



# System 800xA 5.1 Product Catalog (FP4 included)



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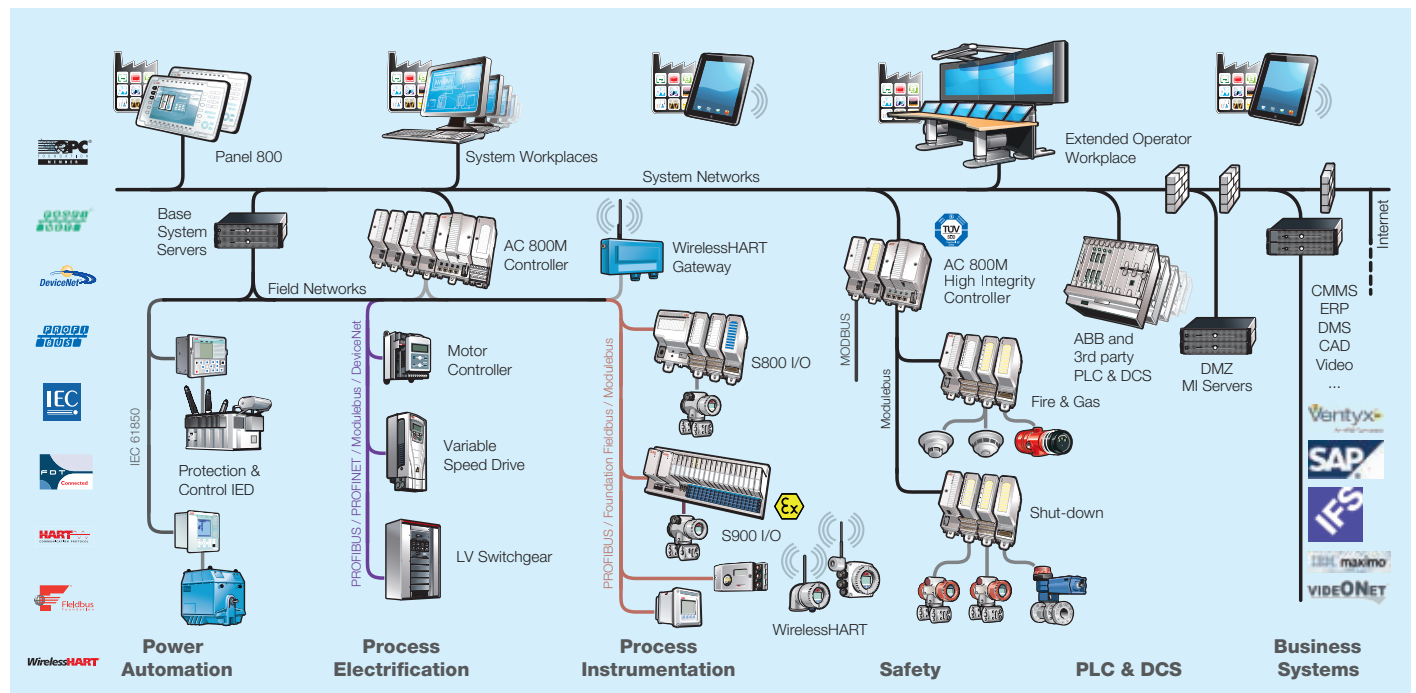
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# System 800xA Extended Automation

## The Power of Integration

### Promoting collaboration

Collaboration between people and systems is a necessity to increase engineering efficiency, asset utilization, energy savings, and operator effectiveness. System 800xA's 'xA' stands for Extended Automation and utilizes the system architecture which was built for collaboration. System 800xA is the only automation platform that has the ability to engineer, commission, control, and operate automation strategies for process, power, electrical and safety in the same, redundant, reliable system. Also, facilitating collaboration is System 800xA's pre-integrated applications such as a full featured historian, asset optimization and batch management.



## System 800xA

ABB's award winning System 800xA provides you with a better way to achieve measurable productivity and profitability improvements. System 800xA extends the scope of traditional DCS systems to include all automation functions in a single operations and engineering environment; enabling your plants to perform smarter and better at substantial cost savings. System 800xA delivers extended productivity gains by:

- Reducing time to decision and action
- Engineering for maximum performance
- Reducing risk through high integrity automation
- Integrating information for improved visibility
- Improving batch production profitability, consistency, and traceability
- Optimizing plant asset availability and performance
- Delivering Control and I/O to meet automation and safety needs
- Extending installed system capabilities through seamless evolution

Embracing the principles of open, real-time networking, System 800xA provides a scalable solution that spans and integrates loop, unit, area, plant, and inter plant controls. From providing a secure foundation with robust, but flexible, base level regulatory and sequence control to higher level management and advanced control functions that include safety controls, batch management, maintenance management, information management, and network management solutions, System 800xA meets the application needs of a wide variety of industries.

System 800xA provides you with a secure, reliable control environment with minimum effort through built-in security features such as access control, user authentication, and audit trail capability. ABB enhances secure system operations by actively participating on security standards committees, conducting threat-modeling studies, and incorporating “safe design” practices into product development.

