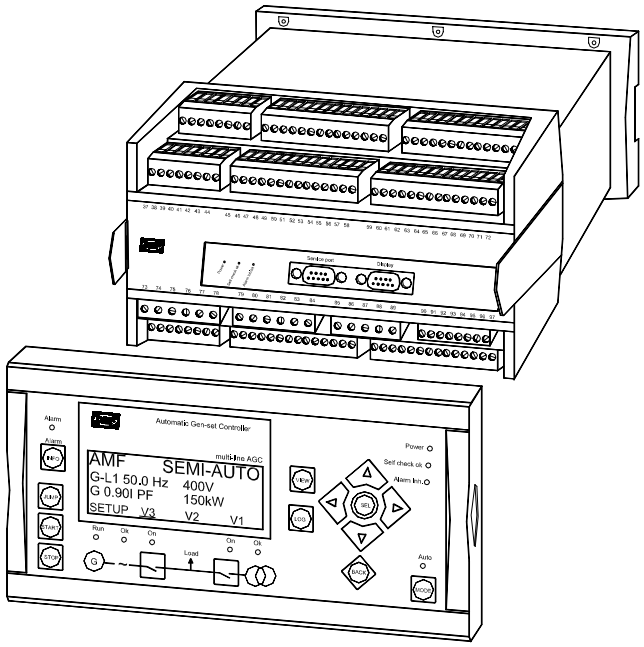
DEIF A/S

Description of options

Option M15,
Configurable I/O extension cards
Four 4…20mA inputs
Automatic Gen-set Controller

4189340393A
SW version 2.1X.X



- *Description of option*
- *Functional description*
- *Parameter list*

DEIF A/S, *Frisenborgvej 33*
DK-7800 Skive, Denmark

Tel.: +45 9614 9614, Fax: +45 9614 9615
E-mail: deif@deif.com, URL: www.deif.com

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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

M15 option

Function	ANSI no.
4 x configurable 4…20mA inputs	-

Terminal description

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

Please refer to the Application Notes for the connection of active and passive sensors.

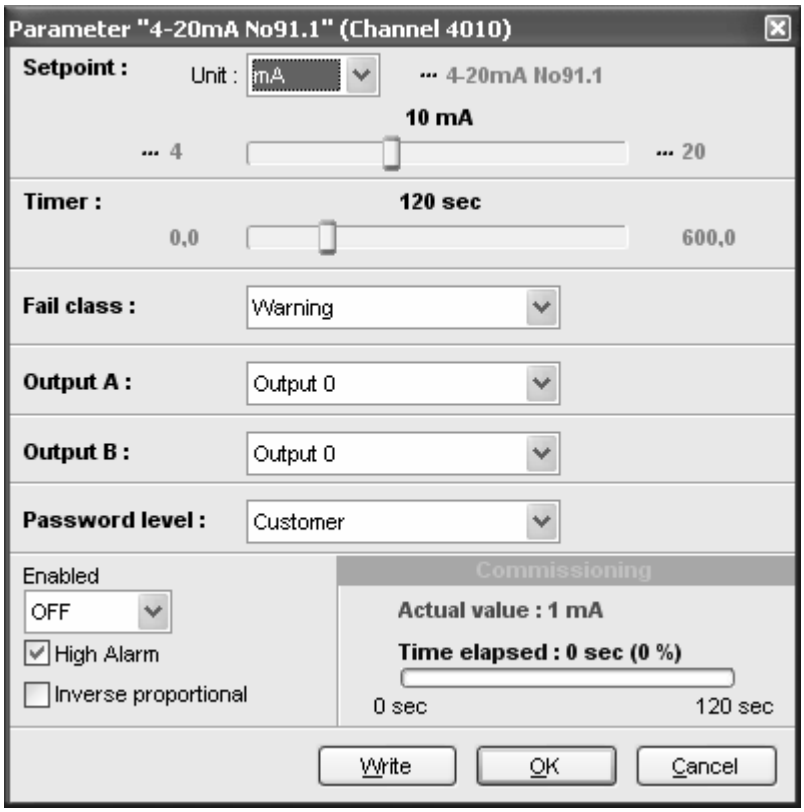
3. Functional description

PC utility software configuration

The PC utility software is a Windows® based software, which can be downloaded from our website www.deif.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.

Alarm input configuration

The alarm input is configured by selecting the correct input in the parameter file (in this example analogue input 91.1):



Set point
The set point can be adjusted by moving the glider left or right or by clicking the present set point. (Above click '**10mA**').

Timer
The timer can be adjusted by moving the glider left or right or by clicking the present set point. (Above click '**15 sec**').

Fail class
Select the appropriate fail class.

Output A/output B
Select which relay to activate in connection with an alarm.

Password level
3 password levels are available. This specific alarm menu can only be entered, if the correct level of password is entered. If the current password level is not sufficient, a notification will be displayed.

Enable
Mark this check box to enable the alarm function.

High alarm
Mark this check box to receive an alarm, when the input is above the set point. Unmark this check box to receive an alarm, when the input is below the set point.

