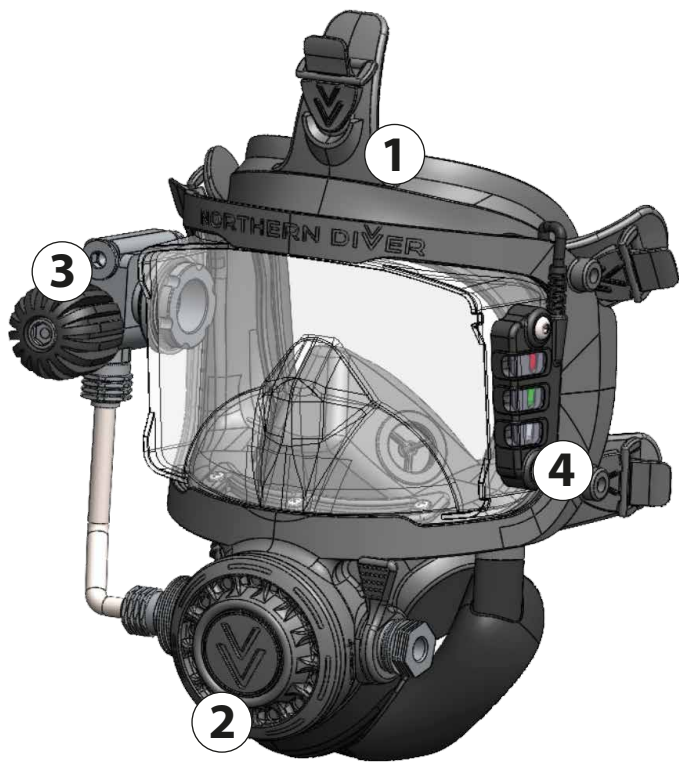
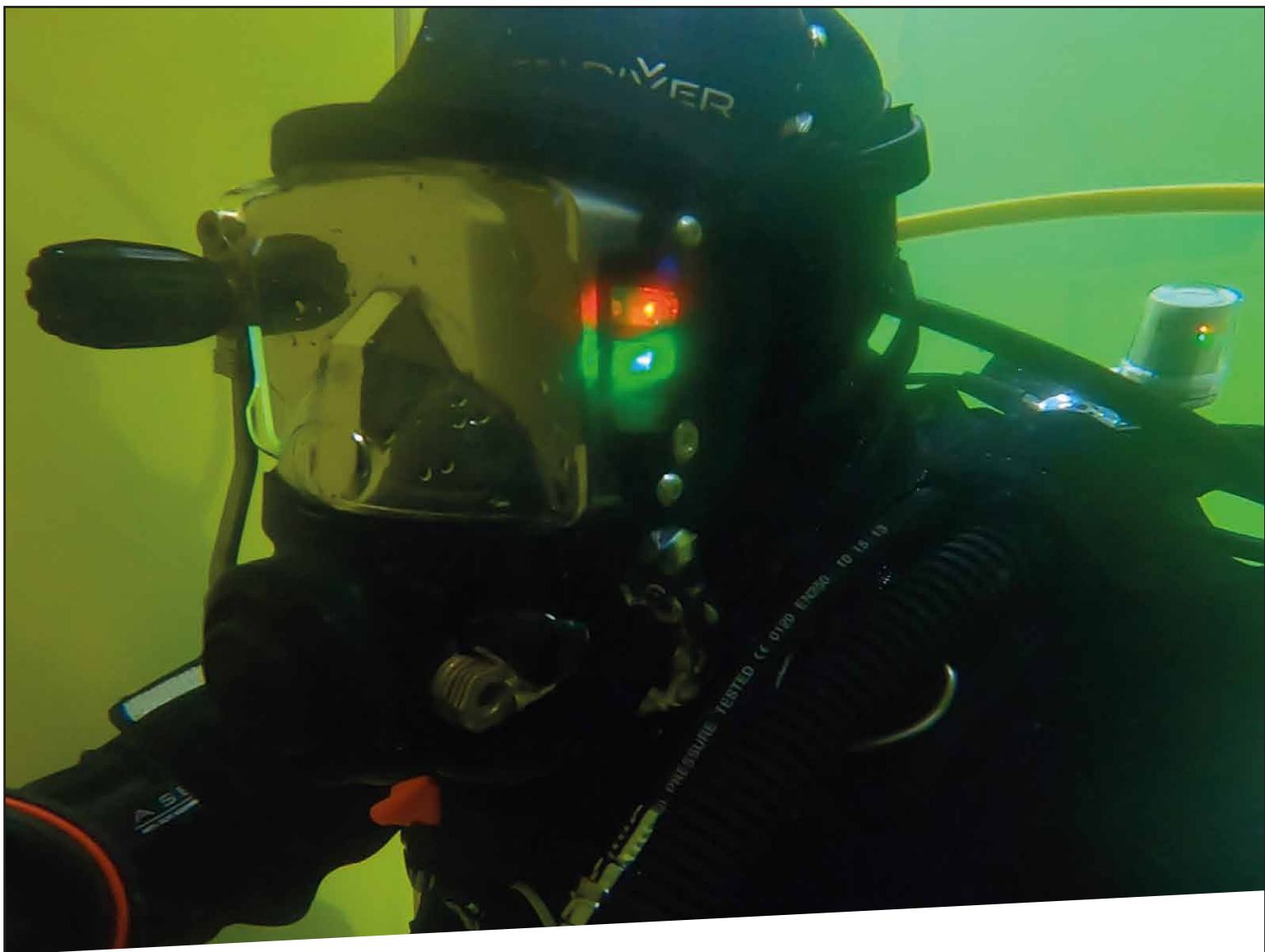


