Exposure limit according to §15.247(i)

The water meter is classified as a mobile device.

The FCC limit for power density for general population/uncontrolled exposure is f/1500 mW/cm^2 for 300 – 1500 MHz frequency range:

$$P = 902.3/1500 = 0.601\ mW/cm^2$$

The power density **$P\ (mW/cm^2) = P_T / 4\pi r^2$**

P_T is the transmitted power, which is equal to the peak transmitter output power 29.39 dBm (in GFSK modulation) plus maximum antenna gain 0 dBi, the maximum equivalent isotropically radiated power EIRP is

$$P_T = 29.39\ dBm + 0\ dBi = 29.39\ dBm = 868.96\ mW.$$

The power density at 20 cm (minimum safe distance, required for mobile devices), calculated as follows:

$$\text{Compliance with FCC limit: } 868.96\ mW / 4\pi\ (20\ cm)^2 = 0.1729\ mW/cm^2 << 0.601\ mW/cm^2$$

General public cannot be exposed to dangerous RF level.