

SARA® Short Range Avalanche Radar

SARA® enables the pure verification directly close to the blasting installation.

Positive experience with our LARA® avalanche radar has prompted us to decide to develop radar technology further and also offer this as an option on our avalanche towers. Thus a short-range radar system SARA® (range appr. $500 \, \text{m}$ ($1,640 \, \text{ft}$), larger angle of aperture) has been developed as a sister system to LARA®, our long-range radar (range of $4 \, \text{km}$ ($2.5 \, \text{miles}$), angle of aperture $90^{\circ} \, \text{x}$ 15°)

The SARA® radar can optimally be mounted on the deployment box and monitors the sphere of action of the avalanche tower. Thus SARA® makes it possible to verify whether an avalanche has been triggered through the detonation or not. As opposed to LARA®, SARA® only monitors the immediate area under the avalanche tower and cannot give any information about avalanche activity lower down in the path. As usual, power supply is provided by solar energy, so that no additional installations on the deployment box are necessary.



Functional principle	The Doppler radar sends out electromagnetic waves which are reflected by objects. The frequency of reflected radiation of moving objectives is different to the one sent out (Doppler Effect). This effect is being used for avalanche detection. The data is sent to a server for processing and visualizing. Run out distance and size of avalanche can be roughly determined.
Set up	The device can be mounted directly on the deployment box of the avalanche tower due to its small dimensions, low weight and low energy consumption.
Display	fully integrated in our Wyssen Avalanche Control Center WAC.3
Range	up to 500 m (1,640 ft)
Opening angle	90° x 20°
Communication	Mobile phone network
Power supply	Solar by Avalanche Tower

