



## Product Data Sheet

# MODBUS Master/Slave GPRS UDP Communication Server

The Klinkmann Automation **MODBUS Master/Slave GPRS UDP Communication Server (Modbus GPRS IO Server)** is a Microsoft Windows application program that acts as a communication protocol *Server* and allows other Windows application programs access to data from MODBUS network using the UDP/IP interface (in UDP Server mode only), with special functionality implemented to support the **GPRS** wireless communications. The Server can act either as a MODBUS master device or a MODBUS slave device.

Any Microsoft Windows program that is capable of acting as a DDE, FastDDE, SuiteLink or OPC *Client* may use the MODBUS Master/Slave Server.

There are following MODBUS Master/Slave GPRS UDP Server versions available:

- MODBUS Master/Slave GPRS UDP DDE & Suite Link Server,
- MODBUS Master/Slave OPC & DDE Server.

## FEATURES

The **OPC** support for MODBUS Master/Slave Serial&Ethernet Server OPC & DDE version conforms to OPC Data Access Custom Interface Specification 2.04. The MODBUS Server OPC & DDE version is tested for compliance and is compatible with OPC Foundation OPC Data Access Compliance Test Tool.

The MODBUS Server DDE & Suite Link version supports the Wonderware **Suite Link** communication protocol.

Supports the special **UDP Modbus/IP + CRC** feature, the serial device is accessed via GPRS-modem with embedded application running on it. Both the 6-bytes header and CRC are included in UDP/IP packet. The **Klinkmann GPRS application** running on GPRS-modem at serial device side is required to enable the GPRS communication.

The Server is intended for serial communication with any devices supporting standard MODBUS binary (RTU, 8-bit) protocol. Connected Modbus devices can be either MODBUS Slaves or MODBUS Masters.

For write commands the selection from two different function types can be done: single coil/register write commands (functions 5 and 6) or multiple coil/register write commands (functions 15 and 16).

Supports both 5-digit and 6-digit addressing.

Support for PLC limited address fields, by using special valid addresses ASCII file.

Modbus Function 8 (Diagnostics) support.

Minimizes system message traffic by dynamically calculating and optimizing poll lists for client-requested items/points.

Supports multiple topics for each PLC, allowing different data update rates.

Provides a communication status flag for each topic.

Supports standard DDE among multiple applications.

## SPECIFICATIONS

**Hardware:** For effective use the following is recommended - CPU: 586 133 MHz or faster, 32MB RAM or more. May require more memory to run other Windows programs simultaneously.

**Software:** MS Windows XP, Windows 2003 Server, Windows 7, Windows 2008 Server, Windows 2012 Server.

**Maximum Connections:** Up to 255 Modbus devices can be connected.

**Devices Supported:** Any device supporting MODBUS RTU (binary) serial protocol.

**Accessible Data Types:** Within the MODBUS Master/Slave Server, the standard Modicon MODBUS protocol item/point naming is used. The point name consists of five or six digits with optionally used suffix (e.g. character S or s for signed Word indication). The first digit states the memory area the point belongs to. The rest four or five digits are the point address in the memory area.

There are following memory areas available (5-digit / 6-digit addressing):

Binary outputs and binary memories, Read/Write, addresses 00001 - 09999 / 000001 - 065535

Binary inputs, Read Only, addresses 10001 - 19999 / 100001 - 165535

Register outputs and register memories, Read/Write, addresses 40001 - 65000 / 400001 - 465535

Register inputs, Read Only, addresses 30001 - 39999 / 300001 - 365535

Extended Memory Registers, addresses 600001 - 69xxxx

## ORDERING INFORMATION

### Description / Order Number

MODBUS Master/Slave GPRS UDP DDE&Suite Link Server Manual & Disk Set / DR381 10

MODBUS Master/Slave GPRS UDP OPC&DDE Server Manual & Disk Set / DR381 11



[www.klinkmann.com](http://www.klinkmann.com)

#### Helsinki

tel. +358 9 540 4940  
automation@klinkmann.fi

#### St. Petersburg

tel. +7 812 327 3752  
klinkmann@klinkmann.spb.ru

#### Moscow

tel. +7 495 641 1616  
moscow@klinkmann.spb.ru

#### Yekaterinburg

tel. +7 343 287 19 19  
yekaterinburg@klinkmann.spb.ru

#### Samara

tel. +7 846 273 95 85  
samara@klinkmann.spb.ru

#### Kiev

tel. +38 044 495 33 40  
klinkmann@klinkmann.kiev.ua

#### Riga

tel. +371 6738 1617  
klinkmann@klinkmann.lv

#### Vilnius

tel. +370 5 215 1646  
post@klinkmann.lt

#### Tallinn

tel. +372 668 4500  
klinkmann.est@klinkmann.ee

#### Minsk

tel. +375 17 200 0876  
minsk@klinkmann.com