GSM INTERFACE


Version 1.2

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2011-01-28

Technical reference for programming of the NXT Master Unit GSM Interface
Innehåll

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# General Information

## Indication

Green LED / Red LED and Onboard Display

<table>
<thead>
<tr>
<th>Light Indication</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green LED Blink 2 Hz</strong></td>
<td>Module is online and registered with network.</td>
</tr>
<tr>
<td><strong>Green LED Blink High Frequency and Onboard Display shows Circle.</strong></td>
<td>Module is receiving or transmitting SMS to/from basestation. Display shows direction of message. Counter Clockwise = Receiving message Clockwise = Transmitting message.</td>
</tr>
<tr>
<td><strong>Display shows AXX</strong></td>
<td>Indicates signal strength. A10 = 100% Signal A09 = 90% Signal. ... A00 = 0% Signal. No connection to network. Displayed automatically when signal strength is Low. Displayed after successful transmission or reception of an SMS.</td>
</tr>
<tr>
<td><strong>Green and Red (Orange) Blink 2 Hz</strong></td>
<td>Module is attempting to register with the network. SIM card is inserted and OK.</td>
</tr>
<tr>
<td><strong>RED Solid Light. Display says “ES1” in 5 seconds interval.</strong></td>
<td>Error State. Error reading SIM Card. Check that SIM card is inserted properly.</td>
</tr>
<tr>
<td><strong>RED Solid Light. Display says “ES2” in 5 seconds interval.</strong></td>
<td>Error Sim Card, PIN active. Disable pin protection by inserting SIM card into a Cellular Phone and disable the SIM code.</td>
</tr>
<tr>
<td><strong>RED Solid Light.</strong></td>
<td>Error State. Communication problem with GSM Network. Can Not Register Module. Possible Cause: Check that your SIM Card is valid by inserting it into a cellular phone and test that it can acquire the network. (Might need reload / expired etc.)</td>
</tr>
</tbody>
</table>
**Parser Case Sensitivity**
The parser is not case sensitive. AA=aa=Aa=aA. When programming a channel the texts “BilgePump”, “bilgepump” and “BILGEPUMP” are all considered to be the same when decoding an incoming SMS.

**SMS Text Format**
The SMS Format is as follows:

{SMS CMD TEXT}
{LastReceivedCommandText}: {LastCmd}
{StatusText}: {On/Off/Error Text}
{Alarm Text}: {ActiveText}({AcknowledgedText})

**Example SMS Text**
BILGE PUMP PS
Last Received Command: OFF
Status: Off
Alarm: Active (Acknowledged)

The Texts for LastReceivedCommand, Status, On/Off/Error, Alarm,Active,Acknowledged can be programmed on the master unit properties.
Programming a channel

1. Place the mastermodule input channel in the Logic Schema Editor.

2. Click on the symbol to access the properties.

Basic Settings of the channel

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMS Cmd Text</td>
<td>Free text Identifying the Channel Command. I.e. “BILGE PUMP PS”</td>
</tr>
<tr>
<td>SMS Cmd Shorthand</td>
<td>A shorthand free text which can be used instead of the Cmd Text. I.e. “BILGE1”</td>
</tr>
<tr>
<td>Command #1 On</td>
<td>The text identifier to issue an on command. I.e. “ON”</td>
</tr>
<tr>
<td>Command #1 Off</td>
<td>The text identifier to issue an off command. I.e. “OFF”</td>
</tr>
</tbody>
</table>
Basic operation

Request Channel Status
Send: \{SMS CMD\}?

Example: BILGE PUMP PS?
         bilgepump aft status?
         Bilgepump aft sTatUs?

Response:
BILGE PUMP PS
Last Received Command: OFF
STATUS: OFF

Command Channel
Send: \{SMS CMD\} \{ONText\}
     \{SMS CMD\} \{OFFText\}
     \{SMS CMD\} \{Value#1Text\} =VALUE

Example:
Saloon Light OFF
Saloon Light ON VALUE=500
Saloon Light VALUE= 500
Advanced Programming

Programming Alarmlist: Add / Change the list.
Send:  IALARMLIST TELx=+46708XXXXX TELy=+46708YYYYY
Example:   IALARMLIST TEL1=+46708443888 TEL2=+46708443800

Read Current Alarmlist
Send:  IALARMLIST?

Delete Number From Alarmlist
Send:  IALARMLIST DELETE TELx
Example:   IALARMLIST DELETE TEL1

Example:
IALARMLIST?
ALARMLIST
TEL1=+46708443888
TEL2=+46708443800
TEL3=
TEL4=
TEL5=
TEL6=
TEL7=
TEL8=
TEL9=
Programming ACCESS Settings:

Request Status:
!ACCESS? [CODE=1234]

Response (if in locked mode, response only if CODE correct or if requester is in the accesslist)
ACCESS
ACCESS SETTING: LOCKED BY ACCESSCODE / OPEN ACCESS.
ACCESSLIST
TEL1 = +46708443888 *F [ACCESS = FULL ]
TEL2 = +46708443888 *R [ACCESS = REQUESTSTATUS ONLY]

ACCESS SETTINGS
LOCKED BY ACCESSCODE: Only the phonenumbers programmed in the accesslist are replied to.
Access is set per telephonenumber for Full (Control + Status) access or Limited access (Read status only)
Note: Telephonenumbers in the ALARMLIST are always granted full access to the system.

Program PinCode:
!ACCESS [CODE=1234] NEWCODE=5678
If no pincode is set, just send:
!ACCESS NEWCODE=5678

Note: When the pincode is set, the access automatically switches to locked mode.
Any phone transmitting !ACCESS CODE=XXXX will automatically be added to the accesslist.

Response:
ACCESS
ACCESS SETTING LOCKED BY ACCESSCODE
ACCESSLIST
TEL1 = +46708443888 *F/*.R [=FULL / REQUESTSTATUS ONLY]

Add phonenumber to access list: [Made from authorized phone in locked mode]
!ACCESS ADD=+46708443888 *F [Adds with full access]
!ACCESS ADD=+46708443888 *R [Adds with readonly access]

Delete phonenumber from access list:
!ACCESS DELETE +46708443888

Disable Access Control
!ACCESS CODE = 1234 UNLOCK SYSTEM [To Disable Access Control, you MUST supply the code. It is
not enough to be a member of the lists, you must know the password]

Disable Access Control using the FACTORY RESET when Access Code has been lost
!ACCESS FACTORYRESET = XXXXXX , where XXXXXX is the Factory Reset Code supplied with the
master unit.
The factory code can be used to unlock a locked system when access code has been lost.
**Acknowledge Alarm**

Send: #ACK [SMS CMD]

It is possible on the Master Unit Symbol to configure a universal #ACK for all alarms.

By default:

#ACK ALL ALARMS