

Installation Manual

1 Automated Meter Reading (AMR)

iPERL has an inbuilt radio communication device to support AMR (Automated Meter Reading) functionality. It is suitable for mobile reading – drive-by / walk-by as well as operation in a fixed network installation.

2 Start-Up

Radio transmission will start automatically when iPERL senses water for the first time during the installation process and the alarm flag disappears. For details see also iPERL installation manual MD 5000, Step 2

3 Standard communication

iPERL transmits a “Bubble Up” (BUP) message in regular intervals automatically. A BUP contains meter identification data, most important consumption data and information about alarms.

4 Extended communication

In regular intervals iPERL is listening for incoming communication and can provide more detailed consumption data such as actual flow, maximum flow, minimum flow etc., also detailed information about alarm events.

5 Accessory devices for mobile reading

For mobile reading applications drive-by / walk-by, Sensus recommends to use a SIRT (Sensus Interface Radio Tool). Available software is SensusREAD for Windows (CE & mobile up to 6.5) or DIAVASO (set of SensusRF Android apps).

6 Operating conditions for Automated Meter Reading

Operating conditions for AMR shall not exceed the maximum limits (both for mobile and fixed-network reading)

as listed below:

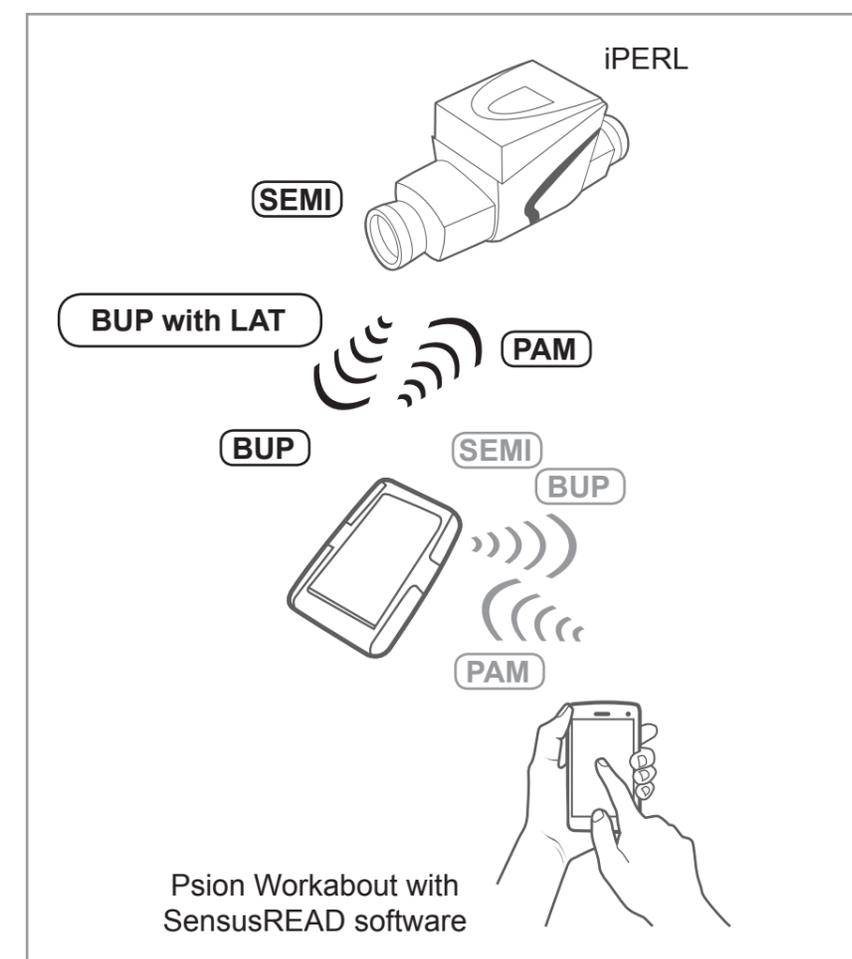
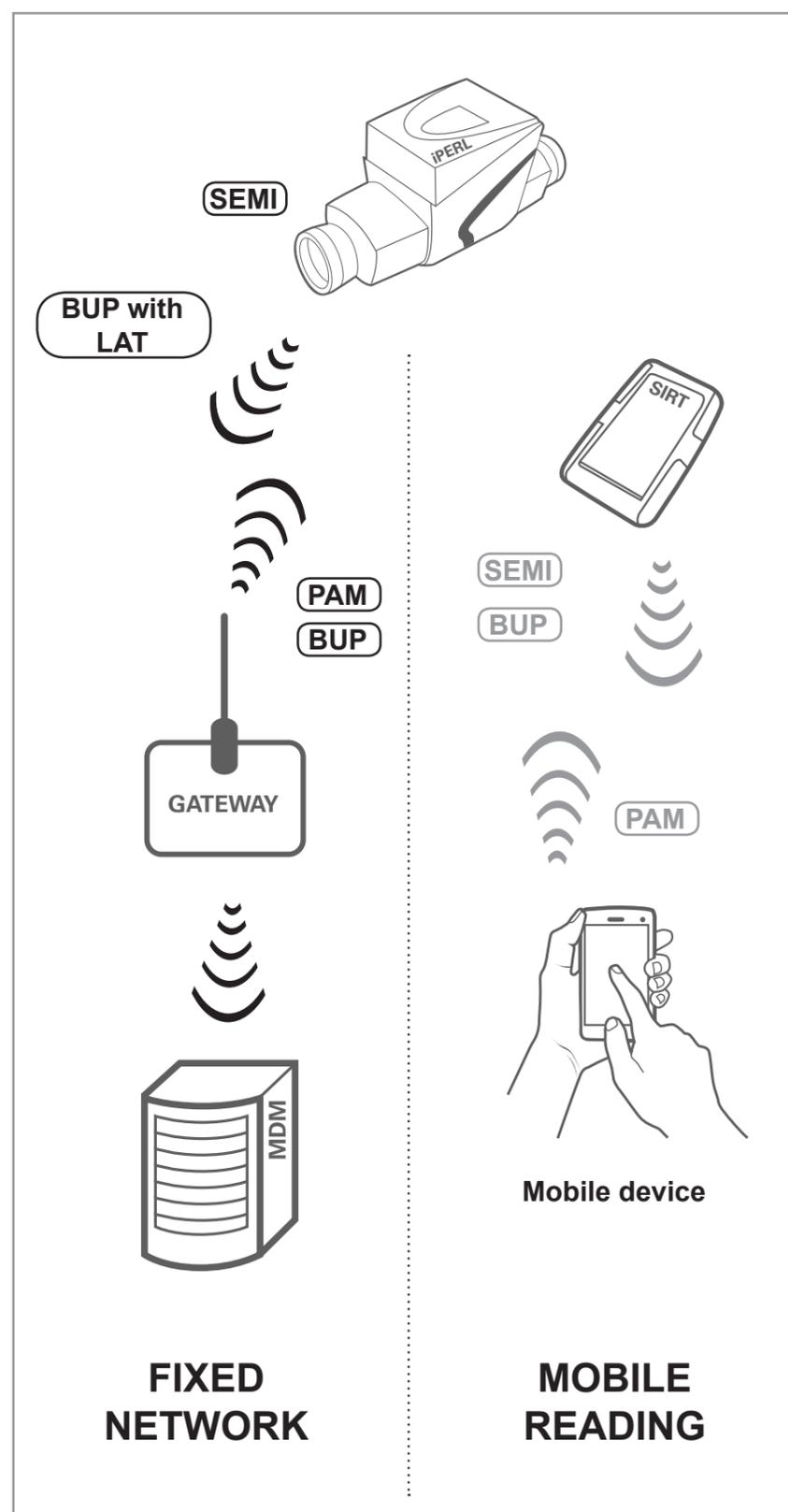
- iPERL is programmed to transmit a “Bubble Up” (BUP) message every 15 seconds. It shall not be changed to a different interval.
- LAT (Listen after talk) time slots for bi-directional communication are provided after every 4th BUP message (every 60 seconds). Extended communication shall not exceed 5 request messages per calendar month.
- In addition to extended communication iPERL’s data logger may provide further consumption profile information upon user request. Independent from number of data reading cycles and amount of data read, total time for data logger reading shall not exceed 5 minutes per calendar month.

BUP - Bubble Up: Basic Data message

SEMI - Setup Message with more information: Message coming from the end point carrying more detailed data

PAM - Parametrization Message: Carries parameters from the handheld device to the end point

LAT - Listen After Talk: Time interval used for receiving commands



Abbreviation	Explanation	Function
BUP	Bubble Up	Basic Data message
SEMI	Setup Message with more information	Message coming from the end point carrying more detailed data
PAM	Parametrization Message	Carries parameters from the HH to the end point
LAT	Listen After Talk	Time interval used for receiving commands