

N141/02 KNX-DALI Gateway Release Notes for firmware version 03 and application program 981C05

Please find the software to upgrade to firmware version 03 at
http://www.buildingtechnologies.siemens.com/BT/GLOBAL/EN/PRODUCTS_SYSTEMS/ET/GAMMA/GAMMA_SUPPORT/Pages/tools.aspx.

Detection of Emergency Operation

Emergency operation is detected when the number of failed ballasts is greater than the number set for detection of emergency operation. Starting with firmware version 03 / application program 981C05 of the N141/02, self-contained emergency ballasts running in emergency mode are counted. The description of the parameter for configuration of the threshold value for the detection of emergency operation has changed accordingly.

Parameter	Settings
Send mains failure at DALI devices if number of DALI devices with mains failure >=	1-64 1
If the number of DALI devices experiencing a power failure is larger than the value set with this parameter then the communication object 5 "Mains failure at DALI devices" is set to 1 = "mains failure", otherwise it is set to 0 = "no mains failure".	

Battery status request

Starting with firmware version 03 / application program 981C05 of the N141/02, the current battery status of self-contained emergency ballasts may be requested via the corresponding communication object (e.g. for inverter 1 the communication object 146). The status is returned via the corresponding communication object (e.g. for inverter 1 the communication object 147).

The description of the communication objects has changed accordingly.

Obj	Object name	Function	Type	Flags				
146	Start test, "Inverter 01"	Start test / report status	1 Byte	CWRT				
Via this object the test of a self-contained emergency luminaire can be started and it can be queried or sent automatically if a test has been started (test active). The setting of the parameter "Sending test status" in the "Functions" window defines, if and when the test status has to be sent. The following bit assignment is used for this object:								
	Bit 7	6	5	4	3	2	1	0
	n.u.	n.u.	Long durat. test active	Start long durat. test	Short durat. test active	Start short durat. test	Funct. test active	Start funct. test
If bit 0 is set to log. "1" a function test will be started. If bit 1 is set to log. "1" the luminaire is in the function test mode. If bit 2 is set to log. "1" a short duration test will be started. If bit 3 is set to log. "1" the luminaire is in the short duration test mode. If bit 4 is set to log. "1" a long duration test will be started. If bit 5 is set to log. "1" the luminaire is in the long duration test mode. The KNX/DALI gateway will ignore any values written to bits 1, 3, 5, 6 & 7 and it will ignore the telegram/command if more than one of bits 0, 2 & 4 is set to log. "1" or if all bits are set to log. "0".								

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Obj	Object name	Function	Type	Flags			
147	Test result, "Inverter 01"	Report test type / result	3 Byte	CRT			
<p>The test result of a self-contained luminaire can be queried or sent automatically via this object.</p> <p>The setting of the parameter "Sending test result" in the parameter window "Functions" defines, if and when the test result has to be sent.</p> <p>The following bit assignment is used for this object:</p>							
Bit 23	22	21	20	19	18	17	16
Test result							
Bit 15	14	13	12	11	10	9	8
Dur. test failed	Func. test failed	Dur. test max. delay exc. failure	Func. test max. delay exc. failure	Emer. lamp failure	Batt. failure	Batt. durat. failure	Circ. failure
Bit 7	6	5	4	3	2	1	0
n.u.	n.u.	n.u.	n.u.	Test failed	End of long durat. test	End of short durat. test	End of Funct. test
<p>If bit 0 is set to log. "1" the end of a function test is signalled.</p> <p>If bit 1 is set to log. "1" the end of a short duration test is signalled.</p> <p>If bit 2 is set to log. "1" the end of a long duration test is signalled.</p> <p>If bit 3 is set to log. "1" the test failed. Bit 8 to 15 signal why it failed. When the test passed bit 8 to 15 are set to "0".</p> <p>Bit 4 to 7: "n.u." means "not used" and is reserved for future use.</p> <p>Bit 8 "Circuit failure": a hardware failure of the inverter has been detected.</p> <p>Bit 9 "Battery duration failure": indicates that the battery failed to maintain its output for the rated duration.</p> <p>Bit 10 "Battery failure": indicates an open circuit or low voltage failure of the battery</p> <p>Bit 11 "Emergency lamp failure": indicates that the lamp attached to the inverter has failed</p> <p>Bit 12 "Function test max. delay exceeded failure": indicates that the inverter was unable to perform the function test within the maximum timeout period.</p> <p>Bit 13 "Duration test max. delay exceeded failure": indicates that the inverter was unable to perform the duration test within the maximum timeout period.</p> <p>Bit 14 "Function test failed": indicates a Function Test Failure.</p> <p>Bit 15 "Duration test failed": indicates a Duration Test Failure.</p> <p>Bit 16...23 "Test result": This byte contains the battery charge status as a value between 0 and 255 (= 0...100%) at the end of a function test. It contains at the end of a duration test either the time (as a multiple of 2 minutes) of the duration test without battery failure (bit 3 = 0) or the time until the battery failed (bit 3 = 1).</p>							

