MAGOS

SR-Series Radar Sensors Technical Specifications

- The SR family of radar sensors now consists of 5 distinct models for use in various installations. The growing range of high-performance radar sensors by Magos provides customized environments for detection and protection that are appropriate for your perimeter monitoring applications. Our sensors' superior detection performance and low false alarm rate provide the user with an optimized security solution that is also cost-effective.
- Radar sensors' inherent advantage is in their ability to instantaneously cover large areas without loss of resolution. Combined with AI-enabled MASS software and third-party

PTZ cameras, our solutions provide continuous coverage of secure and managed perimeters.

- Seamlessly integrated with existing site-security solutions (VMS/Access Control/PSIM/ etc.)
- The Magos solution includes state-of-the-art technology such as advanced target tracking, MIMO signal processing for improved angular resolution, and zero-Doppler processing for tracking slow-moving and tangential targets.
- SR-series sensors are designed for long service life in all-weather without any maintenance. A combination of minimal part count, no moving parts, and robust design ensure very high MTBF in any condition.

Features

High performance for outstanding detection

- MIMO & digital beam-forming technology ensures best-in-class resolution and performance
- Detection range of 150m to 1km for person, vehicle or boat
- 100°-120° supreme azimuth coverage & a staggering 30° elevation coverage up to the installation pole that eliminates all "dead zones"

- 0.1m range accuracy and 0.7° -1° azimuth accuracy
- Supreme detection under all weather and lighting conditions
- FCC compliant
- Low power consumption edge processing driven extreme power & data efficiency: easy solar + wireless integration

Technical Specifications & Ordering Information

	SR150	SR250	SR500	SR1000	SR-500-C
ORDERING P/N	MSA1356A	MSA1452A	MS700A	MSA1231A	MSA1241A
DESCRIPTION	5.8GHz Sensor 150m range, 1.2m resolution	5.8GHz Sensor 250m range, 1.2m resolution	5.8GHz Sensor 600m range, 1.2m resolution	5.8GHz Sensor 1000m range, 1.2m resolution	5.8GHz Sensor 600m range, 1.2m resolution
DETECTION RANGE	Human: 150m Vehicle/Boat: 150m	Human: 250m Vehicle/Boat: 250m	Human 400m Vehicle/Boat: 600m	Human: 800m Vehicle/Boat: 1000m	Human 400m Vehicle/Boat: 600m
FREQUENCY	C-Band				
SENSOR TYPE	High-resolution MIMO digital beam-forming				
AZIMUTH COVERAGE	120°			100°	
ELEVATION COVERAGE	30°				
RANGE ACCURACY	0.1m				
AZIMUTH ACCURACY	1°			0.7°	
SCAN RATE	8 Scans per sec				
TARGET DETECTION SPEED	0.3 - 30 m/sec				
DIMENSIONS (W/H/D)	24.3cm X 14.9cm X 5.9cm 9.6" X 5.9" X 2.3"			24cm X 32cm X 5.8cm 9.4" X 12.6" X 2.3"	
POWER CONSUMPTION	48V, 11W			48V, 11W	
OPERATING TEMPERATURE (C°)	-40° - +70°				
POWER INTERFACE	PoE 802.3af (802.3at Type 1)				
ENVIRONMENTAL RATINGS	NEMA-6, IP67				
WEIGHT	1.2Kg / 2.6lb			3Kg / 6.6lb	
APPROVALS/ CERTIFICATIONS	CE, FCC, UL, IC, Anatel (Brazil), ETA (WPC - India), KC (Korea), EAC (RFA - Russia), RCM (Australia)	FCC, UL, IC, Anatel (Brazil), ETA (WPC - India), KC (Korea), EAC (RFA - Russia), RCM (Australia)	FCC, UL, IC, Anatel (Brazil), ETA (WPC - India), KC (Korea), EAC (RFA - Russia), RCM (Australia)	FCC, UL, IC, Anatel (Brazil), ETA (WPC - India), KC (Korea), EAC (RFA - Russia), RCM (Australia)	CE/RED EN -62368 1:2014, EN 22:2006-60950 / AC:2008, EN 301 1-489, EN -489 301 3, EN 440 300

Accessory & Kit Technical Specifications

- Magos provides installation accessories for mounting the radar in different setups, including an RJ45 cable adapter. All the accessories are described in the table below and may be ordered together with the sensors. All accessories are compatible with any of Magos' sensors.

