

Type Approval Certificate



This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. **47 915 - 03 HH**

Company **PRAXIS Automation Technology
Willem Barentszstraat 1
2315 TZ Leiden, NETHERLANDS**

Product Description **Integrated Alarm- Monitoring and Control System**

Type **G-Data / Mega-Guard / Maxi-Guard**

Environmental Category **C, EMC1/2**

Technical Data /
Range of Application **OWS - Operator Work Station for the following typical processes:**
- Alarm/Control and Monitoring
- Pump- and Valve Control
- Duty Alarm System,
- Patrol Alarm System
- Electrical Power Management
- PID Control
- Graphic presentation of ship's data
The OWS comprises the following components:
- Model 6001 Marine Personal Computer; including redundant network interface (type 98.6.001.7xx)
- TFT colour Graphic screen (type 98.6.02x.6xx): 12", 15", 17" and 19" model
- Engineering Keyboard (type 76.0.20x)
- Keyboard/Tracker ball (type 93.6.02x.x0x)
- Ethernet HUB/Router (type 76.0.81x)
- 6010 Fieldbus Driver Board (type 98.6.010.7x0)

Test Standard **Guidelines for the Performance of Type Approvals, Edition 2003,
Regulations for the use of Computer Systems, Edition 1994.**

Documents **Test reports : Praxis Automation 1...5 Mega-Guard Type Approval 2008, BICON,
DARE 09C00180RPT01, BICON PRA-20090928, BICON PRA-20090904; FAT PMS
Mega Guard Rev. 2.6 & 2.7; Environmental Test Report, Rev. 1.1, chapter 4,
Performance Tests. SW-Questionnaire, dated 2009-12-17.**

Remarks **Approval drawings and FAT specification have to be submitted for each application.**

Valid until **2013-12-07**

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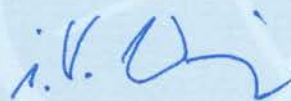
Type Approval Symbol



File No. **I.A.03**

Hamburg, 2009-12-23

Germanischer Lloyd


Jürgen Wittburg


Jens Dietrich

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EAS - Extension Alarm System for the remote alarm indication consisting of:

- Local Operator Panel (type 98.6.02x.6xx)
- 3 Channel LED Panel (type 93.0.315), EMC2
- 8 Channel LED Panel (type 93.0.31x)
- Fire Alarm Panel (type 98.6.021.60x)
- Watch Entrance Unit (type 93.0.35x)
- Reset Box (type 93.0.35x)
- Bedroom Buzzer (type 93.0.36x)

PCU - Process Control Units Maxi-Guard/Mega-Guard DIN Rail

Model (also called DPU or SAU) for processing of inputs, outputs, alarms and control loops, consisting of:

- Model 6030, 12 x Digital input / 8/12 x Digital output executed as DIN rail model (Type 98.6.030.7xx),
- Model 6032, 24 x Digital Input unit executed as DIN rail model (type 98.6.032.7xx)
- Model 6034, 16 x Analog input /mixed input output executed as DIN rail model (type 98.6.034.7xx)
- Model 16 Channel Alarm Panel (type 93.0.92x)
- Model 6049, Control Processor executed as DIN rail model with redundant network interface (type 98.6.049.7xx)
- Display Panel (type 98.6.02x.6xx), EMC2
- Serial Interface Converter (type 91.6.040.40x), EMC2
- Sensor Supply Module (type 98.6.010.7xx), EMC2

BMS - Bridge Manoeuvring system (also called PCS) consisting of:

- All models mentioned under PCU
- BMS control Lever and Telegraph Panel (type 98.6.02x.62x)
- BMS Telegraph Panel (type 98.6.02x.62x), EMC2
- Emergency Stop DIN Module (type 98.6.034.7xx)
- Bridge/Engine Room Telegraph and Safety Panel type 98.6.02x.63x)
- Electronic Drive Unit (type 98.6.010.7xx)
- Electronic Actuator (type 98.0.3xx)
- 7" TFT Operator Panel (type 98.6.02x.6xx)
- BMS Indication Panel (type 98.6.02x.62x)
- BMS Indication Module (type 98.6.034.7xx)
- Governor Panel (type 98.6.02x.60x)
- BMS Command Panel (type 98.6.02x.64x)

Remark: Cancellation of Slowdowns to be provided for each project.

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AHS - Anti Heeling System comprising of:

- All models under OWS
- All models under PCU

Remark: For operation of AHS without supervision independent shut-down function required.

PMS - Power Management System consisting of:

- All models mentioned under PCU
 - PMS input/output Din module (type 98.6.034.7xx), EMC2
Maximum continuous current on current inputs: 15A
Maximum peak current on current inputs: 125A for 1 ms
Maximum continuous voltage on Busbar and generator input: 900Vac
 - Local Operator Panel (type 98.6.02x.6xx)
 - 7" TFT Operator Panel (type 98.6.02x.6xx)
 - Display and Operating module (type 98.6.02x.6xx), EMC2
- Overload trip, Reverse Power Trip, Low-/High Frequency Trip/
Low-/High Voltage Trip, Standby Start, Synchronising,
Preferential Trip, Load Sharing, Low Load Stop, Manual Start/
Stop, Safety System.

Remarks: -Short circuit protection to be used as back-up only
-To be used in conjunction with check synchroniser.

BNWAS Bridge Navigational Warning & Alarm System (MSC.128(75)) comprising of:

- Local Operator Panel (type 98.6.02x.6xx)
- Model 6049, Control Processor executed as DIN rail model with redundant network interface (type 98.6.049.7xx)
- Model 6030, 12 x Digital input / 8/12 x Digital output executed as DIN rail model (Type 98.6.030.7xx).

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