Based upon the Aspect Object technology and a common set of hardware, System 800xA seamlessly integrates traditionally isolated DCS and Safety systems. SIS realization is achieved by either utilizing individual controllers or through dedicated applications within the same controller. With this embedded control and safety architecture, System 800xA reduces costs significantly; achieving the objectives of both systems – maximum plant availability at minimum risk.

For more information about System 800xA please visit our web: [www.abb.com/800xA](http://www.abb.com/800xA)



# System 800xA Software

The 800xA System software is packaged in a set of DVD's. The system installation is supported by the Automated Installation program. The Automated Installation program is a shell framework to ease the installation and configuration of your 800xA System.

Installation is never prevented due to lack of licensing, but licenses are required to unlock features for operating or engineering the system. Updates and security related software from non-ABB companies must be downloaded and installed separately, as guided from the Automated Installation program.

The Automated Installation program is supplied on the system DVD. The common part is to specify the system details of your system in the Automated Installation program System Planner and generate a unique setup package for each node (workstation) describing what should be installed from the DVDs, or a file server, onto each node, and how it should be configured.

The System 800xA Installer is installed on each node, and then the following steps are executed to install and configure your node:

- Windows configuration.
- System Verifier tool.
- System installation.
- System configuration.

The setup-files may also reside on the file server. Windows configuration configures the environment (IP address, host-name, Windows components, and Windows services) connect to the workgroup or domain. The System Verifier tool checks for the necessary 3rd party software and where installations are required.

## License

The central licensing system (CLS) is local to each system. Each system is ordered separately, and a separate license file is fetched for each system from the Software Factory. This also means that each system is managed individually updates and upgrades, as well as initial system installation

The software or hardware described in the document is furnished under a license and may be used, copied, or disclosed only in accordance with the terms of such license.

## DVD Formats

The 800xA software is delivered on dual layer DVDs. In most instances, DVD readers from 2004 and later will be able to read this format. In those instances where the dual layer format can not be read, the recommendation is to purchase an USB DVD reader capable of reading dual layer DVDs.



# 800xA Base System

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## 800xA Base System 800xA 5.1

Includes one Operator Workplace, one Engineering Workplace, AC 800M Connectivity, Redundant Aspect Server, Plant Explorer, Topology Status Viewer, Softpoint Server, Scheduler, Primary History Logs (logging of signals for operator trends for up to 3 months), 10 Asset Monitors and Diagnostics Collection. Fast log-over of users.

	Article no.	
800xA Base System, 800xA 5.1	3BSE061234R1	

## Tag Addition

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### Tags

All process objects with faceplate for operator interactions counts as a tag.

(Total max 120,000. Can not be mixed with redundant tags).

NOTE: At pricebook release a TSA was NEEDED for a system with more than 60,000 tags.

Please, check current need of a TSA in the TSA Database before ordering.

Non-redundant Tags	Article no.	
100 tags, non-redundant, 800xA 5.1	3BSE061235R1	
1,000 tags, non-redundant, 800xA 5.1	3BSE061235R2	
10,000 tags, non-redundant, 800xA 5.1	3BSE061235R3	

All process objects with an operator faceplate counts as a tag.

(Total max 120,000. Can not be mixed with non-redundant tags).

(Enables tag access through redundant Connectivity Servers.)

Redundant Tags	Article no.	
100 tags, redundant, 800xA 5.1	3BSE061236R1	
1,000 tags, redundant, 800xA 5.1	3BSE061236R2	
10,000 tags, redundant, 800xA 5.1	3BSE061236R3	

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### Multisystem Integration

Tags in the subscriber system in a Multisystem Integration configuration. These tags are Object with a faceplate that collects data from a provider system.

Note that non-redundant Multisystem Subscriber Tags can not be mixed with Multisystem Subscriber Redundant Tags.

Tags in the subscriber system in a Multisystem Integration configuration.

Note: At pricebook release this item required a TSA to be ordered.

Please, check current need of a TSA in the TSA Database before ordering.

Multisystem Subscriber Tags	Article no.	
100 Multisystem Subscriber Tags	3BSE072204R1	
1,000 Multisystem Subscriber Tags	3BSE072204R2	
10,000 Multisystem Subscriber Tags	3BSE072204R3	

Multisystem Subscriber Redundant Tags	Article no.	
100 Multisystem Subscriber Redundant Tags	3BSE072205R1	
1,000 Multisystem Subscriber Redundant Tags	3BSE072205R2	
10,000 Multisystem Subscriber Redundant Tags	3BSE072205R3	



## Connectivity

Note that there may be 800xA price list options that are not supported with a particular OCS controller. Please refer to the table “Available functions per Controller Connectivity” in the System Guide “Technical Data and Configuration Information”.

To check what connectivity combinations that are valid, use the Project Wizard or refer to the System 800xA System Guide for information.

