Standalone communicating data logger

LOG04V4

The **LOG04V4** is data logger is a standalone unit incorporating a battery and communication options such as GSM-GPRS (2G, 4G or LoRaWAN), depending on the model. The logger can be equiped with an interchangeable communication card allowing to switch from 4G to LoRa without changing the entire hardware. The configuration is done quickly and safely nearby, using a radio connection.

- **Wireless radio settings (Wiji protocol)**
- **Communication: local radio + optional communication card: 2G / 4G (LTE-M or NB-IoT) or LoRaWAN**
- **Memory: 500,000 measurements**
- **IP68 ingress protection (1 Bar/30 days)**
- **Long-life lithium battery**
- **1 external power input (5V - 30V)**
- **1 Modbus input or output**
- **2 digital inputs: Digital or 100 Hz metering**
- **1 power output (internal battery or switch)**
- **1 Open drain output**

Applications	
• Area-Velocity Flow	• Pressure measurement on drinking water networks
• Lift stations	• Physico-chemical
• CSO / SSO	• Drinking water flow measurement
• Rainfall measurement	• Electromagnetic flowmeter connection by Modbus

Features	LOG04V4	
Storage capacity	500,000 measurements	
Concentrator	Yes	
Inputs	• 1 power input (5V - 30V) • 1 Modbus input (If not already used as output)	• 2 Digital inputs or 100 Hz metering
Outputs	• 1 power supply output (5V - 18V on internal battery) or Vin switch	• 1 Open drain output • 1x Modbus output (If not already used as input)
Communication	• HF radio (868 or 915 MHz) • 2G / LTE M or NB IoT (via FTPS, HTTPS, COAP or MQTTS protocols)	• LoRaWAN: Europe 863-870 MHz (SF12 for RX2) LoRaWAN Specification 1.0.2
Radio range	100 meters in open field (Wiji protocol)	
Radio hub function	Yes	
Radio / mobile antenna	• Internal or external radio	• Internal or external mobile
Temperature range	-20 to 70°C	
Logger housing	PA12	
Ingress protection	IP68: 1 bar for 1 month (only if using Ijinus mounting kit; PN: H0T00053 or H0T00060)	
Power	Lithium battery: 3.6 V - 34 Ah	
Configuration	Wireless programming kit (PN: M0C00001) with AVELOUR software, cable and antenna	
Certification **Atex zone 2** ⟨Ex⟩	II 3G Ex ic ec IIB T4 Gc Ambient temp: -20 °C to 60 °C	Certification: CE FC SE6A002 - IC : 10983A-A002-A0102

2G /4G Modem features		
Frequency Bands	**LTE-FDD**	Cat M1 : B1 / B2 / B3 / B4 / B5 / B8 / B12 / B13 / B18 / B19 / B20 / B25 / B26 / B27 / B28 / B66 / B85
		Cat NB2 : B1 / B2 / B3 / B4 / B5 / B8 / B12 / B13 / B18 / B19 / B20 / B25 / B28 / B66 / B71 / B85
	GSM/EDGE	B5 / B19 / B3 / B2
RF Emission Power	**GSM 900**	+ 33 dBm
	GSM 1800	+ 30 dBm
	LTE B1 / B3 / B8 / B20	+ 23 dBm
B1 (2100) / B2 (1900) / B3 (1800) / B4 (1700) / B5 (850) / B8 (900) / B9 (1800) / B12 (700) / B13 (700) / B18 (800) / B19 (800) / B20 (800) / B25 (1900) / B26 (850) / B27 (850) / B28 (700) / B66 (1700) / B71 (600) / B85 (700)		
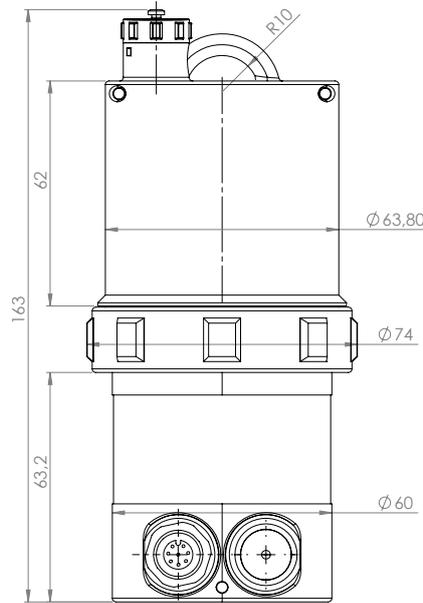
Wiring

Female

Male

Cable color	White ⚪	Brown 🟤	Green 🟢	Yellow 🟡	Grey ⚫	Pink 🟣	Blue 🔵	Red 🔴
8-pin connector: No.	1	2	3	4	5	6	7	8
Name	Vin	GND	Vout	Input OR Output	Input OR Output	Input	Input	Output Open-Drain
Features	(5 V - 30 V)	Ground	5 V - 18 V * (internal battery) or Switch Vout = Vin	RS485-H	RS485-L	On/Off 2 / Metering 1 100Hz	On/Off 2 / Metering 2 100Hz	Contact Grounding
Type	Power supply input		Power supply output	Modbus	Modbus	Digital	Digital	Open drain (1 A / 30 V)

* Maximum 1.8 W on V_{out} if the connected sensor is powered by the internal battery (voltage adjustable via software)

Options configurator				
LOG04V4	1x Power input (5 V - 30 V), 2x digital or metering inputs, 1x Modbus input OR output 1x Power Output (5 V - 18 V), 1 Open drain Output			
	Code	**Frequency**		
	8	868 Mhz Europe - China		
	9	915 Mhz USA - Canada - Australia		
		Code	**Antenna**	
		0	Internal radio	
		1	External radio	
		2	Internal radio / external mobile	
		3	External radio / external mobile	
			Code	**Communication options**
			Empty	Local radio communication
			LTE	Radio communication + 2G / LTE-M / NB-IoT
			LP1	Radio communication + LoRaWAN

LOG04V4-	8	2	LTE	= **LOG04V4-82-LTE**