

Connection and installation manual

GSM-receiver GSM 400





Warning notes

- **Installation, adjustment and maintenance may only be carried out by trained personnel!**
- Carrying out works at the receiver is only admissible after the power supply has been turned off!
- Only turn on the power supply again after another check!
- A proper operation is only given, when these installation instructions are strictly followed.

Safety

- The device GSM 400 contains a state-of-the-art Quadband GSM module. For correct installation and use of this product, please follow the instructions given in this manual. The use of the device GSM 400 near radio, television, telephone or other electronic devices can lead to reception influences and thus to functional disturbances.
- **Never install the device in the vicinity of pacemakers, acoustic prostheses or general electronic medical equipment as it could adversely effect the correct running of these appliances.**
- GSM 400 is a radio-operated device. Since no mobile service provider can guarantee a constant connection anywhere and at any time, this device can not be used as a personal emergency system.
- Don't use this device in explosion hazardous areas and also in areas, where the usage of radio systems (e.g. mobile phones,...) is forbidden.
- The Tousek radio system may only be used for devices and facilities, where no danger for persons or things arises from a malfunction of transmitter or receiver, or where this risk is covered by other safety devices.
The remote controlling of devices and plants with an increased accident risk (e.g. crane facilities) is forbidden!
- For safe operation the local valid safety regulations for the plant have to be kept!
- The owner/user has to be informed that facilities with an increased accident risk may only be operated at direct intervisibility.

EC-Declaration of Conformity

The company Tousek Ges.m.b.H. Automatische Torantriebe, Zetschegasse 1, A-1230 Wien hereby declares that:

The GSM radio receiver **GSM 400, GSM 420-RS 868** (GSM + 868 MHz) conforms to the following EC directives:

2014/53/EU	Radio Equipment Directive (RED)
2011/65/EU	Restriction of the use of certain hazardous substances in electrical and electronic equipment Directive (RoHS Directive)

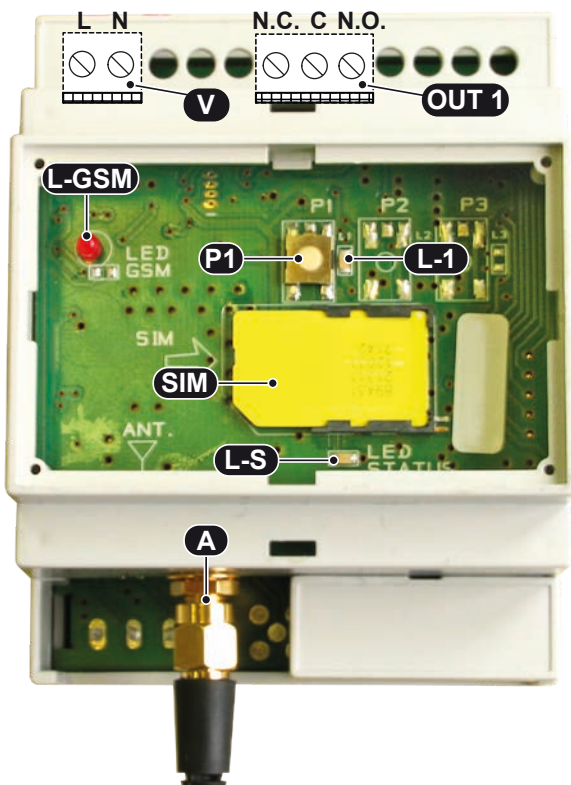
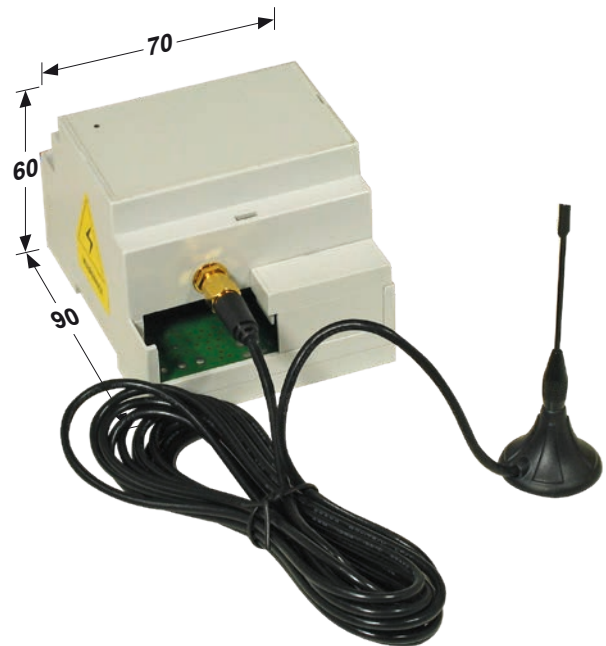
The following European standards were applied:

ETSI EN 301 489-1 V1.8.1:2008
ETSI EN 301 489-7 V1.3.1:2005
ETSI EN 301 511 V9.0.2:2003
EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + AC:2011 + A2:2013
EN 61000-6-2:2005 + AC:2005
EN 61000-6-3:2007 + A1:2011

Vienna, 04. 04. 2018

Features

- 1-channel GSM-receiver (1 potential-free N.O. or N.C. Output), which can be controlled via call and SMS.
- One relay output with the operating modes ON / OFF, pulse or time controlled (from 0 to 9999 sec.) is set via SMS.
- In case of an event (eg Power ON Reset), the SMS and / or telephone calls can be sent to max. 8 telephone numbers.
- Function indications via LED.
- The possibility of inserting and cancelling up to 300 telephone numbers with gate opening functions. If the calling number corresponds to one of the memorized numbers, the corresponding output relay gets activated.
- Suitable for DIN rail mounting.



- (V) 230Va.c. power supply
- (OUT 1) relay output
- (P1) programming button P1
- (L-GSM) GSM-LED
- (L-1) programming-LED
- (L-S) status-LED
- (SIM) SIM-card
- (A) connection GSM-antenna



Attention

- Check with your mobile provider whether the SIM card can send and receive SMS.
- Note: A phone number can only be saved once.

Technical data

GSM-receiver GSM 400, 1-channel			
power supply	230Va.c.	telephone module	SIM900 QBand
max. relay load	10A	SIM type	Standard
operating temperature	-20°C to 50°C	dimensions	70 x 90 x 60mm
protection class	IP10	article no.	13280270



To ensure a safe and reliable operation, the GSM 400 must only be installed only by qualified personnel.

- Connect the desired impulse input of the control board to the output terminals (**OUT 1**) of the GSM-receiver according to the technical specifications.
- Connect the GSM-antenna with the GSM-antenna connector (**A**).
- Insert a valid SIM card (**SIM**).



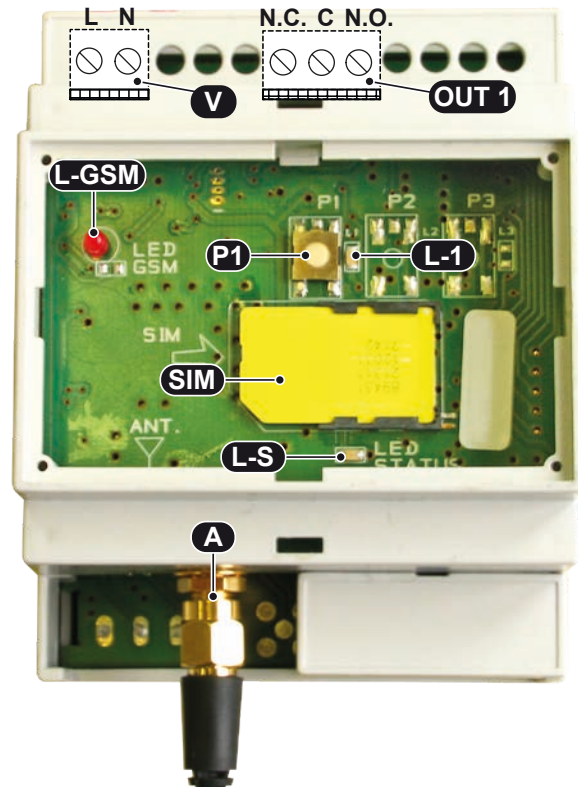
- The **SIM card** must have a credit in order to be able to use all functions.
- The **PIN** function must be deactivated.
- The **answering machine** function must be disabled.
- **ATTENTION:** check the functionality of the **SIM card** before inserting it into the mobile phone.