4. Parameter list

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

4010 Configurable (4…20mA input 91 - set point 1)

No.	Setting		Min. setting	Max. setting	Third setting	Factory setting
4011	4…20mA input 91.1	Set point	4mA	20mA	-	10mA
4012	4…20mA input 91.1	Timer	0.0 s	600.0 s	-	120.0 s
4013	4…20mA input 91.1	Relay output A	R0 (none)	Option dependent	-	R0 (none)
4014	4…20mA input 91.1	Relay output B	R0 (none)		-	R0 (none)
4015	4…20mA input 91.1	Enable	OFF	ON	RUN	OFF
4016	4…20mA input 91.1	Fail class	Alarm (1)	Trip MB (6)	-	Warning (2)

4020 Configurable (4…20mA input 91 - set point 2)

No.	Setting		Min. setting	Max. setting	Third setting	Factory setting
4021	4…20mA input 91.2	Set point	4mA	20mA	-	10mA
4022	4…20mA input 91.2	Timer	0.0 s	600.0 s	-	120.0 s
4023	4…20mA input 91.2	Relay output A	R0 (none)	Option dependent	-	R0 (none)
4024	4…20mA input 91.2	Relay output B	R0 (none)		-	R0 (none)
4025	4…20mA input 91.2	Enable	OFF	ON	RUN	OFF
4026	4…20mA input 91.2	Fail class	Alarm (1)	Trip MB (6)	-	Warning (2)

4030 Configurable (4…20mA input 93 - set point 1)

No.	Setting		Min. setting	Max. setting	Third setting	Factory setting
4031	4…20mA input 93.1	Set point	4mA	20mA	-	10mA
4032	4…20mA input 93.1	Timer	0.0 s	600.0 s	-	120.0 s
4033	4…20mA input 93.1	Relay output A	R0 (none)	Option dependent	-	R0 (none)
4034	4…20mA input 93.1	Relay output B	R0 (none)		-	R0 (none)
4035	4…20mA input 93.1	Enable	OFF	ON	RUN	OFF
4036	4…20mA input 93.1	Fail class	Alarm (1)	Trip MB (6)	-	Warning (2)

4040 Configurable (4…20mA input 93 - set point 2)

No.	Setting		Min. setting	Max. setting	Third setting	Factory setting
4041	4…20mA input 93.2	Set point	4mA	20mA	-	10mA
4042	4…20mA input 93.2	Timer	0.0 s	600.0 s	-	120.0 s
4043	4…20mA input 93.2	Relay output A	R0 (none)	Option dependent	-	R0 (none)
4044	4…20mA input 93.2	Relay output B	R0 (none)		-	R0 (none)
4045	4…20mA input 93.2	Enable	OFF	ON	RUN	OFF
4046	4…20mA input 93.2	Fail class	Alarm (1)	Trip MB (6)	-	Warning (2)

4050 Configurable (4…20mA input 95 - set point 1)

No.	Setting		Min. setting	Max. setting	Third setting	Factory setting
4051	4…20mA input 95.1	Set point	4mA	20mA	-	10mA
4052	4…20mA input 95.1	Timer	0.0 s	600.0 s	-	120.0 s
4053	4…20mA input 95.1	Relay output A	R0 (none)	Option dependent	-	R0 (none)
4054	4…20mA input 95.1	Relay output B	R0 (none)		-	R0 (none)
4055	4…20mA input 95.1	Enable	OFF	ON	RUN	OFF
4056	4…20mA input 95.1	Fail class	Alarm (1)	Trip MB (6)	-	Warning (2)

4060 Configurable (4…20mA input 95 - set point 2)

No.	Setting		Min. setting	Max. setting	Third setting	Factory setting
4061	4…20mA input 95.2	Set point	4mA	20mA	-	10mA
4062	4…20mA input 95.2	Timer	0.0 s	600.0 s	-	120.0 s
4063	4…20mA input 95.2	Relay output A	R0 (none)	Option dependent	-	R0 (none)
4064	4…20mA input 95.2	Relay output B	R0 (none)		-	R0 (none)
4065	4…20mA input 95.2	Enable	OFF	ON	RUN	OFF
4066	4…20mA input 95.2	Fail class	Alarm (1)	Trip MB (6)	-	Warning (2)

4070 Configurable (4…20mA input 97 - set point 1)

No.	Setting		Min. setting	Max. setting	Third setting	Factory setting
4071	4…20mA input 97.1	Set point	4mA	20mA	-	10mA
4072	4…20mA input 97.1	Timer	0.0 s	600.0 s	-	120.0 s
4073	4…20mA input 97.1	Relay output A	R0 (none)	Option dependent	-	R0 (none)
4074	4…20mA input 97.1	Relay output B	R0 (none)		-	R0 (none)
4075	4…20mA input 97.1	Enable	OFF	ON	RUN	OFF
4076	4…20mA input 97.1	Fail class	Alarm (1)	Trip MB (6)	-	Warning (2)

4080 Configurable (4…20mA input 97 - set point 2)

No.	Setting		Min. setting	Max. setting	Third setting	Factory setting
4081	4…20mA input 97.2	Set point	4mA	20mA	-	10mA
4082	4…20mA input 97.2	Timer	0.0 s	600.0 s	-	120.0 s
4083	4…20mA input 97.2	Relay output A	R0 (none)	Option dependent	-	R0 (none)
4084	4…20mA input 97.2	Relay output B	R0 (none)		-	R0 (none)
4085	4…20mA input 97.2	Enable	OFF	ON	RUN	OFF
4086	4…20mA input 97.2	Fail class	Alarm (1)	Trip MB (6)	-	Warning (2)