FG-260
EtherNet/IP to PROFINET Gateway with PROFINET Controller Functionality

The FG-260 implements a gateway between EtherNet/IP and PROFINET networks. It supports EtherNet/IP Adapter and PROFINET Controller functionality. The integration in PLC programs is provided via EtherNet/IP means, while the PROFINET communication is defined using a configuration tool. The runtime operation can be monitored and adjusted using a built-in web server.

Simple Integration Through Add-On Instructions
> Data access of PLC program to PROFINET Devices without requiring detailed PROFINET knowledge
> Mapping between the two protocols generated by provided tools
> Use of Add-On Instructions (AOI) containing detailed PROFINET data type definitions
> Transparent communication overcoming protocol differences

Time Saving Configuration Creation and Verification
> Configuration tool for online access to PROFINET Devices via the network
> Easy assignment of device properties
> Early identification of discrepancies between offline configuration and real situation

Built-In Web Server For Monitoring and Interaction
> Status information about both protocols
> Monitoring of mapping as well as of exchanged data
> Individual modification of FG-260 settings, including address information
> Download and upload of all FG-260 configuration information using web server

Different Use Cases Addressed
> Direct access from Ethernet/IP Scanner in the PLC to PROFINET field devices
> Access to machines with internal PROFINET network by deploying I-Device capabilities
Technical Data

Hardware
Processor: Altera Cyclone V SoC with Dual-core ARM Cortex-A9
Status LEDs (Gateway): PWR (power supply), RUN (running), ERR (error), CFG (configuration upload)
Status LEDs (EtherNet/IP): Net (network), Mod (module)
Status LEDs (PROFINET): SF (system fault), BF (bus fault)
Connectors: 2 x IEEE 802.3 100BASE-TX/10BASE-T (1 Ethernet port per protocol)
Dimensions (HxWxD): 100 mm x 35 mm x 105 mm
Weight: About 0.25 kg
Power Supply: 18 VDC ... 32 VDC, SELV/PELV supply mandatory
Typically 200 mA, maximum 1 A at switch-on
Operating Temperature, Horizontal DIN Rail Installation: -40 °C … 55 °C (0 mm minimum distance)
-40 °C … 65 °C (17.5 mm minimum distance)
Operating Temperature, Vertical DIN Rail Installation: -40 °C … 40 °C (0 mm minimum distance)
-40 °C … 50 °C (17.5 mm minimum distance)
Storage Temperature: -40 °C … 85 °C
Relative Humidity: 10 % ... 90 %, non condensing
Cooling: Convection, no fan
Mounting: DIN Rail (35 mm)
Housing Type: Phoenix Contact ME MAX 35 mm
Protection Class: IP20

Software
Protocols: EtherNet/IP Adapter (up to 2 Input Assemblies and 2 Output Assemblies with up to 255 Bytes data each, minimum RPI: 8 ms)
PROFINET Controller (up to 8 devices at 1 ms cycle time)
Additional Functionality: Mapping application, web server
Supported Versions of Rockwell Automation PLC Programming Software: V16 - V21

FCC CFR45, Part 15 Section 15.107 and 15.109 (Class A), VCCI Class A Information Technology Equipment 2002


Certifications: CE
EN/IEC 61010-1 and CB
EN/IEC 61010-2-201 and CB
UL 61010-1 and UL 61010-2-201

Scope of Delivery
Hardware: Gateway FG-260
Software: EDS File, Communication Configuration Tool on CD-ROM, Search-and-Configure Tool
Documentation: Quick Startup Guide as printed documentation, User Guide on CD-ROM

Order Numbers
GCL-CA-010260: FG-260

Technical changes reserved © Softing Industrial Automation GmbH, FG-260_D_EN_1502_100, February 2015

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PBpro ETH

Remote PROFIBUS Interfaces for Use as Master or Slave

PBpro ETH is a family of interfaces for remote access to one, two, three or four PROFIBUS segments via Ethernet for device parameterization, controller programming and data acquisition. On the PC the remote interface acts like a local PROFIBUS board.

Wide Range of Applications

> De-facto standard for device parameterization via FDT/DTM
> PROFIBUS connection for PC-based measuring and monitoring systems
> External PROFIBUS interface for PC-based field devices and embedded computer systems
> Quick and easy integration of OPC Client applications like SCADA or MES systems via optional OPC Server

Individual Protocol Settings for Each Channel

> Access to process data and parameters in connected devices as PROFIBUS DP Master or Master Class 2 (also simultaneously with existing control systems)
> Data exchange with controllers as PROFIBUS DP Slave
> Integration into PROFIBUS FMS systems, or into proprietary applications via PROFIBUS FDL
> Each channel acting as an individual PROFIBUS PC interface

Easy Administration and Efficient Integration

> Assignment of IP address and configuration with accompanying “Search and Configure” tool and integrated web interface
> Commented sample programs for easy use of the PROFIBUS application programming interface (API)
> Free-of-charge communication DTM for PBpro ETH supporting parameterization of PROFIBUS devices by FDT tools
PBpro ETH
Single Channel
PBpro ETH
Dual Channel
PBpro ETH
Triple Channel
PBpro ETH
Quad Channel

Number of Channels
1 2 3 4

PROFIBUS Protocol

- DP-V0 Master: All Channels, All Channels, All Channels, All Channels
- DP-V1 Master: Acyclic C2 Services, All Channels, All Channels, All Channels
- FMS: All Channels, All Channels, All Channels
- FDL: All Channels, All Channels, All Channels
- DP-V0 Slave: Channels 2, 3, Channels 2, 3, Channels 2, 3, Channels 2, 3, 4

Connector
9-pin D-Sub female, EIA-485 (RS-485), galvanically isolated

Transfer Rates
9.6; 19.2; 45.45; 93.75; 500; 1500; 3000; 6000; 12000 Kbit/s

Host Interface

- Ethernet: 100BASE-TX/10BASE-T, 100 Mbit/s with automatic detection, RJ45 connector
- Web Server: For device status and configuration
- Remote API: Windows DLL for host computer
- TCP/IP Socket Library: Easily portable source code and programming samples for non-Windows computers

Miscellaneous

- Mounting: 35 mm DIN Rail
- Dimensions (W x H x D): 47 mm x 131 mm x 111 mm, 110 mm x 131 mm x 111 mm, 110 mm x 131 mm x 111 mm, 110 mm x 131 mm x 111 mm
- Power Supply: 24 VDC (±20 %), typically 0.2 A, 24 VDC (±20 %), typically 0.3 A, 24 VDC (±20 %), typically 0.4 A, 24 VDC (±20 %), typically 0.5 A
- Temperature Range: 0 °C … +55 °C (Operation); -20 °C … +70 °C (Storage); fanless convection cooling
- Relative Humidity: < 90 %, non-condensing
- Protection Class: IP20