- Connect the 230 Va.c. supply line with the supply terminals (**V**). Then switch on the power supply.
- Wait approx. 30s until the connection LED (**L-S**) flashes slowly and the device has found its network.



- **Deactivate the redialing function** of your mobile phone.
- **It is necessary to send your mobile phone number.**

- The GSM-LED (**L-GSM**) provides information about the signal quality and shows possible errors.



GSM-LED display

display mode	meaning
blinks rapidly	module connects to the network (approx. 30s)
illuminates	no GSM signal available
4x slow blinking + <i>pause</i>	optimal GSM signal available
3x slow blinking + <i>pause</i>	good GSM signal available
2x slow blinking + <i>pause</i>	sufficient GSM signal available
1x slow blinking + <i>pause</i>	insufficient GSM signal (signal is being tested once per minute)
4x fast blinking + <i>lights in pause</i>	no SIM-card available
slow blinking	the SIM-card is PIN-Code protected

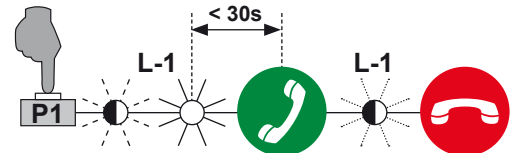
3a. Save/ delete telephone numbers via telephone call

Programming

The output of the GSM module can be switched by means of a telephone call. This does not incur any costs for the SIM card of the module. **For this function, the telephone number must be saved into the GSM receiver.**

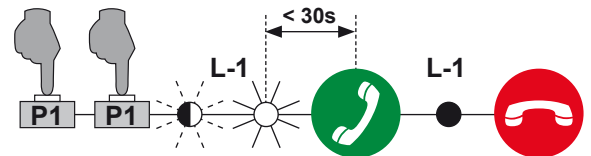
Save a telephone number

- Press the programming button (P1) once - the programming LED (L-1) starts flashing.
- If the programming LED (L-1) lights up permanently, make a call within 30s.
- As soon as the programming LED (L-1) flashes rapidly (the GSM module receives this call), hang up.



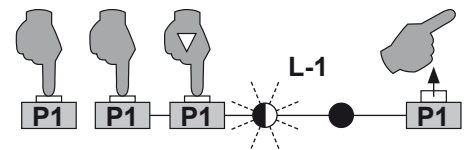
Delete a telephone number

- Press the programming button (P1) twice - the programming LED (L-1) starts to flash slowly.
- Make a call within 30 seconds from the number you want to delete.
- As soon as the programming LED (L-1) goes off (the GSM module receives this call), hang up.



Delete all telephone number

- Press the programming button (P1) three times and then hold it pressed for at least 10s. The programming LED (L-1) flashes quickly.
- As soon as the programming LED (L-1) goes off, you can release the programming button (P1).



3b. Command and setting via SMS

Programming

SMS texts are used for both setting the device functions as well as for requesting information from the device. The SMS commands with their descriptions and stored default values for each determined parameter are laid out in the table "SMS commands".

