

WAGO SYSTEM **750**

Sending SMS via the fixed network

Application note

A112000, English
Version 1.0.3

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WAGO Kontakttechnik GmbH

Hansastraße 27
D-32423 Minden

Phone: +49 (0) 571/8 87 – 0
Fax: +49 (0) 571/8 87 – 1 69
E-Mail: info@wago.com
Web: <http://www.wago.com>

Technical Support

Phone: +49 (0) 571/8 87 – 5 55
Fax: +49 (0) 571/8 87 – 85 55
E-Mail: support@wago.com

Every conceivable measure has been taken to ensure the correctness and completeness of this documentation. However, as errors can never be fully excluded we would appreciate any information or ideas at any time.

We wish to point out that the software and hardware terms as well as the trademarks of companies used and/or mentioned in the present manual are generally trademark or patent protected.

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1 Important comments

To ensure fast installation and start-up of the units described in this manual, we strongly recommend that the following information and explanation is carefully read and adhered to.

1.1 Legal principles

1.1.1 Copyright

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1.1.2 Personnel qualification

The use of the product detailed in this manual is exclusively geared to specialists having qualifications in PLC programming, electrical specialists or persons instructed by electrical specialists who are also familiar with the valid standards. WAGO Kontakttechnik GmbH declines all liability resulting from improper action and damage to WAGO products and third party products due to non-observance of the information contained in this manual.

1.1.3 Intended use

For each individual application, the components supplied are to work with a dedicated hardware and software configuration. Modifications are only admitted within the framework of the possibilities documented in the manuals. All other changes to the hardware and/or software and the non-conforming use of the components entail the exclusion of liability on part of WAGO Kontakttechnik GmbH.

Please direct any requirements pertaining to a modified and/or new hardware or software configuration directly to WAGO Kontakttechnik GmbH.

1.2 Range of validity

This application note is based on the stated hardware and software of the specific manufacturer as well as the correspondent documentation. This application note is therefore only valid for the described installation.

New hardware and software versions may need to be handled differently. Please note the detailed description in the specific manuals.

1.3 Symbols



Danger

Always observe this information to protect persons from injury.



Warning

Always observe this information to prevent damage to the device.



Attention

Marginal conditions must always be observed to ensure smooth operation.



ESD (Electrostatic Discharge)

Warning of damage to the components by electrostatic discharge. Observe the precautionary measure for handling components at risk.



Note

Routines or advice for efficient use of the device and software optimisation.



More information

References to additional literature, manuals, data sheets and INTERNET pages

2 Description

Short text messages (SMS) are sent via a **Short Message Service Center** (SMSC). The SMSC provides the SMS with a time stamp and transmits the message to the recipient. In the case that the recipient is not available, the message is stored on the SMSC for later delivery.

SMS centers usually offer different types of connection including, for example, GSM, Internet and fixed network modem (analog or ISDN).

Connection via a fixed network modem is done using two different protocols depending on the SMSC.

For example, D2 Vodafone supports the connection with the Universal Computer Protocol (UCP), whereas D1Alpha Service uses the Telocator Alphanumeric Protocol (TAP).

This application example demonstrates how to send short messages (SMS) from the fixed network into the D1 network (TAP) and into the D2 network (UCP) using a standard modem and a combined analog / ISDN modem from Westermo.

Furthermore, this example can be displayed allowing the easy transfer of a SMS.



