

Warning LED Tower with Sounder

LTT4

Product code: PW-089-X



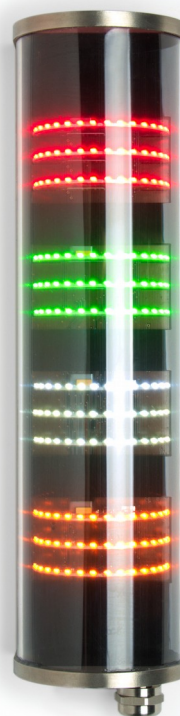
Reliability



Integrity



Innovations



Information about the product

Warning LED Tower With Sounder LTT4 is a device dedicated to optical and acoustic signalling of the presence of hazards in the particular industrial installation.

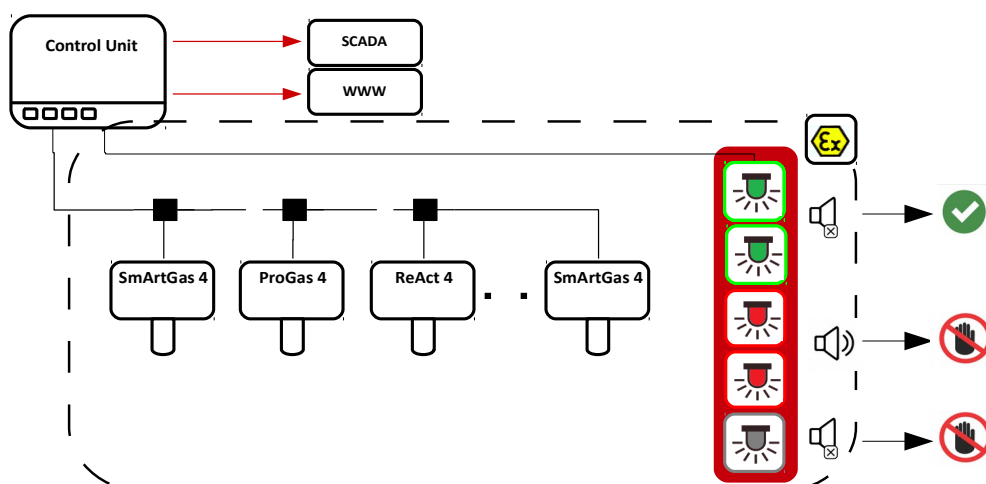
The LTT4 includes four light modules with mutually independent configuration and control furnished with extremely bright LEDs as well as one audial module (siren) with remotely controlled intensity of produced sound. Owing to such a design the LTT4 unit is a multi-purpose device since it is suitable for a large number of applications, e.g. to warn about specific events in various systems for gas detection, to raise alarms under emergency conditions or other safety infringements in industrial facilities.

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

Main features of the device:

- four lights segments, available in 5 different colours. Segment could be 2-coloured
- continuous / intermittent (blinking) signalling,
- flash light in red or yellow,
- sounder:
 - one level of sound intensity (type PW-089-C),
 - two level's of sound intensity (type PW-089-S, PW-089-M),
- signalling up to four 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 / Sigma BUS),
- 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-089-S and PW-089-M).

Location and role of the device in Gas Safety System

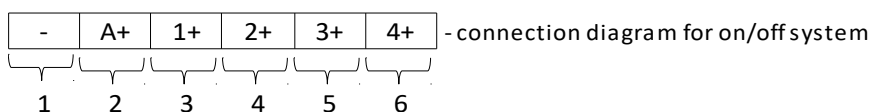
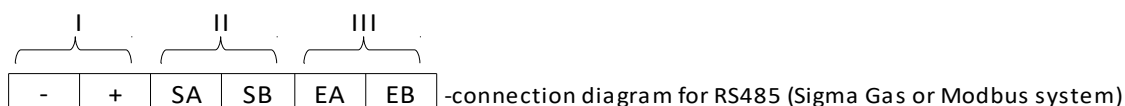