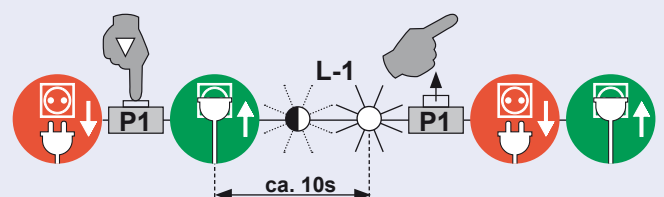


Important



- The default password is „12345“. **It is advised to define an own password (per SMS).**
- SMS commands can be written in upper or lower case letters.
- At the receipt of a SMS which is not one of those included in table, the GSM module sends the message to the **first telephone number** in the memory (even if the password is not valid).
- Insert the international dialling code (before the telephone number you want to memorize (e.g. +43 for Austria, +49 for Germany).
- The device answers to the configuration commands with a confirmation SMS („OK“) and to the control commands with a telephone call.



Password RESET



- Unplug the power plug, press the programming button (P1) and hold it pressed.
- Now plug the mains plug in and wait until the programming LED (L-1) lights permanently after approx. 10s after initial flashing.
- Now release the button (P1) and plug the mains plug **OFF and ON again!**



SMS commands / basic settings

	command	entry
1	<p>password change: [ = 12345] changes the (standard-)password into a new one. pass: password (max. 5 digits) passn: new password (max. 5 digits)</p>	<p><i>pass,PWD,passn,passn</i></p> <p>e.g. password change: 12345,PWD,23854,23854 → new password: 23854</p>
2	<p>Reset: all parameters are being set to default value and the complete tel. number list deleted. pass: password (max. 5 digits)</p>	<p><i>pass,RESET</i></p> <p>e.g. 12345,RESET</p>
3	<p>Memorize a telephone number in the telephone numbers list (for feedbacks): It is possible to memorize max. 8 telephone numbers for feedbacks via SMS and/ or call. pass: password (max. 5 digits) x: memory position in the tel. number list (1–8) telnr: tel. number (max. 19 digits) An already existing number memorized at this place will be overwritten.</p>	<p><i>pass,TEL,x,telnr</i></p> <p>e.g. 12345,TEL,3,+43699123456789</p>
4	<p>delete telephone number: deletes a tel.number from the list. pass: password (max. 5 digits) x: memory position in the tel. number list (1–8)</p>	<p><i>pass,DEL,x</i></p> <p>e.g. 12345,DEL,3</p>
5	<p>request telephone number list: the list of actual memorised tel. numbers for response are being sent by SMS. pass: password (max. 5 digits)</p>	<p><i>pass,NUM?</i></p> <p>e.g. 12345,NUM?</p>
6	<p>activation of SMS-message when switching on: When switching- on the device an SMS + call gets sent to the tel. number memorized under point 1. pass: password (max. 5 digits)</p>	<p><i>pass,PW,ON</i></p>
	<p>No SMS-message when switching on [= ]: no message when switching on the device. pass: password (max. 5 digits)</p>	<p><i>pass,PW,OFF</i></p>
7	<p>check functionality of device: operating state gets checked. pass: password (max. 5 digits) ➔ answer-SMS: „System OK“ + call</p>	<p><i>pass,CKE</i></p>

