

HEAVY-DUTY SERIES **COMPENSATOR 250 L** PRODUCT SHEETS

The heavy-duty series: rugged stainless steel subsea compensator range able to withstand the most extreme of conditions.



OPTION LIST

A Hydraulic connections

Standard (internal) hydraulic connections are 3 x G1", 4 x SAE 3000 PSI 1½", and 3 x G1/4". However, other types of connector threads are available on request.

B Pressure relief valve

The compensator can be equipped with a safety valve for protection against internal pressure peaks.

C Proportional oil level measurement

Proportional oil level measurement provides reliable oil levels with 2.5% accuracy level.

D Empty detection

Signals that the compensator is (close to) empty. Cost effective alternative for the proportional oil level measurement option.

E Connector type

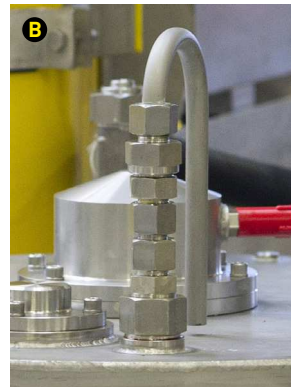
The Heavy-duty 250 liter compensator is delivered standard with a Subconn® Metal Shell 3-pole Male. Other connector types are available upon request.

F Strain relief

Protects the connectors of the level measurement / empty detection sensors from mechanical strain on the cable.

G Mounting brackets

Custom-made mounting brackets are available upon request



TYPICAL APPLICATIONS

This compensator is specifically designed for subsea pressure compensation of heavy-duty subsea and dredging equipment, including:

- (fall pipe) ROVs
- Subsea trenchers
- Subsea excavation equipment such as grabs
- Suction tube pump motors

Two 250 liters heavy-duty compensators in subsea ROV grab for large stroke hydraulic cylinder compensation



HEAVY-DUTY SERIES COMPENSATOR 250 L SPECIFICATIONS

GENERAL

| | METRIC | IMPERIAL |
|----------------------------------|---------------------------------|---------------|
| Compensation volume ¹ | 250 liters | 66 US gallons |
| Main dimensions | See detailed drawings | |
| Weight in air excl. oil | ± 450 kg | ± 992 lbs |
| Materials | Synthetics, Stainless steel 316 | |

¹ The heavy-duty compensator range is also available in 40 and 100 liters versions.

OPERATIONAL

| | | |
|-------------------------------|--|--|
| Maximum operating depth | 1500 m | 4921 feet |
| Operating temperature range | -10°C – +50 °C | 14° F – 122 °F |
| Pre-charge pressure (approx.) | 0.1 bar (empty)(min) – 0.4 bar (full)(max) | 1.4 psi (empty)(min) – 5.8 psi (full)(max) |

HYDRAULIC

| | | |
|---|--|----------|
| Hydraulic connections for hydraulic system ² | 4 x SAE 3000 PSI 1½", 3 x (internal) G1" | |
| Hydraulic connection for drain & air bleed ² | 3 x (internal) G1/4" | |
| Max. peak pressure: | 1.5 bar | 21.8 psi |

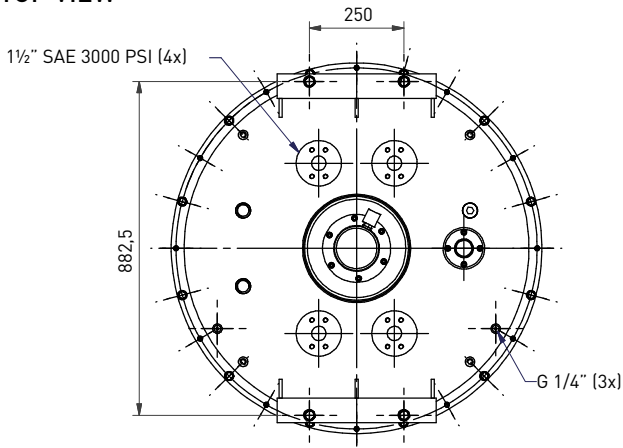
² Compensator can be delivered with other hydraulic connections

ELECTRICAL – OPTIONS C & D

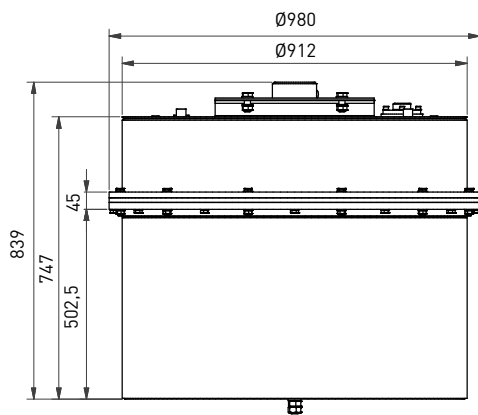
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|---------------------------|--------------------------------------|
| Power supply | 18 - 33 VDC |
| Max. current consumption | < 30 mA |
| Output signal (option C): | 4 – 20 mA (2-wire mode) |
| Output signal (option D): | 2-wire (low) or 3-wire (low/low-low) |
| Connector type | Subconn® Metal Shell 3-pole Male |

DIMENSIONS

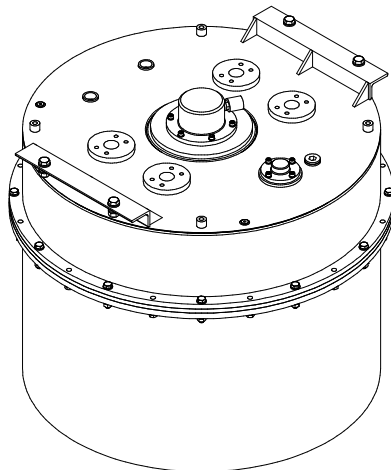
TOP VIEW



SIDE VIEW



3D VIEW



RELATED SERVICES

Client advisory

To ensure that the right size and type of compensator is selected, we advise our clients during the selection process. We do so, taking temperature ranges, pressure ranges, filling levels, entrapped air, fluid behaviors, and other factors into account. In addition, we provide advice regarding the installation and use of a compensator in a subsea hydraulic system.

Advanced testing programs

Normal factory testing procedures include internal pressure testing, leakage testing, and functional testing. In addition, we also offer more extensive factory testing and qualification programs including external pressure testing, fatigue and life cycle testing, temperature range testing, and contamination testing. In addition, the compensator can be delivered flushed to a pre-defined cleanliness level class.

Custom-made versions

Next to our standardized series, Seatools offers custom-made hydraulic compensators that are tailored to your specifications. Please contact our sales department to request a customized compensator.

Subsea hydraulic systems

Because of our subsea hydraulic engineering capabilities we are able to fully unburden our customers by delivering complete tailor-engineered subsea hydraulic systems. This includes all related systems such as mechanics, software, electronics, and controls.

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

seatools

Edisonstraat 67
3281 NC Numansdorp
The Netherlands
Tel. +31 (0) 186 68 00 00
www.seatools.com
info@seatools.com

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