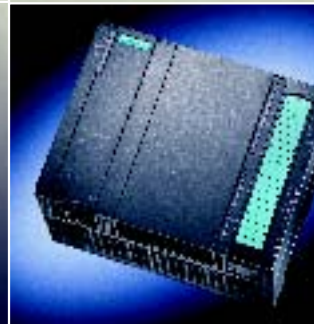
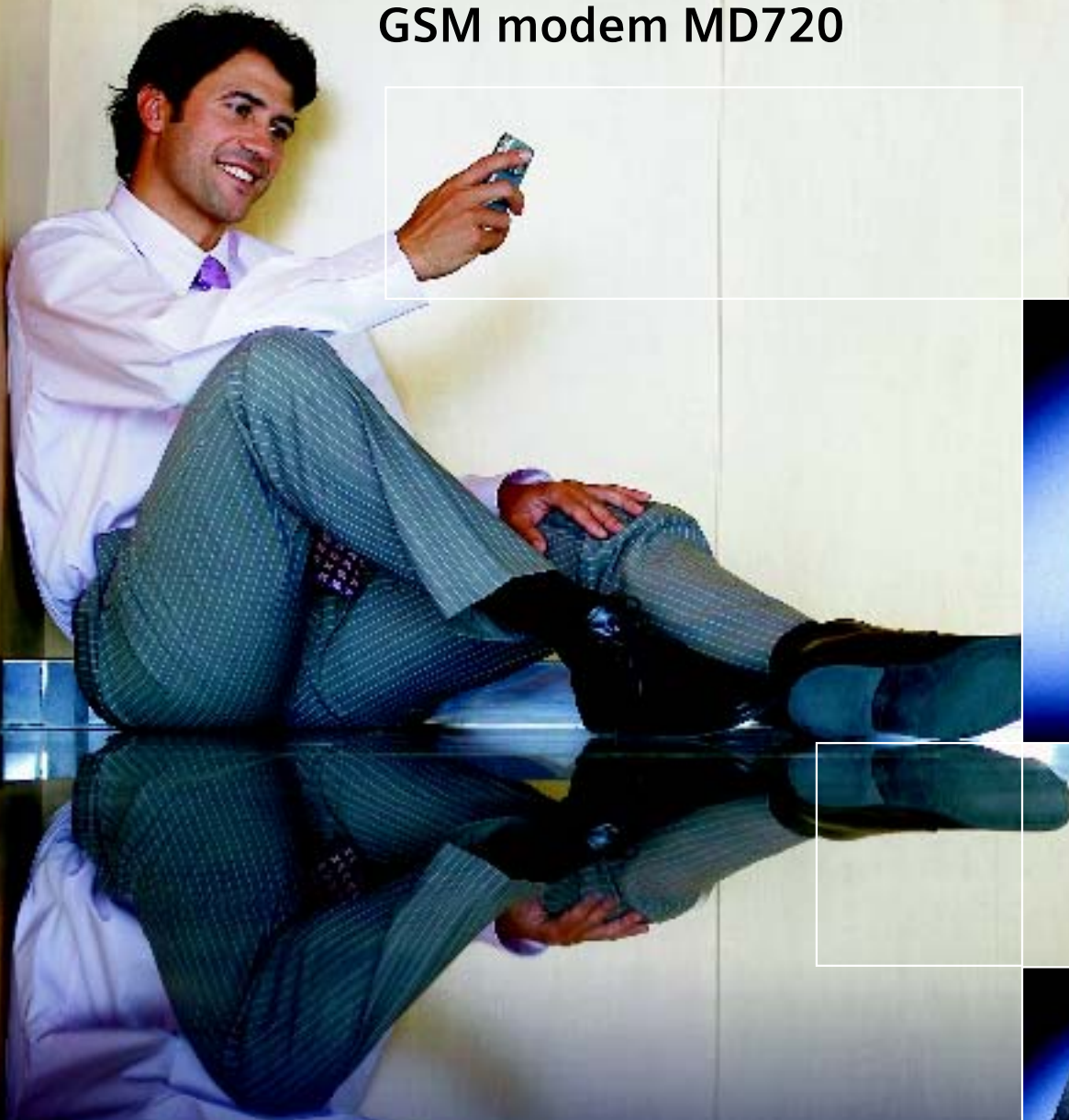


# Sending and receiving SMS text messages with GSM modem MD720



**simatic net**

CONFIGURATION 10

**SIEMENS**

# Sending and receiving SMS text messages with GSM modem MD720

The short message service (SMS) is a service for the transmission of text messages and is based on the standardized, fully digital GSM mobile radio network (global system for mobile communications).