User interface

Example of the configuration

	Segment	Operation	Failure	Threshold I	Threshold II
4	Red/blinking/flash	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Red/blinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2	Red	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
1	Green/red	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
-	Sounder	off	off	Reduced intensity	Full intensity

Electrical interface



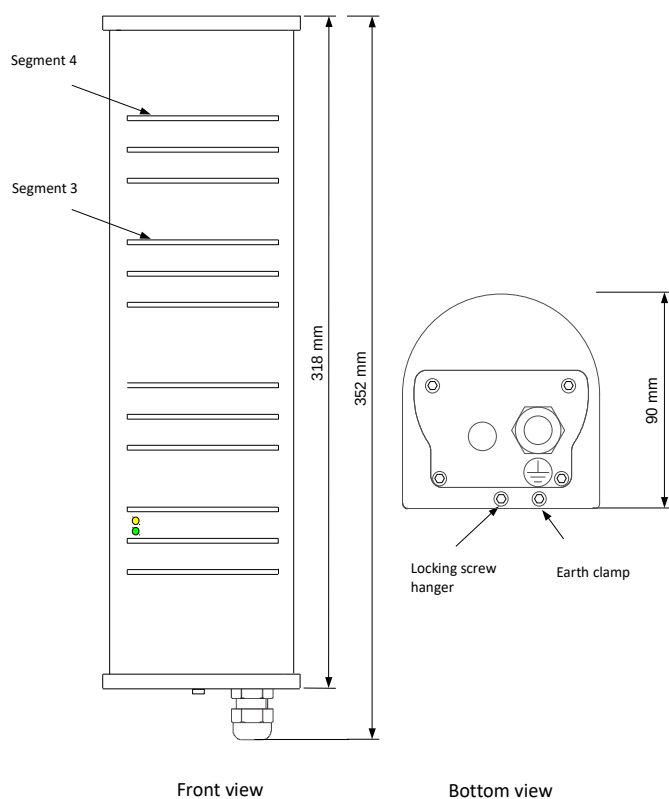
PW-089-S, PW-089-M

PW-089-C

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-089-M-X)
		SA	Signal line A
		SB	Signal line B
III	ExBUS		Communication port. Used for data exchange between external systems (e.g.: SCADA, PLC) and for signaller with Modbus interface configuration (PW-089-M-X)
		EA	Signal line A
		EB	Signal line B

No.	Pin	Description
1	-	Negative
2	A+	Activation of the acoustic signaller
3	1	Activation of the first LED segment
4	2	Activation of the second LED segment
5	3	Activation of the third LED segment
6	4	Activation of the fourth LED segment