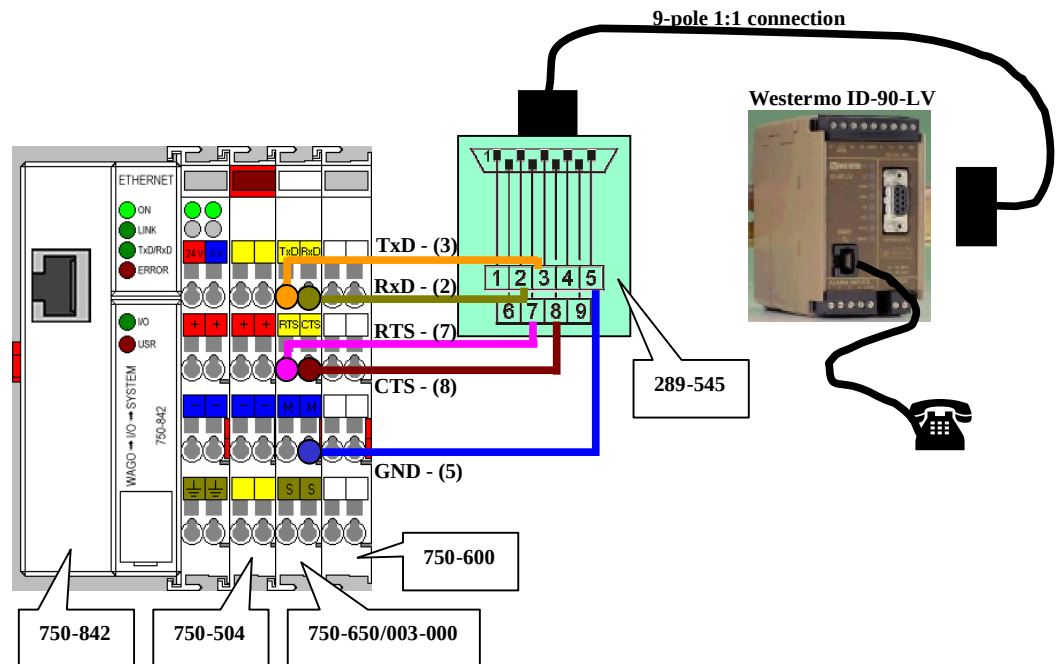
Note

Please check the support of your SMS provider for deliver messages in strange networks.

3 Reference Material

Manufacturer	Name	Version / Item No.
WAGO	Ethernet controller	750-842
WAGO	4-ch. digital output module	750-504
WAGO	Serial interface RS232	750-650 / 003-000
WAGO	End module	750-600
WAGO	Interface module	289-545
Westermo	ISDN modem	ID-90-LV
ELSA	Analog modem	MicroLink 56K

4 Solution



Picture 4-1: GSM_SMS call up

The standard interface module from WAGO (item no.: 289-545) makes it possible to use a standard 1:1 connection cable to connect the modem.

5 Programming the controller

Merely one module for SMS transmission via TAP and one module for transmission via UCP have been called up and parameterised in the main program (PLC_PRG) of the coupler. These modules come from the "SMS_01.Lib" library.

Furthermore, the program module "Visu" is called up for display.

6 Display

The display is divided into the following areas: **status indication** (red), **modem selection** (blue), **service center selection** (green), **message window** (yellow) and **action area**.

After the appropriate modem has been selected, the service center to be used must be set. Subsequently, the mobile phone number of the recipient as well as the actual message can be entered into the message window.

The sending button activates the send process and the driver initialises first the modem used in order to create a connection to the selected SMSC.

The process as well as possible failures can be observed in the status area.

TAP-Status	UCP-Status
TAP_NO_ERROR	UCP_NO_ERROR
MODEM_NO_ERROR	MODEM_NO_ERROR
MODEM_DISCONNECT	MODEM_DISCONNECT

Standardmodem (analog)	Westermo ID-90-LV (Analog-Verbindung)	Westermo ID-90-LV (ISDN-Verbindung)
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Short Message Service Center	
DeTeMobil (D1) analog (TAP)	vodafone (D2) analog (UCP)
DeTeMobil (D1) ISDN (TAP)	Swisscom analog (UCP)
E-Plus analog (TAP)	

Empfänger	0172123456789
Nachricht	Hallo hier ist eine Mitteilung vom Koppler

Absenden

ONLINE SIM LÄUFT BP FORCE

Picture 6-1: SMS sending display

7 Tables

7.1 Files required

	Column headline
Beispiel_SMS_Versand.pro	Project example
SMS_01.Lib	TAP/UCP protocol driver
MODEM_01.Lib	Driver used to control a modem
Serial_Interface_01.Lib	Driver for serial interfaces
SerComm.Lib	Basic functionality of serial interfaces
SerComm.HEX	Hex file for basis functionality
Standard.Lib	Standard functions
Standard.HEX	Hex file for the standard functions



WAGO Kontakttechnik GmbH
Postfach 2880 • D-32385 Minden
Hansastraße 27 • D-32423 Minden
Phone: 05 71/8 87 – 0
Telefax: 05 71/8 87 – 1 69
E-Mail: info@wago.com

Internet: <http://www.wago.com>