Available Drivers

Conformity
FCC

Scope of Delivery

- Hardware: PROFIBUS Remote Interface
- Software: Windows Drivers, Sample Programs, PROFIdtm
- Documentation: User Guide

Order Numbers

<table>
<thead>
<tr>
<th>PBpro ETH Single Channel</th>
<th>PBpro ETH Dual Channel</th>
<th>PBpro ETH Triple Channel</th>
<th>PBpro ETH Quad Channel</th>
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</thead>
<tbody>
<tr>
<td>DEL-NN-012311</td>
<td>DEL-NN-012312</td>
<td>DEL-NN-012313</td>
<td>DEL-NN-012314</td>
</tr>
</tbody>
</table>

Additional Products and Services

- OPC-PB: PROFIBUS OPC Server for DP-V0 / DP-V1
- TRA-PB-TECH: PROFIBUS Technology Training
echocollect e (OPC) is an industrial application gateway adding a modern process data management solution to existing systems. It offers direct OPC Unified Architecture (UA) and OPC Classic connectivity. In addition, the functionality includes a web-based visualization of process, manufacturing and quality data as well as local data logging.

**Unified Way for Acquiring Process and Quality Data**
- Independent collection of manufacturing, process or quality data directly from PLCs and delivery to higher level management system, such as ERP or MES systems
- Recipe manager functionality for writing data blocks to PLCs
- Data acquisition using standardized, open and platform independent OPC UA protocol
- Option for parallel data logging on SD card for traceability reasons

**Easy Local and Global Networking**
- Easy implementation of complex networks using OPC UA protocol
- Secure and flexible TCP/IP based protocol supporting routers and firewalls
- No need for OPC tunneling or complex DCOM configuration
- Support of network separation between production systems and commercial IT networks

**Lowering IT Maintenance Costs**
- Connection of PLCs with remote MES or ERP systems using embedded OPC UA Server without requiring dedicated OPC Server
- Independence of integrated current or future ERP and SCADA system of Windows or Linux operating systems as well as of using mainframe servers, PCs or mobile devices
- Working for years once configured – untouched, without updates, and with zero maintenance costs
- Support of plug-and-go replacement based on configuration stored on SD card
  - Very easy configuration

**Easy Live Data Visualization**
- HMI based on native web technology for easy and cost-efficient visualization of process, manufacturing and quality data using a standard web browser without any plug-ins
- No need for an OPC Server or complex SCADA system
- Scalable, resolution-independent vector graphics for consistent display of data on wide variety of network enabled devices
Technical Data

Ethernet Addressable Controllers
Siemens SIMATIC S7 and S5, controllers With Modbus TCP (Wago, Beckhoff, Phoenix, Schneider, etc.), Mitsubishi (Melsec-Q), etc.

Ethernet Protocols
TCP/IP, RFC1006 (ISO on TCP), ISO (H1), EtherNet/IP, S5, S7, TCP/IP with PLC header, Modbus TCP, Melsec-Q

Ethernet Interfaces
2 x independent interfaces TP (RJ45), 10/100 MBit/s

Serial Addressable Controllers
Siemens SIMATIC S5, devices with TTY interface

Serial Protocols
AS511, RK512, 3964R, Telnet / ASCII

Serial Interfaces
1 x TTY (20mA)

Embedded OPC UA Server
Symbolic Mapping; Browsing, Read, Write, Subscribe; Self-Discovery Service; possible reconfiguration without device restart; possible multiple Client connections, optional read-only PLC connection

Supported Databases
MySQL, optional: Oracle, DB2, MS-SQL, SyBase

Other Protocols
Telnet, SMTP (email notification), DCOM Tunnel (OPCpipe)

Limitation
Maximum 5 PLC connections, 400 tables, 200 items per table, 10,000 items in total

Power Supply
24 VDC, ca. 0.3 A

Ambient Conditions
Operating temperature: 0 °C ... 55 °C, storage temperature: -20 °C ... 70 °C

Dimensions (H x W x L)
131 mm x 47 mm x 111 mm

Weight
ca. 0.4 kg

Mounting
35 mm DIN rail

Protection Class
IP20

Certifications
CE, FCC, VCCI

Visualization
avtise webMI visualization – functional level ‘Advanced’ (fully event-driven data exchange) Limited to up to 50 concurrently visualized items (optional upgrade to unlimited number of visualized items), 5 simultaneously accessing browsers

Configuration Software
Softing NetCon for device configuration, avtise builder for HMI editing

Scope of Delivery

Hardware
Application gateway echocollect e (OPC), SD card, connector for power supply

Software
Configuration software (NetCon, avtise builder)

Documentation
Quick Start leaflet, CD with Help

Order Numbers

GAL-YY-143101
- echocollect e (connectors: 2 x Ethernet, 1 x TTY)

LRA-YY-143005
- License: Embedded OPC UA Server

GAL-YY-143102
- echocollect e, Packet FULL, includes echocollect e plus licenses for 15 PLC connections, database access, logging and OPC UA Server

LRA-YY-143002
- License: Data logger for process data, storage on SD card

LRA-YY-143004
- License: Unlimited number of visualized items

LRA-YY-143115
- License: Maximal 15 PLC connections

LRL-DY-131701
- OPCpipe Client for network spanning OPC Classic communication via Ethernet TCP/IP without DCOM

MEA-YY-144002
- CD avtise elements, 4,000 high-quality bitmaps and vector graphics in SVG format

Additional Products and Services

700-5596-04
- AC Adapter, 24 VDC, Euro, UK, or USA

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echocollect r/m (OPC) is an industrial application gateway, adding a modern process data management solution to existing systems. It offers direct OPC Unified Architecture (UA) and OPC Classic connectivity. In addition, the functionality includes a web-based visualization of process, manufacturing and quality data as well as local data logging.

**Unified Way for Acquiring Process and Quality Data**
- Independent collection of manufacturing, process or quality data directly from PLCs and delivery to higher level management system, such as ERP or MES systems
- Recipe manager functionality for writing data blocks to PLCs
- Data acquisition using standardized, open and platform independent OPC UA protocol
- Option for parallel data logging on SD card for traceability reasons

**Easy Local and Global Networking**
- Easy implementation of complex networks using OPC UA protocol
- Secure and flexible TCP/IP based protocol supporting routers and firewalls
- No need for OPC tunneling or complex DCOM configuration
- Support of network separation between production systems and commercial IT networks

**Lowering IT Maintenance Costs**
- Connection of PLCs with remote MES or ERP systems using embedded OPC UA Server without requiring dedicated OPC Server
- Independence of integrated current or future ERP and SCADA system of Windows or Linux operating systems as well as of using mainframe servers, PCs or mobile devices
- Working for years once configured – untouched, without updates, and with zero maintenance costs
- Support of plug-and-go replacement based on configuration stored on SD card
  - Very easy configuration

**Easy Live Data Visualization**
- HMI based on native web technology for easy and cost-efficient visualization of process, manufacturing and quality data using a standard web browser without any plug-ins
- No need for an OPC Server or complex SCADA system
- Scalable, resolution-independent vector graphics for consistent display of data on wide variety of network enabled devices
Technical Data

Ethernet Addressable Controllers: Siemens SIMATIC S7 and S5, controllers with Modbus TCP (Wago, Beckhoff, Phoenix, Schneider, etc.), Mitsubishi (Melsec-Q), etc.

