



PARAMETER LIST

ALC-4 Automatic Load Controller



1. General information

1.1 Warnings, legal information and safety	4
1.1.1 Warnings and notes.....	4
1.1.2 Legal information and disclaimer.....	4
1.1.3 Safety issues.....	4
1.1.4 Electrostatic discharge awareness.....	4
1.1.5 Factory settings.....	5
1.2 About the parameter list	5
1.2.1 General purpose of the parameter list.....	5
1.2.2 Intended users of the parameter list.....	5
1.2.3 Software version.....	5

2. Parameter list

2.1 Protections	6
2.1.1 Frequency protections.....	6
2.1.2 External load group trips.....	9
2.2 Breaker parameters	10
2.2.1 Synchronisation.....	10
2.2.2 Load group breaker failures.....	11
2.3 Input/output parameters - Digital inputs	18
2.3.1 Digital input 23-27 setup.....	18
2.3.2 Digital input 43-55 setup.....	20
2.3.3 Digital input 91-97 setup.....	25
2.3.4 Digital input 102-108 setup.....	28
2.3.5 Digital input 112-117 setup.....	30
2.3.6 Emergency stop.....	32
2.3.7 Digital input 127-133 setup.....	32
2.3.8 M-Logic alarm 1-5 setup.....	35
2.4 Input/output parameters - Analogue inputs	37
2.4.1 Analogue input setup.....	37
2.5 Input/output parameters - Multi-function analogue inputs	41
2.5.1 Multi-input 102.....	41
2.5.2 Multi-input 105.....	44
2.5.3 Multi-input 108.....	47
2.5.4 Differential measurement.....	49
2.5.5 Analogue input setup (option M15.8).....	55
2.5.6 Aux. supply setup.....	59
2.6 Input/output parameters - Digital outputs	61
2.6.1 Digital outputs.....	61
2.7 System parameters - General setup	67
2.7.1 General setup.....	67
2.7.2 Alarm horn.....	68
2.7.3 Not in auto.....	68
2.7.4 Alarm jump.....	68
2.7.5 Command timers.....	68
2.8 System parameters - Heavy consumers	71
2.8.1 Heavy consumers.....	71
2.9 System parameters - External communication	76

2.9.1 External communication.....	76
2.10 System parameters - Power management internal communication.....	77
2.10.1 Power management internal communication.....	77
2.11 System parameters - Power management setup.....	79
2.11.1 Power management setup.....	79
2.12 System parameters - Jump menus.....	86
2.12.1 Jump menus.....	86
2.12.2 9000 Software version.....	86
2.12.3 9010 Display character test.....	87
2.12.4 9020 Service port.....	87
2.12.5 9070 M4 software version.....	87
2.12.6 911# Password.....	87
2.12.7 9120 Service menu.....	88
2.12.8 9130 AC configuration.....	88
2.12.9 9150 Backlight dim.....	88
2.12.10 9160 Plant application.....	88
2.12.11 9170 Internal CAN protocol.....	88
2.12.12 9190 Application broadcast.....	89
2.12.13 9230 Memory backup.....	89
2.13 System parameters - Utility software.....	89
2.13.1 Multi-input selections.....	89
2.13.2 4-20 mA input scaling.....	90

1. General information

1.1 Warnings, legal information and safety

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



CAUTION

This highlights potentially dangerous situations. If the guidelines are not followed, these situations could result in personal injury or damaged equipment.

Notes

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

1.1.2 Legal information and disclaimer

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

1.1.3 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.

1.1.4 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.

1.1.5 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.

1.2 About the parameter list

1.2.1 General purpose of the parameter list

This document is a complete parameter list including all parameters, which means that some of the option parameters included may not be accessible in the system in question.

The document includes a complete standard alarm list and a complete standard parameter list for setup. Therefore, this document is to be used for reference, when information about specific alarms and parameters is needed.



DANGER!

Please make sure to read this document before starting to work with the Multi-line 2 unit and the genset to be controlled. Failure to do this could result in human injury or damage to the equipment.

1.2.2 Intended users of the parameter list

This Parameter List is mainly intended for the person responsible for the unit parameter setup. In most cases, this would be a panel builder designer. Naturally, other users might also find useful information here.

1.2.3 Software version

This document is based on ALC-4 software version 4.13.

2. Parameter list

2.1 Protections

2.1.1 Frequency protections

1000 Busbar under-frequency protection level 1 (ANSI 81)

No.	Setting		Range	Factory setting	Description
1001	BB f< 1	Set point	80.0 to 100.0 %	98.0 %	The alarm and fail class are activated when the frequency has been continuously under the programmed value during the programmed delay.
1002	BB f< 1	Timer	0.0 to 99.99 s	0.5 s	
1003	BB f< 1	Relay output A	Not used (option dependent)	Not used	
1004	BB f< 1	Relay output B	Not used (option dependent)	Not used	
1005	BB f< 1	Enable	OFF ON	OFF	
1006	BB f< 1	Fail class	Trip Group [1 to 8] Trip Group All Block Group [1 to 8] Block Group All	Trip Group 1	

1010 Busbar under-frequency protection level 2 (ANSI 81)

No.	Setting		Range	Factory setting	Description
1011	BB f< 2	Set point	80.0 to 100.0 %	98.0 %	The alarm and fail class are activated when the frequency has been continuously under the programmed value during the programmed delay.
1012	BB f< 2	Timer	0.0 to 99.99 s	0.5 s	
1013	BB f< 2	Relay output A	Not used (option dependent)	Not used	
1014	BB f< 2	Relay output B	Not used (option dependent)	Not used	
1015	BB f< 2	Enable	OFF ON	OFF	
1016	BB f< 2	Fail class	Trip Group [1 to 8] Trip Group All Block Group [1 to 8] Block Group All	Trip Group 2	

1020 Busbar under-frequency protection level 3 (ANSI 81)

No.	Setting		Range	Factory setting	Description
1021	BB f< 3	Set point	80.0 to 100.0 %	98.0 %	The alarm and fail class are activated when the frequency has been continuously under the programmed value during the programmed delay.
1022	BB f< 3	Timer	0.0 to 99.99 s	0.5 s	
1023	BB f< 3	Relay output A	Not used (option dependent)	Not used	
1024	BB f< 3	Relay output B	Not used (option dependent)	Not used	
1025	BB f< 3	Enable	OFF ON	OFF	
1026	BB f< 3	Fail class	Trip Group [1 to 8] Trip Group All Block Group [1 to 8] Block Group All	Trip Group 3	

1030 Busbar under-frequency protection level 4 (ANSI 81)

No.	Setting		Range	Factory setting	Description
1031	BB f< 4	Set point	80.0 to 100.0 %	98.0 %	The alarm and fail class are activated when the frequency has been continuously under the programmed value during the programmed delay.
1032	BB f< 4	Timer	0.0 to 99.99 s	0.5 s	
1033	BB f< 4	Relay output A	Not used (option dependent)	Not used	
1034	BB f< 4	Relay output B	Not used (option dependent)	Not used	
1035	BB f< 4	Enable	OFF ON	OFF	
1036	BB f< 4	Fail class	Trip Group [1 to 8] Trip Group All Block Group [1 to 8] Block Group All	Trip Group 4	

1040 Busbar under-frequency protection level 5 (ANSI 81)

No.	Setting		Range	Factory setting	Description
1041	BB f< 5	Set point	80.0 to 100.0 %	98.0 %	The alarm and fail class are activated when the frequency has been continuously under the programmed value during the programmed delay.
1042	BB f< 5	Timer	0.0 to 99.99 s	0.5 s	
1043	BB f< 5	Relay output A	Not used (option dependent)	Not used	
1044	BB f< 5	Relay output B	Not used (option dependent)	Not used	
1045	BB f< 5	Enable	OFF ON	OFF	
1046	BB f< 5	Fail class	Trip Group [1 to 8] Trip Group All Block Group [1 to 8] Block Group All	Trip Group 5	

1050 Busbar under-frequency protection level 6 (ANSI 81)

No.	Setting		Range	Factory setting	Description
1051	BB f< 6	Set point	80.0 to 100.0 %	98.0 %	The alarm and fail class are activated when the frequency has been continuously under the programmed value during the programmed delay.
1052	BB f< 6	Timer	0.0 to 99.99 s	0.5 s	
1053	BB f< 6	Relay output A	Not used (option dependent)	Not used	
1054	BB f< 6	Relay output B	Not used (option dependent)	Not used	
1055	BB f< 6	Enable	OFF ON	OFF	
1056	BB f< 6	Fail class	Trip Group [1 to 8] Trip Group All Block Group [1 to 8] Block Group All	Trip Group 6	

1060 Busbar under-frequency protection level 7 (ANSI 81)

No.	Setting		Range	Factory setting	Description
1061	BB f< 7	Set point	80.0 to 100.0 %	98.0 %	The alarm and fail class are activated when the frequency has been continuously under the programmed value during the programmed delay.
1062	BB f< 7	Timer	0.0 to 99.99 s	0.5 s	
1063	BB f< 7	Relay output A	Not used (option dependent)	Not used	
1064	BB f< 7	Relay output B	Not used (option dependent)	Not used	
1065	BB f< 7	Enable	OFF ON	OFF	
1066	BB f< 7	Fail class	Trip Group [1 to 8] Trip Group All Block Group [1 to 8] Block Group All	Trip Group 7	

1070 Busbar under-frequency protection level 8 (ANSI 81)

No.	Setting		Range	Factory setting	Description
1071	BB f< 8	Set point	80.0 to 100.0 %	98.0 %	The alarm and fail class are activated when the frequency has been continuously under the programmed value during the programmed delay.
1072	BB f< 8	Timer	0.0 to 99.99 s	0.5 s	
1073	BB f< 8	Relay output A	Not used (option dependent)	Not used	
1074	BB f< 8	Relay output B	Not used (option dependent)	Not used	
1075	BB f< 8	Enable	OFF ON	OFF	
1076	BB f< 8	Fail class	Trip Group [1 to 8] Trip Group All Block Group [1 to 8] Block Group All	Trip Group 8	

1101 Frequency trip type selection for over- and under-frequency alarms

No.	Setting		Range	Factory setting	Description
1101	Freq. trip type	Set point	L1 L2 L3 L1 or L2 or L3 L1 and L2 and L3	L1 or L2 or L3	

2.1.2 External load group trips

1970 External trip alarm: Load groups 1-3

No.	Setting		Range	Default	Description
1971	Load group 1 Ext. trip	Enable	OFF ON	OFF	
1972	Load group 1 Ext. trip	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
1973	Load group 2 Ext. trip	Enable	OFF ON	OFF	
1974	Load group 2 Ext. trip	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
1975	Load group 3 Ext. trip	Enable	OFF ON	OFF	
1976	Load group 3 Ext. trip	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

1980 External trip alarm: Load groups 4-6

No.	Setting		Range	Default	Description
1981	Load group 4 Ext. trip	Enable	OFF ON	OFF	
1982	Load group 4 Ext. trip	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
1983	Load group 5 Ext. trip	Enable	OFF ON	OFF	
1984	Load group 5 Ext. trip	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

No.	Setting	Range	Default	Description
1985	Load group 6 Ext. trip	Enable	OFF ON	OFF
1986	Load group 6 Ext. trip	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

1990 External trip alarm: Load groups 7-8

No.	Setting	Range	Default	Description
1991	Load group 7 Ext. trip	Enable	OFF ON	OFF
1992	Load group 7 Ext. trip	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning
1993	Load group 8 Ext. trip	Enable	OFF ON	OFF
1994	Load group 8 Ext. trip	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

2.2 Breaker parameters

2.2.1 Synchronisation

2100 Synchronisation blackout

No.	Setting	Range	Default	Description
2101	Synchronisation blackout	dfMax	0.0 Hz to 5.0 Hz	3 Hz
2102	Synchronisation blackout	dUMax	2 % to 10 %	5 %

2350 Phase rotation

No.	Setting	Range	Default	Description
2350	Phase rotation	L1L2L3 L1L3L2	L1L2L3	

2361 Dead bus close

No.	Setting	Range	Default	Description
2361	Dead bus close	OFF ON	OFF	

2.2.2 Load group breaker failures

2110 Load group 1 Open fail

No.	Setting		Range	Default	Description
2111	Load group 1 Open fail	Delay	1.0 s to 10.0 s	2 s	
2112	Load group 1 Open fail	Relay output A	Option dependent Not used	Not used	
2113	Load group 1 Open fail	Relay output B	Option dependent Not used	Not used	
2114	Load group 1 Open fail	Enable	OFF ON	ON	
2115	Load group 1 Open fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2120 Load group 1 Close fail

No.	Setting		Range	Default	Description
2121	Load group 1 Close fail	Delay	1.0 s to 10.0 s	2 s	
2122	Load group 1 Close fail	Relay output A	Option dependent Not used	Not used	
2123	Load group 1 Close fail	Relay output B	Option dependent Not used	Not used	
2124	Load group 1 Close fail	Enable	OFF ON	ON	
2125	Load group 1 Close fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2130 Load group 1 Position fail

No.	Setting		Range	Default	Description
2131	Load group 1 Position fail	Delay	1.0 s to 10.0 s	2 s	
2132	Load group 1 Position fail	Relay output A	Option dependent Not used	Not used	
2133	Load group 1 Position fail	Relay output B	Option dependent Not used	Not used	
2134	Load group 1 Position fail	Enable	OFF ON	ON	
2135	Load group 1 Position fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2140 Load group 2 Open fail

No.	Setting		Range	Default	Description
2141	Load group 2 Open fail	Delay	1.0 s to 10.0 s	2 s	
2142	Load group 2 Open fail	Relay output A	Option dependent Not used	Not used	
2143	Load group 2 Open fail	Relay output B	Option dependent Not used	Not used	
2144	Load group 2 Open fail	Enable	OFF ON	ON	
2145	Load group 2 Open fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2150 Load group 2 Close fail

No.	Setting		Range	Default	Description
2151	Load group 2 Close fail	Delay	1.0 s to 10.0 s	2 s	
2152	Load group 2 Close fail	Relay output A	Option dependent Not used	Not used	
2153	Load group 2 Close fail	Relay output B	Option dependent Not used	Not used	
2154	Load group 2 Close fail	Enable	OFF ON	ON	
2155	Load group 2 Close fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2160 Load group 2 Position fail

No.	Setting		Range	Default	Description
2161	Load group 2 Position fail	Delay	1.0 s to 10.0 s	2 s	
2162	Load group 2 Position fail	Relay output A	Option dependent Not used	Not used	
2163	Load group 2 Position fail	Relay output B	Option dependent Not used	Not used	
2164	Load group 2 Position fail	Enable	OFF ON	ON	
2165	Load group 2 Position fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2170 Load group 3 Open fail

No.	Setting	Range	Default	Description
2171	Load group 3 Open fail	Delay	1.0 s to 10.0 s	2 s
2172	Load group 3 Open fail	Relay output A	Option dependent Not used	Not used
2173	Load group 3 Open fail	Relay output B	Option dependent Not used	Not used
2174	Load group 3 Open fail	Enable	OFF ON	ON
2175	Load group 3 Open fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

