SenNet IoT Gateway Sigfox-LongNet

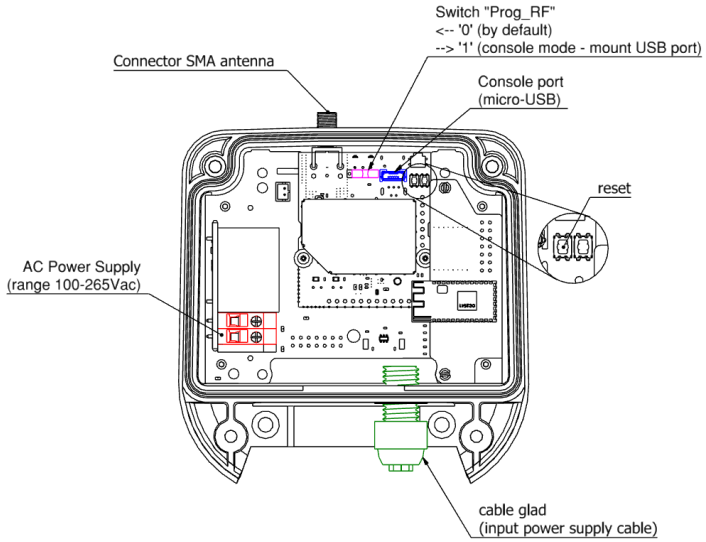
General description

SenNet IoT Gateway Sigfox-LongNet is a device designed to works like a Gateway to connect local LongNet remotes devices with Sigfox cloud, for at least 6 devices. It alternately sends the data from each device with period configured for the gateway.

Reference	Power supply type
Gateway Sigfox-LongNet	AC Power supply 100-265Vac

CE

Wired & Setup



Setup parameters methods:

- By cable micro-USB with PC console enter menu to set these parameters.

Basic steps to intall:

1. Set interval to send **(by default 15 minutes)**.
2. Take note ID / PAC to sign the device on Sigfox Cloud.
3. Scan Bluetooth ID, and connect at ID : 'S84+ID_sigfox', check signal from remotes devices connected throught Gateway Sigfox-LongNet.

Type Message

SenNet IoT Gateway Sigfox-LongNet is a device that connect remote LongNet devices with Sigfox cloud.

Sigfox data			
Field	**Info field**		**Data field**
Type data	***See Table 1***		Raw data from remote LongNet device
Byte	**1**	**2**	**3……12**

Original messages from remotes devices will be keep, only first 2 bytes must be changed.
In these initial 2 bytes, we inform that the message belongs to a remote device on the network and is being sent by a Gateway-LongNet. It contains information about the remote type and identifier within LongNet network.

Info field																	
Byte	Byte 1								Byte 2								
	Type Device 01 - Easy Meter (EM) / Easy Compact Meter (ECM) 02 – Pulse Counter 03 – Not defined 04 – Enviroment Sensor 05 - PM 06 – GW Modbus 07 –**Gateway Sigfox-LongNet**			**Type Sigfox Message for remote device** type 0 (info) type 1 type 2 type 3 type 4 type 5 .. type 15				At depend of remote device **Feedback Error** (check datasheet of remote device)	At depend of remote device	At depend of remote device	**Type of LongNet Remote Device** 01 - Easy Meter (EM) / Easy Compact Meter (ECM) 02 – Pulse Counter 03 – Not defined 04 – Enviroment Sensor 05 - PM 06 – GW Modbus			**ID Remote Nodes** No Remote = 000 ID_LongNet=001b=1 ID_LongNet=010b=2 ID_LongNet=011b=3 ID_LongNet=100b=4 ID_LongNet=101b=5 ID_LongNet=110b=6 Type Message 0 (Debug) $= 111_b = 07_d$		
Bit	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
	Byte1 Bit 7-6-5			Byte1 Bit 4-3-2-1				Byte1 Bit 0	Byte2 Bit 7-6		Byte2 Bit 5-4-3			Byte2 Bit 2-1-0		

Downlink Message

It's possible set the device in the cloud without interacting with it locally, setting interval to send. That method is optional but it's not necessary.