Ethernet Protocols: TCP/IP, RFC1006 (ISO on TCP), ISO (H1), EtherNet/IP, S7, TCP/IP with PLC header, Modbus TCP, Melsec-Q

Ethernet Interfaces: 2 x independent interfaces TP (RJ45), 10/100 MBit/s

Serial Addressable Controllers: Siemens SIMATIC S7 and S5, controllers with RK512, 3964(R), controllers with Modbus RTU (Modicon, Schneider, WAGO, etc.), etc.

Serial Protocols: MPI, PPI, AS511, RK512, 3964R, Modbus RTU, Telnet / ASCII

Serial Interfaces: EIA-232, EIA-485, TTY (20 mA), MPI (up to 4 connections per channel)

Embedded OPC UA Server: Symbolic Mapping; Browsing, Read, Write, Subscribe; Self-Discovery Service; possible reconfiguration without device restart; possible multiple Client connections, optional read-only PLC connection

Supported Databases: MySQL, optional: Oracle, DB2, MS-SQL, SyBase

Other Protocols: Telnet, SMTP (email notification), DCOM Tunnel (OPCpipe)

Limitations: Maximum 5 PLC connections, 400 tables, 200 items per table, 10,000 items in total

Power Supply: 24 VDC, 0,3 A

Ambient Conditions: Operating temperature: 0 °C ... 55 °C, storage temperature: -20 °C ... 70 °C

Dimensions (H x W x L): 131 mm x 110 mm x 111 mm

Weight: ca. 0,8 kg

Mounting: 35 mm DIN Rail

Protection Class: IP20

Certifications: CE, FCC, VCCI

Visualization: atvise webMI visualization – functional level ‘Advanced’ (fully event-driven data exchange) Limited to up to 50 concurrently visualized items (optional upgrade to unlimited number of visualized items), 5 simultaneously accessing browsers

Configuration Software: Softing NetCon for device configuration, atvise builder for HMI editing

Scope of Delivery

Hardware: Application gateway echocollect r/m (OPC), SD card, connector for power supply

Software: Configuration software (NetCon, atvise builder)

Documentation: Quick Start leaflet, CD with Help

Order Numbers

GAL-YY-14-3201: echocollect r (connectors: 2 x Ethernet, 1 x TTY, 3 x EIA-232, 1 x MPI)

GAL-YY-14-3401: echocollect m (connectors: 2 x Ethernet, 3 x TTY, 2 x MPI)

LRA-YY-143005: License: Embedded OPC UA Server

LRA-YY-143002: License: Data logger for process data, storage on SD card

LRA-YY-143004: License: Unlimited number of visualized items

LRA-YY-143115: License: Maximal 15 PLC connections

LRL-DY-131701: OPCpipe Client for network spanning OPC Classic communication via Ethernet TCP/IP without DCOM

MEA-YY-144002: CD atvise elements, 4,000 high-quality bitmaps and vector graphics in SVG format

Additional Products and Services

700-5596-04 AC Adapter, 24 VDC, Euro, UK, or USA

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Your local Softing Contact:
echocollect e

Versatile Application Gateway for Machine-Database Data Integration

echocollect e is an industrial application gateway providing a modern process data management solution. It offers bidirectional real-time connectivity between field level machines and databases. In addition, the functionality includes a web-based visualization of process, manufacturing and quality data as well as local data logging.

Integration of Existing Systems in New Quality Assurance Systems

> Wealth of protocols for coupling Ethernet-based controllers
> Independent data collection from widespread automation systems and storage in common processing images
> Real-time data forwarding to databases when triggered by parameterizable conditions
> Recipe manager functionality for reliable writing of large data blocks from databases to PLCs

Excellent Data and Network Security

> Buffering and time stamping of arriving data in case of broken connection
> Automatic forwarding to database once connection has been reestablished
> Option for parallel data logging on SD card for traceability reasons
> Physical network separation between production systems and commercial IT networks

Investment Protection and Reduced IT Maintenance Costs

> Extra functionality based on standards without modifying existing systems
> No need for additional PC with necessary software updates and administration
> Working for years once configured – untouched, without updates, and with zero maintenance costs
> Supporting plug-and-go replacement based on configuration stored on SD card

Easy Live Data Visualization

> HMI based on native web technology for easy and cost-efficient visualization of process, manufacturing and quality data using a standard web browser without any plug-ins
> No need for OPC Server or complex SCADA system
> Scalable, resolution-independent vector graphics for consistent display of data on wide variety of network enabled devices like desktop PCs, laptops, smart phones, tablet PCs or industrial control panel
### Technical Data

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<tr>
<th><strong>Ethernet Addressable Controllers</strong></th>
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<tr>
<td><strong>Serial Protocols</strong></td>
<td>AS511, RK512, 3964R, Telnet / ASCII</td>
</tr>
<tr>
<td><strong>Serial Interfaces</strong></td>
<td>1 x TTY (20 mA)</td>
</tr>
<tr>
<td><strong>Supported Databases</strong></td>
<td>MySQL, optional: Oracle, DB2, MS-SQL, SyBase</td>
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<tr>
<td><strong>Other Protocols</strong></td>
<td>Telnet, SMTP (email notification), DCOM Tunnel (OPCpipe)</td>
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<tr>
<td><strong>Limitation</strong></td>
<td>Maximum 5 PLC connections, 400 tables, 200 items per table, 10,000 items in total</td>
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<td><strong>Power Supply</strong></td>
<td>24 VDC, ca. 0,3 A</td>
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<td><strong>Ambient Conditions</strong></td>
<td>Operating temperature: 0 °C ... 55 °C, storage temperature: -20 °C ... 70 °C</td>
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<td><strong>Dimensions (H x W x L)</strong></td>
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<td><strong>Weight</strong></td>
<td>ca. 0,4 kg</td>
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<tr>
<td><strong>Mounting</strong></td>
<td>35 mm DIN rail</td>
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<tr>
<td><strong>Configuration Software</strong></td>
<td>Softing NetCon for device configuration, atvise builder for HMI editing</td>
</tr>
</tbody>
</table>

### Scope of Delivery

<table>
<thead>
<tr>
<th><strong>Hardware</strong></th>
<th>Application gateway echocollect e, SD card, connector for power supply*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Software</strong></td>
<td>Configuration software (NetCon, atvide builder)</td>
</tr>
<tr>
<td><strong>Documentation</strong></td>
<td>Quick Start leaflet, CD with Help</td>
</tr>
</tbody>
</table>

* A plug-in powerpack is not included in the delivery. If needed, please order this separately.

