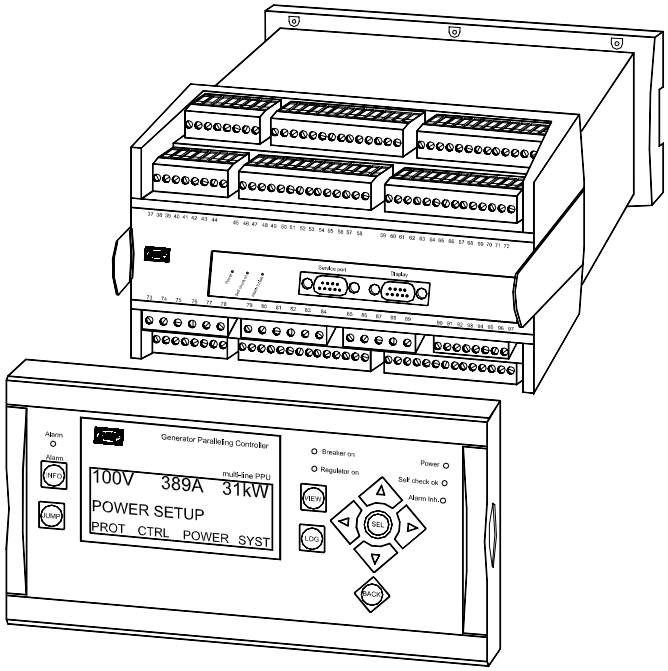
DEIF A/S

Description of options

Option E1,
Analogue controller outputs
Multi-line 2 GPC and PPU – version 2

4189340269B
SW version 2.4X.X



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This manual is valid for standard multi-line 2 PPU/GPC units with firmware version 2.00.0 or later.

1. Warnings and legal information

Legal information and responsibility

DEIF takes no responsibility for installation or operation of the generator set. If there is any doubt about how to install or operate the generator set controlled by the unit, the company responsible for the installation or the operation of the set must be contacted.

The units are not to be opened by unauthorised personnel. If opened anyway, the warranty will be lost.

Electrostatic discharge awareness

Sufficient care must be taken to protect the terminals against static discharges during the installation. Once the unit is installed and connected, these precautions are no longer necessary.

Safety issues

Installing the unit implies work with dangerous currents and voltages. Therefore, the installation should only be carried out by authorised personnel who understand the risks involved in working with live electrical equipment.

Be aware of the hazardous live currents and voltages. Do not touch any AC measurement inputs as this could lead to injury or death.

Definitions

Throughout this document a number of notes and warnings will be presented. To ensure that these are noticed, they will be highlighted in order to separate them from the general text.

Notes

The notes provide general information which will be helpful for the reader to bear in mind.

Warning

The warnings indicate a potentially dangerous situation which could result in death, personal injury or damaged equipment, if certain guidelines are not followed.

2. Description of option

E1 option

There are two analogue outputs on the PCB and they are active as follows:

	Terminal 66/67	Terminal 70/71
Option E1	X	
Option E1 + D1	X	X

The table indicates that the speed governor is controlled from terminals 66/67, and the AVR is controlled from terminals 70/71, if option D1 is selected together with option E1.

This option is available in the GPC and the PPU only.

Terminal description

Term.	Function	Description
65	Not used	
66	+/-20mA out	Speed governor set point output
67	0	
68	Not used	
69	Not used	
70	+/-20mA out	AVR voltage set point output
71	0	
72	Not used	

The current output can be converted to all voltage ranges from 0-1V DC to 0-10V DC by installing an external resistor.

AVR control is option D1.

3. Functional description

Analogue output

The +/- 20mA output can be converted to any voltage range from 0-1 to 0-10V DC by mounting resistors across the terminals.

Example: A 250 Ω resistor across the terminals will supply a range of +/- 5V DC.

The choice of resistor depends on the specific governor. Please refer to the DEIF documents 'Interfacing DEIF Equipment with Governors and AVRs' and 'General Guidelines for Commissioning' for detailed information.

Place the resistor at the governor/AVR end to avoid the signal being disturbed by noise.

The outputs from the controller unit are active outputs, and no external supply can be connected.

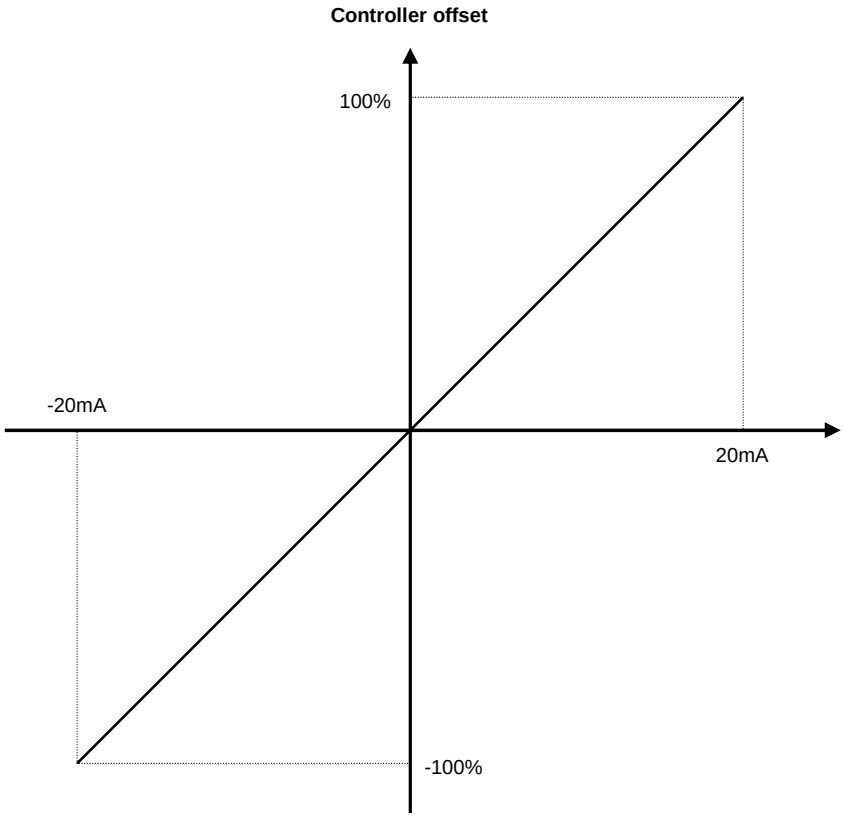
4. Parameter list

The setup of parameters is done via the display or the PC utility software (USW).

Analogue controller offset

In addition to the controller parameters described in the Designer's Reference Handbook this additional setting can be used. The purpose of this setting is to give the analogue output an offset value when powering up the unit. Furthermore, a binary input can be used to reset the output to the offset value. The offset value must be adjusted to make the gen-set start up at the correct speed and voltage.

Typically, the speed/voltage adjustment is made on the speed governor/AVR itself.



2160 Analogue governor offset

No.	Setting		Min. setting	Max. setting	Factory setting
2161	Ana GOV offset	Offset	-100%	100%	0%

2210 Analogue AVR offset

No.	Setting		Min. setting	Max. setting	Factory setting
2211	Ana AVR offset	Offset	-100%	100%	0%

Menu 2210 analogue AVR offset only appears if option D1 is chosen.

For further information about the structure of the parameter descriptions, please see the Designer's Reference Handbook.

After adjusting the analogue offset values, the controller unit must be reset (power off) in order to use the new adjustment.