

ULTRALONG LIFETIME SERIES **COMPENSATOR 350 L** PRODUCT SHEETS

Designed for long-life operation, proven in industrial subsea applications worldwide.



OPTION LIST

The standard version is designed for hydraulic oil and is delivered without level measurement. It has following features:

- SAE connections
- Blind plug and drain
- Bare Duplex housing

The following features are optional:

- **Hydraulic connections**
Standard hydraulic connections are SAE. However, other types of connector threads are available on request.
- **Pressure relief valve**
The compensator can be equipped with a safety valve for protection against internal pressure peaks.
- **Oil level measurement**
For oil level measurement two different options exist:
 - Precise oil level measurement executed with industrial grade sensor.
 - Empty detection. Signals that the compensator is (close to) empty. Cost effective alternative for the precise oil level measurement options.
- **Strain relief**
Protects the connectors of the level measurement / empty detection sensors from mechanical strain on the cable.
- **Surface treatment**
All surfaces of the compensators which are in contact with seawater can be coated in accordance with NORSOK M-501, coating system 7.
- **Protection cover**
In order to protect the rubber bellows a stainless steel 316 protection cover can be delivered. Protection cover is executed with hoisting points and can be delivered with NORSOK surface treatment.

Hydraulic connections



Empty detection



Ultralong lifetime compensator with protection cover

TYPICAL APPLICATIONS

This compensator is specifically designed for pressure compensation of (semi-) permanently installed subsea equipment, including:

- Subsea mining vehicles
- Subsea switch gear
- Subsea slip ring
- Underwater instrumentation
- Suction tube pump motors



COMPENSATOR 350 LITRES SPECIFICATIONS

GENERAL

	METRIC	IMPERIAL
Compensation volume ¹	350 liters	92.5 US gallons
Main dimensions ²	See detailed drawings	
Stroke	340 mm	13.4 inch
Weight in air excl. oil & excl. cover (approx.)	1100 kg	2866 lbs
Housing material	Duplex	
Design lifetime	20 years	
CE compliant	Yes	

¹ The ultralong lifetime compensator range is also available in 0.7, 5, 10, 50, 100, and 250 liters versions.

² Please note these dimensions deviate in case an end-switch or level level measurement is mounted.

OPERATIONAL

	METRIC	IMPERIAL
Maximum operating depth ³	3000 m	9842 feet
Operating temperature range (water)	-4°C – +60°C	25°F – 140°F
Operating temperature range of medium	-20°C – +80°C	4°F – 176°F
Storage temperature range (air)	-25°C – +60 °C	-13°F – 140°F
Pre pressure (min. stroke)	0.3 bar (+/- 0.05 bar)	4.35 psi (+/- 0.72 psi)
Pre pressure (max. stroke)	0.5 bar (+/- 0.05 bar)	7.25 psi (+/- 0.72 psi)
Maximum safety valve setting	1.5 bar	22 psi
Polymers in contact with hydraulic fluid ⁴	Viton, NBR, POM	

³ Without a level sensor, the compensator has a maximum operating depth of 5000 msw.

⁴ Please consult our sales engineers in case the applied fluid demands for the usage of other polymers.

HYDRAULIC

Hydraulic connections to hydraulic system	4 x SAE 3000 PSI - 1½"
Hydraulic connection for air bleed	3 x (internal) G ½"
Hydraulic connection for draining	4 x (internal) G ½"

