TSX100®

Ultra Low-Power data logger

TMX®
smart telecontrol

TSX100®
Data logger for measuring water levels

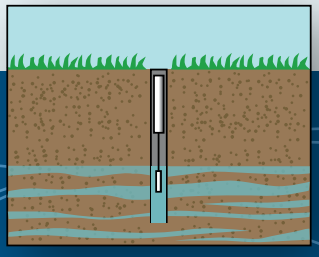
- Communicates with any master station remotely
- Ultra Low-Power with exchangeable battery pack
- Robust waterproof logger housing (IP67)
- Including level transmitter with optional cable length
- Built-in barometric compensation
- Secure data communication

TSX100 data logger

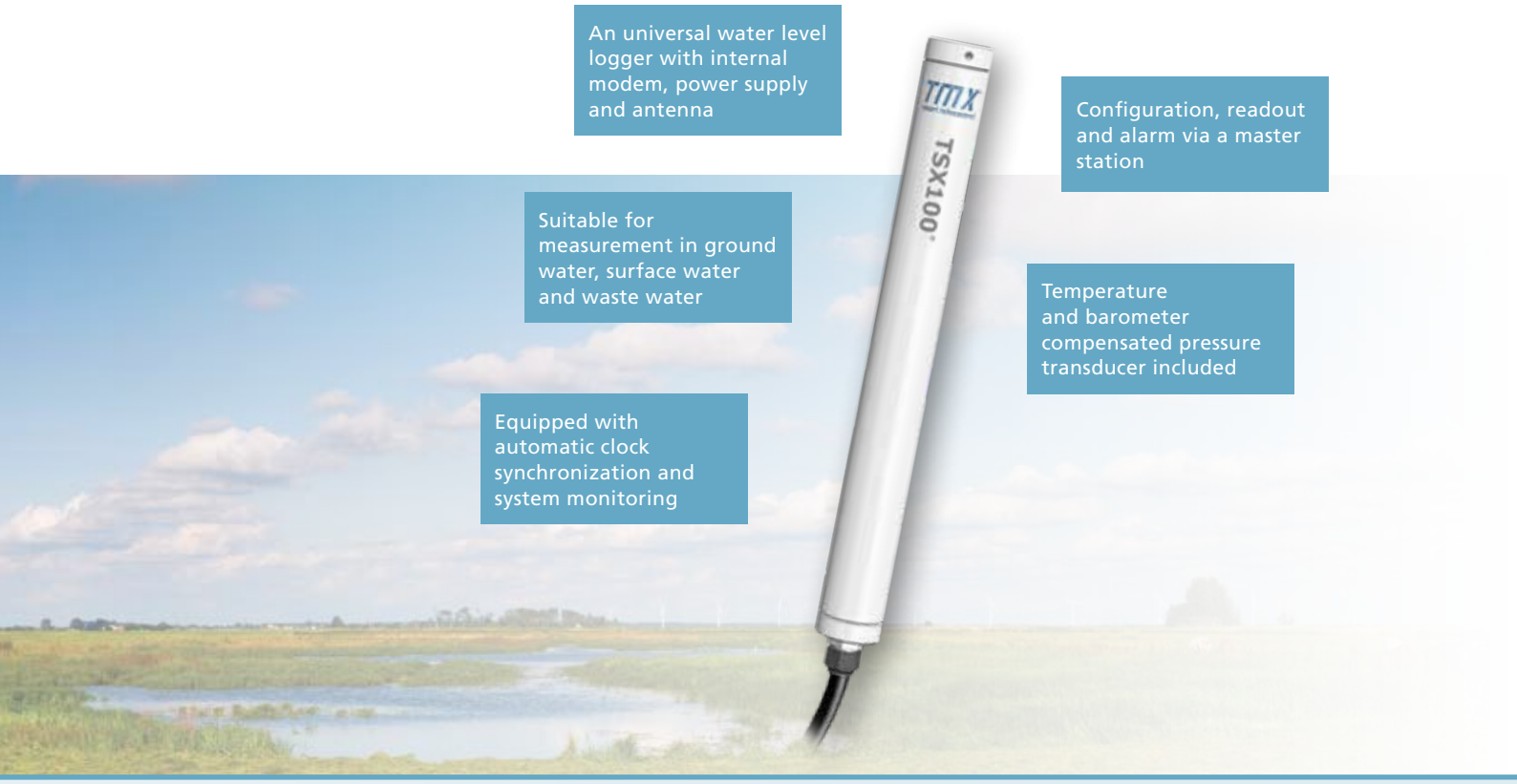
Ultra Low-Power and compact, that makes the TSX100 data logger ideal for measuring and monitoring water levels at any location. Thanks to the internal GPRS modem and Ultra Low-Power design, the TSX100 is a complete and reliable solution. The waterproof housing has a diameter of only 43 mm and is well suited for groundwater tubes. The internal battery pack will last for at least a period of approx. 5 years and can be replaced yourself. Monitoring the battery status, changing settings and reading out the data loggers is easy by using the main station TMX-Net Pro via the internet. The TSX100 is suitable for level measurement of surface water, waste water, water wells and ground water.

