



Data Transmission via IRIDIUM Satellite

for surface water, groundwater and meteorological stations

Key Features:

- Worldwide data transmission coverage (incl. polar regions)
- Robust Iridium modem design enables data transmission under any climatic condition
- Permanent data transmission possible, no time-slots (-frames)
- Current data always available
- Communication with all SEBA data loggers
- Time- & cost-effective modem and data transmission
- Low energy consumption



Iridium TRANS
Modem



Iridium antenna



Installation

Surface Water



Wadi Gauge in Saudi Arabia

WADI-Station



Powered by Solar

Data Transmission



Raingauge Station

Meteorology



Station with Solar

Surface Water

Description Iridium Communication System

The **Iridium Satellite** Transmission System consists of currently 66 active communication satellites which enable a worldwide data transmission coverage by a Low Earth Orbit (LEO) Satellite Network. The data transmission rate of 2400 baud is accelerated through the implementation of the compression-code AMBE (Advanced Multi Band Excitation).

SEBA Iridium-Trans makes use of this technology - which makes it a modern, reliable and economic data transmission system.



Monitoring stations equipped with an IRIDIUM modem can be retrieved either from a central standard PC with IRIDIUM Modem or with an IRIDIUM satellite mobile phone.

Technical Data



Iridium Surface Water Station

The main component is an optimized transceiver which operates like a standard modem. Almost every data logger and sensor is suitable for the connection via the RS232 port and therefore integrable with all SEBA measuring systems.

The transceiver with the intelligent technique of **SEBA Iridium controller** is specially produced for the requirements of hydro-meteorological stations which makes it a unique solution for the transmission of monitoring data from (remote) field stations.

IRIDIUM Modem:

Frequency:	1616MHz to 1626,5MHz
Duplex Method:	TDD (Time Domain Duplex)
Antenna Impedance:	50 Ohm
Power Supply:	nom. 12V (10...18VDC)
Peak Input current max.:	0,5A with 12VDC
Power	
- during transmission:	7W (max)
- during reception:	0.6W
Connectors:	DC-Power, RS232
Antenna Connector:	50 Ohm TNC-connector
SIM Chip:	SIM-Slot integrated
Operation temperature:	-20°C to +60°C
Humidity:	< 85% reativ humidity without protection housing 100% with protection housing
Storage temperature:	-40°C to +85°C
Protection class:	IP54

Technical Data:

Solar panel:	50W/12V
Data logger:	MDS-5 (see separate brochure)
Sensors:	Water Level, Water quality, Meteorological Sensors



The right is reserved to change or amend the foregoing technical specification without prior notice.



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