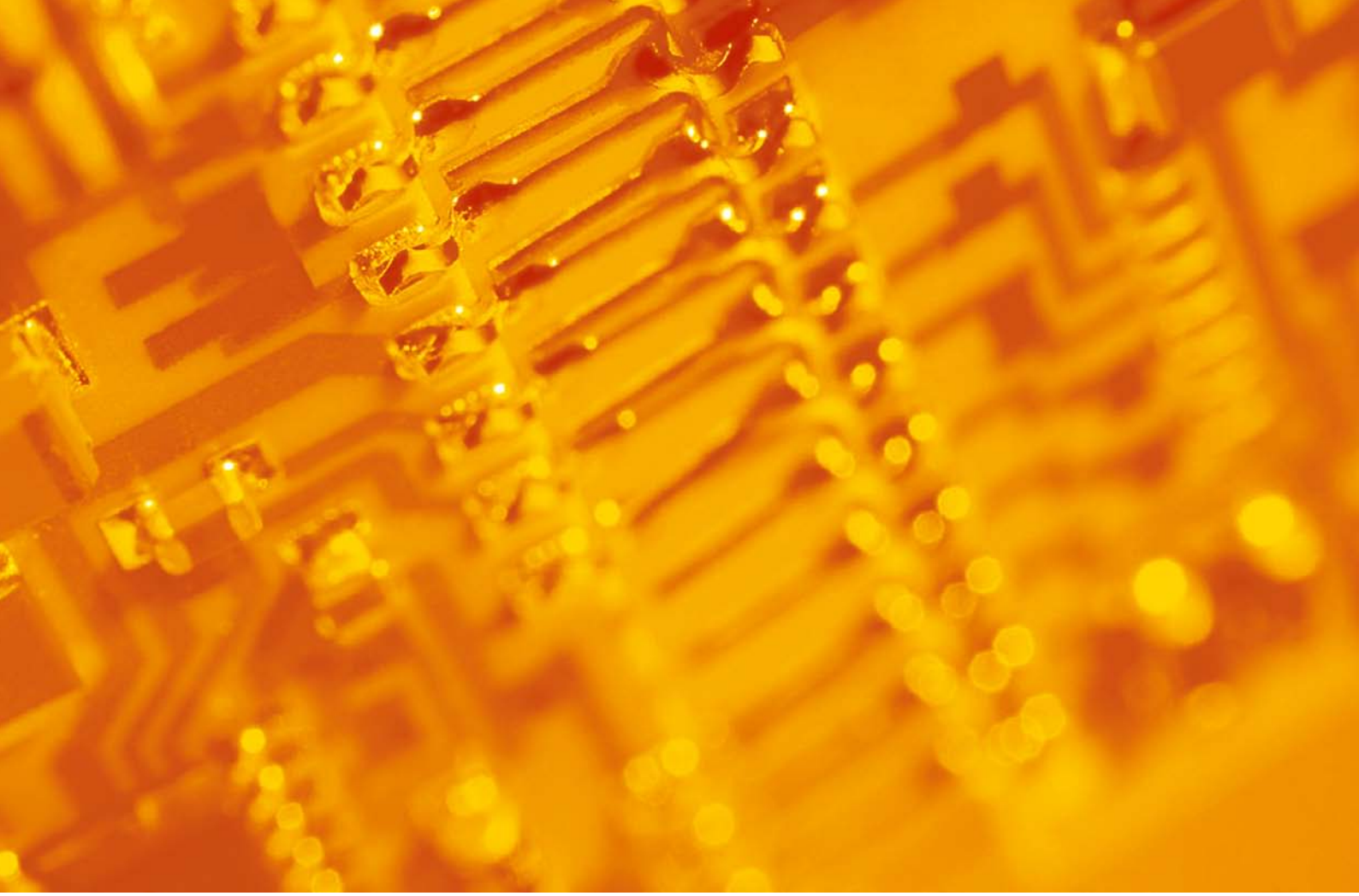

## At a glance


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# Accessories

# Accessories

## Structure and Function

The accessories expand the functionality and the application range of the control of VIPA systems of other manufacturers. The accessories are useable across systems and are largely manufacturer independent.

### Interface modules

The IM 306 modules, or PROFIBUS-DP slave interface cards for the SIMATIC S5, enable simple, economical and safe upgrading to newer control systems with PROFIBUS-DP master interfaces, while maintaining the Siemens SIMATIC S5 peripherals.