Dimension



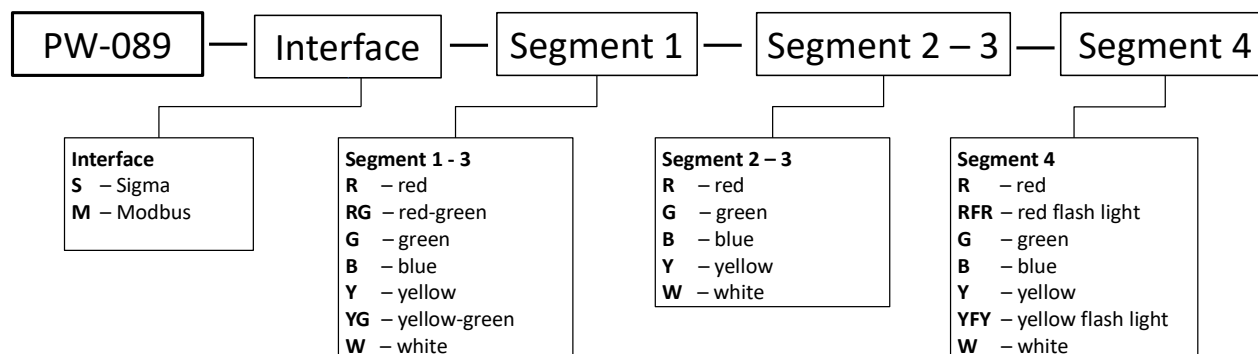
Technical specification

Power supply <ul style="list-style-type: none"> Voltage V_{cc} <ul style="list-style-type: none"> PW-089-S-X, PW-089-M-X 12 – 30 V $\ddot{=}$ PW-089-C-X 18 – 30 V $\ddot{=}$ Power P_{ZAS} 14 W 	
Environment <ul style="list-style-type: none"> Ambient temperatures -40 – +40 °C Humidity 0 – 100% long term, without condensation 	
ATEX	Ex II 3G Ex nA IIB T3 Gc $-40 \leq T_a \leq 40^\circ\text{C}$
IP	IP 65
Digital communication parameters <ul style="list-style-type: none"> Port SBUS <ul style="list-style-type: none"> Electric standard RS-485 Communication protocol Sigma BUS Port ExBUS <ul style="list-style-type: none"> Electric standard RS-485 Communication protocol Modbus ASCII, RTU, 4800 – 115200 bd 	
Parameters of control and power supply inputs <ul style="list-style-type: none"> Inactive 0 – 1 V Active 18 – 30 V 	

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"> Period About 2 s Modulation About 50% Flash time About 50 ms 	
Protection class	III
Cable glands (diameter range)	8 – 13 mm
Acceptable cables	0.08 – 1.5 mm ² (cable glands 2 x 1 mm ² or 2 x 0.75 mm ² should be used for double wires)
Enclosure material	Stainless steel 1.4301, polycarbonate
Weight	About 1.5 kg
Mounting	Hanger, 2 holes for screw / bolt, diameter 5 mm

Product marking

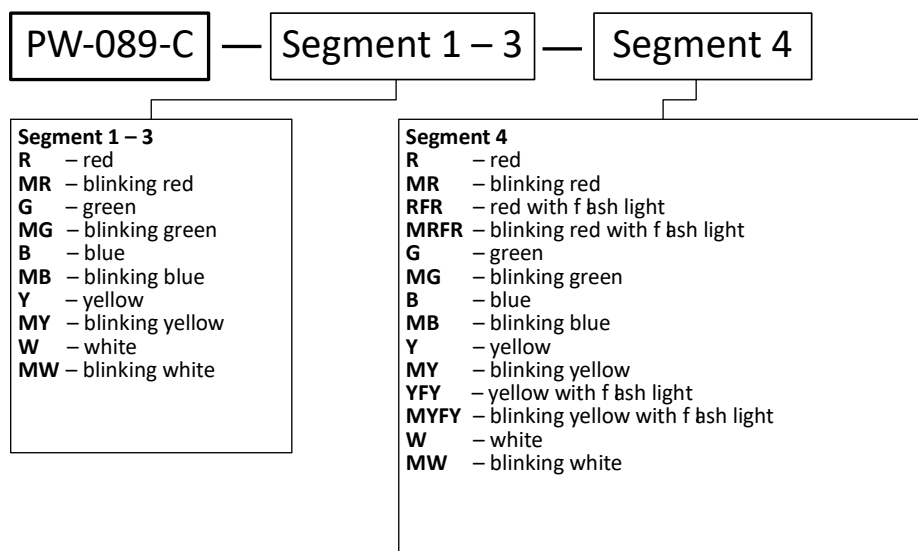
PW-089-S, PW-089-M



Example: PW-089-S-RG-RG-RG-YFY

Warning LED Tower With Sounder LTT4, Interface Sigma, first segment – red-green, second segment – red, third segment – red, fourth segment – yellow with flash light.

PW-089-C



Example: PW-089-C-MG-MG- MG-MYFY

Warning LED Tower With Sounder LTT4, ON/OFF interface, first segment – blinking green, second segment – blinking green, third segment – blinking green, fourth segment – blinking yellow with flash light.

Legal Notice:

This document is not an offer in the meaning of the civil code and other relevant regulations, but merely constitutes an invitation to conclude an agreement pursuant to article 71 of the Polish Civil Code. Atest Gaz A. M. Pachole sp. j. stipulates the right to unilaterally change and modify the present document at any time as well as to introduce changes related to the product characteristics. Products parameters can be changed without any prior notice.