SMS commands / Befehlsgebung	
command	entry
<p>8</p> <p>Save telephone numbers for GATE OPEN-command: to save telephone numbers that should enable an opening command on output through a call (max. 300). pass: password (max. 5 digits) telnr: telephone number (max. 10 per command separated by comma) IMPORTANT: the country code (e.g. +43) , depending on automatic exchange in country, may be necessary! It is necessary to send your mobile phone number!</p>	<p><code>pass,MAC,telnr,telnr,...</code></p> <p>e.g. 12345,MAC,+436641234567, +436767654321</p>
<p>if a tel. number is followed by a „U“, an by a digit yyy, it means that, this number executes a defined amount of operations (in this exapmle: 5), and that the number gets then deleted.</p>	<p><code>pass,MAC,telnrUyyy</code></p> <p>e.g. 12345,MAC,+436767654321U5</p>
<p>9</p> <p>delete telephone numbers for GATE OPEN-command: to delete telephone numbers, that were enabled to generate an opening command through a call. pass: password (max. 5 digits) telnr: telephone number (max. 10 per command separated by comma)</p>	<p><code>pass,DAC,telnr,telnr,...</code></p> <p>e.g. 12345,MAC,+436641234567, +436767654321</p>
<p> To delete a phone number using „DAC“, it is necessary to dial it with the same dial code/ prefix that was used to store it with the command „MAC“!</p>	
<p>10</p> <p>delete all telephone numbers for GATE OPEN-command: pass: password (max. 5 digits)</p>	<p><code>pass,DAC,pass,pass</code></p> <p>e.g. 12345,DAC,12345,12345</p>
<p> Saving / deleting telephone numbers is also possible by means of a call (see point 3a)</p>	

SMS Commands / In-, outputs	
command	entry
<p>11</p> <p>activation of outputs OUT 1: pass: password (max. 5 digits) z: number of concerning output (=1) ➔ telephone call</p>	<p><code>pass,OUT,ON,z</code></p> <p>e.g. 12345,OUT,ON,1</p>
<p>12</p> <p>deactivation of outputs OUT 1 [= ]: pass: password (max. 5 digits) z: number of concerning output (=1) ➔ telephone call Note: in the „monostable“ operating mode, this command has no effect since the shutdown is performed automatically (after 0.5s).</p>	<p><code>pass,OUT,OFF,z</code></p> <p>e.g. 12345,OUT,OFF,1</p>
<p>13</p> <p>request status of output OUT 1: pass: password (max. 5 digits) ➔ answer SMS: „out 1 on (off) + call</p>	<p><code>pass,OUT?</code></p>
<p>14</p> <p>output relay OUT 1 set to MONOSTABIL [= ]: sets the switching behaviour of the output relay to monostable (active for 0,5s). pass: password (max. 5 digits). z: number of concerning output (=1)</p>	<p><code>pass,OUTRE,z,M</code></p> <p>e.g. 12345,OUTRE,1,M</p>
<p>output relay OUT 1 set to BI-STABLE: sets the switching behaviour of an output relay to bistable (ON, OFF). pass: password (max. 5 digits) z: number of concerning output (=1)</p>	<p><code>pass,OUTRE,z,B</code></p> <p>e.g. 12345,OUTRE,1,B</p>
<p>output relay OUT 1 with TIMER: sets a timer function for an output relay. pass: password (max. 5 digits) z: number of concerning output (=1) yyyy: time in seconds (1–9999s)</p>	<p><code>pass,OUTRE,z,Tyyyy</code></p> <p>e.g. 12345,OUTRE,1,T60</p>

tousek PRODUCTS

- sliding gate operators
- cantilever systems
- swing gate operators
- garage door operators
- folding door operators
- traffic barriers
- electronic controls
- radio remote controls
- key operated switches
- access control
- safety devices
- accessories

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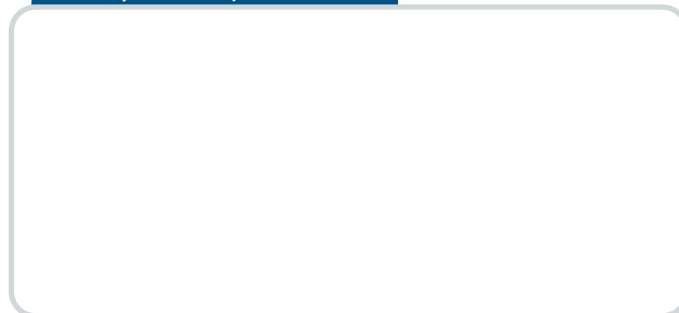
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07. 05. 2018



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