The messages are transmitted on the signaling channels and not on the user data channels of the GSM network. In this way, SMS messages can also be sent or received during an existing connection (e.g. telephone call).

GSM modems offer the possibility of sending data (measured values, status information, control of functions) over considerable distances using the GSM network.

SINAUT MD720-3 is a GPRS modem for connecting SIMATIC S7-200 stations via GPRS to a PC control center using SINAUT MICRO SC.

In addition, the MD720-3 can send and receive SMS as a function of a GSM modem, which means it can also be used for SIMATIC S7-300/400 controllers.

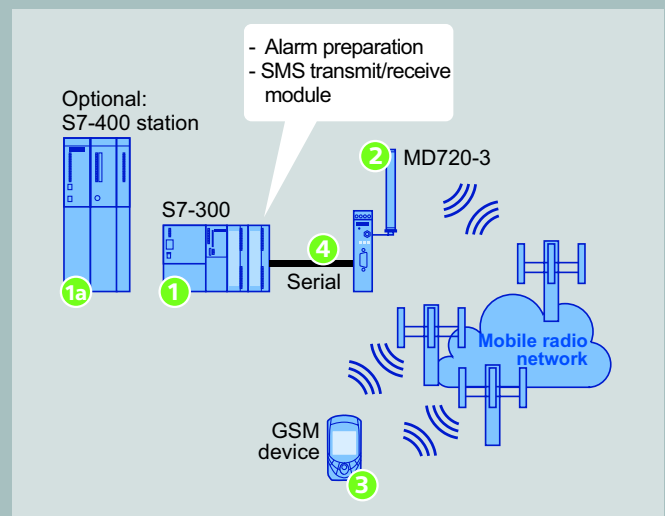
This configuration shows that a SIMATIC S7-300/400 controller is capable of sending messages about its system status using SMS via the MD720-3 and the mobile phone network to a cell phone. It also shows that the controller can receive an acknowledgment SMS from a cell phone.

## Ready to go in a flash. SIMATIC NET Configurations

SIMATIC NET offers all components necessary for constructing integrated network solutions on the basis of open, international standards. For demanding industrial applications, SIMATIC NET makes the advantages of Ethernet usable and ensures simple integration of the fieldbus systems. SIMATIC NET configurations represent

system-tested components that are recommended for typical tasks in industrial communications. For more comprehensive solutions, additional components from the wide and varied SIMATIC NET range can be added at any time.

*With the **Configuration 10** you can obtain an overview of the use of data communication via mobile radio in plants.*



# Technical specifications

## ② SINAUT MD720-3

<b>Transmission rate</b>	
RS232	300 ... 57,600 bit/s
GSM data calls	CSD 9,600 bit/s
GPRS	Class 10
■ 1 or 2 uplinks	13.4 ... 27 kbit upload gross (modem to Internet); Net about 30% lower
■ Up to 4 downlinks	40 ... 54 kbit download gross (Internet to modem);
<b>Interfaces</b>	
RS232	1 x 9-pin Sub-D socket
Antenna connection	1 x SMA antenna socket (50 Ohms)
<b>Frequency ranges</b>	850, 900, 1800, 1900 MHz
<b>Transmitted output power</b>	2 W at 850, 900 MHz
<b>Current consumption</b>	1 W at 1800, 1900 MHz
<b>Send mode</b>	
■ at 12 V	430 mA
■ at 24 V	140 mA
<b>Receive mode</b>	
■ at 12 V	90 mA
■ at 24 V	50 mA
<b>Voltage supply</b>	12 ... 30 V DC
<b>Power loss</b>	typically 5 W
<b>Permissible ambient conditions</b>	Max. 6,2 W
Operating temperature	- 20 °C ... +60 °C
Transport/storage temperature	- 25 °C ... +85 °C
Relative humidity	max. 95 % at +25 °C
<b>Design</b>	
Dimensions (W x H x D) in mm	22.5 x 99 x 114
Weight	Approx. 150 g
Assembly	Standard mounting rail
<b>Degree of protection</b>	IP40
<b>Configuration</b>	AT commands via S7-300/400 programming modules; MC45-compatible AT commands for use with SINAUT ST7 modules
<b>National approvals</b>	Current approvals can be found in the Internet under: <a href="http://www.siemens.com/simatic-net/ik-info">http://www.siemens.com/simatic-net/ik-info</a>

