

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Reversing Amplifier**

with type designation(s)
3710

Issued to

**SAMSON AG Mess- und Regeltechnik
Frankfurt am Main, Germany**

is found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

Application :

Product approved by this certificate is accepted for installation on all vessels classed by DNV GL.

Issued at **Hamburg** on **2020-07-02**

for **DNV GL**

This Certificate is valid until **2025-07-01**.

DNV GL local station: **Augsburg**

Approval Engineer: **Ana Cristina Do Carmo Insfran**

**Olaf Drews
Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Reversing Amplifier type 3710 is a component of Control Valve Accessories without and with two pressure gauges, which are installed as part of the control valve.

Design pressure: max. 6 [bar]

Design temperature: -25° to +80 [°C]

Temperature Diaphragms: FVMQ
PTFE: -60 to +80 [°C]

Materials:

Component	Material	Standard
Housing	Alu-Variante: Aluminium EN AC 44200KF	DIN EN 1706
	Niro-Variante: Stainless steel 1.4404/ 316L (X2CrNiMo17-12-2)	DIN EN 10272:2008-01 / ASTM A479/A479M-14
Cover	Aluminium 3.2315 (AW 6082-T6)	DIN EN 573-3
	Stainless steel 1.4404/ 316L (X2CrNiMo17-12-2)	DIN EN 10272:2008-01 / ASTM A479/A479M-14
Diaphragm plate	Aluminium 3.2315 (AW 6082-T6)	DIN EN 573-3
Seat and plug	Brass CW 614N-R430	DIN EN 12164
	Stainless steel 1.4305	DIN EN 10088-3
Diaphragm	FVMQ PTFE	

Application/Limitation

The reversing amplifier type 3710 to operate a double-acting pneumatic actuator using a single-acting pneumatic or electropneumatic positioner or limit switch.

For the corresponding applications and the right installation and maintenance the instructions of the manufacturer are to be observed.

Type Approval documentation

TA Application form dated 2019-11-29
Authorization Samson Letter dated on 2019-12-12
TA Assessment Report date on 2020-06-10
Datasheet EB 8392EN Mounting and operating instructions dated on December 2012
Data sheet T8392EN Type 3710 Reversing Amplifier dated on May 2010
ISO 9001 Certificate dated on 2019-09-19
Overview products for Ship-Certification dated on 2020-03-04
Test Documentation – Pressure test dated on 2020-04-22
Test Report Number: E190720E1 dated on 2020-02-05
Test Report environmental tests Number U190720E1, dated on 2020-04-08

Tests carried out

Pressure test

Marking of product

For traceability to this type approval the Reversing Amplifier 3710 are to be marked with:

- Manufacturers name
- Temperature range: -25°C/+80°C
- Model No.: xxxx
- Var.-ID.: xxx
- Serial no.: xxxx

Periodical assessment

A condition for retention of the type approval certificate in its validity period is that periodical assessments are successfully carried out. The objective of the periodical assessment is to verify that the conditions for the type approval have not been altered. Regulations for the periodical assessment of the type approval certificate are to be found in the DNVGL Class Programme CP-0338.

It is further to be noted that the Society shall be informed of any:

- Modifications to the product which are liable to affect its characteristics and functions, as originally specified and tested;
- Shifting of the production site and additional production site.

If such notifications are not made, the validity of the type approval certificate terminates.

END OF CERTIFICATE