2180 Load group 3 Close fail

No.	Setting	Range	Default	Description
2181	Load group 3 Close fail	Delay	1.0 s to 10.0 s	2 s
2182	Load group 3 Close fail	Relay output A	Option dependent Not used	Not used
2183	Load group 3 Close fail	Relay output B	Option dependent Not used	Not used
2184	Load group 3 Close fail	Enable	OFF ON	ON
2185	Load group 3 Close fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

2190 Load group 3 Position fail

No.	Setting	Range	Default	Description
2191	Load group 3 Position fail	Delay	1.0 s to 10.0 s	2 s
2192	Load group 3 Position fail	Relay output A	Option dependent Not used	Not used
2193	Load group 3 Position fail	Relay output B	Option dependent Not used	Not used
2194	Load group 3 Position fail	Enable	OFF ON	ON
2165	Load group 3 Position fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

2200 Load group 4 Open fail

No.	Setting		Range	Default	Description
2201	Load group 4 Open fail	Delay	1.0 s to 10.0 s	2 s	
2202	Load group 4 Open fail	Relay output A	Option dependent Not used	Not used	
2203	Load group 4 Open fail	Relay output B	Option dependent Not used	Not used	
2204	Load group 4 Open fail	Enable	OFF ON	ON	
2205	Load group 4 Open fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2210 Load group 4 Close fail

No.	Setting		Range	Default	Description
2211	Load group 4 Close fail	Delay	1.0 s to 10.0 s	2 s	
2212	Load group 4 Close fail	Relay output A	Option dependent Not used	Not used	
2213	Load group 4 Close fail	Relay output B	Option dependent Not used	Not used	
2214	Load group 4 Close fail	Enable	OFF ON	ON	
2215	Load group 4 Close fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2220 Load group 4 Position fail

No.	Setting		Range	Default	Description
2221	Load group 4 Position fail	Delay	1.0 s to 10.0 s	2 s	
2222	Load group 4 Position fail	Relay output A	Option dependent Not used	Not used	
2223	Load group 4 Position fail	Relay output B	Option dependent Not used	Not used	
2224	Load group 4 Position fail	Enable	OFF ON	ON	
2225	Load group 4 Position fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2230 Load group 5 Open fail

No.	Setting		Range	Default	Description
2231	Load group 5 Open fail	Delay	1.0 s to 10.0 s	2 s	
2232	Load group 5 Open fail	Relay output A	Option dependent Not used	Not used	
2233	Load group 5 Open fail	Relay output B	Option dependent Not used	Not used	
2234	Load group 5 Open fail	Enable	OFF ON	ON	
2235	Load group 5 Open fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2240 Load group 5 Close fail

No.	Setting		Range	Default	Description
2241	Load group 5 Close fail	Delay	1.0 s to 10.0 s	2 s	
2242	Load group 5 Close fail	Relay output A	Option dependent Not used	Not used	
2243	Load group 5 Close fail	Relay output B	Option dependent Not used	Not used	
2244	Load group 5 Close fail	Enable	OFF ON	ON	
2245	Load group 5 Close fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2250 Load group 5 Position fail

No.	Setting		Range	Default	Description
2251	Load group 5 Position fail	Delay	1.0 s to 10.0 s	2 s	
2252	Load group 5 Position fail	Relay output A	Option dependent Not used	Not used	
2253	Load group 5 Position fail	Relay output B	Option dependent Not used	Not used	
2254	Load group 5 Position fail	Enable	OFF ON	ON	
2255	Load group 5 Position fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2260 Load group 6 Open fail

No.	Setting		Range	Default	Description
2261	Load group 6 Open fail	Delay	1.0 s to 10.0 s	2 s	
2262	Load group 6 Open fail	Relay output A	Option dependent Not used	Not used	
2263	Load group 6 Open fail	Relay output B	Option dependent Not used	Not used	
2264	Load group 6 Open fail	Enable	OFF ON	ON	
2265	Load group 6 Open fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2270 Load group 6 Close fail

No.	Setting		Range	Default	Description
2271	Load group 6 Close fail	Delay	1.0 s to 10.0 s	2 s	
2272	Load group 6 Close fail	Relay output A	Option dependent Not used	Not used	
2273	Load group 6 Close fail	Relay output B	Option dependent Not used	Not used	
2274	Load group 6 Close fail	Enable	OFF ON	ON	
2275	Load group 6 Close fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2280 Load group 6 Position fail

No.	Setting		Range	Default	Description
2281	Load group 6 Position fail	Delay	1.0 s to 10.0 s	2 s	
2282	Load group 6 Position fail	Relay output A	Option dependent Not used	Not used	
2283	Load group 6 Position fail	Relay output B	Option dependent Not used	Not used	
2284	Load group 6 Position fail	Enable	OFF ON	ON	
2285	Load group 6 Position fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2290 Load group 7 Open fail

No.	Setting	Range	Default	Description	
2291	Load group 7 Open fail	Delay	1.0 s to 10.0 s	2 s	
2292	Load group 7 Open fail	Relay output A	Option dependent Not used	Not used	
2293	Load group 7 Open fail	Relay output B	Option dependent Not used	Not used	
2294	Load group 7 Open fail	Enable	OFF ON	ON	
2295	Load group 7 Open fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2300 Load group 7 Close fail

No.	Setting	Range	Default	Description	
2301	Load group 7 Close fail	Delay	1.0 s to 10.0 s	2 s	
2302	Load group 7 Close fail	Relay output A	Option dependent Not used	Not used	
2303	Load group 7 Close fail	Relay output B	Option dependent Not used	Not used	
2304	Load group 7 Close fail	Enable	OFF ON	ON	
2305	Load group 7 Close fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2310 Load group 7 Position fail

No.	Setting	Range	Default	Description	
2311	Load group 7 Position fail	Delay	1.0 s to 10.0 s	2 s	
2312	Load group 7 Position fail	Relay output A	Option dependent Not used	Not used	
2313	Load group 7 Position fail	Relay output B	Option dependent Not used	Not used	
2314	Load group 7 Position fail	Enable	OFF ON	ON	
2315	Load group 7 Position fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2320 Load group 8 Open fail

No.	Setting		Range	Default	Description
2321	Load group 8 Open fail	Delay	1.0 s to 10.0 s	2 s	
2322	Load group 8 Open fail	Relay output A	Option dependent Not used	Not used	
2323	Load group 8 Open fail	Relay output B	Option dependent Not used	Not used	
2324	Load group 8 Open fail	Enable	OFF ON	ON	
2325	Load group 8 Open fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2330 Load group 8 Close fail

No.	Setting		Range	Default	Description
2301	Load group 8 Close fail	Delay	1.0 s to 10.0 s	2 s	
2302	Load group 8 Close fail	Relay output A	Option dependent Not used	Not used	
2303	Load group 8 Close fail	Relay output B	Option dependent Not used	Not used	
2304	Load group 8 Close fail	Enable	OFF ON	ON	
2305	Load group 8 Close fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.3 Input/output parameters - Digital inputs

2.3.1 Digital input 23-27 setup

NOTE Inputs 24-27 are by default used for breaker feedback. These inputs are only available if no MB or TB is present in the application.

3000 Digital input 23

No.	Setting		Range	Default	Description
3001	Digital input 23	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3002	Digital input 23	Relay output A	Option dependent Not used	Not used	
3003	Digital input 23	Relay output B	Option dependent Not used	Not used	
3004	Digital input 23	Enable	OFF ON	OFF	

No.	Setting	Range	Default	Description
3005	Digital input 23	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning
3006	Digital input 23	High Alarm	OFF ON	ON

3010 Digital input 24

No.	Setting	Range	Default	Description	
3011	Digital input 24	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3012	Digital input 24	Relay output A	Option dependent Not used	Not used	
3013	Digital input 24	Relay output B	Option dependent Not used	Not used	
3014	Digital input 24	Enable	OFF ON	OFF	
3015	Digital input 24	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3016	Digital input 24	High Alarm	OFF ON	ON	

3020 Digital input 25

No.	Setting	Range	Default	Description	
3021	Digital input 25	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3022	Digital input 25	Relay output A	Option dependent Not used	Not used	
3023	Digital input 25	Relay output B	Option dependent Not used	Not used	
3024	Digital input 25	Enable	OFF ON	OFF	
3025	Digital input 25	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3026	Digital input 25	High Alarm	OFF ON	ON	

3030 Digital input 26

No.	Setting		Range	Default	Description
3031	Digital input 26	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3032	Digital input 26	Relay output A	Option dependent Not used	Not used	
3033	Digital input 26	Relay output B	Option dependent Not used	Not used	
3034	Digital input 26	Enable	OFF ON	OFF	
3035	Digital input 26	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3036	Digital input 26	High Alarm	OFF ON	ON	

3040 Digital input 27

No.	Setting		Range	Default	Description
3041	Digital input 27	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3042	Digital input 27	Relay output A	Option dependent Not used	Not used	
3043	Digital input 27	Relay output B	Option dependent Not used	Not used	
3044	Digital input 27	Enable	OFF ON	OFF	
3045	Digital input 27	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3046	Digital input 27	High Alarm	OFF ON	ON	

2.3.2 Digital input 43-55 setup

NOTE These inputs require option M12.

3130 Digital input 43

No.	Setting		Range	Default	Description
3131	Digital input 43	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3132	Digital input 43	Relay output A	Option dependent Not used	Not used	
3133	Digital input 43	Relay output B	Option dependent Not used	Not used	

No.	Setting		Range	Default	Description
3134	Digital input 43	Enable	OFF ON	OFF	
3135	Digital input 43	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3136	Digital input 43	High Alarm	OFF ON	ON	

3140 Digital input 44

No.	Setting		Range	Default	Description
3141	Digital input 44	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3142	Digital input 44	Relay output A	Option dependent Not used	Not used	
3143	Digital input 44	Relay output B	Option dependent Not used	Not used	
3144	Digital input 44	Enable	OFF ON	OFF	
3145	Digital input 44	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3146	Digital input 44	High Alarm	OFF ON	ON	

3150 Digital input 45

No.	Setting		Range	Default	Description
3151	Digital input 45	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3152	Digital input 45	Relay output A	Option dependent Not used	Not used	
3153	Digital input 45	Relay output B	Option dependent Not used	Not used	
3154	Digital input 45	Enable	OFF ON	OFF	
3155	Digital input 45	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3156	Digital input 45	High Alarm	OFF ON	ON	

3160 Digital input 46

No.	Setting		Range	Default	Description
3161	Digital input 46	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3162	Digital input 46	Relay output A	Option dependent Not used	Not used	
3163	Digital input 46	Relay output B	Option dependent Not used	Not used	
3164	Digital input 46	Enable	OFF ON	OFF	
3165	Digital input 46	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3166	Digital input 46	High Alarm	OFF ON	ON	

3170 Digital input 47

No.	Setting		Range	Default	Description
3171	Digital input 47	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3172	Digital input 47	Relay output A	Option dependent Not used	Not used	
3173	Digital input 47	Relay output B	Option dependent Not used	Not used	
3174	Digital input 47	Enable	OFF ON	OFF	
3175	Digital input 47	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3176	Digital input 47	High Alarm	OFF ON	ON	

3180 Digital input 48

No.	Setting		Range	Default	Description
3181	Digital input 48	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3182	Digital input 48	Relay output A	Option dependent Not used	Not used	
3183	Digital input 48	Relay output B	Option dependent Not used	Not used	
3184	Digital input 48	Enable	OFF ON	OFF	

No.	Setting	Range	Default	Description
3185	Digital input 48	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning
3186	Digital input 48	High Alarm	OFF ON	ON

3190 Digital input 49

No.	Setting	Range	Default	Description	
3191	Digital input 49	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3192	Digital input 49	Relay output A	Option dependent Not used	Not used	
3193	Digital input 49	Relay output B	Option dependent Not used	Not used	
3194	Digital input 49	Enable	OFF ON	OFF	
3195	Digital input 49	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3196	Digital input 49	High Alarm	OFF ON	ON	

3200 Digital input 50

No.	Setting	Range	Default	Description	
3201	Digital input 50	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3202	Digital input 50	Relay output A	Option dependent Not used	Not used	
3203	Digital input 50	Relay output B	Option dependent Not used	Not used	
3204	Digital input 50	Enable	OFF ON	OFF	
3205	Digital input 50	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3206	Digital input 50	High Alarm	OFF ON	ON	

3210 Digital input 51

No.	Setting		Range	Default	Description
3211	Digital input 51	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3212	Digital input 51	Relay output A	Option dependent Not used	Not used	
3213	Digital input 51	Relay output B	Option dependent Not used	Not used	
3214	Digital input 51	Enable	OFF ON	OFF	
3215	Digital input 51	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3216	Digital input 51	High Alarm	OFF ON	ON	

3220 Digital input 52

No.	Setting		Range	Default	Description
3221	Digital input 52	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3222	Digital input 52	Relay output A	Option dependent Not used	Not used	
3223	Digital input 52	Relay output B	Option dependent Not used	Not used	
3224	Digital input 52	Enable	OFF ON	OFF	
3225	Digital input 52	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3226	Digital input 52	High Alarm	OFF ON	ON	

3230 Digital input 53

No.	Setting		Range	Default	Description
3231	Digital input 53	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3232	Digital input 53	Relay output A	Option dependent Not used	Not used	
3233	Digital input 53	Relay output B	Option dependent Not used	Not used	
3234	Digital input 53	Enable	OFF ON	OFF	

No.	Setting	Range	Default	Description
3235	Digital input 53	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning
3236	Digital input 53	High Alarm	OFF ON	ON

3240 Digital input 54

No.	Setting	Range	Default	Description	
3241	Digital input 54	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3242	Digital input 54	Relay output A	Option dependent Not used	Not used	
3243	Digital input 54	Relay output B	Option dependent Not used	Not used	
3244	Digital input 54	Enable	OFF ON	OFF	
3245	Digital input 54	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3246	Digital input 54	High Alarm	OFF ON	ON	

3250 Digital input 55

No.	Setting	Range	Default	Description	
3251	Digital input 55	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3252	Digital input 55	Relay output A	Option dependent Not used	Not used	
3253	Digital input 55	Relay output B	Option dependent Not used	Not used	
3254	Digital input 55	Enable	OFF ON	OFF	
3255	Digital input 55	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3256	Digital input 55	High Alarm	OFF ON	ON	

2.3.3 Digital input 91-97 setup

NOTE These inputs require option M13.6.

