echocollect e

Gateway for the Integration of Process Data with Higher-level Systems and IoT Solutions

echocollect e is an industrial multi-protocol gateway providing a modern process data management solution. It offers bidirectional real-time connectivity between PLCs and databases, and direct OPC UA and OPC Classic connectivity. Its functionality includes both local data logging and direct integration of data into IoT cloud applications via MQTT.

**Integration of Existing Systems in New Quality Assurance Systems**
- Independent real-time collection of manufacturing, process or quality data directly from programmable logic controllers (PLC) and delivery to higher-level management systems, such as ERP or MES system
- Recipe manager functionality for writing data blocks to PLCs
- Direct connectivity via SQL database protocols, platform-independent OPC UA technology or MQTT Publisher functionality
- Support of more than 50 PLC types addressable via Ethernet

**Excellent Data and Network Security**
- Buffering of arriving data and addition of time stamps in case of broken connections, automatic forwarding 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
- State-of-the-art OPC UA security: Optional encryption of transmitted data and authentication via certificates

**Lowered IT Maintenance Costs and Investment Protection**
- echocollect as standard component, addition of extra functionality without modifying existing systems
- No need for additional PC requiring software updates and administration
- Working for years once configured – untouched, without updates and with zero maintenance costs
- Plug-and-go replacement, if necessary, using configuration stored on SD card
- Very easy configuration by straightforward project import without requiring PLC modifications and programming skills

**Easy Live Data Visualization**
- Native web technology for easy and cost-efficient visualization of process, manufacturing and quality data using 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 panels
Technical Data

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

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

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

**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; OPC UA Security with password or certificates

**Embedded MQTT Publisher**
Establishment of MQTT Broker connection, optional user authentication and data encryption, easy topic generation from existing symbols, maximum of 1,000 topics, adjustable publishing interval

**Supported Databases**
MySQL, Oracle, DB2, MS-SQL

**Other Protocols**
Telnet, SMTP (email notification), OPCpipe (OPC Tunnel)

**Supported Engineering Tools for Symbol Import**
SIMATIC STEP 7, TIA Portal

**Limitation**
Maximum of 5 PLC connections, 10,000 items in total
Data mapping PLC - database must be structured in 400 tables and 200 items per table

**Visualization**
atvise webMI visualization, functional level 'Advanced' (fully event-driven data exchange)
Limited to up to 50 visualized items per echocollect (optional upgrade possible), maximum of 5 simultaneously accessing browsers

**Configuration Software**
Softing NetCon for device configuration, atvise builder for SCADA project editing, dataFEED Exporter for symbol import

**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

**Scope of Delivery**

- **Hardware**
  Multi-protocol gateway echocollect e, SD card, connector for power supply*

- **Software**
  Net conconfiguration software on CD-ROM, also downloadable from Softing website

- **Documentation**
  Quick Start leaflet, context-based online help, CD-ROM with product handbook and configuration tutorials, also downloadable from Softing website

* 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)

- **LRA-YY-143001**
Upgrade echocollect: License for database access to Oracle, DB2 and MSSQL (default: MySQL only)

- **LRA-YY-143002**
Upgrade echocollect: License enabling data logging on SD Card (default: no data logging)

- **LRA-YY-143004**
Upgrade echocollect: License supporting unlimited number of visualization items
  (default: maximum of 50 visualization items)

- **LRA-YY-143005**
Upgrade echocollect: License embedded OPC UA Server (default: no embedded OPC UA Server)

- **LRA-YY-143007**
Upgrade echocollect: License MQTT Publisher functionality (default: no MQTT support)

- **LRA-YY-143115**
Upgrade echocollect: License enabling maximum of 15 PLC connections
  (default: maximum of 5 PLC connections)

**Additional Products and Services**

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

- **LRL-DY-131701**
OPCpipe client

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

- **GPL-CS-191000**
echolink sS7-compact

- **110-1000-01**
Industrial Ethernet – Troubleshooting in Automation, 3 days

**Optimize!**
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