### Teleservice modules

The Teleservice modules from VIPA are completely configurable via a web browser (e.g. Internet Explorer). You do not need any additional software.

Teleservice modules allow the collection of data from your machines and plant and send them automatically via e-mail to defined recipients. With these records, the overview of the machine and plant status is fully guaranteed.

The deployed VPN technology allows secure and encrypted connection between a PC and the devices connected to the Teleservice modules.

### Cables and DP connectors

Accessories, such as programming and PROFIBUS cables in various lengths, PROFIBUS-DP connectors with integrated intelligence and LED diagnostic display, a comprehensive set of adapters, rails, and connectors support the versatile use of the systems.

The bus connector EasyConn PB is used for connection of PROFIBUS participants in the bus line. The diagnostic LEDs, visible from all sides, facilitate starting considerably. The status of bus activity, the final resistance, the power supply and bus status are directly visible. The integrated controller supports data rates up to 12 Mbit/s.

# S5 components

| Order number | 306-1LE00 | 306-1UE00 | 306-1UZ00 | |
|---|---|---|---|---|
| Figure | | | | |
| Type | IM 306 DP slave 115U | IM 306 DP slave 135U/155U | IM 306 DP slave 135U/155U | |
| **General information** | | | | |
| Note | - | - | - | |
| Features | › Converting Siemens S5 PLCs to S7<br>› Exclusively suited for AG-115U central controller and expansion units<br>› Intagrated DC 24V power supply | › Converting Siemens S5 PLCs to S7<br>› Exclusively suited for AG-135U/155U central controller and expansion units<br>› Integrated DC 24V power supply | › Converting Siemens S5 systems to S7<br>› Exclusively suited for AG-135U/155U central controller | |
| **Technical data power supply** | | | | |
| Power supply (rated value) | DC 24 V | DC 24 V | DC 5 V | |
| Power supply (permitted range) | DC 20.4...28.8 V | DC 20.4...28.8 V | - | |
| Reverse polarity protection | ✓ | ✓ | - | |
| Current consumption (no-load operation) | 0.1 A | 0.1 A | 0.4 A | |
| Current consumption (rated value) | 1 A | 1 A | 0.4 A | |
| Inrush current | 4 A | 4 A | - | |
| $I^2t$ | 0.5 $A^2s$ | 0.5 $A^2s$ | - | |
| Max. current drain at backplane bus | 3.5 A | 3.5 A | - | |
| Max. current drain load supply | - | - | - | |
| Power loss | 4 W | 4 W | 2 W | |
| **Status information, alarms, diagnostics** | | | | |
| Status display | yes | yes | yes | |
| Interrupts | yes, parameterizable | yes, parameterizable | yes, parameterizable | |
| Process alarm | no | no | yes, parameterizable | |
| Diagnostic interrupt | yes, parameterizable | yes, parameterizable | yes, parameterizable | |
| Diagnostic functions | yes, parameterizable | yes, parameterizable | yes, parameterizable | |
| Diagnostics information read-out | possible | possible | possible | |
| Supply voltage display | green LED | green LED | green LED | |
| Service Indicator | - | - | - | |
| Group error display | red LED | red LED | red LED | |

| Order number | 306-1LE00 | 306-1UE00 | 306-1UZ00 | |
|---|---|---|---|---|
| Channel error display | none | none | none | |
| **Hardware configuration** | | | | |
| Racks, max. | 1 | 1 | 1 | |
| Modules per rack, max. | 9 | 18 | 18 | |
| Number of digital modules, max. | 9 | 18 | 18 | |
| Number of analog modules, max. | 9 | 18 | 18 | |
| **Communication** | | | | |
| Fieldbus | PROFIBUS-DP to EN 50170 | PROFIBUS-DP to EN 50170 | PROFIBUS-DP to EN 50170 | |
| Type of interface | RS485 | RS485 | RS485 isolated | |
| Connector | Sub-D, 9-pin, female | Sub-D, 9-pin, female | Sub-D, 9-pin, female | |
| Topology | Linear bus with bus termination at both ends | Linear bus with bus termination at both ends | Linear bus with bus termination at both ends | |
| Electrically isolated | ✓ | ✓ | ✓ | |
| Number of participants, max. | 125 | 125 | 125 | |
| Node addresses | 1 - 125 | 1 - 125 | 1 - 125 | |
| Transmission speed, min. | 9.6 kbit/s | 9.6 kbit/s | 9.6 kbit/s | |
| Transmission speed, max. | 12 Mbit/s | 12 Mbit/s | 12 Mbit/s | |
| Address range inputs, max. | 244 Byte | 244 Byte | 244 Byte | |
| Address range outputs, max. | 244 Byte | 244 Byte | 244 Byte | |
| Number of TxPDOs, max. | - | - | - | |
| Number of RxPDOs, max. | - | - | - | |
| **Mechanical data** | | | | |
| Dimensions (WxHxD) | 20 mm x 233.4 mm x 160 mm | 20 mm x 233.4 mm x 160 mm | 20 mm x 233.4 mm x 160 mm | |
| Weight | 220 g | 220 g | 190 g | |
| **Environmental conditions** | | | | |
| Operating temperature | 0 °C to 60 °C | 0 °C to 60 °C | 0 °C to 60 °C | |
| Storage temperature | -25 °C to 70 °C | -25 °C to 70 °C | -25 °C to 70 °C | |
| **Certifications** | | | | |
| UL508 certification | - | - | - | |

