



Advanced Reliability

UV-IR Optical Detector



DS-2812202116001421-1046

UV-IR OPTICAL DETECTOR

Optical detectors detect the fire ball created by the ammunition penetrating into the armour within 3 milliseconds, before it reaches to the pressure and heat level that can harm its surrounding, and send an alarm signal to control box on vehicles which are hit by RPG or ATGM rockets. It detects heat and light waves at different frequencies by UV and IR sensors within it, makes required matches and send flame signal to control box. Detectors are genuinely designed by Nero Industry engineers according to NATO Stanag 4317 and American MIL PRF 62546C standards. UVIR flame detectors have also successfully passed high temperature, low temperature, humidity, shock-vibration, corrosion and EMI/EMC tests as per MIL-STD-810H and MIL-STD-461F standards.

Detectors have been specially designed as IP67 and can stay under 1 meters of water for half an hour. The detectors also having protection for false alarms, do not react against false alarms such as sunlight, vehicle headlights, welding beam, infrared heater, cigarette ash. Along with these systems protecting the engine and the crew on military armoured vehicles, electric vehicles, buses, planes, jet planes and ships; total 40 thousand detector accomplish their duty in the field.

TECHNICAL SPECIFICATIONS

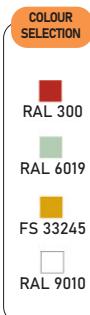
• High speed reaction in a time period less than 3 ms
• UV/IR dual sensor - Thermal Sensor
• 180 C° fire detection thermal sensor
• 140° blind spot detection
• Sensitivity against creeping fire
• MTBF duration of 150,000 hours
• Production as per PCB IPC A-610 class-3
• IP67 water and dust ingress protection
• Dimensions (WXLXH): 85 x 49 x 100 mm (± 5 mm)
• Salt fog resistance: 800 hours
• Immunity to false alarm as per MIL-PRF 62546C
• Power supply : 24 VDC nominal (16-32V)
• Power consumption : 70 mA @ 24 VDC
• Advanced software algorithm
• Operating temperature : -51 / +120 °C
• Weight : 480 g ± 50 g
• MIL-STD-810H, MIL-STD-461F, MILSTD-1275E certifications
• Conforming to UL, CE GOST-R standards
• 10 years of shelf life

FALSE ALARM CHART

Test Performed	Spec Requirements
Headlight (55-65 W)	15 cm
Incandescent Lamp (100 W)	2,5 cm
Halogen Lamp (500 W)	5 cm
Fluorescent Light (40 W)	At any distance
UV Lamp (75 W)	At any distance
In-Vehicle Lighting (5 W)	At any distance
Match	20 cm
Sodium Lamp (70-250 W)	At any distance
Xenon Lamp (30 W)	5 cm
Flashlight (1 W)	At any distance



APPLICATION SPECIFICATIONS



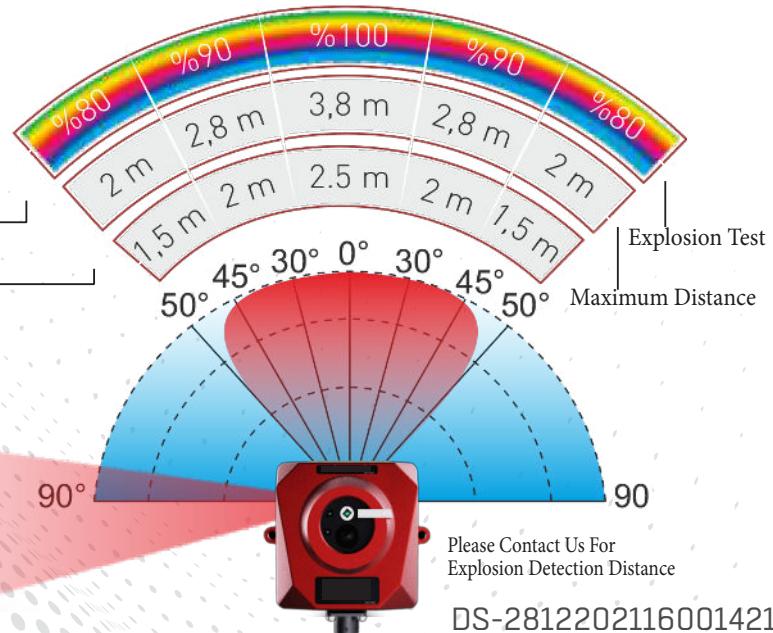
12,5x12,5 cm Fire from 90

30x30 cm Fire from 250 cm

50x50 cm Fire from 270 cm

Small-scaled Fire Detection

Maximum Distance



DS-2812202116001421-1046