

## NavPulseIR

SmartVisionPlatform



The NavPulseIR is a ruggedized and waterproof GNSS module and Infra-Red pulsed illuminator, designed to complement the DiveVisionTracker as an integral part of the **DAVDflex** Augmented Reality System for divers. The IR illuminator's LED arrays are optimally aligned to direct energy at angles designed to optimise surface features on illuminating objects of interest while minimising direct reflections from nearfield suspended sediment, mitigating the 'snowstorm effect'. IR energy only is emitted from the LEDs: no visible light escapes that might give away the user's location. The GNSS module provides precision geolocation data, and in combination with the DiveVisionTracker's motion sensor it gives full position and attitude data for the diver. The NavPulseIR also features a blackout button that can be used in emergencies if the diver needs instantly to cut the feed to the HUD and revert to natural vision.

The NAVPulseIR is part of the wider, highly configurable **DAVDflex** solution, and is designed to be integrated with industry-leading solutions without sacrificing performance, reliability or ease of use.

The **DAVDflex** integrates topside control, a Head-Up Display (HUD), and digital communications for divers, facilitating seamless real-time information exchange between divers and supervisors via augmented reality displays in the diver's helmet. Divers access critical technical data and support from surface teams to optimize mission outcomes and enhance underwater safety.

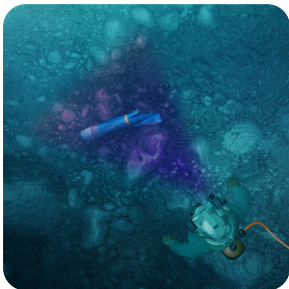


DAVDflex Configuration

## Ruggedized and Waterproof GNSS Module and Infra-Red Pulsed Illuminator

### Features

- Ruggedized and Waterproof
- Enhances night vision without compromising stealth
- Depth Rated to 100m (328ft)



Optimally angled IR emitters enhance visibility of details and textures, while minimising backscatter from floating particles

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### Specifications

- 5 VDC Input
- **IR Pulse**
  - LED Count: 20 (4 differentially angled arrays of 5 LEDs)
  - Full HD: 1920 x 1080 streaming at 30fps
  - Wavelength: 850nm
- **GNSS**
  - Interface: USB
  - Channel Count: 72
  - Output: NMEA 0183
- **Physical**
  - Dimensions - 50mm x 50mm x 94mm approx. (1.97 x 1.97 x 3.7 in approx)
  - Weight - 197g (0.43 lbs) in air, 83g (0.18 lbs) in water (Approx)