## PROFIBUS connectors

| Order number | Type | Description | Note |
|---|---|---|---|
| 972-0DP01 | EasyConn PB 90° - SubD connector | 12 Mbit/s, metal case, PG-jack, insulation piercing connection, switchable termination resistor, 90° outgoing cable | |
| 972-9DP01 | EasyConn PB 90° - SubD connector | 12 Mbit/s, metal case, PG-jack, insulation piercing connection, switchable termination resistor, 90° outgoing cable, ECO pack: 100 pieces | |
| 972-0DP10 | EasyConn PB 90° - SubD connector | 12 Mbit/s, metal case, PG-jack, insulation piercing connection, switchable termination resistor, 90° outgoing cable, bus diagnosis via LEDs | |
| 972-9DP10 | EasyConn PB 90° - SubD connector | 12 Mbit/s, metal case, PG-jack, insulation piercing connection, switchable termination resistor, 90° outgoing cable, bus diagnosis via LEDs, ECO pack: 100 pieces | |
| 972-0DP20 | EasyConn PB 45° - SubD connector | 12 Mbit/s, metal case, PG-jack, insulation piercing connection, switchable termination resistor, 45° outgoing cable, bus diagnosis via LEDs | |
| 972-9DP20 | EasyConn PB 45° - SubD connector | 12 Mbit/s, metal case, PG-jack, insulation piercing connection, switchable termination resistor, 45° outgoing cable, bus diagnosis via LEDs, ECO pack: 100 pieces | |
| 972-0DP30 | EasyConn PB 0° - SubD connector | 12 Mbit/s, metal case, PG-jack, insulation piercing connection, switchable termination resistor, 0° outgoing cable, bus diagnosis via LEDs | |
| 972-9DP30 | EasyConn PB 0° - SubD connector | 12 Mbit/s, metal case, PG-jack, insulation piercing connection, switchable termination resistor, 0° outgoing cable, bus diagnosis via LEDs, ECO pack: 100 pieces | |

## Miscellaneous

| Order number | Type | Description | Note |
|---|---|---|---|
| 905-6AA00 | EasyStrip | Stripping tool for PROFIBUS cable | |
| 6ES5491-0LB11 | Adaptation capsule for S5-115U/F | Siemens 6ES5 491-0LB11, Siemens SIMATIC S5, adaptation capsule for S5-115U/F (type ES 902) for connecting of up to 2 modules of S5-135U/155U, refreshed, 1 year warranty | |