3330 Digital input 91

No.	Setting		Range	Default	Description
3331	Digital input 91	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3332	Digital input 91	Relay output A	Option dependent Not used	Not used	
3333	Digital input 91	Relay output B	Option dependent Not used	Not used	
3334	Digital input 91	Enable	OFF ON	OFF	
3335	Digital input 91	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3336	Digital input 91	High Alarm	OFF ON	ON	

3340 Digital input 92

No.	Setting		Range	Default	Description
3341	Digital input 92	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3342	Digital input 92	Relay output A	Option dependent Not used	Not used	
3343	Digital input 92	Relay output B	Option dependent Not used	Not used	
3344	Digital input 92	Enable	OFF ON	OFF	
3345	Digital input 92	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3346	Digital input 92	High Alarm	OFF ON	ON	

3350 Digital input 93

No.	Setting		Range	Default	Description
3351	Digital input 93	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3352	Digital input 93	Relay output A	Option dependent Not used	Not used	
3353	Digital input 93	Relay output B	Option dependent Not used	Not used	
3354	Digital input 93	Enable	OFF ON	OFF	

No.	Setting	Range	Default	Description
3355	Digital input 93	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning
3356	Digital input 93	High Alarm	OFF ON	ON

3360 Digital input 94

No.	Setting	Range	Default	Description	
3361	Digital input 94	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3362	Digital input 94	Relay output A	Option dependent Not used	Not used	
3363	Digital input 94	Relay output B	Option dependent Not used	Not used	
3364	Digital input 94	Enable	OFF ON	OFF	
3365	Digital input 94	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3366	Digital input 94	High Alarm	OFF ON	ON	

3370 Digital input 95

No.	Setting	Range	Default	Description	
3371	Digital input 95	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3372	Digital input 95	Relay output A	Option dependent Not used	Not used	
3373	Digital input 95	Relay output B	Option dependent Not used	Not used	
3374	Digital input 95	Enable	OFF ON	OFF	
3375	Digital input 95	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3376	Digital input 95	High Alarm	OFF ON	ON	

3380 Digital input 96

No.	Setting		Range	Default	Description
3381	Digital input 96	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3382	Digital input 96	Relay output A	Option dependent Not used	Not used	
3383	Digital input 96	Relay output B	Option dependent Not used	Not used	
3384	Digital input 96	Enable	OFF ON	OFF	
3385	Digital input 96	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3386	Digital input 96	High Alarm	OFF ON	ON	

3390 Digital input 97

No.	Setting		Range	Default	Description
3391	Digital input 97	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3392	Digital input 97	Relay output A	Option dependent Not used	Not used	
3393	Digital input 97	Relay output B	Option dependent Not used	Not used	
3394	Digital input 97	Enable	OFF ON	OFF	
3395	Digital input 97	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3396	Digital input 97	High Alarm	OFF ON	ON	

2.3.4 Digital input 102-108 setup

3400 Digital input 102

No.	Setting		Range	Default	Description
3401	Wire fail 102	Enable	OFF ON	OFF	The input is configurable and can have different functions in different units. (Only available if multi-input 102 is configured to "binary" in menu 10980).
3402	Dig. input 102	Delay	0.0s to 100.0 s	10 s	
3403	Dig. input 102	Relay output A	Option dependent Not used	Not used	

No.	Setting		Range	Default	Description
3404	Dig. input 102	Relay output B	Option dependent Not used	Not used	
3405	Dig. input 102	Enable	OFF ON	OFF	
3406	Dig. input 102	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

3410 Digital input 105

No.	Setting		Range	Default	Description
3411	Wire fail 105	Enable	OFF ON	OFF	The input is configurable and can have different functions in different units. (Only available if multi-input 105 is configured to "binary" in menu 10990).
3412	Dig. input 105	Delay	0.0s to 100.0 s	10 s	
3413	Dig. input 105	Relay output A	Option dependent Not used	Not used	
3414	Dig. input 105	Relay output B	Option dependent Not used	Not used	
3415	Dig. input 105	Enable	OFF ON	OFF	
3416	Dig. input 105	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

3420 Digital input 108

No.	Setting		Range	Default	Description
3421	Wire fail 108	Enable	OFF ON	OFF	The input is configurable and can have different functions in different units. (Only available if multi-input 105 is configured to "binary" in menu 10990).
3422	Dig. input 108	Delay	0.0s to 100.0 s	10 s	
3423	Dig. input 108	Relay output A	Option dependent Not used	Not used	
3424	Dig. input 108	Relay output B	Option dependent Not used	Not used	
3425	Dig. input 108	Enable	OFF ON	OFF	
3426	Dig. input 108	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8]	Warning	

No.	Setting	Range	Default	Description
		Block all		

2.3.5 Digital input 112-117 setup

3430 Digital input 112

No.	Setting	Range	Default	Description	
3431	Dig. input 112	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3432	Dig. input 112	Relay output A	Option dependent Not used	Not used	
3433	Dig. input 112	Relay output B	Option dependent Not used	Not used	
3434	Dig. input 112	Enable	OFF ON	OFF	
3435	Dig. input 112	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3436	Dig. input 112	High Alarm	OFF ON	ON	

3440 Digital input 113

No.	Setting	Range	Default	Description	
3441	Dig. input 113	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3442	Dig. input 113	Relay output A	Option dependent Not used	Not used	
3443	Dig. input 113	Relay output B	Option dependent Not used	Not used	
3444	Dig. input 113	Enable	OFF ON	OFF	
3445	Dig. input 113	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3446	Dig. input 113	High Alarm	OFF ON	ON	

3450 Digital input 114

No.	Setting	Range	Default	Description	
3451	Dig. input 114	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3452	Dig. input 114	Relay output A	Option dependent Not used	Not used	

No.	Setting		Range	Default	Description
3453	Dig. input 114	Relay output B	Option dependent Not used	Not used	
3454	Dig. input 114	Enable	OFF ON	OFF	
3455	Dig. input 114	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3456	Dig. input 114	High Alarm	OFF ON	ON	

3460 Digital input 115

No.	Setting		Range	Default	Description
3461	Dig. input 115	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3462	Dig. input 115	Relay output A	Option dependent Not used	Not used	
3463	Dig. input 115	Relay output B	Option dependent Not used	Not used	
3464	Dig. input 115	Enable	OFF ON	OFF	
3465	Dig. input 115	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3466	Dig. input 115	High Alarm	OFF ON	ON	

3470 Digital input 116

No.	Setting		Range	Default	Description
3471	Dig. input 116	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3472	Dig. input 116	Relay output A	Option dependent Not used	Not used	
3473	Dig. input 116	Relay output B	Option dependent Not used	Not used	
3474	Dig. input 116	Enable	OFF ON	OFF	
3475	Dig. input 116	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3476	Dig. input 116	High Alarm	OFF ON	ON	

3470 Digital input 117

No.	Setting		Range	Default	Description
3481	Dig. input 117	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3482	Dig. input 117	Relay output A	Option dependent Not used	Not used	
3483	Dig. input 117	Relay output B	Option dependent Not used	Not used	
3484	Dig. input 117	Enable	OFF ON	OFF	
3485	Dig. input 117	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3486	Dig. input 117	High Alarm	OFF ON	ON	

2.3.6 Emergency stop

3490 Emergency stop

No.	Setting		Range	Default	Description
3491	Emergency stop	Delay	0.0 s to 60.0 s	0 s	Emergency stop input is intended for a normally closed contact.
3492	Emergency stop	Relay output A	Option dependent Not used	Not used	
3493	Emergency stop	Relay output B	Option dependent Not used	Not used	
3494	Emergency stop	Enable	OFF ON	ON	
3495	Emergency stop	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.3.7 Digital input 127-133 setup

NOTE These inputs require option M13.8.

3500 Digital input 127

No.	Setting		Range	Default	Description
3501	Dig. input 127	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3502	Dig. input 127	Relay output A	Option dependent Not used	Not used	
3503	Dig. input 127	Relay output B	Option dependent Not used	Not used	

No.	Setting		Range	Default	Description
3504	Dig. input 127	Enable	OFF ON	OFF	
3505	Dig. input 127	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3506	Dig. input 127	High Alarm	OFF ON	ON	

3510 Digital input 128

No.	Setting		Range	Default	Description
3511	Dig. input 128	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3512	Dig. input 128	Relay output A	Option dependent Not used	Not used	
3513	Dig. input 128	Relay output B	Option dependent Not used	Not used	
3514	Dig. input 128	Enable	OFF ON	OFF	
3515	Dig. input 128	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3516	Dig. input 128	High Alarm	OFF ON	ON	

3520 Digital input 129

No.	Setting		Range	Default	Description
3521	Dig. input 129	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3522	Dig. input 129	Relay output A	Option dependent Not used	Not used	
3523	Dig. input 129	Relay output B	Option dependent Not used	Not used	
3524	Dig. input 129	Enable	OFF ON	OFF	
3525	Dig. input 129	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3526	Dig. input 129	High Alarm	OFF ON	ON	

3530 Digital input 130

No.	Setting		Range	Default	Description
3531	Dig. input 130	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3532	Dig. input 130	Relay output A	Option dependent Not used	Not used	
3533	Dig. input 130	Relay output B	Option dependent Not used	Not used	
3534	Dig. input 130	Enable	OFF ON	OFF	
3535	Dig. input 130	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3536	Dig. input 130	High Alarm	OFF ON	ON	

3540 Digital input 131

No.	Setting		Range	Default	Description
3541	Dig. input 131	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3542	Dig. input 131	Relay output A	Option dependent Not used	Not used	
3543	Dig. input 131	Relay output B	Option dependent Not used	Not used	
3544	Dig. input 131	Enable	OFF ON	OFF	
3545	Dig. input 131	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3546	Dig. input 131	High Alarm	OFF ON	ON	

3550 Digital input 132

No.	Setting		Range	Default	Description
3551	Dig. input 132	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3552	Dig. input 132	Relay output A	Option dependent Not used	Not used	
3553	Dig. input 132	Relay output B	Option dependent Not used	Not used	
3554	Dig. input 132	Enable	OFF ON	OFF	
3555	Dig. input 132	Fail class	Warning	Warning	

No.	Setting		Range	Default	Description
			Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all		
3556	Dig. input 132	High Alarm	OFF ON	ON	

3560 Digital input 133

No.	Setting		Range	Default	Description
3561	Dig. input 133	Delay	0.0 s to 100.0 s	10 s	The input is configurable and can have different functions in different units.
3562	Dig. input 133	Relay output A	Option dependent Not used	Not used	
3563	Dig. input 133	Relay output B	Option dependent Not used	Not used	
3564	Dig. input 133	Enable	OFF ON	OFF	
3565	Dig. input 133	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3566	Dig. input 133	High Alarm	OFF ON	ON	

2.3.8 M-Logic alarm 1-5 setup

3570 M-Logic alarm 1

No.	Setting		Range	Default	Description
3570	M-Logic alarm 1	Delay	0.0 s to 100.0 s	10 s	The Input is configurable in M-Logic.
3571	M-Logic alarm 1	Relay output A	Option dependent Not used	Not used	
3572	M-Logic alarm 1	Relay output B	Option dependent Not used	Not used	
3573	M-Logic alarm 1	Enable	OFF ON	OFF	
3574	M-Logic alarm 1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3575	M-Logic alarm 1	High Alarm	OFF ON	ON	

3580 M-Logic alarm 2

No.	Setting	Range	Default	Description
3580	M-Logic alarm 2 Delay	0.0 s to 100.0 s	10 s	The Input is configurable in M-Logic.
3581	M-Logic alarm 2 Relay output A	Option dependent Not used	Not used	
3582	M-Logic alarm 2 Relay output B	Option dependent Not used	Not used	
3583	M-Logic alarm 2 Enable	OFF ON	OFF	
3584	M-Logic alarm 2 Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3585	M-Logic alarm 2 High Alarm	OFF ON	ON	

3590 M-Logic alarm 3

No.	Setting	Range	Default	Description
3590	M-Logic alarm 3 Delay	0.0 s to 100.0 s	10 s	The Input is configurable in M-Logic.
3591	M-Logic alarm 3 Relay output A	Option dependent Not used	Not used	
3592	M-Logic alarm 3 Relay output B	Option dependent Not used	Not used	
3593	M-Logic alarm 3 Enable	OFF ON	OFF	
3594	M-Logic alarm 3 Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3595	M-Logic alarm 3 High Alarm	OFF ON	ON	

3600 M-Logic alarm 4

No.	Setting	Range	Default	Description
3600	M-Logic alarm 4 Delay	0.0 s to 100.0 s	10 s	The Input is configurable in M-Logic.
3601	M-Logic alarm 4 Relay output A	Option dependent Not used	Not used	
3602	M-Logic alarm 4 Relay output B	Option dependent Not used	Not used	
3603	M-Logic alarm 4 Enable	OFF ON	OFF	
3604	M-Logic alarm 4 Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8]	Warning	

No.	Setting	Range	Default	Description
		Block all		
3605	M-Logic alarm 4 High Alarm	OFF ON	ON	

3610 M-Logic alarm 5

No.	Setting	Range	Default	Description
3610	M-Logic alarm 5 Delay	0.0 s to 100.0 s	10 s	The Input is configurable in M-Logic.
3611	M-Logic alarm 5 Relay output A	Option dependent Not used	Not used	
3612	M-Logic alarm 5 Relay output B	Option dependent Not used	Not used	
3613	M-Logic alarm 5 Enable	OFF ON	OFF	
3614	M-Logic alarm 5 Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
3615	M-Logic alarm 5 High Alarm	OFF ON	ON	

2.4 Input/output parameters - Analogue inputs

2.4.1 Analogue input setup

NOTE These inputs require option M15.6.

4000 4-20 mA 91.1

No.	Setting	Range	Default	Description
4001	4-20 mA 91.1 Set point	4 mA to 20 mA	10 mA	The input is configurable. Option M15.6: 4 x 4-20 mA inputs.
4002	4-20 mA 91.1 Delay	0.0 s to 600.0 s	120 s	
4003	4-20 mA 91.1 Relay output A	Option dependent Not used	Not used	
4004	4-20 mA 91.1 Relay output B	Option dependent Not used	Not used	
4005	4-20 mA 91.1 Enable	OFF ON	OFF	
4006	4-20 mA 91.1 Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4010 4-20 mA 91.2

No.	Setting	Range	Default	Description
4011	4-20 mA 91.2 Set point	4 mA to 20 mA	10 mA	The input is configurable.

