

# Hydrolog® HLF4

Data logger with data remote transmission  
for water level recording

Technical Information TI05.24



## Application

- Water and waste water sector
- Environmental technology
- Process industry e.g. for
- Long-term monitoring of water levels at hydroelectric power plants
- Alerting in the event of flooding
- Weir control
- Stockpile management of storage tanks

## Main features

- Wide range of power supply options
  - Long-term lithium battery 19/35Ah
  - Li-Ion battery 20Ah
  - DC supply 7...32V
  - Photovoltaic module (PV module)
- Up to 5 sensors for up to 11 measured variables
  - 2x sensor current 0/4...20mA
  - 2x 4-channel multi-parameter sensor
- RS485 Modbus®-RTU
  - 2x sensor supply 16.6V / 30mA
  - 2x sensor supply 6.7V / 100mA
- Digital input / pulse counter
- 800,000 measured values
- Local operation via Bluetooth 5.0 LE
- Remote data transmission via 4G/LTE, 2G GSM/GPRS
- Alarm management and remote alarming
- Measured value verification through
- Comparison sensor
- Highest data security
- Installation in water level pipes from 2"
- Flood-proof up to 3m water column
- Temperature range -20°C to +60°C
- Translated with DeepL.com (free version)



## Description

The Hydrolog is an electronic data logger for installation in water level pipes, with integrated 4G/2G remote data transmission for autonomous recording of various measured variables and with Bluetooth 5.0 LE interface for simple wireless local operation via cell phone app.

Highly efficient energy management allows both long-term use for more than 10 years and a fast measuring operating mode with short-term data transmission, depending on the supply and settings.

The robust design and high-quality workmanship make the device a very high-quality product.

Captive laser marking on the nameplate ensures that the device can be identified throughout its entire service life. The optional attachment of a measuring point designation or TAG is of course also possible by laser marking.

A customer-specific configuration or presetting is also available as an option, as is a factory certificate for drinking water suitability.



FEEL FREE TO  
CONTACT US

Lauterbachstr. 57, D - 84307 Eggenfelden  
info@acs-controlsystem.com  
www.acs-controlsystem.com  
+49 8721-96680

# TECHNICAL DATA

## Auxiliary power supply

Battery B1	Lithium / 3,6V-19Ah
Battery B2	Lithium / 3,6V-35Ah
Battery rechargeable A1	LiION / 4,1V-20Ah
Supply voltage DC	7...32VDC / $\leq$ 350mA
PV module	4,5...32VDC / $\leq$ 2A

## Communication - RS485 Modbus-RTU

Interface Ci1 / Ci2	RS485, bidirectional / Modbus-RTU / 9600 Baud (4800...38400 Baud)
---------------------	---

## Analogue - Current 0/4...20mA

Signal range Ai1/Ai2	0/4...20mA / FSI: 0...28mA / Ri 27R
Resolution	FSI 16 Bit
Characteristic deviation	$\leq \pm 0,05\%$ FSI
Temperature deviation	$\leq \pm 0,1\%$ FSI / 10K
Long term deviation	$\leq \pm 0,05\%$ FSI / year

## Digital - Switch / Counter

Operating range Di1	$\leq 20k\Omega$ / $\leq 1kHz$
---------------------	--------------------------------

## Transmitter power supply Uo

Output voltage Uo1/Uo2	16,6V $\pm 0,3V$ (0mA) / 15,9V $\pm 0,3V$ (30mA) / 0...30mA, max. 40mA
Output voltage Uo3/Uo4	6,7V $\pm 0,2V$ (0mA) / 6,6V $\pm 0,2V$ (100mA) / 0...100mA, max. 300mA