### Order Numbers

- **GAL-YY-143101** echocollect e (connectors: 2 x Ethernet, 1 x TTY)
- **GAL-YY-143102** echocollect e, Packet FULL, includes echocollect e plus licenses for 15 PLC connections, database access, logging and OPC UA Server
- **LRA-YY-143001** License: Database protocols for Oracle, DB2 and MS-SQL
- **LRA-YY-143002** License: Data logger for process data, storage on SD card
- **LRA-YY-143004** License: Unlimited number of visualized items
- **LRA-YY-143115** License: Maximal 15 PLC connections
- **MEA-YY-144002** CD atvise elements, 4,000 high-quality bitmaps and vector graphics in SVG format

### Additional Products and Services

- **700-5596-04** AC Adapter, 24 VDC, Euro, UK, or USA
echocollect r/m

Versatile Application Gateway for Machine-Database Data

echocollect r/m is an industrial application gateway providing a modern process data management solution. It offers bidirectional real-time connectivity between field level machines and databases. In addition, the functionality includes a web-based visualization of process, manufacturing and quality data as well as local data logging.

Integration of Existing Systems in New Quality Assurance Systems

> Wealth of protocols for coupling Ethernet and serial-connected controllers
> Independent data collection from widespread automation systems and storage in common processing images
> Real-time data forwarding to databases when triggered by parameterizable conditions
> Recipe manager functionality for reliable writing of large data blocks from databases to PLCs

Excellent Data and Network Security

> Buffering and time stamping of arriving data in case of broken connection
> Automatic forwarding to database once connection has been reestablished
> Option for parallel data logging on SD card for traceability reasons
> Physical network separation between production systems and commercial IT networks

Investment Protection and Reduced IT Maintenance Costs

> Extra functionality based on standards without modifying existing systems
> No need for additional PC with necessary software updates and administration
> Working for years once configured – untouched, without updates, and with zero maintenance costs
> Supporting plug-and-go replacement based on configuration stored on SD card

Easy Live Data Visualization

> HMI based on native web technology for easy and cost-efficient visualization of process, manufacturing and quality data using a standard web browser without any plug-ins
> No need for an OPC Server or complex SCADA system
> Scalable, resolution-independent vector graphics for consistent display of data on wide variety of network enabled devices like desktop PCs, laptops, smart phones, tablet PCs or industrial control panel
### Technical Data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethernet Addressable Controllers</strong></td>
<td>Siemens SIMATIC S7 and S5, controllers with Modbus TCP (Wago, Beckhoff, Phoenix, Schneider, etc.), Mitsubishi (Melsec-Q), etc.</td>
</tr>
<tr>
<td><strong>Ethernet Protocols</strong></td>
<td>TCP/IP, RFC1006 (ISO on TCP), ISO (H1), EtherNet/IP, S5, S7, TCP/IP with PLC header, Modbus TCP, Melsec-Q</td>
</tr>
<tr>
<td><strong>Ethernet Interfaces</strong></td>
<td>2 x independent interfaces TP (RJ45), 10/100 MBit/s</td>
</tr>
<tr>
<td><strong>Serial Addressable Controllers</strong></td>
<td>Siemens SIMATIC S7 and S5, controllers with RS512, 3964(R), controllers with Modbus RTU (Modicon, Schneider, WAGO, etc.), etc.</td>
</tr>
<tr>
<td><strong>Serial Protocols</strong></td>
<td>MPI, PPI, AS511, RS512, 3964R, Modbus RTU, Telnet / ASCII</td>
</tr>
<tr>
<td><strong>Serial Interfaces</strong></td>
<td>EIA-232, EIA-485, TTY (20 mA), MPI (up to 4 connections per channel)</td>
</tr>
<tr>
<td><strong>Supported Databases</strong></td>
<td>MySQL, optional: Oracle, DB2, MS-SQL, SyBase</td>
</tr>
<tr>
<td><strong>Other Protocols</strong></td>
<td>Telnet, SMTP (email notification), DCOM Tunnel (OPCpipe)</td>
</tr>
<tr>
<td><strong>Limitation</strong></td>
<td>Maximum 5 PLC connections, 400 tables, 200 items per table, 10,000 items in total</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>24 VDC, 0.3 A</td>
</tr>
<tr>
<td><strong>Ambient Conditions</strong></td>
<td>Operating temperature: 0 °C ... 55 °C, storage temperature: -20 °C ... 70 °C</td>
</tr>
<tr>
<td><strong>Dimensions (H x W x L)</strong></td>
<td>131 mm x 110 mm x 111 mm</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>ca. 0.8 kg</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>35 mm DIN Rail</td>
</tr>
<tr>
<td><strong>Protection Class</strong></td>
<td>IP20</td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
<td>CE, FCC, VCCI</td>
</tr>
<tr>
<td><strong>Visualization</strong></td>
<td>atvise webMI visualization – functional level ‘Advanced’ (fully event-driven data exchange) Limited to up to 50 concurrently visualized items (optional upgrade to unlimited number of visualized items), 5 simultaneously accessing browsers</td>
</tr>
<tr>
<td><strong>Configuration Software</strong></td>
<td>Softing NetCon for device configuration, atvide builder for HMI editing</td>
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### Scope of Delivery

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*A plug-in powerpack is not included in the delivery. If needed, please order this separately.*

### Order Numbers

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<tr>
<th>Order Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAL-YY-143201</td>
<td>echocollect r (connectors: 2 x Ethernet, 1 x TTY, 3 x EIA-232, 1 x MPI)</td>
</tr>
<tr>
<td>GAL-YY-143401</td>
<td>echocollect m (connectors: 2 x Ethernet, 3 x TTY, 2 x MPI)</td>
</tr>
<tr>
<td>LRA-YY-143001</td>
<td>License: Database protocols for Oracle, DB2 and MS-SQL</td>
</tr>
<tr>
<td>LRA-YY-143002</td>
<td>License: Data logger for process data, storage on SD card</td>
</tr>
<tr>
<td>LRA-YY-143004</td>
<td>License: Unlimited number of visualized items</td>
</tr>
<tr>
<td>LRA-YY-143115</td>
<td>License: Maximal 15 PLC connections</td>
</tr>
<tr>
<td>MEA-YY-144002</td>
<td>CD atvise elements, 4,000 high-quality bitmaps and vector graphics in SVG format</td>
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</table>

### Additional Products and Services

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<th>Order Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>700-5596-04</td>
<td>AC Adapter, 24 VDC, Euro, UK, or USA</td>
</tr>
</tbody>
</table>

### Technical Changes Reserved © Softing Industrial Automation GmbH, echocollet_rm DE EN 1504_201, April 2015
echograph is a reliable, industry-hardened gateway providing real-time visualization of process and manufacturing data including logging capability. Data can be both displayed and modified in a web browser through an easy to use graphical human machine interface (HMI) – without interference to existing controller systems.