NORTHERN DIVER

MINE WARFARE & MILITARY DIVING SPECIALISTS



**Divers Integrated Full Face
Mask Breathing System**



Northern Diver have designed and developed a complete integrated breathing system that offers a safer and more reliable solution than what is currently available and used within the military diving sector.

We have reduced the amount of clutter and designed the set to be more streamline and user friendly.

The complete system includes a Full Face Mask with integrated Regulator, Switch Block and Low Pressure Air Warning System that is compatible with existing Diver Communications.

- Reduces risk
- Improves safety
- Improves reliability
- Interoperable with existing equipment

1. Full face mask
2. Integrated regulator
3. Switch block
4. Low Air Warning System (LAWS)

Full Face Mask with Integrated Regulator

The regulator is low profile and integrates into the front of face mask. Developed and designed to meet ADivP-05-2015 standard.

Current OTS Diver Communications can be integrated and used in conjunction with the system as well as other available communication systems.

Regulator testing was conducted in independent laboratories (Apeks and QinetiQ) to prove and confirm the breathing rates.

Technical:

- Designed for all water environments
- Venturi Lever: yes, easy to locate and use
- A silicone exhaust valve improves the breathing performance A single side exhaust directs bubbles away from the visor
- Double seal and low volume oral nasal cavity to fit most faces
- Customisable nose block to aid in equalization
- Comms port for easy installation of communication equipment
- Second stage: pneumatically balanced
- Exhaust: single side system with air overflow technology
- Heat exchanger for freezing resistance: twin heat system
- Overall performance: avg. 1.00 joules/liter @50M 4° water BPM 62.5lm
- Hose type: two braided flexi-hose
- Weight: 1.4kg (3.1lbs)





Switch Block

Designing a concept around proven

technology that is used commercially worldwide, we have incorporated a resilient switch block onto the face area of the mask, which is positioned in an easily accessible location so the diver can open the switch block valve single handed in nil visibility conditions.

The weight of the switch block is less than half the weight of existing competitor models and is machined from a solid billet removing all leak paths from threaded and PTFE tape joints.

Manufactured to the highest standards and CE approved to conform to the requirements EN250:2014.

Features:

- Depth rating: 0-50 metres
- Breathable air: use with compressed air only, complies with EN 12021
- Performance: <math><10^{\circ}\text{C}</math>
- Storage: -30°C to $+70^{\circ}\text{C}$
- Dimensions (LxWxD): 68.5*60*44.5mm
- Weight: 230g

Material:

- Housing: Brass CZ121
- Finish: Chrome Plated
- Spring 316 S/S
- O-Rings NBR
- Acetal

Flow:

- Main via 1st stage: $>150\text{m}^3/\text{hr}$ @ 10bar outlet / 50 bar inlet.
- Bail via 1st stage: $>150\text{m}^3/\text{hr}$ @ 10bar outlet / 50 bar inlet.



Head Mount Receiver
(73*35*12mm)

LAWS Low Air Warning System

Northern Diver have moved forward in the design of the LAWS by removing all the hard wiring and converting it into a wireless RF version. Distinctive advantage being totally wireless, Removing all the snag hazards from previous and existing system.

Head mount receiver:

Connected to the side of the FFM where all lights are visible to both the diver and dive buddy and sits in the divers' peripheral view. It does not affect field of vision.

- Red light** - Main / flashing @50bar
- Green light** - Low light (good to go)
- Green light** high flashing (low battery)
- White light** - Bailout / flashing @ 170bar

Different mount bracket options allow to be used on ND FFM, Interspiro or OTS masks.

Push on/off button and a unique magnetic charging cable allowing charging while in sight. Lithium iron re-chargable cell with 4-5 days run time on full. Charging time 2 hrs.



Pressure Sensor (2 supplied)
(85*40mm)

Pressure sensors:

Bluetooth sensors, manufactured to comply with all relevant standards, made from the highest quality materials to ensure reliability and robust in all environmental conditions. Screw thread connection 7/16x20UNF to fit all H.P. first stage regulators.

Transmitter is powered by a user-replaceable 3v lithium 1/2 AA battery. Replacement battery kits also contain a new O-ring and cover, which must be changed at the same time. Battery life is around 1 year (at 100 dives per year).



Magnetic charging cable

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