No.	Setting		Range	Default	Description
					Option M15.6: 4 x 4-20 mA inputs.
4012	4-20 mA 91.2	Delay	0.0 s to 600.0 s	120 s	
4013	4-20 mA 91.2	Relay output A	Option dependent Not used	Not used	
4014	4-20 mA 91.2	Relay output B	Option dependent Not used	Not used	
4015	4-20 mA 91.2	Enable	OFF ON	OFF	
4016	4-20 mA 91.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4020 Wire fail 4-20 mA 91

No.	Setting		Range	Default	Description
					Option M15.6: 4 x 4-20 mA inputs. The wire fault will detect if the current drops below 2 mA or exceeds 22 mA. In both cases, the alarm will be activated.
4021	W. fail ana 91	Relay output A	Option dependent Not used	Not used	
4022	W. fail ana 91	Relay output B	Option dependent Not used	Not used	
4023	W. fail ana 91	Enable	OFF ON	OFF	
4024	W. fail ana 91	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4030 4-20 mA 93.1

No.	Setting		Range	Default	Description
					The input is configurable. Option M15.6: 4 x 4-20 mA inputs.
4031	4-20 mA 93.1	Set point	4 mA to 20 mA	10 mA	
4032	4-20 mA 93.1	Delay	0.0 s to 600.0 s	120 s	
4033	4-20 mA 93.1	Relay output A	Option dependent Not used	Not used	
4034	4-20 mA 93.1	Relay output B	Option dependent Not used	Not used	
4035	4-20 mA 93.1	Enable	OFF ON	OFF	
4036	4-20 mA 93.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4040 4-20 mA 93.2

No.	Setting		Range	Default	Description
4041	4-20 mA 93.2	Set point	4 mA to 20 mA	10 mA	The input is configurable. Option M15.6: 4 x 4-20 mA inputs.
4042	4-20 mA 93.2	Delay	0.0 s to 600.0 s	120 s	
4043	4-20 mA 93.2	Relay output A	Option dependent Not used	Not used	
4044	4-20 mA 93.2	Relay output B	Option dependent Not used	Not used	
4045	4-20 mA 93.2	Enable	OFF ON	OFF	
4046	4-20 mA 93.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4050 Wire fail 4-20 mA 93

No.	Setting		Range	Default	Description
4051	W. fail ana 93	Relay output A	Option dependent Not used	Not used	Option M15.6: 4 x 4-20 mA inputs. The wire fault will detect if the current drops below 2 mA or exceeds 22 mA. In both cases, the alarm will be activated.
4052	W. fail ana 93	Relay output B	Option dependent Not used	Not used	
4053	W. fail ana 93	Enable	OFF ON	OFF	
4054	W. fail ana 93	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4060 4-20 mA 95.1

No.	Setting		Range	Default	Description
4061	4-20 mA 95.1	Set point	4 mA to 20 mA	10 mA	The input is configurable. Option M15.6: 4 x 4-20 mA inputs.
4062	4-20 mA 95.1	Delay	0.0 s to 600.0 s	120 s	
4063	4-20 mA 95.1	Relay output A	Option dependent Not used	Not used	
4064	4-20 mA 95.1	Relay output B	Option dependent Not used	Not used	
4065	4-20 mA 95.1	Enable	OFF ON	OFF	
4066	4-20 mA 95.1	Fail class	Warning Trip grp [1 to 8]	Warning	

No.	Setting	Range	Default	Description
		Trip all grp Block grp [1 to 8] Block all		

4070 4-20 mA 95.2

No.	Setting	Range	Default	Description	
4071	4-20 mA 95.2	Set point	4 mA to 20 mA	10 mA	The input is configurable. Option M15.6: 4 x 4-20 mA inputs.
4072	4-20 mA 95.2	Delay	0.0 s to 600.0 s	120 s	
4073	4-20 mA 95.2	Relay output A	Option dependent Not used	Not used	
4074	4-20 mA 95.2	Relay output B	Option dependent Not used	Not used	
4075	4-20 mA 95.2	Enable	OFF ON	OFF	
4076	4-20 mA 95.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4080 Wire fail 4-20 mA 95

No.	Setting	Range	Default	Description	
4081	W. fail ana 95	Relay output A	Option dependent Not used	Not used	Option M15.6: 4 x 4-20 mA inputs. The wire fault will detect if the current drops below 2 mA or exceeds 22 mA. In both cases, the alarm will be activated.
4082	W. fail ana 95	Relay output B	Option dependent Not used	Not used	
4083	W. fail ana 95	Enable	OFF ON	OFF	
4084	W. fail ana 95	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4090 4-20 mA 97.1

No.	Setting	Range	Default	Description	
4091	4-20 mA 97.1	Set point	4 mA to 20 mA	10 mA	The input is configurable. Option M15.6: 4 x 4-20 mA inputs.
4092	4-20 mA 97.1	Delay	0.0 s to 600.0 s	120 s	
4093	4-20 mA 97.1	Relay output A	Option dependent Not used	Not used	
4094	4-20 mA 97.1	Relay output B	Option dependent	Not used	

No.	Setting		Range	Default	Description
			Not used		
4095	4-20 mA 97.1	Enable	OFF ON	OFF	
4096	4-20 mA 97.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4100 4-20 mA 97.2

No.	Setting		Range	Default	Description
4101	4-20 mA 97.2	Set point	4 mA to 20 mA	10 mA	The input is configurable. Option M15.6: 4 x 4-20 mA inputs.
4102	4-20 mA 97.2	Delay	0.0 s to 600.0 s	120 s	
4103	4-20 mA 97.2	Relay output A	Option dependent Not used	Not used	
4104	4-20 mA 97.2	Relay output B	Option dependent Not used	Not used	
4105	4-20 mA 97.2	Enable	OFF ON	OFF	
4106	4-20 mA 97.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4110 Wire fail 4-20 mA 97

No.	Setting		Range	Default	Description
4111	W. fail ana 97	Relay output A	Option dependent Not used	Not used	Option M15.6: 4 x 4-20 mA inputs. The wire fault will detect if the current drops below 2 mA or exceeds 22 mA. In both cases, the alarm will be activated.
4112	W. fail ana 97	Relay output B	Option dependent Not used	Not used	
4113	W. fail ana 97	Enable	OFF ON	OFF	
4114	W. fail ana 97	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.5 Input/output parameters - Multi-function analogue inputs

2.5.1 Multi-input 102

NOTE The available menus for multi-input 102 depend on the input type configured in the PC utility software (menu 10980).

4120 4-20 mA 102.1

No.	Setting		Range	Default	Description
4121	4-20 mA 102.1	Set point	4 mA to 20 mA	10 mA	The multi-input 102 has been configured as 4-20 mA.
4122	4-20 mA 102.1	Delay	0.0 s to 999.0 s	120 s	
4123	4-20 mA 102.1	Relay output A	Option dependent Not used	Not used	
4124	4-20 mA 102.1	Relay output B	Option dependent Not used	Not used	
4125	4-20 mA 102.1	Enable	OFF ON	OFF	
4126	4-20 mA 102.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4130 4-20 mA 102.2

No.	Setting		Range	Default	Description
4131	4-20 mA 102.2	Set point	4 mA to 20 mA	10 mA	The multi-input 102 has been configured as 4-20 mA.
4132	4-20 mA 102.2	Delay	0.0 s to 999.0 s	120 s	
4133	4-20 mA 102.2	Relay output A	Option dependent Not used	Not used	
4134	4-20 mA 102.2	Relay output B	Option dependent Not used	Not used	
4135	4-20 mA 102.2	Enable	OFF ON	OFF	
4136	4-20 mA 102.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4140 V DC 102.1

No.	Setting		Range	Default	Description
4141	V DC 102.1	Set point	0 V DC to 40 V DC	20 V DC	The multi-input 102 has been configured as V DC.
4142	V DC 102.1	Delay	0.0 s to 999.0 s	10 s	
4143	V DC 102.1	Relay output A	Option dependent Not used	Not used	
4144	V DC 102.1	Relay output B	Option dependent Not used	Not used	
4145	V DC 102.1	Enable	OFF ON	OFF	
4146	V DC 102.1	Fail class	Warning Trip grp [1 to 8]	Warning	

No.	Setting	Range	Default	Description
		Trip all grp Block grp [1 to 8] Block all		

4150 V DC 102.2

No.	Setting	Range	Default	Description	
4151	V DC 102.2	Set point	0 V DC to 40 V DC	20 V DC	The multi-input 102 has been configured as V DC.
4152	V DC 102.2	Delay	0.0 s to 999.0 s	10 s	
4153	V DC 102.2	Relay output A	Option dependent Not used	Not used	
4154	V DC 102.2	Relay output B	Option dependent Not used	Not used	
4155	V DC 102.2	Enable	OFF ON	OFF	
4156	V DC 102.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4160 PT 102.1

No.	Setting	Range	Default	Description	
4161	PT 102.1	Set point	-49 to 482	80	The multi-input 102 has been configured as Pt100. Pt100 set point can be in deg. C or Fahrenheit, dependent on the unit selection (menu 10970).
4162	PT 102.1	Delay	0.0 s to 999.0 s	5 s	
4163	PT 102.1	Relay output A	Option dependent Not used	Not used	
4164	PT 102.1	Relay output B	Option dependent Not used	Not used	
4165	PT 102.1	Enable	OFF ON	OFF	
4166	PT 102.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4170 PT 102.2

No.	Setting	Range	Default	Description	
4171	PT 102.2	Set point	-49 to 482	80	The multi-input 102 has been configured as Pt100. Pt100 set point can be in deg. C or Fahrenheit, dependent on

No.	Setting		Range	Default	Description
					the unit selection (menu 10970).
4172	PT 102.2	Delay	0.0 s to 999.0 s	5 s	
4173	PT 102.2	Relay output A	Option dependent Not used	Not used	
4174	PT 102.2	Relay output B	Option dependent Not used	Not used	
4175	PT 102.2	Enable	OFF ON	OFF	
4176	PT 102.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4240 Wire fail 102

No.	Setting		Range	Default	Description
4241	Wire fail 102	Relay output A	Option dependent Not used	Not used	The wire break fault detection is activated.
4242	Wire fail 102	Relay output B	Option dependent Not used	Not used	
4243	Wire fail 102	Enable	OFF ON	OFF	
4244	Wire fail 102	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.5.2 Multi-input 105

NOTE The available menus for multi-input 105 depend on the input type configured in the PC utility software (menu 10990).

4250 4-20 mA 105.1

No.	Setting		Range	Default	Description
4251	4-20 mA 105.1	Set point	4 mA to 20 mA	10 mA	The multi-input 105 has been configured as 4-20 mA.
4252	4-20 mA 105.1	Delay	0.0 s to 999.0 s	120 s	
4253	4-20 mA 105.1	Relay output A	Option dependent Not used	Not used	
4254	4-20 mA 105.1	Relay output B	Option dependent Not used	Not used	
4255	4-20 mA 105.1	Enable	OFF ON	OFF	
4256	4-20 mA 105.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4260 4-20 mA 105.2

No.	Setting		Range	Default	Description
4261	4-20 mA 105.2	Set point	4 mA to 20 mA	10 mA	The multi-input 105 has been configured as 4-20 mA.
4262	4-20 mA 105.2	Delay	0.0 s to 999.0 s	120 s	
4263	4-20 mA 105.2	Relay output A	Option dependent Not used	Not used	
4264	4-20 mA 105.2	Relay output B	Option dependent Not used	Not used	
4265	4-20 mA 105.2	Enable	OFF ON	OFF	
4266	4-20 mA 105.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4270 V DC 105.1

No.	Setting		Range	Default	Description
4271	V DC 105.1	Set point	0.0 V DC to 40.0 V DC	20 V DC	The multi-input 105 has been configured as V DC.
4272	V DC 105.1	Delay	0.0 s to 999.0 s	10 s	
4273	V DC 105.1	Relay output A	Option dependent Not used	Not used	
4274	V DC 105.1	Relay output B	Option dependent Not used	Not used	
4275	V DC 105.1	Enable	OFF ON	OFF	
4276	V DC 105.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4280 V DC 105.2

No.	Setting		Range	Default	Description
4281	V DC 105.2	Set point	0.0 V DC to 40.0 V DC	20 V DC	The multi-input 105 has been configured as V DC.
4282	V DC 105.2	Delay	0.0 s to 999.0 s	10 s	
4283	V DC 105.2	Relay output A	Option dependent Not used	Not used	
4284	V DC 105.2	Relay output B	Option dependent Not used	Not used	
4285	V DC 105.2	Enable	OFF ON	OFF	
4286	V DC 105.2	Fail class	Warning Trip grp [1 to 8]	Warning	

No.	Setting	Range	Default	Description
		Trip all grp Block grp [1 to 8] Block all		

4290 Pt100 105.1

No.	Setting	Range	Default	Description	
4291	PT 105.1	Set point	-49 to 482	80	The multi-input 105 has been configured as Pt100. Pt100 set point can be in deg. C or F, dependent on the unit selection (menu 10970).
4292	PT 105.1	Delay	0.0 s to 999.0 s	5 s	
4293	PT 105.1	Relay output A	Option dependent Not used	Not used	
4294	PT 105.1	Relay output B	Option dependent Not used	Not used	
4295	PT 105.1	Enable	OFF ON	OFF	
4296	PT 105.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4300 Pt100 105.2

No.	Setting	Range	Default	Description	
4301	PT 105.2	Set point	-49 to 482	80	The multi-input 105 has been configured as Pt100. Pt100 set point can be in deg. C or F, dependent on the unit selection (menu 10970).
4302	PT 105.2	Delay	0.0 s to 999.0 s	5 s	
4303	PT 105.2	Relay output A	Option dependent Not used	Not used	
4304	PT 105.2	Relay output B	Option dependent Not used	Not used	
4305	PT 105.2	Enable	OFF ON	OFF	
4306	PT 105.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4370 Wire fail 105

No.	Setting	Range	Default	Description	
4371	W. fail 105	Relay output A	Option dependent	Not used	The wire break fault detection is activated.

No.	Setting		Range	Default	Description
			Not used		
4372	W. fail 105	Relay output B	Option dependent Not used	Not used	
4373	W. fail 105	Enable	OFF ON	OFF	
4374	W. fail 105	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.5.3 Multi-input 108

NOTE The available menus for multi-input 108 depend on the input type configured in the PC utility software (menu 11000).

