

H40(G)-TSH22

Water level and temperature monitoring

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FIEDLER

Reliable
water level
temperature
monitoring

Bore holes
monitoring

Rivers and lakes
level monitoring

Industry and
facility process
controlling

Data collection for
scientific and
research purposes



- *Low cost measurement kit for water level and temperature monitoring consists of Hydro-logger and stainless steel probe.*
- *High accuracy of measurement and long-term stability; the probe with built-in microprocessor temperature correction.*
- *The Hydro-Logger H40G contains built-in GSM module for automatic data transmission to server via the GPRS network. (H40G)*
- *Automatic notification sending, warning SMS messages when preset thresholds are reached. (H40G)*
- *SW support for data at server (charts, tables, exports and printable reports of data, email notifications, ...)*
- *Extremely long operating time without a battery replacement (up to 20 years for non-modem version and up to 10 years for GSM/GPRS version)*
- *Continuous power consumption measurement precisely specify a remaining battery capacity.*
- *The Hydro-logger device can be fully set up locally by the MOST software.*
- *Full device customization and set up can be done even via the internet. (H40G)*
- *The ultra thin diameter of the hydro-logger device (40 mm) and measurement probe (22 mm) allows assembly into extremely narrow bore holes.*
- *Special semi-permeable filter prevents the air moisture from penetration into compensation capillary of a sensor*
- *Communication interface RS485 between probe and the hydro-logger; detachable plug-in connector for easy probe calibration*
- *Both water and air temperature measurement*
- *Universal stainless steel mount for bore holes included in the kit.*

Overview

Compact device housing predetermines the measurement kit H40(G)-TSH22 for water levels and temperatures monitoring in bore holes and open streams or in reservoirs. The monitoring kit can be purchased in initial configuration without remote transmission capability or with built-in GSM/GPRS+SMS module.

The desired cable length and water level sensor range can be specified in purchase order.

Pricing

H40G-TSH22

Measurement kit with GSM/GPRS support 815,- EUR

H40-TSH22

Measurement kit without transmitter..... 690,- EUR

Datahosting

Unlimited data storage from 2 EUR/ device/ month

Software features overview

The hydro-logger contains 8 standard measurement channels. Each of them can be defined with specific label, measurement units, position of floating point, measurement method and more parameters.

The archiving interval is adjustable separately for each channel. The logger continuously evaluates measured values and is capable to dynamically change transmission period of data sent according to many conditions. For instance the trigger for special data transfer can be threshold overcoming or fast value change in short time.

The devices has also maintenance/checking channels for recording of battery voltage, amount of external power supply voltage, current took by connected sensors, checking of temp. and humidity inside the data logger.

All parameters settings and configuration can be done locally by the MOST software and also remotely with an internet web browser via the data hosting server (H40G only).

Data transfer between server and Hydro-loggerem H40G

- Instant data transfer to the server in preset time, after alarm evaluation, dynamic transfer period switching.
- Broad data transfer time and period settings to balance battery life and delivering data right in time.
- Remote device set up via the data hosting server with ability to back up settings.
- Automatic date and time synchronization of device with the server.
- Firmware remote upgrade through the server.

Warning and notification SMS system:

- Phonebook for 10 recipients, groups included.
- 14 adjustable warning SMS messages (arbitrary text, automatic instant values insert, various trigger conditions with hysteresis).
- Possibility to compound informative SMS messages (instant values, maximums and minimums,...)



data hosting server: https://stanice.fiedler-magr.cz

Datahosting

Hydro-Logger H40G data hosting is full featured service ready to be used in the same way like data hosting for widely used M4016 and STELA stations. No need for a customer to operate own server and maintain or support it.

Registered users can access data on the server through standard web browser. The web application can serve graphical and chart visualization and also enables statistical calculations of balance flow rates, search limit values, custom data exports and more features.

TECHNICAL PARAMETERS H40(G)

- Recording channels:** 8 analogue, 2 binary, 1 text, 8 checking.
- Inputs:** RS485, 1 current inputs 4-20 mA, 2 pulse (optional 2 AV)
- ADC resolution:** 16 bits, 0-3 decimal place
- Power sensors:** adjustable voltage 6 to 22 V, current measurement
- Storage interval:** adjustable separately for each recording channel in range from 1 minute up to 1 day.
- Data memory:** 2MB Flash, up to 300.000 values
- PC interface:** RS232, connector M12, protocol FINET (MOST)
- Real-time correction:** automatic from the server
- Power supply:** lithium battery pack 3,6V/18Ah (26 Ah)
- Operating time:** up to 20 years without battery replacement - vary according to the number and type of connected sensors, frequency of measurement and number of data reports
- GSM/GPRS module (H40G):** GPRS Class 12, slots: 4Rx / 4Tx
- GSM antenna:** SMA connector, antenna 1 dB included
- Working temperature range:** -20 ... +50 °C
- Material of housing:** stainless steel and plastic
- Dimension:** diameter 40 mm, length 280 mm (without GSM ant.)
- Weight:** 600 g including battery
- Protection:** IP66

Water Level Sensor TSH22

- Measure channels:** Ch1: water level, Ch2: temp.
- Measuring range:** available from 2 to 10 m of water column (standard: 2, 5, 7 a 10 m of water column)
- Over-pressure:** max 150% of measuring range
- Accuracy:** 0.35% from MR (available 0,1%)
- Resolution:** 1 mm
- Temperature error:** 0.5 °C
- Temperature resolution:** 0.1 °C
- Output:** RS485, protocol FINET
- Supply voltage, current consumption:** 6-14 V DC, <10 mA
- Working temperature range:** 0 ... +50°C
- Cable:** four-wire with compensation capillary, PUR
- Material of membrane and housing:** stainless steel
- Dimension:** diameter 22 mm, length 120 mm
- Weight:** 170 g without cable
- Protection:** IP68 (without connector)

Connector H40(G) - female



- 1 ... +Upower for sensors (6-22 VDC)
- 2 ... AI1 input 0(4)-20 mA
- 3 ... PI1 pulse input
- 4 ... PI2 pulse input
- 5 ... RS485-A
- 6 ... RS485-B
- 7 ... GND



Connector TSH22 - male



- 1 ... +U power (6 V DC)
- 2 ... NC
- 3 ... NC
- 4 ... NC
- 5 ... RS485-A
- 6 ... RS485-B
- 7 ... GND