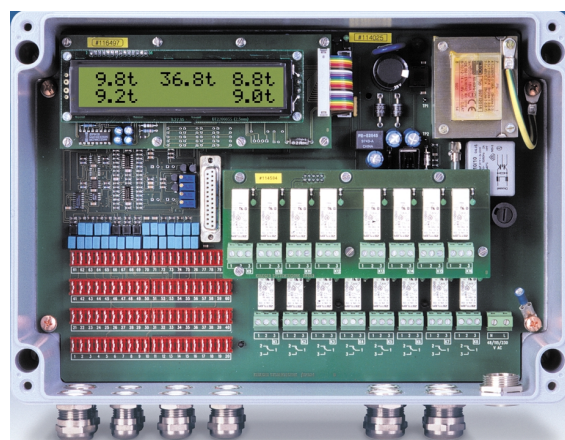




# **PAT**

## **DS 120**

### Programmable Switching Amplifier Configuration Manager



#### Operating Manual

Edition 4/2002 Rev. 1.30/1.31

Order No.:

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**Please note:**



The DS 120 can be supplied in a calibrated condition ex works if required. Adaptation of the system on site can only be carried out as described below using a PC.



**Safety Instructions**

The user can change the functionality or relevant data of this product. Therefore the user takes the full responsibility by himself. **PAT GmbH cannot admit any liability.**

These adjustment instructions are to be regarded as exemplary instructions. For special applications please contact

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## Contents

<b>About this Manual</b>	<b>5</b>
<b>DS 120 General Introduction</b>	<b>8</b>
<b>List of Hardware Components</b>	<b>9</b>
<b>Basic functions</b>	<b>11</b>
<b>Connecting the DS 120 to the PC</b>	<b>15</b>
<b>Installation of the DS 120 software</b>	<b>16</b>
<b>Operation of the DS 120 software</b>	<b>18</b>
Views and applications of the individual menus	19
Opening a file	21
Producing or modifying a configuration file	22
"File" menu item	23
Menu item "Basic Adjustments"	26
<b>Programming the basic functions</b>	<b>31</b>
"Analog Input" module	31
"Switching points" module	34
"Calculation" module	37
Configuration of the analog output	39
<b>Enhanced functions</b>	<b>45</b>
<b>Programming the enhanced functions</b>	<b>49</b>
"Curve" module	49
"LC - Display " module (optional)	52
"Switch" module	55
"Lifetime counter (optional)" module	57
"RS422 interface" module	59
"RS485 interface" module	61
"Harbour display"	63
"Snagload" module	67
<b>Analog input alignment</b>	<b>69</b>
<b>"System" menu</b>	<b>70</b>
<b>Data type; Compatibility with older versions</b>	<b>73</b>
<b>System Errors</b>	<b>75</b>
<b>Preventive Maintenance</b>	<b>80</b>
<b>Specifications</b>	<b>81</b>
<b>Abbreviations and their Meaning</b>	<b>82</b>
<b>Appendix</b>	<b>83</b>
A – Solder Bridge Diagram/Tables	83
B – Solder Bridge Diagram Overview	84
C – Connection Diagram	85
<b>Customized information (optional)</b>	

## About this Manual

This document is a constituent part of the system supplied by:

**PAT GmbH**

In this documentation you will find information on starting-up, operating and maintaining the system.

The Safety Information chapter tells you how warning information and symbols are used in this manual. You will also find information on the intended use of the system and the qualifications needed by the operatives.

## Safety Information

### Warning Information and Symbols

The following designations and symbols are used in the operating manual to indicate information that is especially important:



This symbol refers to dangers involved in the activity under description that could possibly result in injury to personnel.



Here your attention is drawn to dangers which could pose a threat to property, e.g. damage to the equipment or the environment.



The hand with the pointing finger refers you to sections providing additional information and tips.



This sign points out a possible loss of warranty cover.

Make sure you read all the safety information in this documentation and comply with this information when using the system.

**Always keep these instructions in a safe place. Issue a copy to everyone who needs one.**

**The system may no longer be operated if the device is damaged. It should be disconnected from the mains. The device must be protected against damp, liquids and dust, in particular, for as long as it is damaged.**

**Always use mild detergents when cleaning the device. Solvent-containing, aggressive and abrasive detergents may not be used.**



**On disposal of the device, the electronic assemblies must be disposed of as special waste in accordance with local regulations.**

## Intended Use



This system is built to recognised safety standards. However, the improper use of the device can endanger the life and limb of the user or of other persons and may result in damage to the equipment or other items.

It may be used only for the intended purpose and must be in perfect technical condition.

Faults that represent a potential safety risk must be remedied immediately.

This system is designed solely for the tasks described in this documentation. It may not be used for any other purpose. With the aid of the sensors installed on the equipment being used, the system compares the values measured against the preset default values. It may not be used for any other purpose.

Your attention is directed to the fact that this system is, and shall not be, a substitute for good operator judgement or experience with regard to equipment procedures. Responsibility for safe equipment operation and any consequences arising therefrom shall remain solely with the operator.

The manufacturer can accept no liability for damage or injury caused by improper or impermissible use of the system. The user alone bears the risk.

## Requirements for Operating Personnel

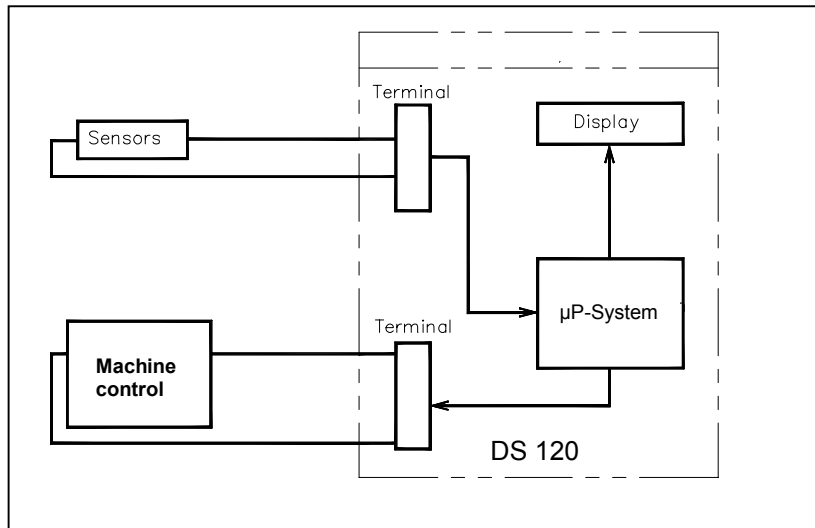
Only appropriately trained personnel should operate this system, i.e. persons who:

- are familiar with the procedures for starting up and operating the system;
- have read and understood the documentation or have received the necessary training or instruction;
- know the accident-prevention regulations.



## DS 120 General Introduction

### Basic Schematic



The principle use of a programmable switching amplifier (PSA) is to monitor machinery or equipment. With the aid of sensors the machine status and/or important ambient data is transmitted to the PSA by means of analog signals. The PSA converts these signals into physical variables for further processing. These physical variables can then be used to carry out various functions (*comparisons, calculations etc.*). The PSA makes available relay contacts, analog output voltages and interfaces as outputs, which can be installed directly in the machine control.

### List of Basic and Extended Functions

- Setting of switching points for an overload protection device
- Calculation of physical variables
- Configuration of analog outputs
- Enabling of various functions via digital inputs
- Relay option
- Curve processing
- Information via LC display
- Communication with external devices (*RS422/RS485 interfaces*)
- Switch function
- Snagload monitoring
- Lifetime counting