Byte	1		2 - 5	6	7	8
Field	Setup byte (1byte)		Set time (4bytes)	Not used (1 byte)	Interval to send (minutes)	Not used (1 byte)
Value	Bit 7	1 (by default)	{Time-Epox}	-	[11…59]	-
	Bit 6	1/0 enable/disable set Time				
	Bit 5	0 (by default)				
	Bit 4	1/0 enable/disable set Interval to send				
	Bit 3	0 (by default)				
	Bit 2	0 (by default)				
	Bit 1	1/0 enable/disable Debug 1 (versión HW/FW)				
	Bit 0	1/0 enable/disable Debug 2 (Internals errors)				

Example for downlink message:

90 00 00 00 00 00 0F 00 → With this downlink message setup interval to send to 15minutes.

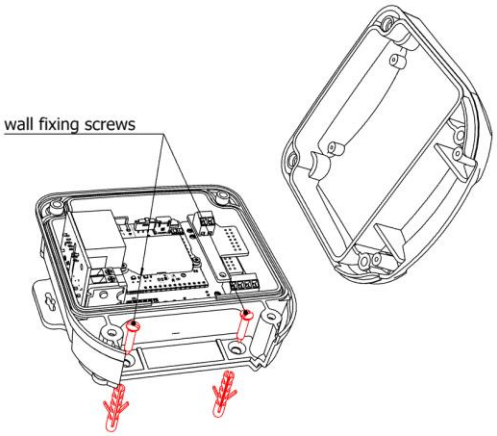
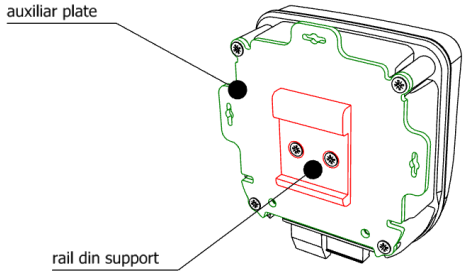
Debug option
It's possible debug on remote this device, it's necessary enable with downlink message this feature. There are two types of debug message , Debug 1 (version HW/FW) and Debug 2 (check remotes devices).

If this feature is enabled one time per day or in power up will be update these messages, with this secuence:

Debug 1 (9 bytes) → **Debug 2 (10 bytes)**

Type 0 : Debug 1 (9 bytes)						
Field	**Info**		**HW device**	**Version FW**	**Revision FW**	**Not used**
Type data	***See Table 1***					-
Byte	**1**	**2**	**3**	**4**	**5**	**6-9**

Type 0 : Debug 2 (10 bytes)										
Field	Info		Reset event	Number devices registers	RSSI ID1	RSSI ID2	RSSI ID3	RSSI ID4	RSSI ID5	RSSI ID6
Type data	***See Table 1***		-	**1…6**	-dBm	-dBm	-dBm	-dBm	-dBm	-dBm
Byte	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

wall mount (by default)	rail din mount (accesory)
	 *specify on your order

Holding case

IP Grade	IP-65
Temperature details	
Working temperature	-20ºC...+70ºC
Store temperature	-20ºC...+75ºC
Holding	
Dimensions	119 x 111 x 53 mm
Type mount	Wall or din rail
Plastic Material	ABS – V0

*If you need an upper grade contact with out support team.

Warranty

Satel Spain guarantees its products against all manufacturing defects for a period of 1 year.

No return of material will be accepted, nor will any equipment be repaired if it is not accompanied by a report (RMA) indicating the defect observed or the reasons for the return.
The warranty will be void if the equipment has suffered "misuse" or the storage, installation or maintenance instructions in this manual have not been followed. “Misuse” is defined as any use or storage situation contrary to the National Electrical Code or that exceeds the limits indicated in this manual.
Satel Spain declines all responsibility for possible damage to the equipment or to other parts of the installations and will not cover possible penalties derived from a possible breakdown, poor installation or "misuse" of the equipment. Consequently, the guarantee is not applicable to breakdowns produced in the following cases.

- Due to overvoltage and/or electrical disturbances in the supply.
- By water, if the product does not have the appropriate IP rating.
- For exposing the equipment to extreme temperatures, which exceed the operating or storage temperature limit.
- Due to a modification of the product by the client without prior notice to Satel Spain.

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