# Ordering data

SIMATIC Components	Order No.
<b>1</b> CPU 315-2 DP	6ES7 315-2AG10-0AB0
CP 341	6ES7 341-1AH01-0AE0
Power supply PS 307 5A	6ES7 307-1EA00-0AA0
Micro Memory Card, at least 64 KB	6ES7 953-8LF11-0AA0
MPI connecting cable	6ES7 901-0BF00-0AA0
or	
<b>1a</b> CPU 416-2 DP	6ES7416-2XN05-0AB0
CP 441-2	6ES7441-2AA04-0AE0
RS232 interface module	6ES7963-1AA00-0AA0
PS 407 10A power supply	6ES7407-0KA02-0AA0
MPI connecting cable	6ES7901-0BF00-0AA0
GSM components	Order No.
MD720-3	6NH9 720-3AA00
GSM quad-band antenna, omnidirectional with 5 m cable	6NH9 860-1AA00
Pocket LOOX T810	Subscriber contract with a GSM network operator
Serial cable	6ES7 902-1AB00-0AA0
Software components	Order No.
STEP 7 V5.4 SP1	6ES7 810-4CC08-0YA5
S7-SCL V5.3	6ES7 811-1CC05-0YA5

## Note:

Current ordering data for SIMATIC-, GSM and software components can be found in the Internet under:

<http://www.siemens.com/automation/mall>

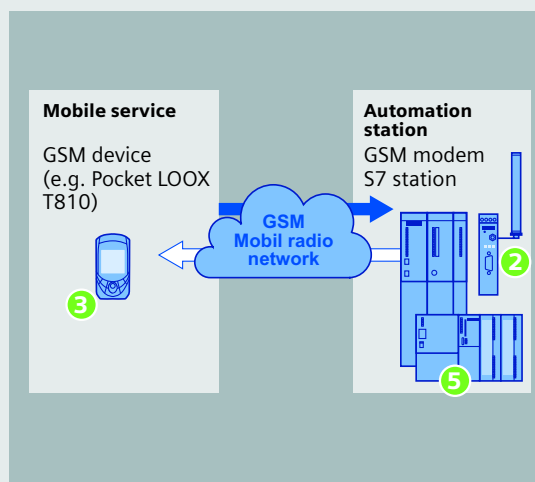


# Designed for Industry



## Components

- 1 S7-300 with CPU 315-2 DP and CP 341 with RS232 interface or
- 1a S7-400 with CPU 416-2 DP, CP 441-2 and interface module RS232
- 2 GSM modem MD720-3 with GSM antenna
- 3 Pocket LOOX T810 from Siemens Fujitsu
- 4 Serial cable
- 5 S7-300 with CPU 315-2 DP and CP 341



Wireless online connection to MD720-3

## Automation task:

- The GSM modem MD720-3 and the communications processor (CP) are connected via the respective RS232 ports using a serial cable. A serial data exchange takes place over this connection.
- The modem is the interface to the GSM wireless network. Initiated by AT commands, it transmits and receives messages, via the GSM wireless network, which are then forwarded to the CP for further processing.



# Always keep up to date!

Information on commissioning SIMATIC NET  
Configuration 10  
**[www.siemens.com/simatic-net/configurations](http://www.siemens.com/simatic-net/configurations)**

You can reach our online support at:  
**[www.siemens.com/automation/service&support](http://www.siemens.com/automation/service&support)**

You can find your local Siemens partner at:  
**[www.siemens.com/automation/partners](http://www.siemens.com/automation/partners)**

*Configurations are not mandatory and do not make any claim to be complete in terms of configuration and equipment or any other eventualities. They do not represent any customer-specific solutions, but are only intended to offer assistance for typical tasks. You yourself are responsible for the proper operation of the described products. These configurations do not absolve you from the duty of safe handling during application, installation, operation and maintenance. By using this configuration, you acknowledge that Siemens cannot be held liable for any damage beyond the liabilities described above. Subject to change without prior notice. In the case of discrepancies between the recommendations in this configuration and other Siemens publications such as catalogs, the content of the other documentation shall take precedence.*

## Advantages at a glance:

- High-speed transmission of short messages to service personnel
- The code of these blocks is not write protected. It can be viewed and modified with S7 SCL and thus adapted to suit specific customer requirements
- The SMS function block FB 100 for the transmission and reception of text messages is available for each communications processor (CP 340, CP 341 and CP 441-2) in its own library

# [www.siemens.com/simatic-net](http://www.siemens.com/simatic-net)

## Siemens AG

Automation and Drives  
Postfach 48 48  
90327 NÜRNBERG  
GERMANY

[www.siemens.com/automation](http://www.siemens.com/automation)

*The information provided in this brochure contains descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. Availability and technical specifications are subject to change without notice. All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.*