



- power in control



MULTI-LINE 2 DESCRIPTION OF OPTIONS



Option M13.x Configurable I/O extension cards, 7 binary inputs

- Description of option
- Functional description



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1. Delimitation

1.1 Scope of option M13

This description of options covers the following products:

AGC-3	SW version 3.3x.x or later
AGC-4	SW version 4.0x.x or later
PPM	SW version 3.0x.x or later
GPC/GPU Hydro	SW version 3.0x.x or later
PPU/GPU	SW version 3.0x.x or later

2. General information

2.1 Warnings, legal information and safety

2.1.1 Warnings and notes

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

Warnings



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

Notes



Notes provide general information, which will be helpful for the reader to bear in mind.

2.1.2 Legal information and disclaimer

DEIF takes no responsibility for installation or operation of the generator set. If there is any doubt about how to install or operate the engine/generator controlled by the Multi-line 2 unit, the company responsible for the installation or the operation of the set must be contacted.



The Multi-line 2 unit is not to be opened by unauthorised personnel. If opened anyway, the warranty will be lost.

Disclaimer

DEIF A/S reserves the right to change any of the contents of this document without prior notice.

2.1.3 Safety issues

Installing and operating the Multi-line 2 unit may imply 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.

2.1.4 Electrostatic discharge awareness

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

2.1.5 Factory settings

The Multi-line 2 unit is delivered from factory with certain factory settings. These are based on average values and are not necessarily the correct settings for matching the engine/generator set in question. Precautions must be taken to check the settings before running the engine/generator set.

3. Description of option

3.1 Option M13.x

Option M13.x is a hardware option, and therefore a separate PCB is installed in addition to the standard-installed hardware. M13.6 is installed in slot #6 and M13.8 is installed in slot #8.

3.2 ANSI numbers

Function	ANSI no.
7 x binary inputs for control and/or alarms	77

3.3 Terminal description

3.3.1 Option M13.2 (AGC-4 only)

Term.	Function	Technical data	Description
29	Digital input 29	Optocoupler	Configurable
30	Digital input 30	Optocoupler	Configurable
31	Digital input 31	Optocoupler	Configurable
32	Digital input 32	Optocoupler	Configurable
33	Digital input 33	Optocoupler	Configurable
34	Digital input 34	Optocoupler	Configurable
35	Digital input 35	Optocoupler	Configurable
36	Com.	Common	Common for terminals 29-36

3.3.2 Option M13.6

Term.	Function	Technical data	Description
90	Com.	Common	Common for terminals 91-97
91	Digital input 91	Optocoupler	Configurable
92	Digital input 92	Optocoupler	Configurable
93	Digital input 93	Optocoupler	Configurable
94	Digital input 94	Optocoupler	Configurable
95	Digital input 95	Optocoupler	Configurable
96	Digital input 96	Optocoupler	Configurable
97	Digital input 97	Optocoupler	Configurable

3.3.3 Option M13.8

Term.	Function	Technical data	Description
126	Com.	Common	Common for terminals 127-133
127	Digital input 127	Optocoupler	Configurable
128	Digital input 128	Optocoupler	Configurable
129	Digital input 129	Optocoupler	Configurable
130	Digital input 130	Optocoupler	Configurable
131	Digital input 131	Optocoupler	Configurable
132	Digital input 132	Optocoupler	Configurable
133	Digital input 133	Optocoupler	Configurable



The binary inputs use fixed signals.



Please refer to the Installation Instructions for a detailed description of the wiring of digital inputs.

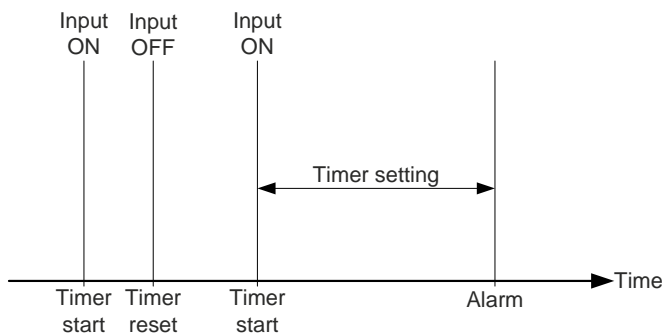
4. Functional description

The digital inputs available in this option can be used for two purposes:

1. Protection (alarm) inputs
2. Function inputs

4.1 Protection/alarm inputs

The delay settings are all of the definite time type, i.e. a set time is selected. The delay will be activated if the input goes ON (or OFF if selected to be N/C). If the input is reset before the delay runs out, the delay will be reset.



When the delay runs out, the output will be activated.

4.1.1 Function inputs

The function inputs can be set up via the PC utility software.

The PC utility software is a Windows[®]-based software, which can be downloaded from our website www.de-if.com. To adjust the inputs via the PC utility software, a computer must be connected to the controller unit. Furthermore, the unit parameters must be uploaded to the computer.



Please refer to the Designer's Reference Handbook for a complete list of the available input functions.

5. Parameters

5.1 Further information

The option M13.x relates to the parameters 3330-3390 (M13.6) and 3500-3560 (M13.8).

For further information, please see the separate parameter list for the Multi-line unit in question:

AGC-3	Document number 4189340705
AGC-4	Document number 4189340688
PPM	Document number 4189340672
GPC-3/GPU-3 Hydro	Document number 4189340580
PPU-3/GPU-3	Document number 4189340581