

Teledyne Benthos

SM-975/976

Subsea Nodes

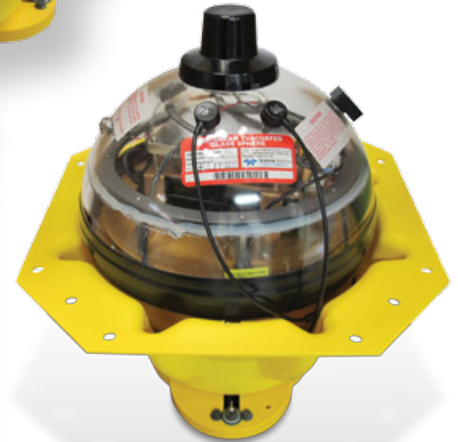
Subsea Observation System, Data Logging and Telemetry

THE SM SERIES SUBSEA NODE is a unique concept from Teledyne Benthos that combines the proven technology of an underwater acoustic release with the reliable undersea communications functionality of an acoustic modem.

The SM-975 supports all the most current optional features of the Teledyne Benthos underwater acoustic modem line such as: in-band acoustic recorder, positioning, and high capacity data logging. This easily deployed system features the ATM-900 Series modem electronics, batteries, and a transducer, all contained in a 6,000m rated housing with a burn wire release mechanism. The acoustic modem allows the user full telemetry capability to full ocean depth, with RS-232 connectivity to attached sensors. More than one sensor can be employed simultaneously.

The SM-976 is similar in design to the SM-975 and is primarily intended for short deployments. The SM-976 features rechargeable lithium ion batteries and comes in a convenient storage/transport case that includes a battery charger and complete spare parts kit. The SM-976 is an ideal product for use as a node in a long baseline (LBL) positioning system.

SM-976 deployment example



SM-975 in protective hard hat



Node with CTD

PRODUCT FEATURES

- Integrated system for easy deployment, recovery and storage
- Enables real-time communication with your subsea instrument
- Functions as an LBL node or acoustic network repeater
- Supports multiple sensors and instruments

APPLICATIONS

- Environmental monitoring (physical oceanographic and bio-geochemical sensors available)
- Undersea positioning (Standard long-baseline configurations)
- Geophysical exploration (compatible with geophones for seismic studies)



SM-975/976

Subsea Nodes

TECHNICAL SPECIFICATIONS

Models	33 cm or 43 cm sphere (13 in or 17 in)
Connectivity	RS-232 port on outside of sphere
Vacuum	Titanium vacuum port
Depth	6700 meters (maximum) (21,982 ft)
Life	SM-975 Up to 2 years (depending on usage)
	SM-976 Up to 1 year (depending on usage)
Batteries	SM-975 30 D-cell alkaline batteries (Dual battery pack, 17 inch)
	SM-976 Rechargeable lithium ion
Weight (Not including anchor)	SM-975 33 cm = 18 kg, 43 cm = 32 kg (13 in = 40 lbs, 17 in = 70 lbs)
	SM-976 33 cm = 18 kg, 43 cm = 27 kg (13 in = 40 lbs, 17 in = 60 lbs)
Net buoyancy	SM-975 33 cm = 2 kg, 43 cm = 9 kg (13 in = 5 lbs; 17 in = 20 lbs)
	SM-976 33 cm = 2 kg, 43 cm = 17 kg (13 in = 5 lbs; 17 in = 38 lbs)
Acoustic slant range	Up to 10 km (6 mi)
Frequency	9-14 kHz, 16-21 kHz, 22-27 kHz
Transducer pattern	Omnidirectional from upper hemisphere
Release	Electrolytic dissolving wire (upon receipt of correct command)
Hard hat	Super yellow ribbed hard hat
Topside controller	ATM-900 Series modems and UDB-9400 Deck Box
Data Retrieval	Vessel, AUV/UUV, Gateway Buoy