4380 4-20 mA 108.1

No.	Setting		Range	Default	Description
4381	4-20 mA 108.1	Set point	4 mA to 20 mA	10 mA	The multi-input 108 has been configured as 4-20 mA.
4382	4-20 mA 108.1	Delay	0.0 s to 999.0 s	120 s	
4383	4-20 mA 108.1	Relay output A	Option dependent Not used	Not used	
4384	4-20 mA 108.1	Relay output B	Option dependent Not used	Not used	
4385	4-20 mA 108.1	Enable	OFF ON	OFF	
4386	4-20 mA 108.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4390 4-20 mA 108.2

No.	Setting		Range	Default	Description
4391	4-20 mA 108.1	Set point	4 mA to 20 mA	10 mA	The multi-input 108 has been configured as 4-20 mA.
4392	4-20 mA 108.1	Delay	0.0 s to 999.0 s	120 s	
4393	4-20 mA 108.1	Relay output A	Option dependent Not used	Not used	
4394	4-20 mA 108.1	Relay output B	Option dependent Not used	Not used	
4395	4-20 mA 108.1	Enable	OFF ON	OFF	
4396	4-20 mA 108.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4400 V DC 108.1

No.	Setting		Range	Default	Description
4401	V DC 108.1	Set point	0.0 V DC to 40.0 V DC	20 V DC	The multi-input 108 has been configured as V DC.
4402	V DC 108.1	Delay	0.0 s to 999.0 s	10 s	
4403	V DC 108.1	Relay output A	Option dependent Not used	Not used	
4404	V DC 108.1	Relay output B	Option dependent Not used	Not used	
4405	V DC 108.1	Enable	OFF ON	OFF	
4406	V DC 108.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4410 V DC 108.1

No.	Setting		Range	Default	Description
4411	V DC 108.1	Set point	0.0 V DC to 40.0 V DC	20 V DC	The multi-input 108 has been configured as V DC.
4412	V DC 108.1	Delay	0.0 s to 999.0 s	10 s	
4413	V DC 108.1	Relay output A	Option dependent Not used	Not used	
4414	V DC 108.1	Relay output B	Option dependent Not used	Not used	
4415	V DC 108.1	Enable	OFF ON	OFF	
4416	V DC 108.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4420 Pt100 108.1

No.	Setting		Range	Default	Description
4421	PT 108.1	Set point	-49 to 482	80	The multi-input 108 has been configured as Pt100. Pt100 set point can be in deg. C or F, dependent on the unit selection (menu 10970).
4422	PT 108.1	Delay	0.0 s to 999.0 s	5 s	
4423	PT 108.1	Relay output A	Option dependent Not used	Not used	
4424	PT 108.1	Relay output B	Option dependent Not used	Not used	
4425	PT 108.1	Enable	OFF ON	OFF	
4426	PT 108.1	Fail class	Warning	Warning	

No.	Setting	Range	Default	Description
		Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all		

4430 Pt100 108.2

No.	Setting	Range	Default	Description
4431	PT 108.1 Set point	-49 to 482	80	The multi-input 108 has been configured as Pt100. Pt100 set point can be in deg. C or F, dependent on the unit selection (menu 10970).
4432	PT 108.1 Delay	0.0 s to 999.0 s	5 s	
4433	PT 108.1 Relay output A	Option dependent Not used	Not used	
4434	PT 108.1 Relay output B	Option dependent Not used	Not used	
4435	PT 108.1 Enable	OFF ON	OFF	
4436	PT 108.1 Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4500 Wire fail 108

No.	Setting	Range	Default	Description
4501	W. fail 108 Relay output A	Option dependent Not used	Not used	The wire break fault detection is activated.
4502	W. fail 108 Relay output B	Option dependent Not used	Not used	
4503	W. fail 108 Enable	OFF ON	OFF	
4504	W. fail 108 Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.5.4 Differential measurement

4600 Delta analogue inputs 1, 2, 3

No.	Setting	Range	Default	Description
4601	Delta Ana1 inpA Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102	
4602	Delta Ana1 inpA Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102	

No.	Setting	Range	Default	Description
4603	Delta Ana2 inpA	Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102
4604	Delta Ana2 inpA	Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102
4605	Delta Ana3 inpA	Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102
4606	Delta Ana3 inpA	Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102

4610 Delta analogue 1.1

No.	Setting	Range	Default	Description	
4611	Delta Ana1.1	Set point	-9999 to 9999	10	Delta analogue alarm setting 1.1
4612	Delta Ana1.1	Delay	0.0 s to 999.0 s	5 s	
4613	Delta Ana1.1	Relay output A	Option dependent Not used	Not used	
4614	Delta Ana1.1	Relay output B	Option dependent Not used	Not used	
4615	Delta Ana1.1	Enable	OFF ON	OFF	
4616	Delta Ana1.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4620 Delta analogue 1.2

No.	Setting	Range	Default	Description	
4621	Delta Ana1.2	Set point	-9999 to 9999	10	Delta analogue alarm setting 1.2
4622	Delta Ana1.2	Delay	0.0 s to 999.0 s	5 s	
4623	Delta Ana1.2	Relay output A	Option dependent Not used	Not used	
4624	Delta Ana1.2	Relay output B	Option dependent Not used	Not used	
4625	Delta Ana1.2	Enable	OFF ON	OFF	
4626	Delta Ana1.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4630 Delta analogue 2.1

No.	Setting		Range	Default	Description
4631	Delta Ana2.1	Set point	-9999 to 9999	10	Delta analogue alarm setting 2.1
4632	Delta Ana2.1	Delay	0.0 s to 999.0 s	5 s	
4633	Delta Ana2.1	Relay output A	Option dependent Not used	Not used	
4634	Delta Ana2.1	Relay output B	Option dependent Not used	Not used	
4635	Delta Ana2.1	Enable	OFF ON	OFF	
4636	Delta Ana2.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4640 Delta analogue 2.2

No.	Setting		Range	Default	Description
4641	Delta Ana2.2	Set point	-9999 to 9999	10	Delta analogue alarm setting 2.2
4642	Delta Ana2.2	Delay	0.0 s to 999.0 s	5 s	
4643	Delta Ana2.2	Relay output A	Option dependent Not used	Not used	
4644	Delta Ana2.2	Relay output B	Option dependent Not used	Not used	
4645	Delta Ana2.2	Enable	OFF ON	OFF	
4646	Delta Ana2.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4650 Delta analogue 3.1

No.	Setting		Range	Default	Description
4651	Delta Ana3.1	Set point	-9999 to 9999	10	Delta analogue alarm setting 3.1
4652	Delta Ana3.1	Delay	0.0 s to 999.0 s	5 s	
4653	Delta Ana3.1	Relay output A	Option dependent Not used	Not used	
4654	Delta Ana3.1	Relay output B	Option dependent Not used	Not used	
4655	Delta Ana3.1	Enable	OFF ON	OFF	
4656	Delta Ana3.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8]	Warning	

No.	Setting	Range	Default	Description
		Block all		

4660 Delta analogue 3.2

No.	Setting	Range	Default	Description	
4661	Delta Ana3.2	Set point	-9999 to 9999	10	Delta analogue alarm setting 3.2
4662	Delta Ana3.2	Delay	0.0 s to 999.0 s	5 s	
4663	Delta Ana3.2	Relay output A	Option dependent Not used	Not used	
4664	Delta Ana3.2	Relay output B	Option dependent Not used	Not used	
4665	Delta Ana3.2	Enable	OFF ON	OFF	
4666	Delta Ana3.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4670 Delta analogue inputs 4, 5, 6

No.	Setting	Range	Default	Description	
4671	Delta Ana4 inpA	Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102	
4672	Delta Ana4 inpA	Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102	
4673	Delta Ana5 inpA	Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102	
4674	Delta Ana5 inpA	Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102	
4675	Delta Ana6 inpA	Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102	
4676	Delta Ana6 inpA	Input	Multi-input 102 Multi-input 105 Multi-input 108	Multi-input 102	

4680 Delta analogue 4.1

No.	Setting	Range	Default	Description	
4681	Delta Ana4.1	Set point	-9999 to 9999	10	Delta analogue alarm setting 4.1
4682	Delta Ana4.1	Delay	0.0 s to 999.0 s	5 s	
4683	Delta Ana4.1	Relay output A	Option dependent Not used	Not used	
4684	Delta Ana4.1	Relay output B	Option dependent	Not used	

No.	Setting		Range	Default	Description
			Not used		
4685	Delta Ana4.1	Enable	OFF ON	OFF	
4686	Delta Ana4.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4690 Delta analogue 4.2

No.	Setting		Range	Default	Description
4691	Delta Ana4.2	Set point	-9999 to 9999	10	Delta analogue alarm setting 4.2
4692	Delta Ana4.2	Delay	0.0 s to 999.0 s	5 s	
4693	Delta Ana4.2	Relay output A	Option dependent Not used	Not used	
4694	Delta Ana4.2	Relay output B	Option dependent Not used	Not used	
4695	Delta Ana4.2	Enable	OFF ON	OFF	
4696	Delta Ana4.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4700 Delta analogue 5.1

No.	Setting		Range	Default	Description
4701	Delta Ana5.1	Set point	-9999 to 9999	10	Delta analogue alarm setting 5.1
4702	Delta Ana5.1	Delay	0.0 s to 999.0 s	5 s	
4703	Delta Ana5.1	Relay output A	Option dependent Not used	Not used	
4704	Delta Ana5.1	Relay output B	Option dependent Not used	Not used	
4705	Delta Ana5.1	Enable	OFF ON	OFF	
4706	Delta Ana5.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4710 Delta analogue 5.2

No.	Setting		Range	Default	Description
4711	Delta Ana5.2	Set point	-9999 to 9999	10	Delta analogue alarm setting 5.2
4712	Delta Ana5.2	Delay	0.0 s to 999.0 s	5 s	

No.	Setting	Range	Default	Description
4713	Delta Ana5.2	Relay output A	Option dependent Not used	Not used
4714	Delta Ana5.2	Relay output B	Option dependent Not used	Not used
4715	Delta Ana5.2	Enable	OFF ON	OFF
4716	Delta Ana5.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

4720 Delta analogue 6.1

No.	Setting	Range	Default	Description	
4721	Delta Ana6.1	Set point	-9999 to 9999	10	Delta analogue alarm setting 6.1
4722	Delta Ana6.1	Delay	0.0 s to 999.0 s	5 s	
4723	Delta Ana6.1	Relay output A	Option dependent Not used	Not used	
4724	Delta Ana6.1	Relay output B	Option dependent Not used	Not used	
4725	Delta Ana6.1	Enable	OFF ON	OFF	
4726	Delta Ana6.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4730 Delta analogue 6.2

No.	Setting	Range	Default	Description	
4731	Delta Ana6.2	Set point	-9999 to 9999	10	Delta analogue alarm setting 6.2
4732	Delta Ana6.2	Delay	0.0 s to 999.0 s	5 s	
4733	Delta Ana6.2	Relay output A	Option dependent Not used	Not used	
4734	Delta Ana6.2	Relay output B	Option dependent Not used	Not used	
4735	Delta Ana6.2	Enable	OFF ON	OFF	
4736	Delta Ana6.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.5.5 Analogue input setup (option M15.8)

4800 4-2 mA 127.1

No.	Setting		Range	Default	Description
4801	4-20 mA 127.1	Set point	4 mA to 20 mA	4 mA	Configurable analogue input. Option 4 x 4-20 mA inputs (M15.8)
4802	4-20 mA 127.1	Delay	0.0 s to 600.0 s	120 s	
4803	4-20 mA 127.1	Relay output A	Option dependent Not used	Not used	
4804	4-20 mA 127.1	Relay output B	Option dependent Not used	Not used	
4805	4-20 mA 127.1	Enable	OFF ON	OFF	
4806	4-20 mA 127.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4810 4-2 mA 127.2

No.	Setting		Range	Default	Description
4811	4-20 mA 127.2	Set point	4 mA to 20 mA	4 mA	Configurable analogue input. Option 4 x 4-20 mA inputs (M15.8)
4812	4-20 mA 127.2	Delay	0.0 s to 600.0 s	120 s	
4813	4-20 mA 127.2	Relay output A	Option dependent Not used	Not used	
4814	4-20 mA 127.2	Relay output B	Option dependent Not used	Not used	
4815	4-20 mA 127.2	Enable	OFF ON	OFF	
4816	4-20 mA 127.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4820 Wire fail 4-20 mA 127

No.	Setting		Range	Default	Description
4821	W. fail ana 127	Relay output A	Option dependent Not used	Not used	The wire fault will detect if the current drops below 2 mA or exceeds 22 mA. In both cases the alarm activates.
4822	W. fail ana 127	Relay output B	Option dependent Not used	Not used	
4823	W. fail ana 127	Enable	OFF	OFF	

No.	Setting		Range	Default	Description
			ON		
4824	W. fail ana 127	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4830 4-2 mA 129.1

No.	Setting		Range	Default	Description
4831	4-20 mA 129.1	Set point	4 mA to 20 mA	4 mA	Configurable analogue input. Option 4 x 4-20 mA inputs (M15.8)
4832	4-20 mA 129.1	Delay	0.0 s to 600.0 s	120 s	
4833	4-20 mA 129.1	Relay output A	Option dependent Not used	Not used	
4834	4-20 mA 129.1	Relay output B	Option dependent Not used	Not used	
4835	4-20 mA 129.1	Enable	OFF ON	OFF	
4836	4-20 mA 129.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4840 4-2 mA 129.2

No.	Setting		Range	Default	Description
4841	4-20 mA 129.2	Set point	4 mA to 20 mA	4 mA	Configurable analogue input. Option 4 x 4-20 mA inputs (M15.8)
4842	4-20 mA 129.2	Delay	0.0 s to 600.0 s	120 s	
4843	4-20 mA 129.2	Relay output A	Option dependent Not used	Not used	
4844	4-20 mA 129.2	Relay output B	Option dependent Not used	Not used	
4845	4-20 mA 129.2	Enable	OFF ON	OFF	
4846	4-20 mA 129.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4850 Wire fail 4-20 mA 129

No.	Setting	Range	Default	Description
4851	W. fail ana 129	Relay output A	Option dependent Not used	The wire fault will detect if the current drops below 2 mA or exceeds 22 mA. In both cases the alarm activates.
4852	W. fail ana 129	Relay output B	Option dependent Not used	
4853	W. fail ana 129	Enable	OFF ON	OFF
4854	W. fail ana 129	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

4860 4-2 mA 131.1

No.	Setting	Range	Default	Description	
4861	4-20 mA 131.1	Set point	4 mA to 20 mA	4 mA	Configurable analogue input. Option 4 x 4-20 mA inputs (M15.8)
4862	4-20 mA 131.1	Delay	0.0 s to 600.0 s	120 s	
4863	4-20 mA 131.1	Relay output A	Option dependent Not used	Not used	
4864	4-20 mA 131.1	Relay output B	Option dependent Not used	Not used	
4865	4-20 mA 131.1	Enable	OFF ON	OFF	
4866	4-20 mA 131.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4870 4-2 mA 131.2

No.	Setting	Range	Default	Description	
4871	4-20 mA 131.2	Set point	4 mA to 20 mA	4 mA	Configurable analogue input. Option 4 x 4-20 mA inputs (M15.8)
4872	4-20 mA 131.2	Delay	0.0 s to 600.0 s	120 s	
4873	4-20 mA 131.2	Relay output A	Option dependent Not used	Not used	
4874	4-20 mA 131.2	Relay output B	Option dependent Not used	Not used	
4875	4-20 mA 131.2	Enable	OFF	OFF	

No.	Setting	Range	Default	Description
		ON		
4876	4-20 mA 131.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

4880 Wire fail 4-20 mA 131

No.	Setting	Range	Default	Description	
4881	W. fail ana 131	Relay output A	Option dependent Not used	Not used	The wire fault will detect if the current drops below 2 mA or exceeds 22 mA. In both cases the alarm activates.
4882	W. fail ana 131	Relay output B	Option dependent Not used	Not used	
4883	W. fail ana 131	Enable	OFF ON	OFF	
4884	W. fail ana 131	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4890 4-2 mA 133.1

No.	Setting	Range	Default	Description	
4891	4-20 mA 133.1	Set point	4 mA to 20 mA	4 mA	Configurable analogue input. Option 4 x 4-20 mA inputs (M15.8)
4892	4-20 mA 133.1	Delay	0.0 s to 600.0 s	120 s	
4893	4-20 mA 133.1	Relay output A	Option dependent Not used	Not used	
4894	4-20 mA 133.1	Relay output B	Option dependent Not used	Not used	
4895	4-20 mA 133.1	Enable	OFF ON	OFF	
4896	4-20 mA 133.1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4900 4-2 mA 133.2

