



LASER WARNING RECEIVER RALM 02/V2

DESCRIPTION

The SELEX Communications Laser Warning Receiver RALM02/V2 is an improved version of the laser warning receiver RALM02 specifically for ground platforms. RALM02/V2 is already qualified, in mass production, extensively tested and in operational use.

RALM02/V2 is a Laser Warning Receiver for armoured vehicles designed to deal effectively with laser threats of present and future scenarios.

RALM02/V2 is also used to provide laser protection for fixed sites and ships. In this case, due to the wide area to be covered, a network of Laser Warners should be used.

The use of fibre optic technology and of a purely optical external head, resulting from a complete in-depth study and evaluation program, allows excellent field-verified performance in term of false alarm rate, probability of detection and minimisation of installation and environmental constraints.

Following complete validation and qualification cycles both of these receivers have now entered mass production for several Customers. RALM02/V2 LWRs are now installed on new generation Main Battle Tanks, Armoured Fighting Vehicles, Armoured Personnel Carriers and Rocket Launcher Vehicles for a total of 1,000 units.

On the above vehicles RALM02/V2 could be directly connected with smoke grenade ejection systems to automatically activate, upon operator selection, such countermeasures.

RALM02/V2 detects pulsed wave laser radiation discriminating it from the background and any other light source. RALM02/V2 identifies the impinging laser threat type, measuring its characteristics and comparing it with an internal database. The database is stored in a non-volatile, erasable memory and can be easily modified and reloaded whenever it is necessary to match different threat scenarios.

RALM02/V2 identifies direction of arrival of a threat with the accuracy to allow effective countermeasures.

RALM02/V2 deals with multiple threats acting simultaneously identifying direction of arrival and type for each of them.

RALM02/V2 performs with a very low rate of false alarms. The operator can trust warning information and undertake countermeasures with confidence.

This capability is obtained by the unique fibre optic architecture of RALM02/V2 which offers outstanding immunity to EMC and adverse environmental conditions.

RALM02/V2 has a wide interface capability that facilitates its integration with on board systems for control and information exchange purposes.

The standard RALM02/V2 interface is based on RS 422 serial link.

MAIN FEATURES

- Detects enemy laser threats
- Identifies threat type
- Identifies direction of arrival of threat
- Handles multiple simultaneous threats
- Very low false alarm rate
- Communicates with other systems

TECHNICAL SPECIFICATIONS

Band coverage:	0.5 μm to 1.8 μm
Field of View:	360° x 40° (Az x El)
Angular Accuracy:	+/- 22.5° (16° RMS)
False Alarm Rate:	<1 in 16 h
Reaction Time:	100 milliseconds RMS
Qualified according to	
MIL STD 810E and MIL STD 461C	
Power Supply:	24 VDC, <35W (MIL STD 71275AT)
Electrical Interface:	RS 422, MIL BUS 1553 (opt.), Discrete signals

Optical head unit

Dimensions:	95 x 50 mm (\varnothing x H)
Weight:	<0.5 kg

Electronic unit

Dimensions:	3/8 ATR short
Weight:	<4.5 kg.

Display unit

Dimensions:	75 x 110 x 110 mm
Weight:	<1.2 kg

Automatic smoke activation unit

Dimensions:	60 x 63 x 140 mm
Weight:	<1 kg