

TRIGENTIC AB

GSM INTERFACE

Technical Reference Manual

Version 1.2

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General Information

Indication

Green LED / Red LED and Onboard Display

Green LED Blink 2 Hz	Module is Online and registered with network
Green LED Blink High Frequency and Onboard Display shows Circle.	Module is receiving or transmitting SMS to/from basestation. Display shows direction of message. Counter Clockwise = Receiving message Clockwise = Transmitting message
Display shows AXX	Indicates signal strength. A10 = 100% Signal A09 = 90% Signal. ... A00 = 0% Signal. No connection to network. <i>Displayed automatically when signal strength is Low.</i> <i>Displayed after successful transmission or reception of an SMS.</i>
Green and Red (Orange) Blink 2 Hz	Module is attempting to register with the network. SIM card is inserted and OK.
RED Solid Light. Display says "ES1" in 5 seconds interval.	Error State. Error reading SIM Card. Check that SIM card is inserted properly.
RED Solid Light. Display says "ES2" in 5 seconds interval.	Error Sim Card, PIN active. Disable pin protection by inserting SIM card into a Cellular Phone and disable the SIM code.
RED Solid Light.	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.)

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

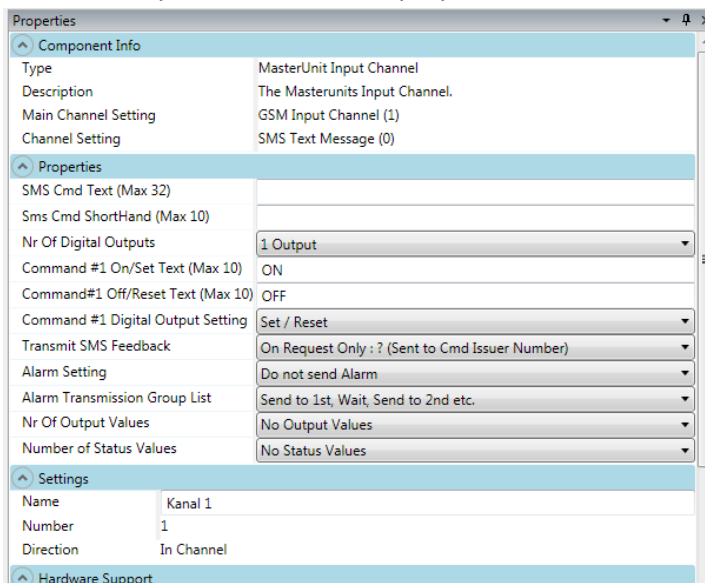
LastReceivedCommand, Status, On/Off/Error, Alarm,Active,Acknowledged can be programmed on the master unit properties.

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

SMS Cmd Text	Free text Identifying the Channel Command. I.e. "BILGE PUMP PS"
SMS Cmd Shorthand	A shorthand free text which can be used instead of the Cmd Text. I.e. "BILGE1"
Command #1 On	The text identifier to issue an on command. I.e. "ON"
Command #1 Off	The text identifier to issue an off command. I.e. "OFF"

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: !ALARMLIST TELx=+46708XXXXXX TELy=+46708YYYYY

Example: !ALARMLIST TEL1=+46708443888 TEL2=+46708443800

Read Current Alarmlist

Send: !ALARMLIST?

Delete Number From Alarmlist

Send: !ALARMLIST DELETE TELx

Example: !ALARMLIST DELETE TEL1

Example:

```
!ALARMLIST?  
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 phonenumber 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