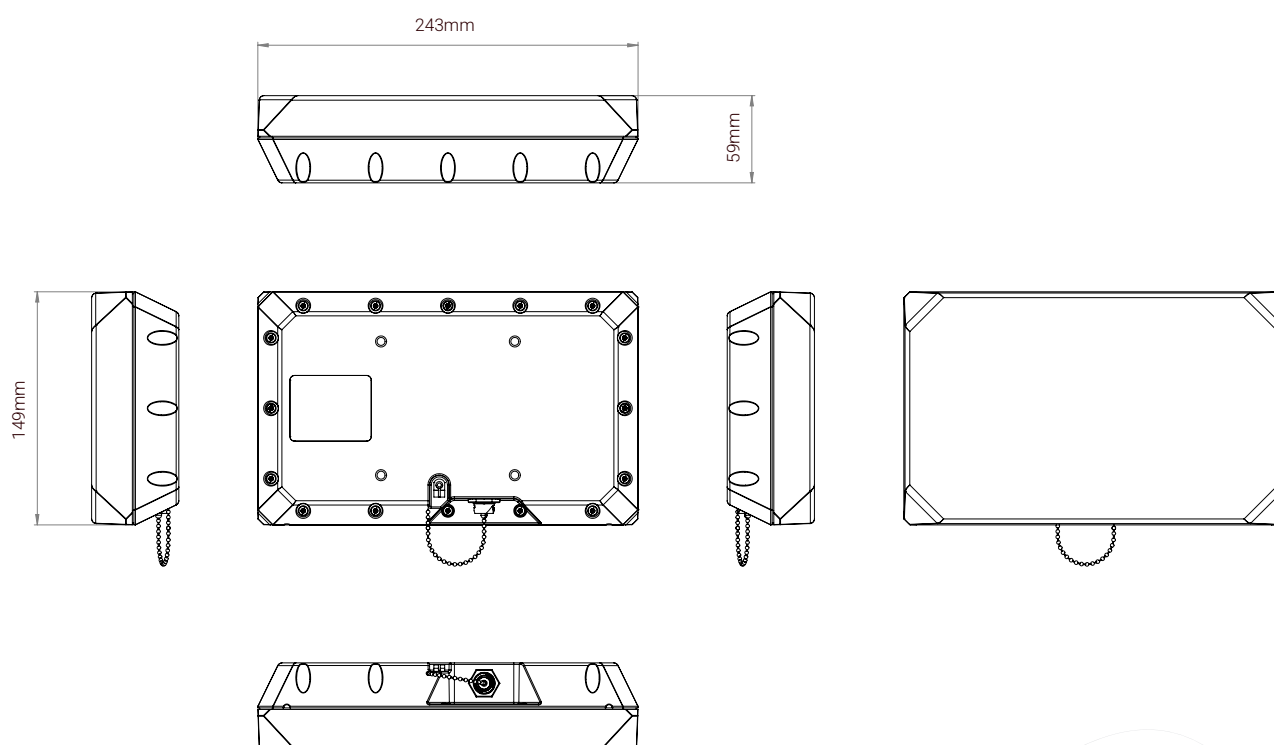| ACCESSORY NAME	DESCRIPTION	ORDERING P/N
UNIVERSAL MOUNT BRACKET	Accessory kit suitable for installation of all Magos' radar sensors on either flat walls or poles. The accessory connects on one side to the radar sensor and the other is attached to either a wall or a pole. Radar elevation and horizontal angles (tilt and pan) are adjustable	MSA1252A
ADAPTER CABLE – 15M	Electrical interface cable from RJ45 on the user end to -12 pin connector on the sensor end. The cable length is 15m	MS991
ADAPTER CABLE – 2.5M	Electrical interface cable from RJ45 on the user end to -12 pin connector on the sensor end. The cable length is 2.5m	MSA1273

