

## SUBSEA LEAK DETECTION

# Subsea Acoustic Leak Detection

Naxys acoustic leak detector (Naxys ALD) detects the sound generated by a leak and analyzes the data by subsea processing software to automatically notify the topside operator. Naxys subsea leak detectors was developed in the early 2000s and since then more than 100 systems have been permanently deployed on the Norwegian Cont. Shelf, Gulf of Mexico and Africa.

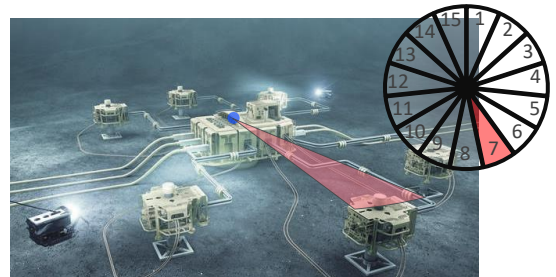
### Features:

- Wide area coverage for the entire subsea installation and surrounding infrastructure
- Directional accuracy and capability to identify a leak's location
- Short response time: Early warning within minutes. Detection time is configurable in the software
- Subsea processing; low bandwidth requirement and low power consumption
- Leak Detection can be combined with vibration monitoring system and/or pump monitoring system

### Wide area coverage



### Directional

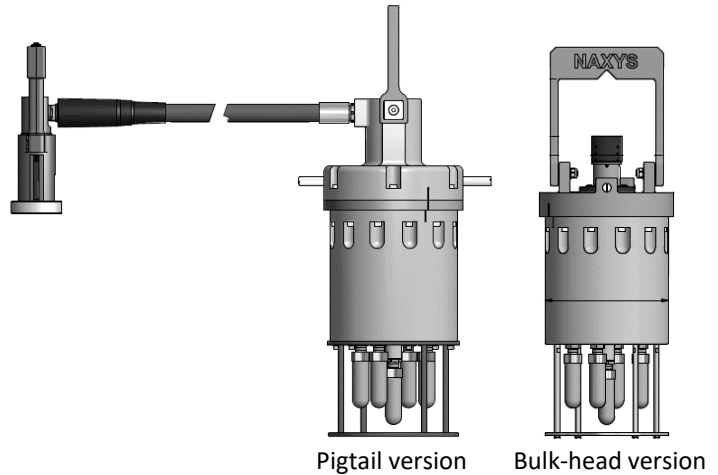


### Short response time



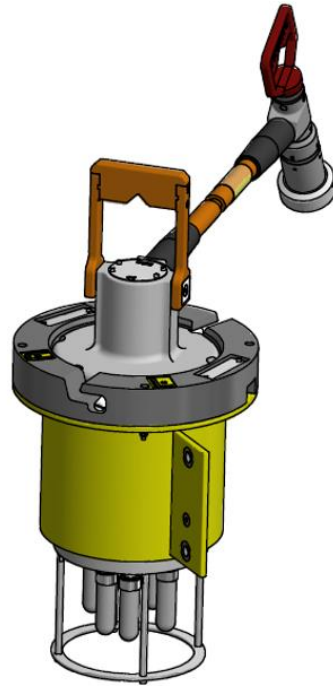
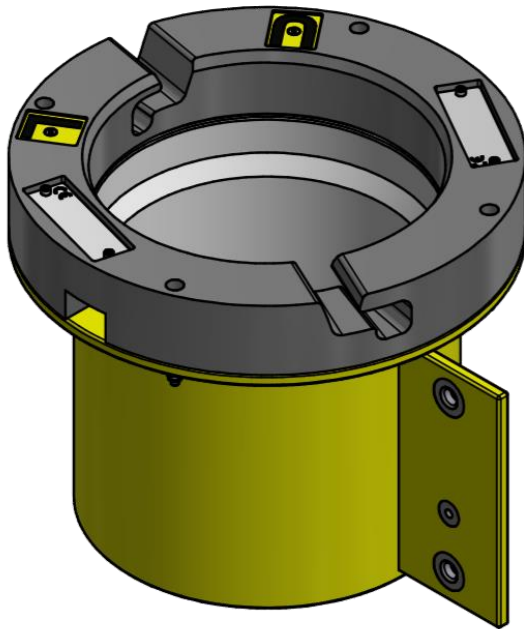
## FEATURES

- Wide area coverage:
  - Manifold & XTs,
  - Surrounding infrastructure
- Directional detection:
  - 15 sectors (operator's view)
  - 1–2 degree 3D-resolution
- Early warning
  - Default response time: 2 min. (configurable)



