

SARA–SPECTROSCOPIC WATER STATION

The SARA Spectroscopic Water Station consists of a submersible Spectroscopic Water Gamma Detector and the Supply- & Communication Unit. It supports 110V / 230 V power supply with battery backup and solar power supply as option. Data communication between the station and Network Monitoring Center (NMC) uses LAN, DSL and/or LTE/GPRS in each case through a secure VPN. The base SARA-80W unit of the station is designed for installation on a wall or pole. SARA is able to detect even minor changes of the composition of the nuclear spectra in the environment. This improves significantly the recognition of artificial isotopes, which is very important for the radiation early warning system, for example. Not only does it support the fast detection of artificial radiation but it can also identify the nuclear isotopes. The detector is designed for submersible operation even in depth up to 500 m and for continuous operation with small maintenance. The hermetically sealed detector unit housing guarantees optimal protection for the detector and the electronics against harsh marine conditions. The NaI(Tl)-based scintillation detector together with the MCA (multi-channel analyzer) provide good energy resolution under ambient temperature operation conditions. If a higher resolution is required compared to NaI(Tl) different sizes of CeBr₃-based scintillation detectors are offered. The embedded PC of the detector unit enables online isotope identification and versatile data exchange through several interfaces. The standardized ANSI N42.42 protocol enables the use of many spectra evaluation software programs. The integrated web server facilitates easy data access using a web browser. SARA also measures the gamma dose rate. Total gamma dose rate measurement of SARA is calibrated according to Ambient Dose Equivalent Rate H*(10).



BASE UNIT SARA-80W + DETECTOR SARA-WXX WITH MOORING BRACKET (SARA-80W-2000)

PERFORMANCE SPECIFICATION

	Unit	SARA-80W
Features		Pole or wall installation
Compatible detector		All SARA detectors SARA-WXX (data sheet SARA – SPECTROSCOPIC WATER GAMMA DETECTOR)
Operation temperature	°C °F	-40...+60 -40...+140
Protection class base unit		IP66
Humidity	%	0...100
Power	W	2.5 (average)
Supply voltage		110 V / 230 V AC
Battery voltage	V	12
Battery capacity	Ah	26
Battery operation time with SARA detector	days	5
EMC-proofed		EN55022 Class B, EN55024 61000-3-2, 61000-3-3
Depth (base unit)	mm	300
Width (base unit)	mm	500
Height (base unit)	mm	500
Weight	kg	~25
Displacement volume (water 20°C)	l	8.7 (including frame)
Communication interfaces additional to SARA detector		LTE/GPRS (optional) DSL (optional) Other communication interfaces on request
Optional accessory base unit		Mounting pole Solar power supply

ORDERING INFORMATION

The Spectroscopic Monitoring Station consists of a Spectroscopic Water Gamma Detector SARA-WXX and the base unit SARA-80W. The station can be selected as follows:

	SOLAR	DSL	LTE/GPRS
SARA-80W-LA-S	X	X	
SARA-80W-L-S	X		
SARA-80W-LA		X	
SARA-80W-L			
SARA-80W-L4A-S	X	X	X
SARA-80W-L4		X	X
SARA-80W-L4-S	X	X	X

Solar units may need adjusted battery size, depending on location

Additionally the SARA detector can be selected as follows:

SARA-Wxx-L

SARA-Wxx-Lx-xT comes with additional GM detector.

SARA-Wxx-Lx-xH with an additional high dose rate spectrometer.

RELATED PRODUCTS: SARA – SPECTROSCOPIC WATER GAMMA DETECTOR