**Easy Live Data Visualization**
> Graphical HMI based on native web technology for easy and cost-efficient visualization of process, manufacturing and quality data using a standard web browser without any plug-ins
> Scalable, resolution-independent vector graphics for consistent display of data on wide variety of network enabled devices like desktop PCs, laptops, smart phones, tablet PCs or industrial control panel
> Periodical polling and visualization of PLC data

**Powerful Graphical HMI With User-Friendly Configuration**
> Powerful graphical HMI based on user-friendly free ‘atvise webMI Builder’ supporting full customization
> Library of predefined ready-to-use visualization components (e.g. gauges, switches, sliders or displays) for fulfillment of numerous needs in the shortest implementation time
> Creation of fully customized objects and web elements

**Quick Reaction to Unexpected Production Events**
> Up-to-date information for operators about manufacturing situation and any unexpected event or condition
> Quick situation resolution and utilization of full manufacturing process potential by direct adjustment of production parameters
> Quick assessment of conditions on the spot and taking of appropriate action
> Continuous and freely configurable data logging enabling data retention for subsequent analysis

**Minimal Maintenance**
> No need for an additional PC, OPC Server or complex SCADA system
> Working for years once configured – untouched, without updates, and with zero maintenance costs
> Very easy configuration
Technical Data

**Ethernet Addressable Controllers**

Siemens SIMATIC S7 and S5, Rockwell ControlLogix and CompactLogix, Rockwell PLC-5, Rockwell SLC-500, controllers with Modbus TCP (Wago, Beckhoff, Phoenix, Schneider, etc.), Mitsubishi (Melsec-Q), etc.

**Ethemet Protocols**

TCP/IP, RFC1006 (ISO on TCP), ISO (H1), EtherNet/IP, AB Ethernet, S5, S7, CLX, SLC, Send / Receive (raw data / socket), TCP/IP with PLC header, Modbus TCP, Melsec-Q

**Ethernet Interfaces**

2 x independent interfaces TP (RJ45), 10/100 MBit/s

**Serial Addressable Controllers**

Siemens SIMATIC S5, devices with TTY interface

**Serial Protocols**

AS511, RK512, 3964R, Telnet / ASCII

**Serial Interfaces**

1 x TTY (20 mA)

**Limitation**

Maximum 50 PLC connections, 400 tables, 200 items per table, 10,000 items in total

**Power Supply**

24 VDC, ca. 0.3 A

**Ambient Conditions**

Operating temperature: 0 °C ... 55 °C, storage temperature: -20 °C ... 70 °C

**Dimensions (H x W x L)**

131 mm x 47 mm x 111 mm

**Weight**

ca. 0.4 kg

**Mounting**

35 mm DIN rail

**Protection Class**

IP20

**Certifications**

CE, FCC, VCCI

**Visualization**

atvise webMI visualization – functional level ‘Advanced’ (fully event-driven data exchange)

No limitation regarding number of concurrently visualized items

**Configuration Software**

Softing NetCon for device configuration, atvise builder for HMI editing

Scope of Delivery

**Hardware**

Gateway echograph, SD card, connector for power supply*

**Software**

Configuration software (NetCon, atvide builder)

**Documentation**

Quick Start leaflet, CD with Help

* A plug-in powerpack is not included in the delivery. If needed, please order this separately.

Order Numbers

- GAL-YY-144101: echograph gateway for process data visualization
- LRA-YY-143006: License: Rockwell PLC protocols
- MEA-YY-144002: CD atvise elements, 4,000 high-quality bitmaps and vector graphics in SVG format

Additional Products and Services

- 700-5596-04: AC Adapter, 24 VDC, Euro, UK, or USA
The smart echolink one2PROFINET coupler connects various devices and automation components via their own serial interface with Ethernet-based fieldbuses. echolink one2PROFINET implements different interfaces.

**One Common Interface to Connect Serial Devices with PROFINET**
- Easy to use physics and protocol converter
- EIA-232, EIA-422, EIA-485 serial ports
- Modbus, ASCII, RTU, 3964R protocols supported on serial side
- Support of PROFINET Industrial Ethernet protocol

**High-Performance Ethernet Coupler**
- Coupler providing direct protocol conversion
- Support of full PROFINET bandwidth and speed
- Easy data access using mapping to PROFIENT I/O range

**Easy Setup to Reduce Start-Up Expenses**
- Ease-of-use through Windows-based configuration tool
- Automatic detection of connected devices
- No programming skills required
- Status LEDs supporting quick diagnosis
### Technical Data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus Data</td>
<td>Up to 1440 Bytes input data / 1440 Bytes output data</td>
</tr>
<tr>
<td>Serial Interfaces</td>
<td>EIA-232, EIA-422, EIA-485</td>
</tr>
<tr>
<td>Baud Rates of the Serial Interfaces</td>
<td>Up to 520 KBaud</td>
</tr>
<tr>
<td>Bus Connection</td>
<td>2 x RJ45 with 100 MBaud</td>
</tr>
<tr>
<td>Galvanic Isolation</td>
<td>Optional for the serial side, standard on the bus side</td>
</tr>
<tr>
<td>Power Supply</td>
<td>10 V ... 30 V, typically 120 mA, maximum 150 mA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0 °C ... 55 °C</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>100 mm x 23 mm x 115 mm</td>
</tr>
<tr>
<td>Mounting</td>
<td>Top hat rail</td>
</tr>
<tr>
<td>Enclosure</td>
<td>IP20</td>
</tr>
<tr>
<td>Certifications</td>
<td>CE</td>
</tr>
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</table>

### Scope of Delivery

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td>Protocol coupler, small screwdriver</td>
</tr>
<tr>
<td>Software</td>
<td>Downloadable on the Softing website</td>
</tr>
<tr>
<td>Documentation</td>
<td>Downloadable on the Softing website</td>
</tr>
<tr>
<td>Support</td>
<td>Support by Softing Industrial Automation</td>
</tr>
<tr>
<td>Certificates</td>
<td>Downloadable on the Softing website</td>
</tr>
</tbody>
</table>

### Order Numbers

- **200-2131-3681**  Serial / PROFINET Coupler echolink one2PROFINET
- **200-2140-3818**  Serial / Modbus Coupler echolink one2Modbus
- **200-2120-3819**  Serial / Ethernet/IP Coupler echolink one2EthernetIP
- **110-1000-01**     Industrial Ethernet – Troubleshooting in Automation, 3 Days
- **TRA-PN-TECH**     PROFINET Technology (Basics of PROFINET communication), 2-Day Seminar
- **TRA-PN-CERTENG**  PROFINET Certified Engineer (Basics of data transmission via Ethernet and PROFINET), 2-Day Seminar

### Additional Products and Services

- **Hardware** Protocol coupler, small screwdriver
- **Software** Downloadable on the Softing website
- **Documentation** Downloadable on the Softing website
- **Support** Support by Softing Industrial Automation
- **Certificates** Downloadable on the Softing website

### Scope of Delivery

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### Additional Products and Services

- **Hardware** Protocol coupler, small screwdriver
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  - **TRA-PN-CERTENG**  PROFINET Certified Engineer (Basics of data transmission via Ethernet and PROFINET), 2-Day Seminar
echolink one2EthernetIP
Serial Bus Coupler for Connection of Serial Devices to EtherNet/IP

The smart echolink one2EthernetIP coupler connects various devices and automation components via their own serial interface with Ethernet-based fieldbuses. echolink one2EthernetIP implements different interfaces.