Version	Pigtail	Bulk-head
Design life	30 years	
Operating temperature range	-5°C to +40°C	
Maximum operating pressure / depth	340 bara / 3048m	
Weight (in air):	49 kg (ex. jumper assy)	41 kg
Dimensions (L x Ø)	787 x 250 mm	727 x 250 mm
Qualification	API 17F 4 <sup>th</sup> edition	
Testing	API 17F 4 <sup>th</sup> edition	
Communication interface	<ul style="list-style-type: none"> <li>• Standard: Ethernet (SIIS Level 3)</li> <li>Optional: Canbus (SIIS Level 2)/ RS-485</li> </ul>	
Redundancy	Single electronics. Dual power and dual comms. interface available	
Voltage supply	Nominal 20-34 VDC	
Power consumption	< 16W (Nominal)	
Material	Titanium Gr.2	
Sensors	5 acoustic sensors	
Directivity	1-2 degrees resolution. Default 15 sectors (configurable).	
Method of installation	Mounted in funnel. Installed topside or subsea by ROV. ROV retrievable	
SCM connection	Pigtail jumper w/wet-mate connector (7 or 12 way) 3m min. jumper length	Jumper assy. w/wet-mate connectors for connection to SCM and sensor. Customer provided or included on request.
Additional functionality	Vibration monitoring Choke   Valve monitoring	

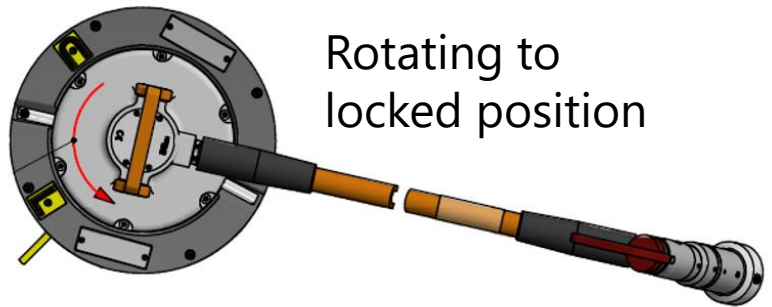
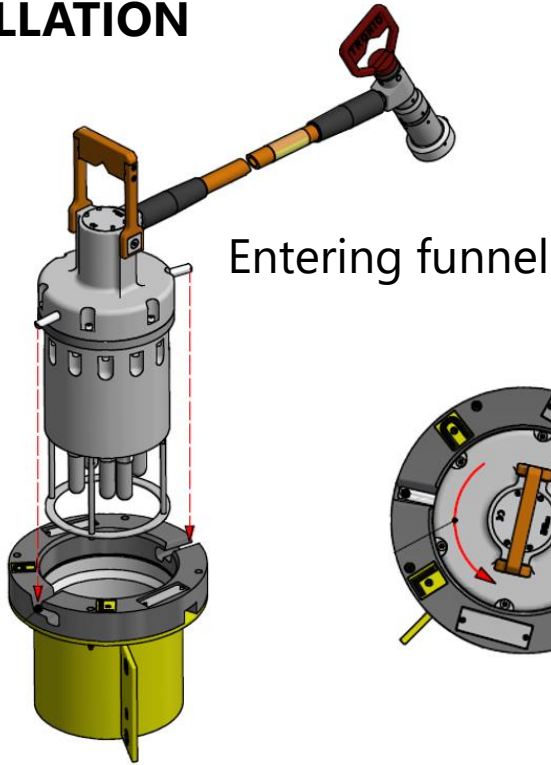
## FUNNEL FOR NAXYS ALD



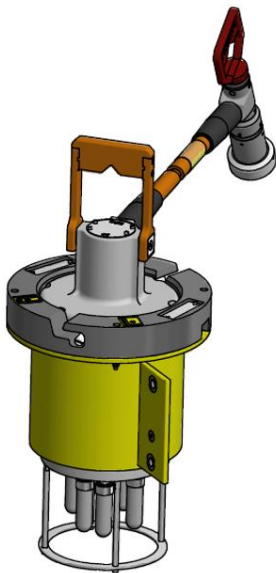
Materials	Carbon steel POM lock-ring on top
Coating	NORSOK 501 System /B, Yellow RAL 1004
CP connection	Through bolts on bracket Connection point for grounding strap
Weight (in air):	22 kg
Dimensions (L x Ø)	295 x 365 mm
Marking	Marking plates (ID-signs) on top Locked ('L') and Unlocked ('U') indicators

## INSTALLATION

1



2



Locked position

