AGC-4 Mk II

4189341280C

Configurable I/O extension cards, four 4-20 mA inputs

Option M15.x

Improve Tomorrow

1. Delimitation

1.1 Scope of option M15

This description of options covers AGC-4 Mk II, software version 6.00 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

DANGER!

This shows dangerous situations.

If the guidelines are not followed, these situations will result in death, serious personal injury, and equipment damage or destruction.

Notes

NOTE 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.

NOTE 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.

The English version of this document always contains the most recent and up-to-date information about the product. DEIF does not take responsibility for the accuracy of translations, and translations might not be updated at the same time as the English document. If there is a discrepancy, the English version prevails.

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.

DANGER!

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 terminals 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 unit is delivered from the factory with default settings. These are not necessarily correct for the engine/generator set. Check all the settings before running the engine/generator set.

3. Description of option

3.1 Option M15.x

Option M15.x is a hardware option and therefore a separate PCB is installed in addition to the standard-installed hardware.

3.1.1 Terminal description, M15.6

Term.	Function	Technical data	Description
90	Analogue input 91	Common	4-20 mA input, configurable
91	Analogue input 91	4-20 mA in	
92	Analogue input 93	Common	4-20 mA input, configurable
93	Analogue input 93	4-20 mA in	
94	Analogue input 95	Common	4-20 mA input, configurable
95	Analogue input 95	4-20 mA in	
96	Analogue input 97	Common	4-20 mA input, configurable
97	Analogue input 97	4-20 mA in	

3.1.2 Terminal description, M15.8

Term.	Function	Technical data	Description
126	Analogue input 127	Common	4-20 mA input, configurable
127	Analogue input 127	4-20 mA in	
128	Analogue input 129	Common	4-20 mA input, configurable
129	Analogue input 129	4-20 mA in	
130	Analogue input 131	Common	4-20 mA input, configurable
131	Analogue input 131	4-20 mA in	
132	Analogue input 133	Common	4-20 mA input, configurable
133	Analogue input 133	4-20 mA in	

More information
See the **Installation Instructions** for the wiring of active and passive transducers.

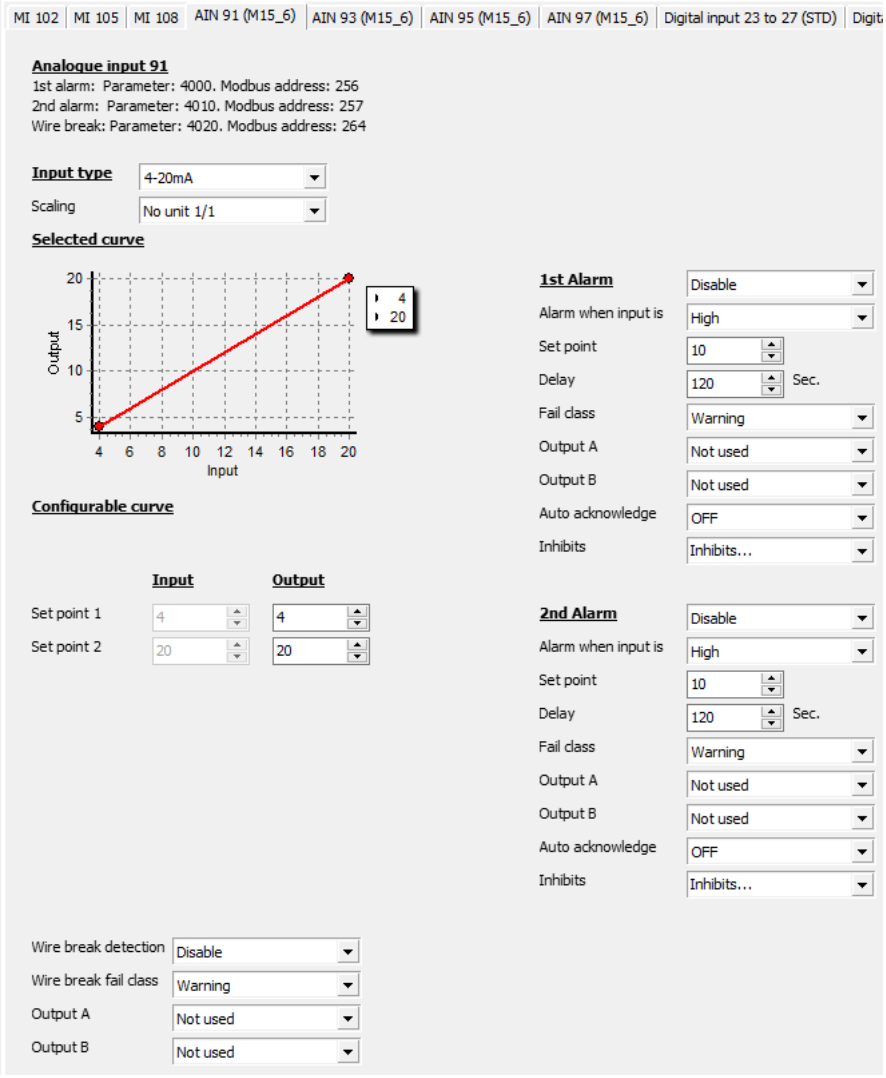
4. Function description

4.1 Analogue input configuration

The analogue inputs can be used for protection and display of values.

Configuration using the utility software

Each analogue input can be configured on the *I/O setup* page, as shown below.



Configure the curve: Select the *Output* values for *Set point 1* and *Set point 2*. For an inverse proportional curve, *Set point 1* has the higher output value.

Viewing the 4-20 mA input value

In the DU-2 display, the readings of the 4-20 mA input can be shown. The readings are found in the second line of the setup menu or, if configured, in the view menu system.

INFO
See the **Operator's manual** for information on the menu system and configuration of user views.

Changing the measurement text and unit

The utility software enables you to change the text and unit of the measurement. The text and units can be changed on the *Translations* page of the utility software. If the text of the input is changed, you will see the changed text. For example, instead of "4-20mA 91.1 ##mA", this could be "Oil press. ##bar".

Selecting the decimals to display

Before configuring the curve, on the *I/O setup* page, under *Scaling*, select **No unit 1/1** to show no decimals, **No unit 1/10** to show 1 decimal, and **No unit 1/100** to show two decimals.

Parameters

Apart from the *I/O setup* page, option M15 parameters are 4000-4110 (M15.6) and 4800-4910 (M15.8).

4.2 Differential measurement

The controller can use the option M15 inputs for differential measurements between two analogue input values. The differential measurement setup and function are described in the **Designer's Handbook**.

4.3 Wire failure detection

If it is necessary to supervise the sensors/wires connected to the analogue inputs, it is possible to activate the wire failure detection on each individual input.

If the measured value on the input is outside the normal dynamic area of the input, it will be detected as if the wire has made a short circuit or a break, and an alarm with a configurable fail class will be activated.

4.3.1 Principle

The illustration below shows that when the wire of the input breaks, the measured value will drop to zero. Then the alarm will occur.