**One Common Interface to Connect Serial Devices with EtherNet/IP**
- Easy to use physics and protocol converter
- EIA-232, EIA-422, EIA-485 serial ports
- Modbus, ASCII, RTU, 3964R protocols supported on serial side
- Support of EtherNet/IP Industrial Ethernet protocol

**Easy Setup to Reduce Start-Up Expenses**
- Ease-of-use through Windows-based configuration tool
- Automatic detection of connected devices
- No programming skills required
- Status LEDs supporting quick diagnosis

**High-Performance Ethernet Coupler**
- Coupler providing direct protocol conversion
- Support of full EtherNet/IP bandwidth and speed
- Easy data access using mapping to EtherNet/IP I/O range
## Technical Data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus Data</td>
<td>Up to 512 Bytes input data / 512 Bytes output data</td>
</tr>
<tr>
<td>Serial Interfaces</td>
<td>EIA-232, EIA-422, EIA-485</td>
</tr>
<tr>
<td>Baud Rates of the Serial Interfaces</td>
<td>Up to 520 Kbaud</td>
</tr>
<tr>
<td>Bus Connection</td>
<td>2 x RJ45 with 10/100 MBit</td>
</tr>
<tr>
<td>Galvanic Isolation</td>
<td>Optional for the serial side, standard on the bus side</td>
</tr>
<tr>
<td>Power Supply</td>
<td>10 V ... 30 V, typically 120 mA, maximum 150 mA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0 °C ... 55 °C</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>100 mm x 23 mm x 115 mm</td>
</tr>
<tr>
<td>Mounting</td>
<td>Top hat rail</td>
</tr>
<tr>
<td>Enclosure</td>
<td>IP20</td>
</tr>
<tr>
<td>Certifications</td>
<td>CE</td>
</tr>
</tbody>
</table>

## Scope of Delivery

- **Hardware**: Protocol coupler, small screwdriver
- **Software**: Downloadable on the Softing website
- **Documentation**: Downloadable on the Softing website
- **Support**: Support by Softing Industrial Automation
- **Certificates**: Downloadable on the Softing website

## Order Numbers

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200-2120-3819</td>
<td>Serial / EtherNet/IP Coupler echolink one2EthernetIP</td>
</tr>
</tbody>
</table>

## Additional Products and Services

<table>
<thead>
<tr>
<th>Order Number</th>
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</tr>
</thead>
<tbody>
<tr>
<td>200-2140-3818</td>
<td>Serial / Modbus Coupler echolink one2Modbus</td>
</tr>
<tr>
<td>200-2131-3681</td>
<td>Serial / PROFINET Coupler echolink one2PROFINET</td>
</tr>
<tr>
<td>110-1000-01</td>
<td>Industrial Ethernet – Troubleshooting in Automation, 3 Days</td>
</tr>
</tbody>
</table>
The smart echolink one2Modbus coupler connects various devices and automation components via their own serial interface with Ethernet-based fieldbuses. echolink one2Modbus implements different interfaces.

**One Common Interface to Connect Serial Devices with Modbus TCP**
- Easy to use physics and protocol converter
- EIA-232, EIA-422, EIA-485 serial ports
- Modbus, ASCII, RTU, 3964R protocols supported on serial side
- Support of Modbus TCP Industrial Ethernet protocol

**Easy Setup to Reduce Start-Up Expenses**
- Ease-of-use through Windows-based configuration tool
- Automatic detection of connected devices
- No programming skills required
- Status LEDs supporting quick diagnosis

**High-Performance Ethernet Coupler**
- Coupler providing direct protocol conversion
- Support of full Modbus TCP bandwidth and speed
- Easy data access using mapping to Modbus TCP I/O range
### Technical Data

<table>
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<tr>
<th>Feature</th>
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<tbody>
<tr>
<td>Bus Data</td>
<td>Up to 252 Bytes input data / 252 Bytes output data</td>
</tr>
<tr>
<td>Serial Interfaces</td>
<td>EIA-232, EIA-422, EIA-485</td>
</tr>
<tr>
<td>Baud Rates of the Serial Interfaces</td>
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<tr>
<td>Bus Connection</td>
<td>RJ45 with 10/100 MBit</td>
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<td>Galvanic Isolation</td>
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### Order Numbers

- **200-2140-3818** Serial / Modbus Coupler echolink one2Modbus
- **200-2131-3681** Serial / PROFINET Coupler echolink one2PROFINET
- **200-2120-3819** Serial / Ethernet/IP Coupler echolink one2EthernetIP
- **110-1000-01** Industrial Ethernet – Troubleshooting in Automation, 3 Days

### Additional Products and Services

- Hardware: Protocol coupler, small screwdriver
- Software: Downloadable on the Softing website
- Documentation: Downloadable on the Softing website
- Support: Support by Softing Industrial Automation
- Certificates: Downloadable on the Softing website

### Scope of Delivery

- Hardware
- Software
- Documentation
- Support
- Certificates
Although Industrial Ethernet simplifies the expansion of existing manufacturing systems, it often requires the integration of robust-functioning controllers without modifying controller programs. Echochange offers the reliable solution to this problem. The PLC data are organized in allocation tables (source/destination areas) via one or more configured connections (source/destination protocol) and converted and written symmetrically (i.e., in both directions). Selection of the controller variables is easy with the Browsing function of the allocation table. Instead of using the allocation table, you can also define a separate data area in the controller to transmit large amounts of data via Fetch and Write queries. Echochange can be configured remotely and, if necessary, also diagnosed via the remote maintenance function. In addition to the analysis of the device functionality, the device also offers extensive Ethernet diagnostics.