## Interface - Bluetooth®

Standard	Bluetooth® 5.2
----------	----------------

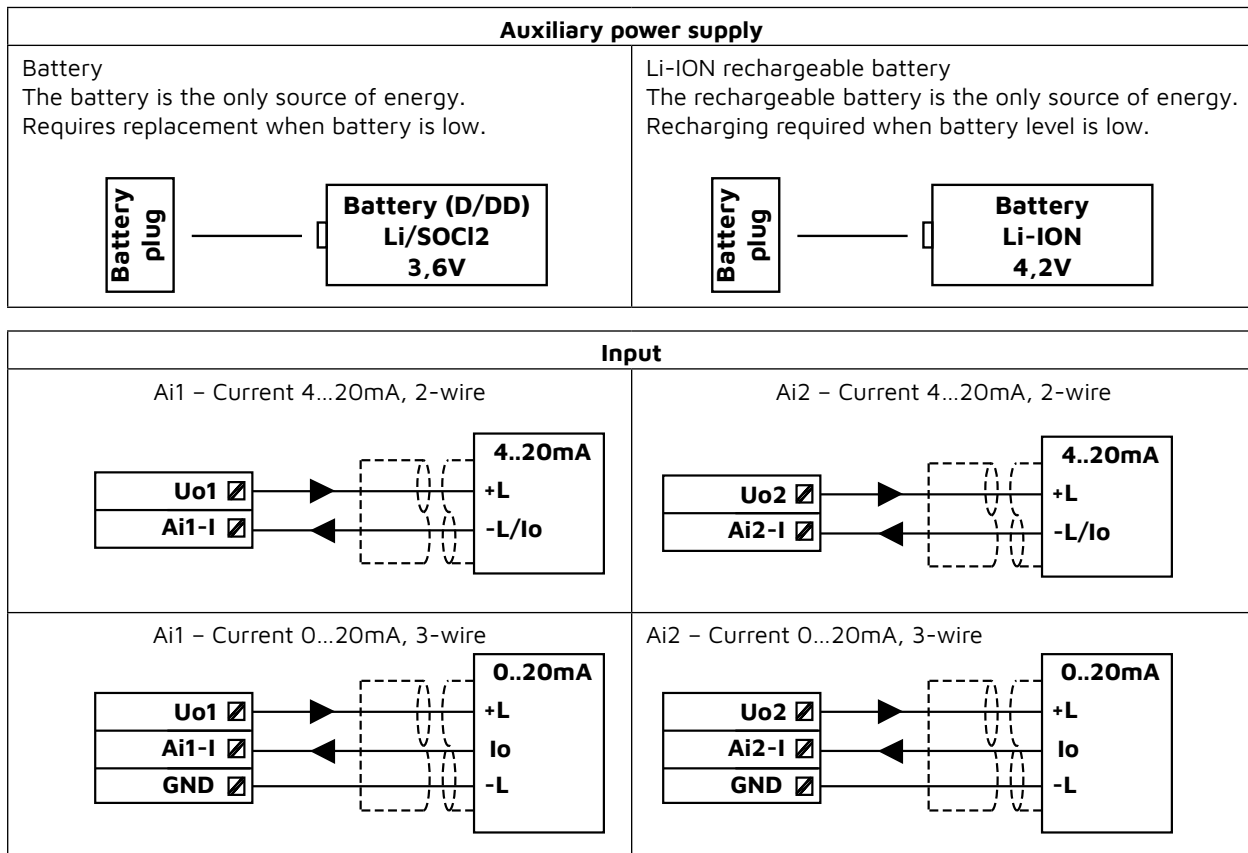
## Interface - Cellular LTE-M1 / LTE-NB2 / EGPRS

Standard	4G LTE-M1
	LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85
	4G LTE-NB2 (NB-IoT)
	LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B28/B66/B71/B85
	2G EGPRS
	850/900/1800/1900MHz

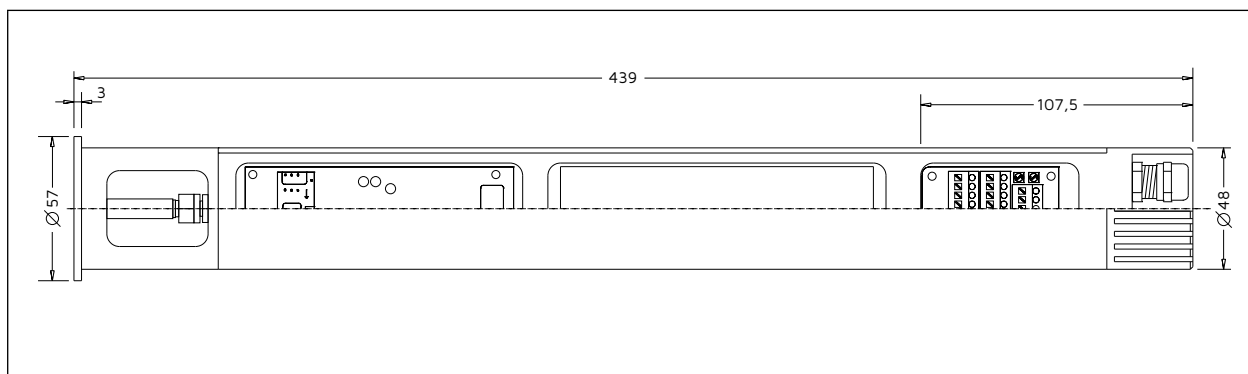
## Memory

Type	Datflash, nonvolatile
Memory size	8 MB
Memory content	$\geq 800.000$ measuring values

# ELECTRICAL CONNECTION



# DIMENSIONS (MM)



**Type**  
HLF4 Standard

**Approval**  
S Standard

**Enclosure type**  
R2 In-tube enclosure Ø 48mm / tube 2"

**Electronic - Supply**  
B1 Battery lithium 19Ah / DC supply 7...32V  
B2 Battery lithium 35Ah / DC supply 7...32V  
A1 Rechargeable battery Li-ION 20Ah / DC supply 7...32V / PV module

**Electronic - Function**  
0 Bluetooth® 5.2  
5 LTE-M1, LTE-NB2, EGPRS / Bluetooth® 5.2

**Electronic - Input**  
M 2x Ai 0/4...20mA / 2x Ci RS485 / 1x Di

**Tariff**  
0 Separate billing / without  
XS1B ACS DataComplete XS, Basic  
XS1S ACS DataComplete XS, Standard  
XS1P ACS DataComplete XS, Premium  
S1B ACS DataComplete S, Basic  
S1S ACS DataComplete S, Standard  
S1P ACS DataComplete S, Premium  
M1B ACS DataComplete M, Basic  
M1S ACS DataComplete M, Standard  
M1P ACS DataComplete M, Premium  
L1B ACS DataComplete L, Basic  
L1S ACS DataComplete L, Standard  
L1P ACS DataComplete L, Premium

**Additional option**  
-ML Measurement point designation / TAG - Laser marking  
-KF Configuration / Preset

**Order Code:** HLF4 S R2 M S

Hydrolog® HLF4 S R2 M S