No.	Setting	Range	Default	Description	
4901	4-20 mA 133.2	Set point	4 mA to 20 mA	4 mA	Configurable analogue input. Option 4 x 4-20 mA inputs (M15.8)
4902	4-20 mA 133.2	Delay	0.0 s to 600.0 s	120 s	

No.	Setting	Range	Default	Description
4903	4-20 mA 133.2	Relay output A	Option dependent Not used	Not used
4904	4-20 mA 133.2	Relay output B	Option dependent Not used	Not used
4905	4-20 mA 133.2	Enable	OFF ON	OFF
4906	4-20 mA 133.2	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

4910 Wire fail 4-20 mA 133

No.	Setting	Range	Default	Description
4911	W. fail ana 133	Relay output A	Option dependent Not used	Not used
4912	W. fail ana 133	Relay output B	Option dependent Not used	Not used
4913	W. fail ana 133	Enable	OFF ON	OFF
4914	W. fail ana 133	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

2.5.6 Aux. supply setup

4960 U< auxiliary power supply terminal 1

No.	Setting	Range	Default	Description
4961	U< aux. term. 1	Set point	8.0 V DC to 32.0 V DC	18 V DC
4962	U< aux. term. 1	Delay	0.0 s to 999.0 s	1 s
4963	U< aux. term. 1	Relay output A	Option dependent Not used	Not used
4964	U< aux. term. 1	Relay output B	Option dependent Not used	Not used
4965	U< aux. term. 1	Enable	OFF ON	ON
4966	U< aux. term. 1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

4970 U> auxiliary power supply terminal 1

No.	Setting		Range	Default	Description
4971	U> aux. term. 1	Set point	8.0 V DC to 32.0 V DC	18 V DC	The power supply on terminal 1 and 2 has been continuously above the adjusted set point during the programmed delay.
4972	U> aux. term. 1	Delay	0.0 s to 999.0 s	1 s	
4973	U> aux. term. 1	Relay output A	Option dependent Not used	Not used	
4974	U> aux. term. 1	Relay output B	Option dependent Not used	Not used	
4975	U> aux. term. 1	Enable	OFF ON	ON	
4976	U> aux. term. 1	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4980 U< auxiliary power supply terminal 98

No.	Setting		Range	Default	Description
4981	U< aux. term. 98	Set point	8.0 V DC to 32.0 V DC	18 V DC	The power supply on terminal 98 and 99 has been continuously below the adjusted set point during the programmed delay.
4982	U< aux. term. 98	Delay	0.0 s to 999.0 s	1 s	
4983	U< aux. term. 98	Relay output A	Option dependent Not used	Not used	
4984	U< aux. term. 98	Relay output B	Option dependent Not used	Not used	
4985	U< aux. term. 98	Enable	OFF ON	ON	
4986	U< aux. term. 98	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

4990 U> auxiliary power supply terminal 98

No.	Setting		Range	Default	Description
4991	U> aux. term. 98	Set point	8.0 V DC to 32.0 V DC	18 V DC	The power supply on terminal 98 and 99 has been continuously above the adjusted set point during the programmed delay.
4992	U> aux. term. 98	Delay	0.0 s to 999.0 s	1 s	

No.	Setting	Range	Default	Description
4993	U> aux. term. 98	Relay output A	Option dependent Not used	Not used
4994	U> aux. term. 98	Relay output B	Option dependent Not used	Not used
4995	U> aux. term. 98	Enable	OFF ON	ON
4996	U> aux. term. 98	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

2.6 Input/output parameters - Digital outputs

2.6.1 Digital outputs

5000 Relay 05

No.	Setting	Range	Default	Description
5001	Relay 05	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Horn relay
5002	Relay 05	OFF Delay	0.0 s to 999.9 s	5 s

5010 Relay 08

No.	Setting	Range	Default	Description
5011	Relay 08	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND
5012	Relay 08	OFF Delay	0.0 s to 999.9 s	5 s

5020 Relay 11

No.	Setting	Range	Default	Description
5021	Relay 11	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND
5022	Relay 11	OFF Delay	0.0 s to 999.9 s	5 s

5030 Relay 14

No.	Setting	Range	Default	Description
5031	Relay 14	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND
5032	Relay 14	OFF Delay	0.0 s to 999.9 s	5 s

5040 Relay 17

No.	Setting	Range	Default	Description
5041	Relay 17	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND
5042	Relay 17	OFF Delay	0.0 s to 999.9 s	5 s

5050 Relay 20

No.	Setting	Range	Default	Description
5051	Relay 20	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND This relay is only available if Relay is selected in menu 5271.
5052	Relay 20	OFF Delay	0.0 s to 999.9 s	5 s

5060 Relay 21

No.	Setting	Range	Default	Description
5061	Relay 21	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND This relay is only available if Relay is selected in menu 5272.
5062	Relay 21	OFF Delay	0.0 s to 999.9 s	5 s

5070 Relay 29

No.	Setting	Range	Default	Description
5071	Relay 29	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND Option M14.2
5072	Relay 29	OFF Delay	0.0 s to 999.9 s	5 s

5080 Relay 31

No.	Setting	Range	Default	Description
5081	Relay 31	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND Option M14.2
5082	Relay 31	OFF Delay	0.0 s to 999.9 s	5 s

5090 Relay 33

No.	Setting	Range	Default	Description
5091	Relay 33	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND Option M14.2
5092	Relay 33	OFF Delay	0.0 s to 999.9 s	5 s

5100 Relay 35

No.	Setting		Range	Default	Description
5101	Relay 35	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M14.2
5102	Relay 35	OFF Delay	0.0 s to 999.9 s	5 s	

5110 Relay 57

No.	Setting		Range	Default	Description
5111	Relay 57	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M12
5112	Relay 57	OFF Delay	0.0 s to 999.9 s	5 s	

5120 Relay 59

No.	Setting		Range	Default	Description
5121	Relay 59	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M12
5122	Relay 59	OFF Delay	0.0 s to 999.9 s	5 s	

5130 Relay 61

No.	Setting		Range	Default	Description
5131	Relay 61	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M12
5132	Relay 61	OFF Delay	0.0 s to 999.9 s	5 s	

5140 Relay 63

No.	Setting		Range	Default	Description
5141	Relay 63	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M12
5142	Relay 63	OFF Delay	0.0 s to 999.9 s	5 s	

5150 Relay 65

No.	Setting		Range	Default	Description
5151	Relay 65	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	
5152	Relay 65	OFF Delay	0.0 s to 999.9 s	5 s	

5160 Relay 67

No.	Setting		Range	Default	Description
5161	Relay 67	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	
5162	Relay 67	OFF Delay	0.0 s to 999.9 s	5 s	

5170 Relay 69

No.	Setting		Range	Default	Description
5171	Relay 69	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	
5172	Relay 69	OFF Delay	0.0 s to 999.9 s	5 s	

5180 Relay 71

No.	Setting		Range	Default	Description
5181	Relay 71	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	
5182	Relay 71	OFF Delay	0.0 s to 999.9 s	5 s	

5190 Relay 90

No.	Setting		Range	Default	Description
5191	Relay 90	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M14.6 4 x relay output, slot 6.
5192	Relay 90	OFF Delay	0.0 s to 999.9 s	5 s	

5200 Relay 92

No.	Setting		Range	Default	Description
5201	Relay 92	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M14.6 4 x relay output, slot 6.
5202	Relay 92	OFF Delay	0.0 s to 999.9 s	5 s	

5210 Relay 94

No.	Setting		Range	Default	Description
5211	Relay 94	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M14.6 4 x relay output, slot 6.
5212	Relay 94	OFF Delay	0.0 s to 999.9 s	5 s	

5220 Relay 96

No.	Setting		Range	Default	Description
5221	Relay 96	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M14.6 4 x relay output, slot 6.
5222	Relay 96	OFF Delay	0.0 s to 999.9 s	5 s	

5230 Relay 126

No.	Setting		Range	Default	Description
5231	Relay 126	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M14.8 4 x relay output, slot 8.
5232	Relay 126	OFF Delay	0.0 s to 999.9 s	5 s	

5240 Relay 128

No.	Setting		Range	Default	Description
5241	Relay 128	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M14.8 4 x relay output, slot 8.
5242	Relay 128	OFF Delay	0.0 s to 999.9 s	5 s	

5250 Relay 130

No.	Setting		Range	Default	Description
5251	Relay 130	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M14.8 4 x relay output, slot 8.
5252	Relay 130	OFF Delay	0.0 s to 999.9 s	5 s	

5260 Relay 132

No.	Setting		Range	Default	Description
5261	Relay 132	Function	Alarm relay ND Limit relay Horn relay Alarm relay NE	Alarm relay ND	Option M14.8 4 x relay output, slot 8.
5262	Relay 132	OFF Delay	0.0 s to 999.9 s	5 s	

5270 Transistor output setup

No.	Setting		Range	Default	Description
5271	Transistor 20	T20	kWh pulse Relay	kWh pulse	Transistor outputs on terminals 21 and 22 can be configured as relay outputs or pulse signals. If Relay is selected, the relays 20 and 21 will be available.

No.	Setting		Range	Default	Description
					If set to Relay , external relays are needed due to limited current output: Maximum 10 mA.
5272	Transistor 21	T21	kWh pulse Relay	kWh pulse	<p>Transistor outputs on terminals 21 and 22 can be configured as relay outputs or pulse signals.</p> <p>If Relay is selected, the relays 20 and 21 will be available.</p> <p>If set to Relay, external relays are needed due to limited current output: Maximum 10 mA.</p>

5280 Relay 119

No.	Setting		Range	Default	Description
5281	Relay 119	Function	Alarm relay Limit relay Horn relay Alarm/reset	Alarm relay	
5282	Relay 119	OFF Delay	0.0 s to 999.9 s	5 s	

5290 Relay 120

No.	Setting		Range	Default	Description
5291	Relay 120	Function	Alarm relay Limit relay Horn relay Alarm/reset	Alarm relay	
5292	Relay 120	OFF Delay	0.0 s to 999.9 s	5 s	

5300 Relay 121

No.	Setting		Range	Default	Description
5301	Relay 121	Function	Alarm relay Limit relay Horn relay Alarm/reset	Alarm relay	
5302	Relay 121	OFF Delay	0.0 s to 999.9 s	5 s	

5310 Relay 123

No.	Setting		Range	Default	Description
5311	Relay 123	Function	Alarm relay Limit relay Horn relay Alarm/reset	Alarm relay	
5312	Relay 123	OFF Delay	0.0 s to 3200.0 s	5 s	

2.7 System parameters - General setup

2.7.1 General setup

6050 Busbar settings 1

No.	Setting		Range	Default	Description
6051	BB Setting 1	U Primary	100 V to 25000 V	400 V	If no voltage transformer is present, the primary and secondary side values are set to busbar nominal value.
6052	BB Setting 1	U Secondary	100 V to 690 V	400 V	
6053	BB Setting 1	Nominal U	100 V to 250 kV	400 V	
6054	BB Setting 1	Bus.nominal f	48 Hz to 62 Hz	50 Hz	
6055	BB Setting 1	Bus.Nominal set	Param set 1 to Param set 2	Param set 1	

6060 Busbar settings 2

No.	Setting		Range	Default	Description
6061	BB Setting 2	U Primary	100 V to 25000 V	400 V	If no voltage transformer is present, the primary and secondary side values are set to busbar nominal value.
6062	BB Setting 2	U Secondary	100 V to 690 V	400 V	
6063	BB Setting 2	Nominal U	100 V to 250 kV	400 V	
6064	BB Setting 2	Bus.nominal f	48 Hz to 62 Hz	50 Hz	

6080 Language

No.	Setting		Range	Default	Description
6081	Language		English Language 11	English	The master language is English. 11 different languages can be configured with the PC utility software.

6090 Date and time

No.	Setting		Range	Default	Description
6091	Date and time	Year	2001 to 2100	2008	Used to set up the clock in the unit. Only available in the display.
6092	Date and time	Month	1 to 12	1	
6093	Date and time	Date	1 to 31	1	
6094	Date and time	Week day	1 to 7	1	
6095	Date and time	Hour	0 to 23	3	
6096	Date and time	Minute	0 to 59	5	

2.7.2 Alarm horn

6130 Alarm horn

No.	Setting		Range	Default	Description
6131	Alarm horn	ON time	0.0 s to 990.0 s	20 s	If the setting is adjusted to 0 s, the horn relay will be activated continuously until the alarm is acknowledged.

2.7.3 Not in auto

6540 Not in AUTO

No.	Setting		Range	Default	Description
6541	Not in AUTO	Timer	10.0 s to 900.0 s	300 s	If the setting is adjusted to 0 s, the horn relay will be activated continuously until the alarm is acknowledged.
6542	Not in AUTO	Relay output A	Option dependent Not used	Not used	
6543	Not in AUTO	Relay output B	Option dependent Not used		
6544	Not in AUTO	Enable	OFF ON	OFF	
6545	Not in AUTO	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.7.4 Alarm jump

6900 Alarm jump

No.	Setting		Range	Default	Description
6901	Alarm jump	Enable	OFF ON	ON	Set to ON jumps automatically to the alarm list if an alarm activates. Set to OFF stays on present view even if an alarm is activated.

2.7.5 Command timers

6960 Command start/stop timer 1

No.	Setting		Range	Default	Description
6961	Start timer 1 days	Set point	OFF MO TU WE TH FR SA SU MO-TU-WE-TH	OFF	Start timer can be used in M-Logic.

No.	Setting	Range	Default	Description	
				MO-TU-WE-TH-FR SA-SU MO-TU-WE-TH-FR- SA-SU	
6962	Start timer 1 hours	Set point	0 h to 23 h	10 h	
6963	Start timer 1 min	Set point	0 min to 59 min	0 min	
6964	Stop timer 1 days	Set point	OFF MO TU WE TH FR SA SU MO-TU-WE-TH MO-TU-WE-TH-FR SA-SU MO-TU-WE-TH-FR- SA-SU	OFF	Stop timer can be used in M-Logic.
6965	Stop timer 1 hour	Set point	0 h to 23 h	10 h	
6966	Stop timer 1 min	Set point	0 min to 59 min	0 min	

6970 Command start/stop timer 2

No.	Setting	Range	Default	Description	
				OFF MO TU WE TH FR SA SU MO-TU-WE-TH MO-TU-WE-TH-FR SA-SU MO-TU-WE-TH-FR- SA-SU	
6971	Start timer 2 days	Set point	OFF	Start timer can be used in M-Logic.	
6972	Start timer 2 hours	Set point	0 h to 23 h	10 h	
6973	Start timer 2 min	Set point	0 min to 59 min	0 min	
6974	Stop timer 2 days	Set point	OFF MO TU WE TH FR SA SU MO-TU-WE-TH	OFF	Stop timer can be used in M-Logic.