**FEATURES**
- Separate Ethernet networks are connected together via configured connections.
- Converts the following Ethernet protocols: TCP, UDP, IP, ISO (H1), ISO on TCP (RFC1006), PLC-Header, Ethernet/IP
- Links computers with TCP/IP to ISO (H1) networks
- Remote maintenance of ISO (H1) networked controllers via TCP/IP: Controllers gain routing capability
- Connects two separate networks (protocols are running on different media)
- Converter in a heterogeneous network (protocols are running on one medium)

**POSSIBLE PLC PROTOCOL VERSIONS**
- S5/S7: -> Modbus, -> Rockwell CLX, -> Rockwell SLC/PLC5, -> Melsec-Q, -> Raw
- Modbus: -> Rockwell CLX, -> Rockwell SLC/PLC5, -> Melsec-Q, -> S5/S7, -> Raw
- Raw: -> All

**COMMUNICATION**
The echochange protocol converter supports Ethernet TCP/IP protocols of such leading manufacturers as Siemens, Schneider Electric and Rockwell Automation. This simple protocol conversion makes communication between automation systems of different manufacturers quick and easy.

**CUSTOMER BENEFITS**
- Connection of Different Ethernet Devices Via Configured Connections
- Connection of Physically Separate Ethernet Networks (ISO/H1 / TCP/IP)
- Connection of Controller Variables of Different Manufacturers Via Allocation Tables
**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Ethernet Addressable Controllers</th>
<th>Siemens Simatic S7 and S5, Rockwell ControlLogix and CompactLogix, Rockwell PLC-5, Rockwell SLC-500, Controllers with Modbus TCP (Wago, Beckhoff, Phoenix, Schneider, etc.), Mitsubishi (Melsec-Q), etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet Protocols</td>
<td>TCP/IP, RFC1006 (ISO on TCP), ISO (H1), EtherNet/IP, AB EtherNet, S5, S7, CLX, SLC, Send / Receive (Raw Data / Socket), TCP/IP with PLC Header, Modbus on TCP, Melsec-Q, DLMS, DCU</td>
</tr>
<tr>
<td>Ethernet Interfaces</td>
<td>2xTP (RJ45), 10/100MBit/s</td>
</tr>
<tr>
<td>Power Supply</td>
<td>24VDC, ca. 0,3A</td>
</tr>
<tr>
<td>Ambient Conditions</td>
<td>Operating Temperature: 0°C..55°C, Storage Temperature: -20°C..70°C</td>
</tr>
<tr>
<td>Dimensions (HxWxL)</td>
<td>131mm x 47mm x 111mm</td>
</tr>
<tr>
<td>Weight</td>
<td>ca. 0,4kg</td>
</tr>
<tr>
<td>Mounting</td>
<td>35mm DIN Rail</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP20</td>
</tr>
<tr>
<td>Certifications</td>
<td>CE, FCC, VCCI</td>
</tr>
</tbody>
</table>

**SCOPE OF DELIVERY**

echochange*, SD Card 2GB, Connector for Power Supply, Documentation „Getting Started“, CD with NetCon Software

* A plug-in powerpack is not included. If necessary, please order this separately.

**ORDER NUMBERS**

<table>
<thead>
<tr>
<th>GPL-YY-14-2101</th>
<th>echochange, Maximum 10 Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRL-YY-14-2001</td>
<td>Upgrade echochange: Maximum 30 Connections</td>
</tr>
</tbody>
</table>

**ADDITIONAL PRODUCTS AND SERVICES**

<table>
<thead>
<tr>
<th>700-5596-04</th>
<th>AC Adapter, 24VDC, Euro, UK, or USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>120-1010-05</td>
<td>Telephone Support: Application Consulting, Fees Charged on a Time and Materials Basis</td>
</tr>
<tr>
<td>110-1000-01</td>
<td>Workshop “Industrial Ethernet I – Basics” (Ethernet TCP/IP in Automation), 3 Days</td>
</tr>
</tbody>
</table>

Softing Industrial Automation is a world leading provider of industrial communication products and technologies for manufacturing and process automation. Our products are tailored to the requirements of system integrators, device vendors, machine and equipment manufacturers or end users and are known for their ease-of-use and functional advantages.
A gateway from the echo product family for the simple Ethernet coupling of SIMATIC S5 controllers via the PG interface. Data exchange takes place via TCP/IP (RFC1006). The module supports the remote programming with STEP 5 via Ethernet.

**CONFIGURATION**
The NetCon configurator is parameterized so that it automatically recognizes every echolink one2S5 during operation via TCP/IP. Each device has its own IP address from which it can be coupled to the connected S5 controller. The configuration of the interface is simple with the NetCon echo1 configuration software included in the scope of delivery.

**CONNECTION**
echolink one2S5 is usually mounted on the top hat rail. Not much space is required for the interface due to its compact design. The module is connected directly via the included PG cable. Also when connected to the PG port, the module is powered with 24 V externally. The link to the Ethernet uses the RJ45 socket which is integrated on the bottom. The status of the module is shown on the LEDs mounted on the front plate.

**OPERATION**
No other drivers are necessary for smooth operation. Selection of the module takes place during programming directly from the STEP 5 programming system. Additional programs access the necessary data via Fetch/Write functions from the controller. The Fetch/Write connection is already preset.

**CUSTOMER BENEFITS**
- Simultaneous programming and visualization
- Simple, robust installation in the switching cabinet
- Programming via STEP 5
**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage</td>
<td>10V..33V</td>
</tr>
<tr>
<td>Voltage Supply</td>
<td>External</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0°C..55°C (-20°C..75°C On Request)</td>
</tr>
<tr>
<td>Dimensions (HxWxD), Without Plug Connector</td>
<td>100mm x 23mm x 115mm</td>
</tr>
<tr>
<td>Mounting</td>
<td>Top Hat Module With Integrated Grounding</td>
</tr>
<tr>
<td>Protection Degree</td>
<td>IP20</td>
</tr>
<tr>
<td>Certificates</td>
<td>CE and Bus-specific Certification</td>
</tr>
<tr>
<td>Interface</td>
<td>Serial Interface: TTY</td>
</tr>
<tr>
<td>Baud Rates of the Serial Interface</td>
<td>9600Baud</td>
</tr>
<tr>
<td>Bus-specific Data</td>
<td>- Bus Connection: RJ45</td>
</tr>
<tr>
<td></td>
<td>- Bus Data: 1024Bytes I/O</td>
</tr>
<tr>
<td></td>
<td>- Bus Baud Rates: 10/100Mbit</td>
</tr>
<tr>
<td>Galvanic Isolation</td>
<td>Ethernet Side: Standard</td>
</tr>
</tbody>
</table>

**ORDER NUMBERS**

- 200-2140-TTY echolink one2S5, With Driver and Manual on CD, Connection Cable 1.5m, Mini Screwdriver

