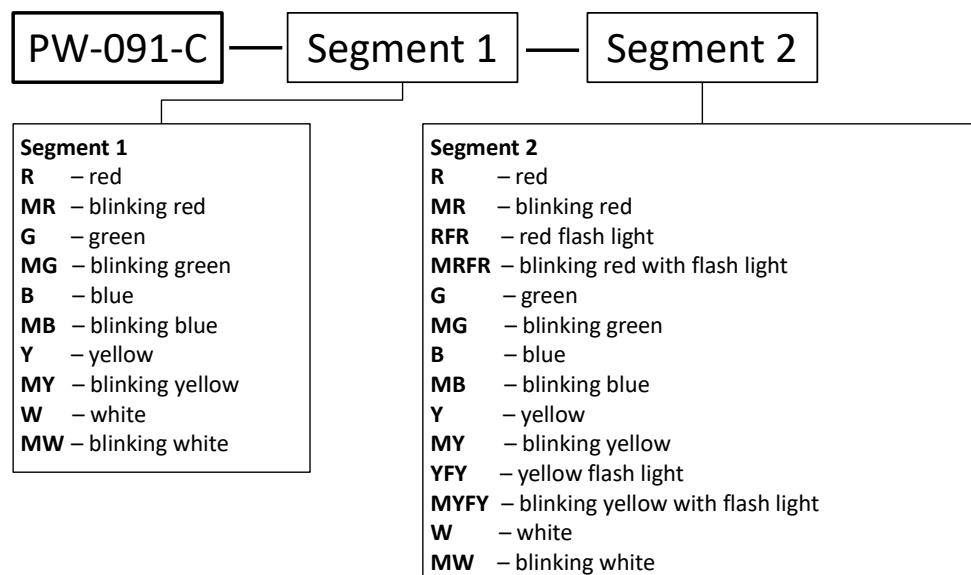
Power supply	<ul style="list-style-type: none"> <li>Voltage Vcc</li> <li>PW-091-S, PW-091-M</li> <li>PW-091-C</li> <li>Power</li> </ul>	
	12 – 30 V $\overline{\text{---}}$	18 – 30 V $\overline{\text{---}}$
Environment	In - operation	Storage
	<ul style="list-style-type: none"> <li>Ambient temperatures</li> <li>Humidity</li> </ul>	<ul style="list-style-type: none"> <li>Ambient temperatures</li> <li>Humidity</li> </ul>
ATEX	$\text{Ex}$ II 3G Ex nA IIB T3 Gc $-40 \leq T_a \leq 40^\circ\text{C}$	
IP	IP65	
Digital communication parameters	<ul style="list-style-type: none"> <li>Port SBUS</li> <li>Electric standard</li> <li>Communication protocol</li> <li>Port ExBUS</li> <li>Electric standard</li> <li>Communication protocol</li> </ul>	
	RS-485 Sigma BUS	RS-485 Modbus ASCII, RTU, 4 800 – 115 200 bd
Integrated signalling equipment (optical)	LED lamps	
Integrated signalling equipment (acoustic)	Level 1: 70 dB from 1 m Level 2: 90 dB from 1 m	
Modulation and flash time parameters	<ul style="list-style-type: none"> <li>Period</li> <li>Modulation</li> <li>Flash time</li> </ul>	
Protection class	III	
Dimension	See above	
Power cord	Without	
Cable glands (diameter range)	8 – 13 mm	
Acceptable cables	0.08 – 1.5 mm <sup>2</sup> (cable glands 2 x 1 mm <sup>2</sup> or 2 x 0.75 mm <sup>2</sup> should be used for double wires)	
Enclosure material	Stainless steel 1.4301, polycarbonate	
Weight	About 1 kg	
Mounting	Dedicated wall hanger, diameter 5 mm	

## Product marking

### Type PW-091-S, PW-091-M



### Type PW-091-C



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