# Teleservice modules

| Order number | 900-2E631 | 900-2E641 | 900-2E651 | |
|---|---|---|---|---|
| Figure | | | | |
| Type | TM-E ISDN Router | TM-E Analog Router | TM-E GSM/GPRS Router quad-band | |
| **General information** | | | | |
| Note | - | - | - | |
| Features | › RJ11 Euro ISDN modem<br>› RS485 MPI/PROFIBUS DP interface<br>› RJ45 Ethernet interface | › RJ11 PSTN modem (analog)<br>› RS485 MPI/PROFIBUS DP interface<br>› RJ45 Ethernet interface | › integrated GSM/GPRS Modem, quad-band<br>› RS485 MPI/PROFIBUS DP interface<br>› RJ45 Ethernet interface<br>› Slot for SIM-Card | |
| **Inputs and outputs** | | | | |
| Inputs | 1 DI: 0/24 V DC, isolated | 1 DI: 0/24 V DC, isolated | 1 DI: 0/24 V DC, isolated | |
| Outputs | 1 DO: open drain, max. 200 mA at DC 30 V | 1 DO: open drain, max. 200 mA at DC 30 V | 1 DO: open drain, max. 200 mA at DC 30 V | |
| **Communication** | | | | |
| serial port | MPI/PROFIBUS, isolated, up to 12 MBit/s | MPI/PROFIBUS, isolated, up to 12 MBit/s | MPI/PROFIBUS, isolated, up to 12 MBit/s | |
| LAN | 1 x RJ45, 10/100 MBit/s | 1 x RJ45, 10/100 MBit/s | 1 x RJ45, 10/100 MBit/s | |
| WAN | - | - | - | |
| Modem type | ISDN | PSTN / analog | GSM/GPRS Quad-band | |
| **Router** | | | | |
| Router functions | › IP-Forwarding<br>› IP-Filter<br>› NAT<br>› Port-Forwarding<br>› Routing Table<br>› DHCP-Client | › IP-Forwarding<br>› IP-Filter<br>› NAT<br>› Port-Forwarding<br>› Routing Table<br>› DHCP-Client | › IP-Forwarding<br>› IP-Filter<br>› NAT<br>› Port-Forwarding<br>› Routing Table<br>› DHCP-Client | |
| RAS | › PPP Dial-In<br>› PPP Dial-Out<br>› Call-Back | › PPP Dial-In<br>› PPP Dial-Out<br>› Call-Back | › PPP Dial-In<br>› PPP Dial-Out<br>› Call-Back | |
| **VPN** | | | | |
| VPN mode | Open VPN 2.0, Client/Server | Open VPN 2.0, Client/Server | Open VPN 2.0, Client/Server | |
| Talk2M | ✓ | ✓ | ✓ | |

| Order number | 900-2E631 | 900-2E641 | 900-2E651 | |
|---|---|---|---|---|
| Gateway Protokolle | › MPI<br>› PPI<br>› PROFIBUS<br>› ISO TCP<br>› Modbus TCP | › MPI<br>› PPI<br>› PROFIBUS<br>› ISO TCP<br>› Modbus TCP | › MPI<br>› PPI<br>› PROFIBUS<br>› ISO TCP<br>› Modbus TCP | |
| **Services** | | | | |
| Server services | › FTP<br>› HTTP | › FTP<br>› HTTP | › FTP<br>› HTTP | |
| Client Services | › FTP<br>› SMTP<br>› NTP<br>› DYNDNS<br>› SNMP | › FTP<br>› SMTP<br>› NTP<br>› DYNDNS<br>› SNMP | › FTP<br>› SMTP<br>› NTP<br>› DYNDNS<br>› SNMP | |
| **Data management** | | | | |
| Custom Website | ✓ | ✓ | ✓ | |
| Project | web interface | web interface | web interface | |
| Integrated protocols | › MPI<br>› PPI<br>› PROFIBUS<br>› ISO TCP<br>› Modbus TCP | › MPI<br>› PPI<br>› PROFIBUS<br>› ISO TCP<br>› Modbus TCP | › MPI<br>› PPI<br>› PROFIBUS<br>› ISO TCP<br>› Modbus TCP | |
| **Interrupts** | | | | |
| Alarm message | › EMail<br>› SMS<br>› SNMP<br>› FTP | › EMail<br>› SMS<br>› SNMP<br>› FTP | › EMail<br>› SMS<br>› SNMP<br>› FTP | |
| Alarm | › EMail<br>› Hardware I/O<br>› SMS<br>› PLC-variables<br>› SNMP<br>› system variables<br>› FTP | › EMail<br>› Hardware I/O<br>› SMS<br>› PLC-variables<br>› SNMP<br>› system variables<br>› FTP | › EMail<br>› Hardware I/O<br>› SMS<br>› PLC-variables<br>› SNMP<br>› system variables<br>› FTP | |
| **Mechanical data** | | | | |
| Dimensions (WxHxD) | 39 mm x 129 mm x 108 mm | 39 mm x 129 mm x 108 mm | 39 mm x 129 mm x 108 mm | |
| Weight | 400 g | 400 g | 400 g | |
| **Environmental conditions** | | | | |
| Operating temperature | 0 °C to 50 °C | 0 °C to 50 °C | -20 °C to 70 °C | |
| Storage temperature | -25 °C to 70 °C | -25 °C to 70 °C | -25 °C to 70 °C | |
| **Certifications** | | | | |
| UL508 certification | - | - | - | |