No.	Setting	Range	Default	Description
		MO-TU-WE-TH-FR SA-SU MO-TU-WE-TH-FR- SA-SU		
6975	Stop timer 2 hour	Set point	0 h to 23 h	10 h
6976	Stop timer 2 min	Set point	0 min to 59 min	0 min

6980 Command start/stop timer 3

No.	Setting	Range	Default	Description
6981	Start timer 3 days	Set point	OFF MO TU WE TH FR SA SU MO-TU-WE-TH MO-TU-WE-TH-FR SA-SU MO-TU-WE-TH-FR- SA-SU	OFF Start timer can be used in M-Logic.
6982	Start timer 3 hours	Set point	0 h to 23 h	10 h
6983	Start timer 3 min	Set point	0 min to 59 min	0 min
6984	Stop timer 3 days	Set point	OFF MO TU WE TH FR SA SU MO-TU-WE-TH MO-TU-WE-TH-FR SA-SU MO-TU-WE-TH-FR- SA-SU	OFF Stop timer can be used in M-Logic.
6985	Stop timer 3 hour	Set point	0 h to 23 h	10 h
6986	Stop timer 3 min	Set point	0 min to 59 min	0 min

6990 Command start/stop timer 4

No.	Setting	Range	Default	Description
6991	Start timer 4 days	Set point	OFF MO TU WE TH	OFF Start timer can be used in M-Logic.

No.	Setting		Range	Default	Description
			FR SA SU MO-TU-WE-TH MO-TU-WE-TH-FR SA-SU MO-TU-WE-TH-FR- SA-SU		
6992	Start timer 4 hours	Set point	0 h to 23 h	10 h	
6993	Start timer 4 min	Set point	0 min to 59 min	0 min	
6994	Stop timer 4 days	Set point	OFF MO TU WE TH FR SA SU MO-TU-WE-TH MO-TU-WE-TH-FR SA-SU MO-TU-WE-TH-FR- SA-SU	OFF	Stop timer can be used in M-Logic.
6995	Stop timer 4 hour	Set point	0 h to 23 h	10 h	
6996	Stop timer 4 min	Set point	0 min to 59 min	0 min	

2.8 System parameters - Heavy consumers

2.8.1 Heavy consumers

NOTE Heavy consumer menus are only shown on the display if the heavy consumer is configured under the load group type parameters (8500 - 8570).

7000 Heavy consumer 1 start power

No.	Setting		Range	Default	Description
7001	HC1 Start power		0 to 10000 kW	500 kW	Start power needed before closing the HC, and requested for the configured time or until acknowledge input is received.
7002	HC1 Acknowledge	Acknowledge	Timer only Input only Timer or input	Timer or input	Selection of timer or input for when to stop requesting start power.
7003	HC1 Acknowledge delay	Delay	0.1 s to 3200 s	30 s	

7010 Heavy consumer 1 Acknowledge fail *

No.	Setting		Range	Default	Description
7011	HC1 Ack. fail	Delay	0.1 s to 3200 s	30 s	Alarm can activate if acknowledge input is needed, but not received (excluded when using timer).
7012	HC1 Ack. fail	Enable	OFF ON	OFF	
7013	HC1 Ack. fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

NOTE * Menu is not shown if using timer only.

7050 Heavy consumer 2 start power

No.	Setting		Range	Default	Description
7051	HC2 Start power		0 to 10000 kW	500 kW	Start power needed before closing the HC, and requested for the configured time or until acknowledge input is received.
7052	HC2 Acknowledge	Acknowledge	Timer only Input only Timer or input	Timer or input	Selection of Timer or input for when to stop requesting start power.
7053	HC2 Acknowledge delay	Delay	0.1 s to 3200 s	30 s	

7060 Heavy consumer 2 Acknowledge fail *

No.	Setting		Range	Default	Description
7061	HC2 Ack. fail	Delay	0.1 s to 3200 s	30 s	Alarm can activate if acknowledge input is needed, but not received (excluded when using timer).
7062	HC2 Ack. fail	Enable	OFF ON	OFF	
7063	HC2 Ack. fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

NOTE * Menu is not shown if using timer only.

7100 Heavy consumer 3 start power

No.	Setting		Range	Default	Description
7101	HC3 Start power		0 to 10000 kW	500 kW	Start power needed before closing the HC, and requested

No.	Setting		Range	Default	Description
					for the configured time or until acknowledge input is received.
7102	HC3 Acknowledge	Acknowledge	Timer only Input only Timer or input	Timer or input	Selection of Timer or input for when to stop requesting start power.
7103	HC3 Acknowledge delay	Delay	0.1 s to 3200 s	30 s	

7110 Heavy consumer 3 Acknowledge fail *

No.	Setting		Range	Default	Description
7111	HC3 Ack. fail	Delay	0.1 s to 3200 s	30 s	Alarm can activate if acknowledge input is needed, but not received (excluded when using timer).
7112	HC3 Ack. fail	Enable	OFF ON	OFF	
7113	HC3 Ack. fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

NOTE * Menu is not shown if using timer only.

7150 Heavy consumer 4 start power

No.	Setting		Range	Default	Description
7151	HC4 Start power		0 to 10000 kW	500 kW	Start power needed before closing the HC, and requested for the configured time or until acknowledge input is received.
7152	HC4 Acknowledge	Acknowledge	Timer only Input only Timer or input	Timer or input	Selection of Timer or input for when to stop requesting start power.
7153	HC4 Acknowledge delay	Delay	0.1 s to 3200 s	30 s	

7160 Heavy consumer 4 Acknowledge fail *

No.	Setting		Range	Default	Description
7161	HC4 Ack. fail	Delay	0.1 s to 3200 s	30 s	Alarm can activate if acknowledge input is needed, but not received (excluded when using timer).
7162	HC4 Ack. fail	Enable	OFF ON	OFF	
7163	HC4 Ack. fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8]	Warning	

No.	Setting	Range	Default	Description
		Block all		

NOTE * Menu is not shown if using timer only.

7200 Heavy consumer 5 start power

No.	Setting	Range	Default	Description
7201	HC5 Start power	0 to 10000 kW	500 kW	Start power needed before closing the HC, and requested for the configured time or until acknowledge input is received.
7202	HC5 Acknowledge	Acknowledge	Timer only Input only Timer or input	Selection of Timer or input for when to stop requesting start power.
7203	HC5 Acknowledge delay	Delay	0.1 s to 3200 s	30 s

7210 Heavy consumer 5 Acknowledge fail *

No.	Setting	Range	Default	Description	
7211	HC5 Ack. fail	Delay	0.1 s to 3200 s	30 s	Alarm can activate if acknowledge input is needed, but not received (excluded when using timer).
7212	HC5 Ack. fail	Enable	OFF ON	OFF	
7213	HC5 Ack. fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

NOTE * Menu is not shown if using timer only.

7250 Heavy consumer 6 start power

No.	Setting	Range	Default	Description
7251	HC6 Start power	0 to 10000 kW	500 kW	Start power needed before closing the HC, and requested for the configured time or until acknowledge input is received.
7252	HC6 Acknowledge	Acknowledge	Timer only Input only Timer or input	Selection of Timer or input for when to stop requesting start power.
7253	HC6 Acknowledge delay	Delay	0.1 s to 3200 s	30 s

7260 Heavy consumer 6 Acknowledge fail *

No.	Setting	Range	Default	Description	
7261	HC6 Ack. fail	Delay	0.1 s to 3200 s	30 s	Alarm can activate if acknowledge input is needed,

No.	Setting	Range	Default	Description
				but not received (excluded when using timer).
7262	HC6 Ack. fail	Enable	OFF ON	OFF
7263	HC6 Ack. fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

NOTE * Menu is not shown if using timer only.

7300 Heavy consumer 7 start power

No.	Setting	Range	Default	Description
7301	HC7 Start power	0 to 10000 kW	500 kW	Start power needed before closing the HC, and requested for the configured time or until acknowledge input is received.
7302	HC7 Acknowledge	Acknowledge	Timer only Input only Timer or input	Selection of Timer or input for when to stop requesting start power.
7303	HC7 Acknowledge delay	Delay	0.1 s to 3200 s	30 s

7310 Heavy consumer 7 Acknowledge fail *

No.	Setting	Range	Default	Description
7311	HC7 Ack. fail	Delay	0.1 s to 3200 s	30 s
7312	HC7 Ack. fail	Enable	OFF ON	OFF
7313	HC7 Ack. fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

NOTE * Menu is not shown if using timer only.

7350 Heavy consumer 8 start power

No.	Setting	Range	Default	Description
7351	HC8 Start power	0 to 10000 kW	500 kW	Start power needed before closing the HC, and requested for the configured time or until acknowledge input is received.
7352	HC8 Acknowledge	Acknowledge	Timer only Input only	Selection of Timer or input for when to stop requesting start power.

No.	Setting		Range	Default	Description
			Timer or input		
7353	HC8 Acknowledge delay	Delay	0.1 s to 3200 s	30 s	

7360 Heavy consumer 8 Acknowledge fail *

No.	Setting		Range	Default	Description
7361	HC8 Ack. fail	Delay	0.1 s to 3200 s	30 s	Alarm can activate if acknowledge input is needed, but not received (excluded when using timer).
7362	HC8 Ack. fail	Enable	OFF ON	OFF	
7363	HC8 Ack. fail	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

NOTE * Menu is not shown if using timer only.

7400 Heavy consumer StartP<NomP

No.	Setting		Range	Default	Description
7401	HC StartP<NomP	Delay	0.1 s to 3200 s	30 s	Alarm activates if any HC is configured with lower start power than its nominal power.
7402	HC StartP<NomP	Enable	OFF ON	ON	
7403	HC StartP<NomP	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.9 System parameters - External communication

2.9.1 External communication

7510 External communication (Requires option H2 or H3)

No.	Setting		Range	Default	Description
7511	Ext. communication	ID	1 to 247	1	The mode ASCII is used for modem communication (ASCII: 7 data bit, RTU: 8 data bit).
7512	Ext. communication	Baud rate	9600 to 19200	9600	
7513	Ext. communication	Mode	RTU ASCII	RTU	

7520 External communication error (Requires option H2 or H3)

No.	Setting		Range	Default	Description
7521	Ext. comm. error	Delay	1.0 s to 100.0 s	10 s	Supervision of the external communication line. The alarm will occur when there has not been any communication during the time delay.
7522	Ext. comm. error	Relay output A	Option dependent Not used	Not used	
7523	Ext. comm. error	Relay output B	Option dependent Not used	Not used	
7524	Ext. comm. error	Enable	OFF ON	OFF	
7525	Ext. comm. error	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.10 System parameters - Power management internal communication

2.10.1 Power management internal communication

7530 Internal communication ID

No.	Setting		Range	Default	Description
7531	Int. comm. ID	ID	25 to 40	33	The mode decides the reaction of the power management system in case of different errors on the CAN communication lines. Mode: SEMI auto - No mode change.
7532	Int. comm. ID	CAN fail. mode	No mode change SEMI	No mode change	
7533	Int. comm. ID	Missing all units	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
7534	Int. comm. ID	Fatal CAN error	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
7535	Int. comm. ID	Any DG miss.	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8]	Warning	

No.	Setting		Range	Default	Description
			Block all		
7536	Int. comm. ID	Any mains miss.	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

7840 CAN select

No.	Setting		Range	Default	Description
7841	CAN A		OFF PMS Primary	PMS Primary	
7842	CAN A		OFF PMS Secondary	PMS Secondary	

7870 Appl hazard

No.	Setting		Range	Default	Description
7871	Appl hazard	Enable	OFF ON	ON	The any unit* missing alarm activates if the communication to any unit* fails. NOTE * Where unit could be BTB, LG, or PV. The application hazard alarm activates if different applications are installed in the controllers.
7872	Appl hazard	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
7873	Any BTB missing	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
7874	Any LG missing	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	
7575	Any PV missing	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

2.11 System parameters - Power management setup

2.11.1 Power management setup

8000 Load group 1 settings

No.	Setting		Range	Default	Description
8001	LG1 settings	Power	1 to 10000kW	400 kW	
8002	LG1 settings	Input	Option dependent OFF	OFF	
8003	LG1 settings	Disconnect kW	1 to 20000 kW	100 kW	
8004	LG1 settings	Disconnect %	5 to 200 %	100 %	
8005	LG1 settings	Delay	0 s to 999 s	5 s	Timer for disconnect.
8006	LG1 settings	Enable	OFF ON	OFF	Enable load group.

8010 Load group 2 settings

No.	Setting		Range	Default	Description
8011	LG2 settings	Power	1 to 10000kW	400 kW	
8012	LG2 settings	Input	Option dependent OFF	OFF	
8013	LG2 settings	Disconnect kW	1 to 20000 kW	100 kW	
8014	LG2 settings	Disconnect %	5 to 200 %	100 %	
8015	LG2 settings	Delay	0 s to 999 s	5 s	Timer for disconnect.
8016	LG2 settings	Enable	OFF ON	OFF	Enable load group.

8020 Load group 3 settings

No.	Setting		Range	Default	Description
8021	LG3 settings	Power	1 to 10000kW	400 kW	
8022	LG3 settings	Input	Option dependent OFF	OFF	
8023	LG3 settings	Disconnect kW	1 to 20000 kW	100 kW	
8024	LG3 settings	Disconnect %	5 to 200 %	100 %	
8025	LG3 settings	Delay	0 s to 999 s	5 s	Timer for disconnect.
8026	LG3 settings	Enable	OFF ON	OFF	Enable load group.

8030 Load group 4 settings

No.	Setting		Range	Default	Description
8031	LG4 settings	Power	1 to 10000kW	400 kW	
8032	LG4 settings	Input	Option dependent OFF	OFF	
8033	LG4 settings	Disconnect kW	1 to 20000 kW	100 kW	
8034	LG4 settings	Disconnect %	5 to 200 %	100 %	

No.	Setting		Range	Default	Description
8035	LG4 settings	Delay	0 s to 999 s	5 s	Timer for disconnect.
8036	LG4 settings	Enable	OFF ON	OFF	Enable load group.

8040 Load group 5 settings

No.	Setting		Range	Default	Description
8041	LG5 settings	Power	1 to 10000kW	400 kW	
8042	LG5 settings	Input	Option dependent OFF	OFF	
8043	LG5 settings	Disconnect kW	1 to 20000 kW	100 kW	
8044	LG5 settings	Disconnect %	5 to 200 %	100 %	
8045	LG5 settings	Delay	0 s to 999 s	5 s	Timer for disconnect.
8046	LG5 settings	Enable	OFF ON	OFF	Enable load group.

8050 Load group 6 settings

No.	Setting		Range	Default	Description
8051	LG6 settings	Power	1 to 10000kW	400 kW	
8052	LG6 settings	Input	Option dependent OFF	OFF	
8053	LG6 settings	Disconnect kW	1 to 20000 kW	100 kW	
8054	LG6 settings	Disconnect %	5 to 200 %	100 %	
8055	LG6 settings	Delay	0 s to 999 s	5 s	Timer for disconnect.
8056	LG6 settings	Enable	OFF ON	OFF	Enable load group.