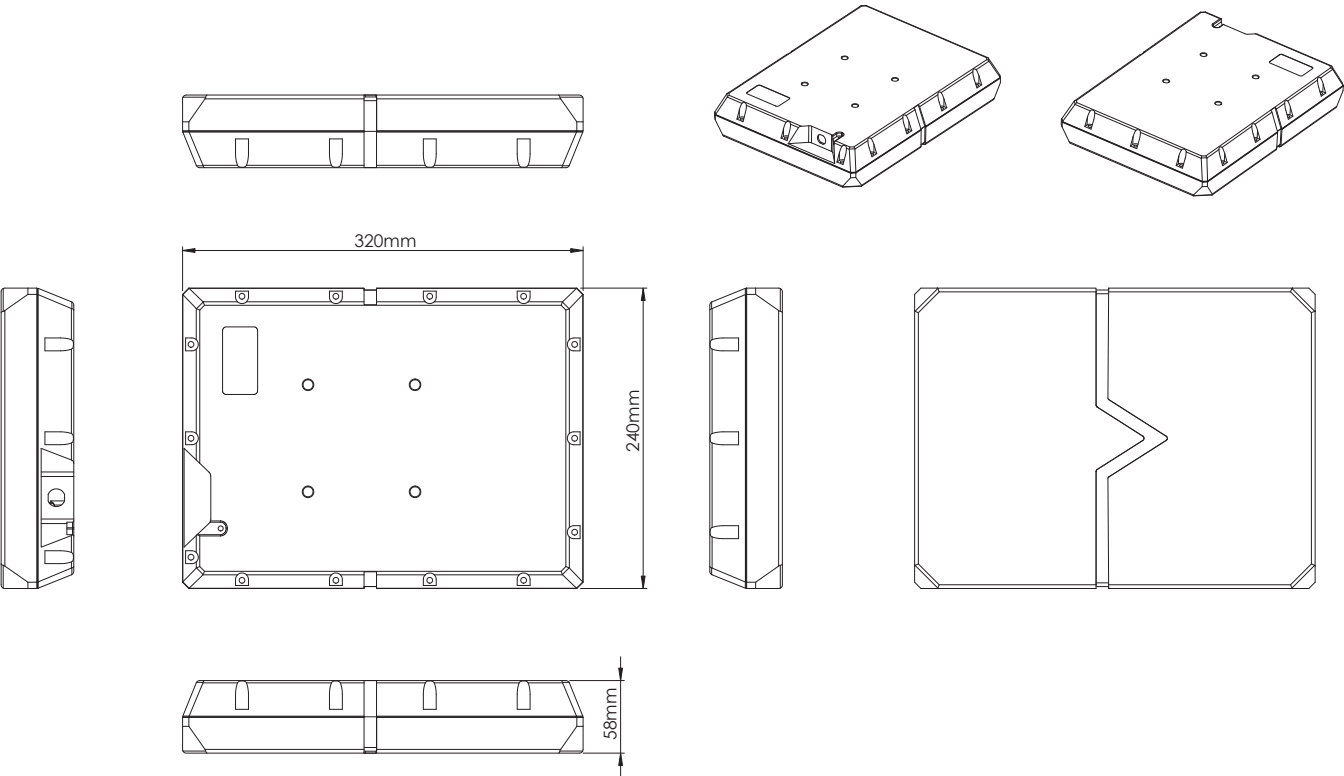**Figure 1**: SR 150, 250 & 500 radar sensor outline drawing

320mm

240mm

58mm

Figure 2: SR-1000 & SR-500-C radar sensor outline drawing