

## SARA – SPECTROSCOPIC MONITORING STATION

SARA is a flexible gamma spectroscopic system which can be used for versatile applications. The SARA – Spectroscopic Gamma Detector in combination with different base units forms the powerful SARA – Spectroscopic Monitoring Station. Different base units are available each optimized to provide the best solution for the customer needs.

The SARA – Spectroscopic Gamma Detector is able to detect even minor changes of the composition of the gamma 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. It is designed for outdoor use even in harsh environments and for continuous operation without any maintenance. The hermetically sealed detector unit guarantees optimal protection for the detector and the electronics against environmental conditions. The NaI(Tl)- or LaBr<sub>3</sub>(Ce)-based scintillation detector provide high energy resolution under ambient temperature operation conditions. The integrated embedded Linux-PC enables online isotope identification and versatile data exchange through several interfaces. The integrated web server facilitates easy data access using a web browser. Total and nuclide specific gamma dose rate measurement is calibrated according to ambient dose equivalent rate  $H^*(10)$ . For more details refer to the SARA – Spectroscopic Gamma Detector. This detector can be combined with different base units to form following stations.

### SARA – BASE UNIT SPECTROSCOPIC MONITORING STATION

The SARA-80F-L is designed for a fixed installation using 110 V / 230 V power supply with battery backup and solar power supply as an option. Data communication between the station and Network Monitoring Center (NMC) uses LAN, DSL or wireless LTE in each case through a secure VPN. The SARA-80F-L is designed for wall or pole installation.

### SARA – BASE UNIT AUTONOMOUS SPECTROSCOPIC STATION

The SARA-80X for stationary use is designed for fixed installation and unlimited operation that is achieved by the solar panel and a back-up battery. Data communication between the SARA-80X and Network Monitoring Center (NMC) uses the LTE or RADIO service of cellular networks through a secure VPN.

### SARA – BASE UNIT DEPLOYABLE SPECTROSCOPIC STATION

The SARA-80M can be quickly deployed in case of emergency (battery-based temporary use). This independency from any wired connections eases the installation of the station at any place of interest and permits simple relocation if necessary. Data communication between the SARA-80M and Network Monitoring Center (NMC) uses the LTE or RADIO service of cellular networks through a secure VPN.



**SPECTROSCOPIC MONITORING STATION**  
**SARA DETECTOR+BASE UNIT SARA-80F-L**



**AUTONOMOUS SPECTROSCOPIC**  
**STATION SARA-80X**  
**(WITH MOUNTING PLATFORM)**



**DEPLOYABLE SPECTROSCOPIC STATION**  
**SARA DETECTOR+BASE UNIT SARA-80M**

## PERFORMANCE SPECIFICATION

	Unit	SARA-80F-L	SARA-80X	SARA-80M
Features		Pole or wall installation	Easy to install & set-up No infrastructure required	Easy to deploy & set-up No infrastructure required
Compatible detector		All SARA detectors (data sheet SARA – SPECTROSCOPIC GAMMA DETECTOR)		
Operation temperature	°C °F	-40...+60 -40...+140		
Protection class base unit		IP66	IP65	
Humidity	%	0...100		
Power	W	2.5 (average)		
Supply voltage		110 V / 230 V AC	110 V / 230 V AC (battery charger)	
Battery voltage	V	12		
Battery capacity	Ah	24	75/150	10
Battery operation time with SARA detector	days	5	40	2.5
EMC-proofed		EN55022 ClassB, EN55024, 61000-3-2, 61000-3-3	EN55022 ClassB EN55024	
Depth	mm	210	300	
Width	mm	390	500	--
Height	mm	390	550	585
Weight	kg	16.55	80	11.3
Communication interfaces additional to SARA detector		DSL (SARA-400-A, optional) Other communication interfaces on request	--	--
Optional Accessory base unit		Mounting pole Solar power supply	Mounting platform Solar power supply	Transport box Solar power supply

## ORDERING INFORMATION

The Spectroscopic Monitoring Station consists of a Spectroscopic Gamma Detector SARA-1xx-Lx-x and the base unit. The base unit can be selected as follows:			Additionally the SARA detector can be selected as follows (examples):				
	SOLAR	DSL		RADIO	LTE	GPS	RD
SARA-80F-L-AS	X	X	SARA-1xx-L4R-GR	X	X	X	X
SARA-80F-L-S	X		SARA-1xx-L4		X		
SARA-80F-L-A		X	SARA-1xx-L4R	X	X		
SARA-80F-L			SARA-1xx-L4R-G	X	X	X	
			SARA-1xx-L4R-R	X	X		X
SARA-80X	X		SARA-1xx-L4R-GR	X	X	X	X
SARA-80M			SARA-1xx-LR-GR	X		X	X
SARA-80M-S	X		SARA-1xx-L-R				X
SARA-80X-Lx-Lx is equipped with 75 Ah instead of 150 Ah SARA-80X-Lx-Px is with a power line connection e.g. SARA-80X-L-LP is with 75 Ah and power line connection			SARA-1xx—L				
			SARA-1xx-Lx-xT comes with additional GM detector. SARA-1xx-Lx-xH with an additional high dose rate spectrometer.				

## RELATED PRODUCTS: SARA – SPECTROSCOPIC GAMMA DETECTOR

SARA – STATION/06EN/2024-07-03

Technical contents are subject to change without notice!