Level measurement

The TSX100 is a full integration of all features for remote measurement of water levels. Different types of sensors can be selected for optimal use in the desired application. The communication between the sensor and the electronics is fully digital for extra reliability and minimal power consumption. The hollow tube in the sensor cable allows for barometric compensation. This is a closed system therefore there is no airflow inside the housing which might affect the electronics or battery pack inside. Measuring range and desired cable length can be specified when ordering. As the sensor cable, battery pack and SIM-card already have been installed, the TSX100 can be installed instantly (Plug & Play).



groundwater

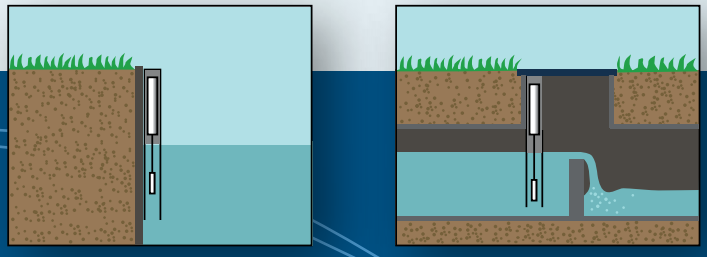


Data logging and communication

The measured values are recorded at set points in time in the TSX100's internal memory and periodically sent to the main station via the GPRS modem. The open communication protocol allows the TSX100 data to be accessed via different main stations. This can be done either directly or via a Web Service Interface (TWIN) available in the TMX-Net Pro main station. TMX-Net Pro is the main station of TMX accessible via the internet to remotely manage and read out TSX100 data loggers. The TSX100 has been developed according to security by design principles. Thanks to the secure communication, the TSX100 offers many possibilities to carry out both temporary and permanent monitoring projects properly, safely and efficiently.

Applications

Due to its small outside diameter of only 43 mm, the cylindrical housing of the TSX100 fits into almost all standard monitoring wells. As no cabling or fastening outside the monitoring well is required, this provides for easy and unobtrusive installation. In addition to ground water measurements, the TSX100 is ideal for measurements in surface water and waste water. Depending on the application, various mounting assemblies are available.



surface water

sewage system

Competitive Total Cost of Ownership

The combination of sensor and intelligent data logger also makes the TSX100 economically attractive. In the various applications, the functional possibilities are mainly determined by the software in the TSX100. Logging interval and pre set values for alerting purposes can be changed remotely from the TMX-Net Pro main station. In addition, it is possible to remotely renew the software as a whole, so later extensions can be easily and economically implemented. Furthermore, the minimal power consumption of the Ultra Low-Power TSX100 provides for a long battery life. Therefore, site visits can be kept to a minimum. This means significant savings on total operating costs.

Technical data

Level sensor: measuring range as from 1 m
diameter 22 - 32 mm (depending on sensor type) cable length according to specifications. Strong ceramic measuring cell in stainless steel housing

Modem: GPRS (2G/2,5G)
Internal antenna
Micro-SIM

Power supply: 7.2 V Li battery pack
interchangeable
battery pack lifetime
at least approx. 5 years

TSX100 housing: plastic POM
length 350 mm, diameter 43 mm
protection class IP67
operating temperature
range -10 °C to +50 °C

Registration interval
(time between two measurements)
adjustable from 1 min. - 8 hours and/or depending on actual measured values

Reporting interval
(time between messages sent to main station)
adjustable from 30 min. - 24 hours
- the possibility to log messages from a preceding period

Wake up interval
(the interval time for 'waking up' to receive setting messages)
adjustable from 30 min. - 24 hours

Alarm Configuration
- 4 alarm levels per analog input (2x low, 2x high)
- adjusted reporting interval when alarm level is exceeded
- adjusted recording interval when alarm level is exceeded

Would you like to receive more information about the many possibilities of the TSX100? Call us or send us an e-mail to sales@tmx.nl

water sewage traffic waste logistics agriculture cooling other

Kuipers Electronic Engineering B.V.
Houtkopersstraat 6
3334 KD Zwijndrecht (NL)
Tel. +31(0)78 610 03 00
sales@tmx.nl
www.tmx.nl