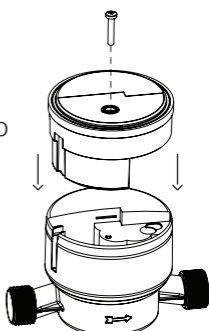# Modularis Module

CM3020

(1) INSTALLATION

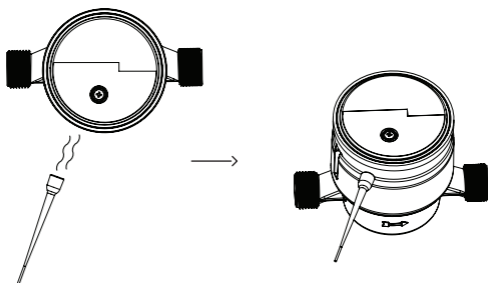Install the module on top of the water meter and fasten the screw.

(2) SWITCHING ON

Hold the magnet against the device (see illustration below) for at least 1 second while the water is running*.

*For AU915/US915 band devices (starting from FW 0.7.20) ChMask can be pre-set, to use a predefined channel range. See section 4 for more details

• The sensor starts to initialize and the red light will flash (at least 5 seconds).

- If the sensor failed to initialize the red light will stay on for 5 sec.

• The sensor will try to register to network. Blinking green (at least 5 sec)

- If it failed to join, the red light will stay on for 5 sec.

• The sensor calibrates - 4 liters are needed for that. Green blinking will change (indicating the number of detected pulses + 1)

- if calibration is successful, it will show green for 5 sec

- if it fails within 10 minutes it will show red for 5 sec

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(3)   TROUBLESHOOTING

If the device did not register to the network, it can be for 2 reasons:

• The device is not allowed in the network and it must be registered with the service provider.

The necessary data is on a separate sticker in the package (DevEUI, AppEUI, AppKey). Once the device is registered repeat the switching on procedure described under point 2.

• There is no LoRaWAN reception. Contact your LoRaWAN service provider.

(4)   CHMASK SETUP (optional)

For AU915/US915 band devices only. Follow the guide in step 1:

"Hold the magnet against the device for at least 1 second while the water is running."

The ChMask is applied with holding the magnet for different time.

• For default 64 channels setup: Follow the guide normally.

• For pre selecting an 8 channel range, keep holding the magnet for 5 seconds (the light flashes red while holding). After that the light will flash blue every 2 seconds, accompanied with red flashes that flash as many times, as the blue light has flashed. The blue light indicates the channel range. After getting to the desired range, the magnet needs to be released after the blue light flash.

Channel ranges are as follows:

> 0-7 : blue has flashed 1 time
> 8-15 : blue has flash 2 times
> 16-23 : blue has flash 3 times
> 24-31 : blue has flash 4 times
> 32-39 : blue has flash 5 times
> 40-47 : blue has flash 6 times
> 48-55 : blue has flash 7 times
> 56-63 : blue has flash 8 times

NAS   Nordic Automation Systems   Nordic Automation Systems
www.nasys.no
info@nasys.no