

DESIGN APPRAISAL DOCUMENT

Date 12 March 2004	Quote this reference on all future communications TA/I049376/0311122/PEH
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THE LR TYPE APPROVAL SYSTEM, 2002.

Issued to: SELCO A/S
for: SIGMA Generator Protection and Control System
TYPE APPROVAL CERTIFICATE No. 04/70002

The undernoted documents have been reviewed for compliance with the requirements of the LR Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Request for Quotation	05.05.2003
SIGMA S6000 IO/P Module User's Manual	27.11.2003
SIGMA S6100 LS/S Module User Manual	27.11.2003
SIGMA S6500 UI Module User Manual	27.11.2003
SIGMA HyperTerminal User's Manual	27.11.2003
SELCO: Enclosure 3 -Test Schedule	06.11.2003

TEST REORTS

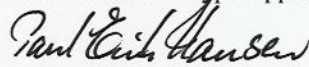
DELTA report no. DANARK 197219	16.10.2003
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COMMENTS

SIGMA S6500 UI provides facilities for programming of protection and control modules and read out of measured and calculated parameters exchange of information via CAN bus.
SIGMA S6000 IO/P provides protection for one Generator: short circuit, over-current, reverse-power, over-load and loss of excitation and voltage establishment. Communication with the remaining module(s) via CAN bus.
SIGMA S6100 S/LS provides control and monitoring of the generator breaker and diesel engine generator voltage based on information received from the SIGMA S6000 IO/P via CAN bus measured and calculated parameters can be read through a RS485 bus.

Software versions: S6000: 040128 (28.01.04)
S6100: 040216 (16.02.04)
S6500: 040216 (04.02.04)

The issue of the Type Approval Certificate does not imply that the Software has been approved.


Poul Erik Hansen
Senior Surveyor
Copenhagen, PASENA

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in

Page 2 of 2
Document number TA04/70002
Issue number 0

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strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register of Shipping reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.



FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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