**ADDITIONAL PRODUCTS AND SERVICES**

- GPL-YY-14-1101 echolink, Connectors: 2xEthernet, 5xTTY
- GAL-YY-14-3101 echocollect e for Process Data Collection and Logging Connectors: 2xEthernet, 1xTTY
- GAL-YY-14-3201 echocollect r for Process Data Collection and Logging Connectors: 2xEthernet, 1xTTY, 3xRS232, 1xMPI
- GAL-YY-14-3301 echocollect p for Process Data Collection and Logging Connectors: 2xEthernet, 1xTTY, 3xRS485, 1xMPI
- GAL-YY-14-3401 echocollect m for Process Data Collection and Logging Connectors: 2xEthernet, 3xTTY, 2xMPI
- 100-3100-01 OPC Server Ethernet: Simple Data Exchange Between Visualization and S5 Controller
- 110-1000-01 Industrial Ethernet - Troubleshooting in Automation, 3 Days
- 100-1030-01 OPC Server and Client in Automation, 2-Day Seminar The Basics, OPC Communication With S5/S7 Controllers and Workshop, OPC Client

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Fax: +49 89 4 56 56-488
info.automation@softing.com
http://industrial.softing.com
SEQUENTIAL Devices to PROFIBUS

SPI 3

By using the SPI 3, devices with serial interface are integrated in PROFIBUS as DP slaves. Depending on the application, various protocols and physical interfaces are available. In decentralized PROFIBUS installations, the SPI 3 replaces the serial interface inside the PLC. The SPI 3 is configured via the respective PROFIBUS DP master by means of the SPI 3 GSE file. The PROFIBUS IO range can be flexibly configured. The SPI 3 is suitable for simple applications, such as connecting text displays or barcode scanners, as well as for more complex applications such as the integration of identification systems, scales, controllers and laboratory equipment.

**Benefits**
- Integration of devices with a serial interface as DP slave devices in PROFIBUS
- Available for various protocols and physical interfaces

**Functions**
- Easy installation and parameterization
- Configuration without additional software
- Flexible configuration of PROFIBUS IO range
- DP slave with a transmission rate of 9.6 kBit/s up to 12 MBit/s
- Serial transmission rate 110 Bit/s up to 57.6 kBit/s (depending on the protocol)
- Serial interfaces RS 232, RS 422 or RS 485 available
- Configuration with GSE file via the PROFIBUS DP master
- Plug & play integration into PROFIBUS
- IO range configurable from 2 to 64 data words
Technical Data

Nominal supply voltage
24 V DC (19.2 ... 28.8)

Current consumption
max. 200 mA

Ambient temperature range
0 ... +60°C

Transmission rate serial
110 Bit/s up to 57.6 kBit/s (depending on the protocol)

Interface serial
RS 232, RS 422, RS 485 (interface as per order)

Protocols serial
Free ASCII driver, 3964R, RK512, MODBUS RTU

Transmission rate PROFIBUS
9.6 kBit/s up to 12 MBit/s

Interface PROFIBUS
RS 485

IO Range PROFIBUS
2, 4, 8, 16, 32, 64 data words (depending on the protocol)

Case, protection class
Plastic, IP 20

Mounting
35 mm DIN top hat rail

Dimensions W x H x D
75 x 75 x 53 mm

Weight
136 g

Certificate
CE, UL

Scope of Delivery

• SPI 3
• Installation Guide

By Download
• Docu + Media Kit (includes online documentation, GSE, function blocks for SIMATIC S5 and S7, example projects)
• Release Note

Order Information

• SPI 3 RS 232 GPA-NS-011236
• SPI 3 RS 422 GPA-NS-011237
• SPI 3 RS 485 GPA-NS-011238

Your local contact/order here

• order.sia@softing.com
• Tel.: +49 89 456 56-340
• Fax: +49 8945656-488
• http://industrial.softing.com/de/communication.html
Quick and easy integration of proven S5 technology into modern Ethernet architectures. Program and display STEP5* and capture process data at the same time with only one controller! S5 data can be directly accessed by S7 controllers.

**SPACE SAVING AND QUICK TO CONNECT**
The electronics of this ultra compact Ethernet gateway are enclosed in a 15-pin D-sub housing. All you need to do on the controller side is connect the S5-PCLink to the programming interface. The S5-PCLink is, ideally, powered by the controller but can also run on external power. Hubs or switches are usually used for connection to Ethernet. An LED shows you the functional state of the unit.

**EASY CONFIGURATION FOR BOTH LOCAL AND REMOTE ACCESS**
The S5-PCLink supports 10/100 Mbit/s Ethernet with automatic detection. The gateway receives the IP address through manual configuration or from a DHCP server. This allows you to access the connected S5 via Ethernet wherever you are - directly on site or from a remote computer on the network.

**DATA INTEGRATION WITHOUT CHANGES TO THE CONTROL PROGRAM**
The gateway synchronizes communication with the PLC, providing reliable parallel access to S5 data by multiplexing. No application needs to be interrupted in favor of another. A virtual COM interface allows STEP5 programming via Ethernet. Visualization and SCADA systems can also access the S5 data through an optional OPC server. SIMATIC S7 controllers supporting TCP/IP PUT/GET can read and write data without changes to the S5 project.

**CUSTOMER BENEFITS**
- Extended usability of S5 systems saves investment costs
- Easy configuration and quick commissioning
- Data integration without changes to the control program

*STEP5®, WinCC®, SIMATIC® are registered trademarks of Siemens AG
## TECHNICAL DATA

<table>
<thead>
<tr>
<th>Supported S5 controllers</th>
<th>S5 AG 90U to S5 AG 155U</th>
</tr>
</thead>
<tbody>
<tr>
<td>S5 data types</td>
<td>E, A, M, DB, Z, T</td>
</tr>
<tr>
<td>PLC interface</td>
<td>S5 PG port, 15-pin connector, 9.6 kBaud</td>
</tr>
<tr>
<td>Ethernet interface</td>
<td>RJ45, 100 Mbit/s and 10 Mbit/s with automatic detection</td>
</tr>
<tr>
<td>Communication types</td>
<td>AS511, RK512 (PG connection through STEP5 and virtual COM port) ISO (H1), ISO on TCP (RFC 1006), DHCP</td>
</tr>
<tr>
<td>IP address</td>
<td>Manually configurable, via DHCP server, or auto IP</td>
</tr>
<tr>
<td>Power supply</td>
<td>24V/DC–80 mA from AG or external power supply 24 V DC, 80 mA max.</td>
</tr>
<tr>
<td>Dimensions</td>
<td>42 x 15 x 65 mm (H x W x D)</td>
</tr>
<tr>
<td>System requirements</td>
<td>PC/PG with Windows 98/NT/2000/XP and 10/100 MBit Ethernet</td>
</tr>
</tbody>
</table>

## ORDER NUMBER

| S5-PCLink                | S5-PCLink interface, CD-ROM, printed quick reference guide |

## ADDITIONAL PRODUCTS AND SERVICES

| Supported software       | Softing S7/S5 OPC Server Siemens STEP5 Citect, InTouch, RSView, WinCC* and other OPC clients |

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