| Order number | 900-2H611 | 900-2H681 | | |
|---|---|---|---|---|
| Figure | | | | |
| Type | TM-H Router VPN | TM-H GSM/HSUPA Router VPN | | |
| **General information** | | | | |
| Note | - | - | | |
| Features | › VPN Router<br>› RS485 MPI/PROFIBUS DP interface<br>› 4xLAN RJ45 Ethernet interface<br>› 1xWAN RJ45 Ethernet interface | › VPN Router<br>› HSDPA modem<br>› RS485 MPI/PROFIBUS DP interface<br>› 4xLAN RJ45 Ethernet interface<br>› 1xWAN RJ45 Ethernet interface | | |
| **Inputs and outputs** | | | | |
| Inputs | 1 DI: 0/24 V DC, isolated | 1 DI: 0/24 V DC, isolated | | |
| Outputs | 1 DO: open drain, max. 200 mA at DC 30 V | 1 DO: open drain, max. 200 mA at DC 30 V | | |
| **Communication** | | | | |
| serial port | MPI/PROFIBUS, isolated, up to 12 MBit/s | MPI/PROFIBUS, isolated, up to 12 MBit/s | | |
| LAN | 4 x RJ45, 10/100 MBit/s Switch | 4 x RJ45, 10/100 MBit/s Switch | | |
| WAN | 1 x RJ45, 10/100 MBit/s | 1 x RJ45, 10/100 MBit/s | | |
| Modem type | - | HSUPA | | |
| **Router** | | | | |
| Router functions | › IP-Forwarding<br>› IP-Filter<br>› NAT<br>› Port-Forwarding<br>› Routing Table<br>› DHCP-Client | › IP-Forwarding<br>› IP-Filter<br>› NAT<br>› Port-Forwarding<br>› Routing Table<br>› DHCP-Client | | |

| Order number | 900-2H611 | 900-2H681 | | |
|---|---|---|---|---|
| RAS | › PPP Dial-In<br>› PPP Dial-Out<br>› Call-Back | › PPP Dial-In<br>› PPP Dial-Out<br>› Call-Back | | |
| **VPN** | | | | |
| VPN mode | Open VPN 2.0, Client/ Server | Open VPN 2.0, Client/ Server | | |
| Talk2M | ✓ | ✓ | | |
| Gateway Protokolle | › MPI<br>› PPI<br>› PROFIBUS<br>› ISO TCP<br>› Modbus TCP | › MPI<br>› PPI<br>› PROFIBUS<br>› ISO TCP<br>› Modbus TCP | | |
| **Services** | | | | |
| Server services | › FTP<br>› HTTP | › FTP<br>› HTTP | | |
| Client Services | › FTP<br>› SMTP<br>› NTP<br>› DYNDNS<br>› SNMP | › FTP<br>› SMTP<br>› NTP<br>› DYNDNS<br>› SNMP | | |
| **Data management** | | | | |
| Custom Website | ✓ | ✓ | | |
| Project | web interface | web interface | | |
| Integrated protocols | › MPI<br>› PPI<br>› PROFIBUS<br>› ISO TCP<br>› Modbus TCP | › MPI<br>› PPI<br>› PROFIBUS<br>› ISO TCP<br>› Modbus TCP | | |
| **Interrupts** | | | | |
| Alarm message | › EMail<br>› SMS<br>› SNMP<br>› FTP | › EMail<br>› SMS<br>› SNMP<br>› FTP | | |
| Alarm | › EMail<br>› Hardware I/O<br>› SMS<br>› PLC-variables<br>› SNMP<br>› system variables<br>› FTP | › EMail<br>› Hardware I/O<br>› SMS<br>› PLC-variables<br>› SNMP<br>› system variables<br>› FTP | | |
| **Mechanical data** | | | | |
| Dimensions (WxHxD) | 39 mm x 129 mm x 108 mm | 39 mm x 129 mm x 108 mm | | |
| Weight | 410 g | 480 g | | |
| **Environmental conditions** | | | | |
| Operating temperature | -20 °C to 70 °C | -20 °C to 70 °C | | |
| Storage temperature | -25 °C to 70 °C | -25 °C to 70 °C | | |
| **Certifications** | | | | |
| UL508 certification | - | - | | |