8060 Load group 7 settings

No.	Setting		Range	Default	Description
8061	LG7 settings	Power	1 to 10000kW	400 kW	
8062	LG7 settings	Input	Option dependent OFF	OFF	
8063	LG7 settings	Disconnect kW	1 to 20000 kW	100 kW	
8064	LG7 settings	Disconnect %	5 to 200 %	100 %	
8065	LG7 settings	Delay	0 s to 999 s	5 s	Timer for disconnect.
8066	LG7 settings	Enable	OFF ON	OFF	Enable load group.

8070 Load group 8 settings

No.	Setting		Range	Default	Description
8071	LG8 settings	Power	1 to 10000kW	400 kW	
8072	LG8 settings	Input	Option dependent OFF	OFF	
8073	LG8 settings	Disconnect kW	1 to 20000 kW	100 kW	
8074	LG8 settings	Disconnect %	5 to 200 %	100 %	

No.	Setting		Range	Default	Description
8075	LG8 settings	Delay	0 s to 999 s	5 s	Timer for disconnect.
8076	LG8 settings	Enable	OFF ON	OFF	Enable load group.

8090 Priority (1-5)

No.	Setting		Range	Default	Description
8091	Priority 1	ID	1 to 64	1	
8092	Priority 2	ID	1 to 64	2	
8093	Priority 3	ID	1 to 64	3	
8094	Priority 4	ID	1 to 64	4	
8095	Priority 5	ID	1 to 64	5	

8100 Priority (6-11)

No.	Setting		Range	Default	Description
8101	Priority 6	ID	1 to 64	6	
8102	Priority 7	ID	1 to 64	7	
8103	Priority 8	ID	1 to 64	8	
8104	Priority 9	ID	1 to 64	9	
8105	Priority 10	ID	1 to 64	10	
8106	Priority 11	ID	1 to 64	11	

8110 Priority (12-16)

No.	Setting		Range	Default	Description
8111	Priority 12	ID	1 to 64	12	
8112	Priority 13	ID	1 to 64	13	
8113	Priority 14	ID	1 to 64	14	
8114	Priority 15	ID	1 to 64	15	
8115	Priority 16	ID	1 to 64	16	

8120 Priority (17-21)

No.	Setting		Range	Default	Description
8121	Priority 17	ID	1 to 64	17	
8122	Priority 18	ID	1 to 64	18	
8123	Priority 19	ID	1 to 64	19	
8124	Priority 20	ID	1 to 64	2	
8125	Priority 21	ID	1 to 64	21	

8130 Priority (22-27)

No.	Setting		Range	Default	Description
8131	Priority 22	ID	1 to 64	22	
8132	Priority 23	ID	1 to 64	23	
8133	Priority 24	ID	1 to 64	24	

No.	Setting	Range	Default	Description
8134	Priority 25 ID	1 to 64	25	
8135	Priority 26 ID	1 to 64	26	
8136	Priority 27 ID	1 to 64	27	

8140 Priority (28-32)

No.	Setting	Range	Default	Description
8141	Priority 28 ID	1 to 64	28	
8142	Priority 29 ID	1 to 64	29	
8143	Priority 30 ID	1 to 64	30	
8144	Priority 31 ID	1 to 64	31	
8145	Priority 32 ID	1 to 64	32	

8150 Priority (33-37)

No.	Setting	Range	Default	Description
8151	Priority 33 ID	1 to 64	33	
8152	Priority 34 ID	1 to 64	34	
8153	Priority 35 ID	1 to 64	35	
8154	Priority 36 ID	1 to 64	36	
8155	Priority 37 ID	1 to 64	37	

8160 Priority (38-42)

No.	Setting	Range	Default	Description
8161	Priority 38 ID	1 to 64	38	
8162	Priority 39 ID	1 to 64	39	
8163	Priority 40 ID	1 to 64	40	
8164	Priority 41 ID	1 to 64	41	
8165	Priority 42 ID	1 to 64	42	

8170 Priority (43-47)

No.	Setting	Range	Default	Description
8171	Priority 43 ID	1 to 64	43	
8172	Priority 44 ID	1 to 64	44	
8173	Priority 45 ID	1 to 64	45	
8174	Priority 46 ID	1 to 64	46	
8175	Priority 47 ID	1 to 64	47	

8180 Priority (48-52)

No.	Setting	Range	Default	Description
8181	Priority 48 ID	1 to 64	48	
8182	Priority 49 ID	1 to 64	49	
8183	Priority 50 ID	1 to 64	50	

No.	Setting		Range	Default	Description
8184	Priority 51	ID	1 to 64	51	
8185	Priority 52	ID	1 to 64	52	

8190 Priority (53-57)

No.	Setting		Range	Default	Description
8191	Priority 53	ID	1 to 64	53	
8192	Priority 54	ID	1 to 64	54	
8193	Priority 55	ID	1 to 64	55	
8194	Priority 56	ID	1 to 64	56	
8195	Priority 57	ID	1 to 64	57	

8200 Priority (58-62)

No.	Setting		Range	Default	Description
8201	Priority 58	ID	1 to 64	58	
8202	Priority 59	ID	1 to 64	59	
8203	Priority 60	ID	1 to 64	60	
8204	Priority 61	ID	1 to 64	61	
8205	Priority 62	ID	1 to 64	62	

8210 Priority (63-64)

No.	Setting		Range	Default	Description
8211	Priority 63	ID	1 to 64	63	
8212	Priority 64	ID	1 to 64	64	

8250 Overload Alarm 1

No.	Setting		Range	Default	Description
8251	DG Overload	Set point	0.0 % to 200 %	125 %	
8252	DG Overload	Delay	0.0 s to 100.0 s	10 s	
8253	DG Overload	Relay output A	Option dependent Not used	Not used	
8254	DG Overload	Relay output B	Option dependent Not used	Not used	
8255	DG Overload	Enable	OFF ON	OFF	
8256	DG Overload	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

8260 Overload Alarm 2

No.	Setting		Range	Default	Description
8261	DG Overload	Set point	0.0 % to 200 %	125 %	
8262	DG Overload	Delay	0.0 s to 100.0 s	10 s	

No.	Setting	Range	Default	Description
8263	DG Overload	Relay output A	Option dependent Not used	Not used
8264	DG Overload	Relay output B	Option dependent Not used	Not used
8265	DG Overload	Enable	OFF ON	OFF
8266	DG Overload	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

8270 Overload Alarm 3

No.	Setting	Range	Default	Description
8271	DG Overload	Set point	0.0 % to 200 %	125 %
8272	DG Overload	Delay	0.0 s to 100.0 s	10 s
8273	DG Overload	Relay output A	Option dependent Not used	Not used
8274	DG Overload	Relay output B	Option dependent Not used	Not used
8275	DG Overload	Enable	OFF ON	OFF
8276	DG Overload	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

8280 Overload Alarm 4

No.	Setting	Range	Default	Description
8281	DG Overload	Set point	0.0 % to 200 %	125 %
8282	DG Overload	Delay	0.0 s to 100.0 s	10 s
8283	DG Overload	Relay output A	Option dependent Not used	Not used
8284	DG Overload	Relay output B	Option dependent Not used	Not used
8285	DG Overload	Enable	OFF ON	OFF
8286	DG Overload	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning

8290 Overload Alarm 5

No.	Setting	Range	Default	Description
8291	DG Overload	Set point	0.0 % to 200 %	125 %
8292	DG Overload	Delay	0.0 s to 100.0 s	10 s

No.	Setting		Range	Default	Description
8293	DG Overload	Relay output A	Option dependent Not used	Not used	
8294	DG Overload	Relay output B	Option dependent Not used	Not used	
8295	DG Overload	Enable	OFF ON	OFF	
8296	DG Overload	Fail class	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

8300 LG swap delay

No.	Setting		Range	Default	Description
8301	LG swap delay		0.1 s to 320.0 s	10 s	Delay before disconnecting lower priority LGs when a higher priority LG is waiting for power, no more available gensets are possible to start and no mains is connected.

8310 Not enough Pow.

No.	Setting		Range	Default	Description
8311	Not enough P	Delay	0.1 s to 3200.0 s	30 s	Alarm timer starts when a LG is waiting for power, no more available gensets are possible to start and no mains is connected.
8312	Not enough P	Enable	OFF ON	OFF	
8313	Not enough P	Failclass	Warning Trip grp [1 to 8] Trip all grp Block grp [1 to 8] Block all	Warning	

8500 LG1 type

No.	Setting		Range	Default	Description
8501	LG1 type		Normal LG HC Digital HC Variable	Normal LG	Type for the LG.

8510 LG2 type

No.	Setting		Range	Default	Description
8511	LG2 type		Normal LG HC Digital HC Variable	Normal LG	Type for the LG.

8520 LG3 type

No.	Setting	Range	Default	Description
8521	LG3 type	Normal LG HC Digital HC Variable	Normal LG	Type for the LG.

8530 LG4 type

No.	Setting	Range	Default	Description
8531	LG4 type	Normal LG HC Digital HC Variable	Normal LG	Type for the LG.

8540 LG5 type

No.	Setting	Range	Default	Description
8541	LG5 type	Normal LG HC Digital HC Variable	Normal LG	Type for the LG.

8550 LG6 type

No.	Setting	Range	Default	Description
8551	LG6 type	Normal LG HC Digital HC Variable	Normal LG	Type for the LG.

8560 LG7 type

No.	Setting	Range	Default	Description
8561	LG7 type	Normal LG HC Digital HC Variable	Normal LG	Type for the LG.

8570 LG8 type

No.	Setting	Range	Default	Description
8571	LG8 type	Normal LG HC Digital HC Variable	Normal LG	Type for the LG.

2.12 System parameters - Jump menus

2.12.1 Jump menus

A number of menus can only be entered using the jump menu.

2.12.2 9000 Software version

Check the application software version in the unit before contacting DEIF regarding service and support matters. This menu also shows the clock and the date in the unit.

NOTE * Option N can display further information under W1 and W2.

9000 Software version

No.	Setting		Description
9000	Software version	APPL	Shows the software version of the unit.
			Shows the date and time in the unit.
9001	Software version	Revision	Shows the revision of the software in the unit.
9002	Software version	W1*	Shows the IP address and the subnet mask.
			Requires option N.
9003	Software version	W2*	Shows the gateway and the image version of the Option N.
			Requires option N.

2.12.3 9010 Display character test

Shows a test print of the character set in the display.

2.12.4 9020 Service port

The service port can be set up to use the ASCII communication. The ASCII communication is used when the utility software is connected through a modem.

- Selection 0 must be used for cable connection between the ALC and the PC.
- Selection 1 must be used for modem connection between the ALC and the PC.

2.12.5 9070 M4 software version

Information about the software version in the engine interface printed circuit board placed in slot 8.

9070 M4 software version

No.	Setting		Description
9070	M4 SW version	SW	Shows the M4 software version.
9071	M4 SW version	Protocol	Shows the M4 protocol version.
9072	M4 SW version	Revision	Shows the M4 software revision.

2.12.6 911# Password

911# Password

No.	Setting		Range	Default	Description
9116	User password	Setting	0 to 32000	2000	It is recommended to change the password levels of the user, service and master password if access to parameter settings must be restricted.
9117	Service password	Setting	0 to 32000	2001	
9118	Master password	Setting	0 to 32000	2002	

2.12.7 9120 Service menu

The service menu can only be entered using the "JUMP" push-button. This menu is used in service situations.

In the alarm selection, you can see all the alarm timers and their remaining time if they are counting.

The input and output selections show the present status of the inputs and outputs. For example mode inputs, relay outputs and load sharing lines.

9120 Service menu

No.	Setting		Description
	Service menu	Timers	Shows remaining alarm delay time.
	Service menu	Digital inputs	Shows digital input status.
	Service menu	Digital outputs	Shows digital output status.
	Service menu	Miscellaneous	Shows misc. information

2.12.8 9130 AC configuration

This menu is used to choose the AC configuration.

9130 AC configuration

No.	Setting		Range	Default	Description
9130	AC config.	Setting	3 Phase L1L2L3	3 Phase L1L2L3	

NOTE Phase angles: L1L2L3: 120 degrees with neutral.

2.12.9 9150 Backlight dim

This menu is for setting the backlight level of the display.

9150 Service menu

No.	Setting		Description
9150	Backlight dim		Sets the light intensity for the display.

2.12.10 9160 Plant application

This menu is for changing between application 1 to 4.

9160 Plant application

No.	Setting		Range	Default	Description
9160	Application		Appl 1 Appl 2 Appl 3 Appl 4	Appl 1	

2.12.11 9170 Internal CAN protocol

This menu is used to make it possible to interface to AGC units using application SW version 3.20.x or earlier.

9170 Internal CAN protocol

No.	Setting		Range	Default	Description
9170	Application	Application	Protocol 1 Protocol 2	Protocol 2	

2.12.12 9190 Application broadcast

This menu makes it possible to broadcast an application between all the controllers connected on the CAN A or CAN B line.

9190 Application broadcast

No.	Setting		Range	Default	Description
9190	Application broadcast	Enable	OFF Broadcast Broadcast + activate	OFF	
9190	Application broadcast	Application	1 to 4	1	

2.12.13 9230 Memory backup

This menu makes it possible to back-up the memory before changing the internal battery.



More information

See the **Designer's handbook** for more information about this function.

9230 Memory backup

No.	Setting		Description
9231	Backup memory		This function stores the memory.
9232	Restore memory		This function restores the memory.

NOTE The unit reboots after loading of an image.

2.13 System parameters - Utility software

2.13.1 Multi-input selections

10970 Engineering units

No.	Setting		Range	Default	Description
10970	Engineering units		Bar/Celsius PSI/Fahrenheit	Bar/Celsius	

10980 Multi-input configuration 102

No.	Setting		Range	Default	Description
10980	Multi-inp. conf. 102		4-20 mA 0-40 V DC Pt100 Pt1000 Binary	0-40 V DC	

10990 Multi-input configuration 105

No.	Setting		Range	Default	Description
10990	Multi-inp. conf. 105		4-20 mA 0-40 V DC Pt100 Pt1000 Binary	0-40 V DC	

11000 Multi-input configuration 108

No.	Setting		Range	Default	Description
11000	Multi-inp. conf. 108		4-20 mA 0-40 V DC Pt100 Pt1000 Binary	0-40 V DC	

2.13.2 4-20 mA input scaling

11010 4-20 mA input scaling 102

No.	Setting		Range	Default	Description
	4-20 mA input scaling 102	Set point	No decimal Two decimal	No decimal	Selecting Enable and writing the new set point scales the associated min., max. and value automatically.
	4-20 mA input scaling 102	Enable	OFF ON	OFF	

11020 4-20 mA input scaling 105

No.	Setting		Range	Default	Description
	4-20 mA input scaling 105	Set point	No decimal Two decimal	No decimal	Selecting Enable and writing the new set point scales the associated min., max. and value automatically.
	4-20 mA input scaling 105	Enable	OFF ON	OFF	

11030 4-20 mA input scaling 108

No.	Setting		Range	Default	Description
	4-20 mA input scaling 108	Set point	No decimal Two decimal	No decimal	Selecting Enable and writing the new set point scales the associated min., max. and value automatically.
	4-20 mA input scaling 108	Enable	OFF ON	OFF	