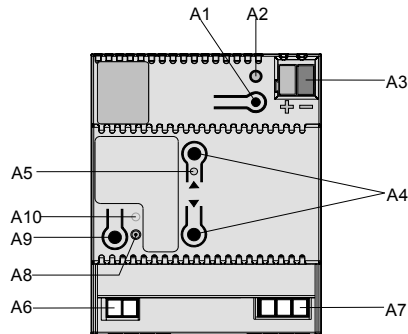
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Inhibiting emergency operation of self-contained emergency ballasts (once)

Self-contained emergency ballasts automatically switch over to their battery when mains power fails.

In exceptional situations, e.g. during the building phase, it may be required to turn off the power to the emergency luminaires but without the self-contained emergency luminaires switching into emergency mode.

Starting with firmware version 03 of the KNX-DALI Gateway N141/02 supports this.



When the „Off“-button of the button pair A4 is pressed for more than 10 seconds, then the KNX-DALI Gateway N141/02 sets an inhibit flag in the emergency ballasts. This action is acknowledged by briefly flashing LED A5.

If power is turned off within 15 minutes after setting the inhibit flag, e.g. by switching off the circuit breakers, then the emergency ballasts do not enter the emergency mode and are turned off until power resumes. After power resumed the emergency ballasts run in normal operation mode and the inhibit flag is reset.

2-level time switch mode without automatically switching off

Starting with firmware version 03 of the N141/02, the 2-level time switch mode for groups and individual luminaires (ballasts) can be configured to not switch off automatically.

This allows for setting a minimum light level for corridors and similar rooms as long as the lighting is not switched off by a wall switch or a central control command.

Parameter	Settings
On period 2 [hh:mm:ss]	00:00:30
hh= for hours; mm= for minutes; ss= for seconds. Here, in 2-level time switch mode, the time is entered that commences after the interim dimming value has been achieved (i.e. according to the dimming value after On period 1 has elapsed). When this time elapses the ballast is switched off. On period 2 is a maximum of 15 hours (15:00:00). When On period 2 is set to 00:00:00 then the time for the interim dimming value does not automatically elapse, i.e. the ballast is not automatically switched off. The diagram does not reflect this setting.	

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Delay time after restart

The KNX-DALI Gateway N141/02 can be configured to stay inactive for a predefined time after a download or power recovery in effect delaying sending of e.g. status messages onto the bus.

Starting with firmware version 03 / application program 981C05 of the N141/02 the delay time after restart can be configured up to 4 minutes and 15 seconds.

Parameter	Settings
Delay time after restart	no delay 2 seconds 3 seconds 4 seconds 5 seconds 10 seconds 20 seconds 30 seconds 35 seconds ... [5 second increments] 4 minutes 15 seconds
If one of the group / ECG status parameters is set to automatic "send after bus voltage recovery", the current status reports are automatically sent to the bus after bus voltage recovery. This can lead to high bus loads when several Gateways N 141/02 are used. With this parameter it is possible to delay the automatic sending and thus reduce the bus load on bus voltage recovery. If several Gateways N 141/02 are installed, these should be set to different delay values. <u>Note:</u> The selected delay time after restart increases the duration of a download and on power recovery the duration of the "Behaviour on bus voltage recovery of KNX or DALI".	