## Cables

| Order number | Type | Description | Note |
|---|---|---|---|
| 830-0LC00 | FCC 2xAWG 22 - Standard PROFIBUS cable | Fixed installation according to EN 50170, flame-retardant according to VDE 0472, T804 test type B, cable shell color violet, 100 m ring | |
| 830-0LD00 | FCC 2xAWG 22 - Standard PROFIBUS cable | Fixed installation according to EN 50170, flame-retardant according to VDE 0472, T804 test type B, cable shell color violet, 200 m ring | |
| 830-0LE00 | FCC 2xAWG 22 - Standard PROFIBUS cable | Fixed installation according to EN 50170, flame-retardant according to VDE 0472, T804 test type B, cable shell color violet, 500 m ring | |
| 830-0LF00 | FCC 2xAWG 22 - Standard PROFIBUS cable | Fixed installation according to EN 50170, flame-retardant according to VDE 0472, T804 test type B, cable shell color violet, 1000 m ring | |
| 950-0AD00 | USB adapter | For MMC programming (Windows 98SE/ME/2000/XP) | |
| 950-0AD10 | PCMCIA adapter | For MMC programming | |
| 950-0KB01 | PC/AG programming cable | RS232-MPI/PROFIBUS adapter, 3 m | |
| 950-0KB10 | PC/AG programming cable | RS232-MPI/PPI adapter, LCD, 3 m | |
| 950-0KB20 | PC/AG programming cable | RS232/MPI adapter, external DC 24 V power supply, 1.3 m | |
| 950-0KB30 | PC/AG programming cable | USB-MPI/PROFIBUS adapter, LCD 3 m | |
| 950-0KB31 | PC/AG programming cable | USB-MPI/PROFIBUS adapter, 3 m | |
| 950-0KB40 | PC/AG programming cable | TCP/IP-MPI/PROFIBUS adapter, 3 m | |
| 950-0KB41 | PC/AG programming cable | TCP/IP-MPI/PROFIBUS adapter, 3 m, incl. driver, part of the ToolDemo-CD SW900TOLA | |
| 950-0KB50 | PC/AG programming cable | MPI cable with PU-/Diagnostic port, 2.5 m; use as PC/AG or TP/AG | |

## Memory modules for S7-300/400

| Order number | Type | Description | Note |
|---|---|---|---|
| 951-0KD00 | Memory Card (MC) | for S7-300/400 from Siemens, Flash Eprom, short | |
| 951-0KE00 | Memory Card (MC) | for S7-300/400 from Siemens, Flash Eprom, short | |
| 951-0KF00 | Memory Card (MC) | for S7-300/400 from Siemens, Flash Eprom, short | |
| 951-0KG00 | Memory Card (MC) | for S7-300/400 from Siemens, Flash Eprom, short | |
| 951-0KJ00 | Memory Card (MC) | for S7-300/400 from Siemens, Flash Eprom, short | |

## Antennas and accessories

| Order number | Type | Description | Note |
|---|---|---|---|
| 900-0AA00 | TM antenna GSM/GPRS | Dipole antenna incl. SMA (male), resistance: 50 Ohm, power: 3W, gain: 2.0 dBi, 900/1800 MHz | |
| 900-0AB50 | TM antenna GSM/GPRS | Portable antenna incl. 5m cable, SMA (male) and assembly bracket, resistance: 50 Ohm, power: 10 W, gain: 2.14 dBi, 900/1800 MHz | |
| 900-0AQ50 | TM antenna GSM/GPRS | Rod antenna incl. 5m cable and SMA (male) and mounting bracket, resistance: 50 Ohm, power: 20 W, gain: 2.14 dBi, 900/1800 MHz | |

## Manuals and operating instructions

| Order number | Title | Contents | Language |
|---|---|---|---|
| HB37D_IM | IM 306 DP slave, Compendium, German | IM 306 DP-Slave | DE |
| HB37E_IM | IM 306 DP slave, Compendium, English | IM 306 DP-Slave | EN |
| HB39D_TM | TM, German | TM-E 900-2E6x and TM-H 900-2H6x Teleservice modules | DE |
| HB39E_TM | TM, English | TM-E 900-2E6x and TM-H 900-2H6x Teleservice modules | EN |