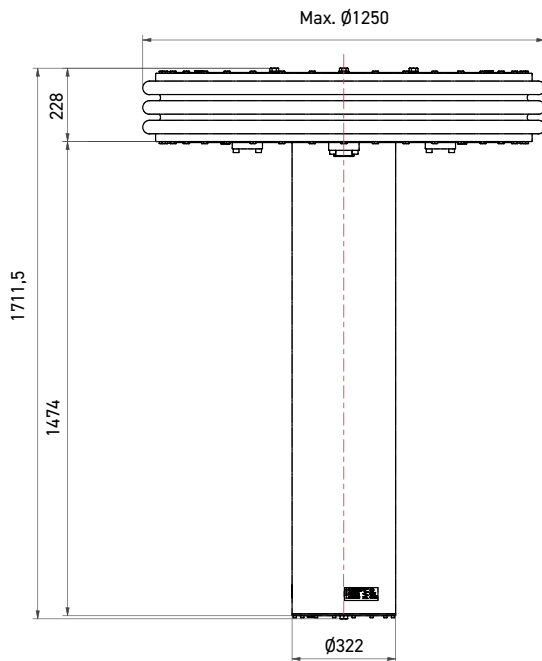
ELECTRICAL – OIL LEVEL SENSORS

Industrial grade level sensor (option C)	Operating voltage	+21 Volt DC ...	+ 28 Volt DC
	Output signal ⁵ :	3 wires mode, analog 4 – 20 mA	3 pin Subconn connector or more

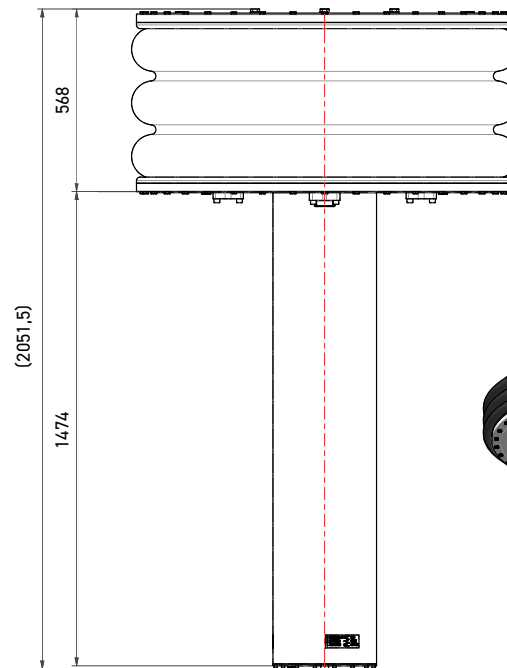
⁵ Please contact our sales engineers if you require alternative output signals such as CANbus, SSI, Profibus, or others.

DIMENSIONS

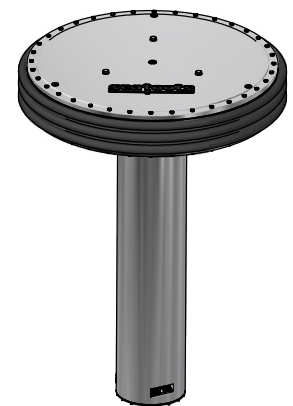
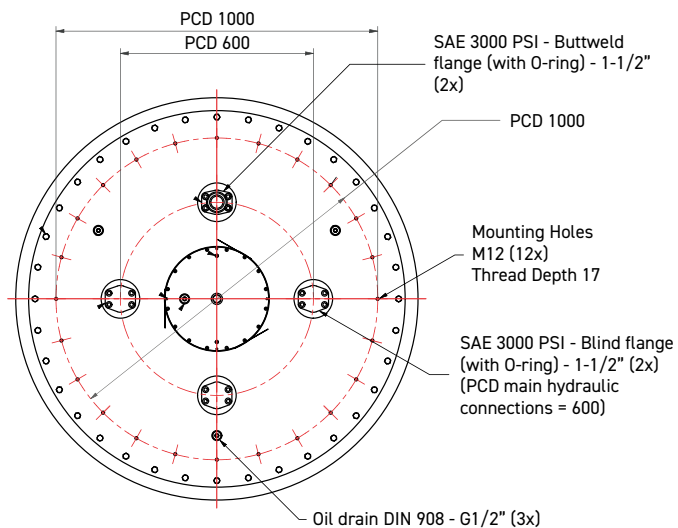
SIDE VIEW - MINIMUM STROKE



SIDE VIEW - MAXIMUM STROKE



BOTTOM VIEW



3D CAD files in STEP
format are available on
www.seatools.com

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UNDERWATER SPECIALISTS

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