	Article no.	
<b>800xA for Advant Master, 800xA 5.1</b> (One per system.) RTA hardware needs to be ordered separately. Please refer to pricebook 3BSE001706, Advant OCS with Master Software, for RTA hardware.	3BSE061237R1	
<b>Advant Master Central Backup, 800xA 5.1</b> Backup and restore of applications for Advant Master controllers (AC410, AC450, MP200/1, SG400) One license per system. Requires 800xA for Advant Master. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE070712R1	
<b>800xA for MOD 300, 800xA 5.1</b> (One per system.) RTA hardware needs to be ordered separately. Please refer to pricebook 3BSE001709, Advant OCS with MOD 300 SW, for RTA hardware.	3BSE061238R1	
<b>800xA for Harmony, 800xA 5.1</b> (One per system.)	3BSE061239R1	
<b>800xA for DCI, 800xA 5.1</b> Connectivity to Harmony Distributed Control Unit (HDCU), includes: Batch connectivity, VB6 and PG2 faceplates, HDCU maintenance functions.	3BSE064196R1	
<b>800xA for AC 870P / Melody, 800xA 5.1</b> (Faceplates not included). (One per system.)	3BSE061240R1	
<b>PLC Connect, 800xA 5.1</b> (One per system.)	3BSE061242R1	
<b>PLC Connect Dial-Up, 800xA 5.1</b> (One per serial communication channel used with dialed communication. PLC Connect is required. Scaled on number of dial up lines in a system).	3BSE061243R1	
<b>800xA for Safeguard, 800xA 5.1</b> (One per system.) Requires also 800xA for Advant Master.	3BSE061244R1	
<b>800xA for AC 100</b> AC 100 conect package including Graphics Elements, Faceplates, OPC server required to use AC 100 controllers in 800xA.	3BSE064565R1	

## Cyber Security

	Article no.	
<p><b>Digital Signature, 800xA 5.1</b> Makes it possible to digitally sign aspects to ensure that data is kept unchanged after approval.</p>	3BSE061250R1	
<p><b>Advanced Access Control, 800xA 5.1</b> Reauthentication, double reauthentication and inactivity logout.</p>	3BSE061249R1	
<p><b>Audit Trail, 800xA 5.1</b> Logging of all user initiated actions in a system. e.g. Graphics editing, Control Logic editing and start/stop of servers etc.</p>	3BSE061248R1	
<p><b>800xA for Industrial Defender</b> Industrial Defender monitoring is updated with 800xA security events. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.</p>	3BSE068321R1	
<p><b>Whitelisting SE46</b> Whitelisting SE46 provides advanced threat protection, through checks of executing SW on clients and servers. The number of licenses should match the number of clients in a system. Protection of servers are included. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.</p>	3BSE067893R1	
<p><b>Whitelisting Studio SE46</b> Configuration tool required when using Whitelisting SE46 option. One tool needed per site using Whitelisting SE46. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.</p>	3BSE067217R1	

# System Options

## System Options

	Article no.	
<b>Point of Control, 800xA 5.1</b> Makes it possible to transfer plant operation responsibility between locations and persons.	3BSE061212R1	
<b>Alarm Operations, 800xA 5.1</b> Alarm Grouping, Alarm Shelving and Alarm Analysis. (Alarm Hiding and Alarm Response are part of the base system)	3BSE061215R1	
<b>Alarm Help and Reports</b> Long term Alarm storage and analyze, Alarm system KPI reports, e-mail distribution of reports, Alarm instruction aspects. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE072022R1	
<b>SMS and e-mail Messaging, 800xA 5.1</b> Sending messages based on alarm and event information to user devices such as mobile telephones, e-mail accounts and pagers.	3BSE061251R1	
<b>Calculation Engine, 800xA 5.1</b> Provides the ability to run mathematical calculations on any available System 800xA aspect property or attribute. One license per server or redundant server pair.	3BSE061252R1	
<b>10 Structured Data Logs, 800xA 5.1</b> Makes it possible to store data sets in a SQL DB, triggered by the Controller. Scaled on number of Data Logs, each defining a set of properties logged for a specific processing step. Total max 200 Data Logs.	3BSE061253R1	
<b>Snapshot Reports, 800xA 5.1</b> Makes it possible to create aspects that automatically executes a query and produces a report consisting of properties of objects in the system.	3BSE061213R1	

# System Data Publishing

## System Data Publishing

	Article no.	
<b>800xA OPC Client Connection, 800xA 5.1</b> This enables third party OPC clients to connect to 800xA via the 800xA OPC server. One per external access.	3BSE061245R1	
<b>OLE-DB Real Time Data Client Connection, 800xA 5.1</b> Allows realtime system data to be accessed via an OLE-DB interface. One per external access.	3BSE061246R1	

# Operator Workplaces

## Operator Workplaces

	Article no.	
<b>Operator Workplace - Additional Client, 800xA 5.1</b> Includes Excel based reporting aspects, MS Excel is NOT included. Possibility to use up to two screens per workplace. (One Operator Workplace is included with Core System so this limit to Total-1). The total quantity of Operator Workplace-Additional and Remote Clients, Large Operator Workplaces and Engineering Workplaces - must not exceed 55.	3BSE061255R1	
<b>Large Operator Workplace Client, 800xA 5.1</b> Includes one Operator Workplace with the possibility to use up to four screens per workplace and/or large desktop functionality. The total quantity of Operator Workplace - Additional and Remote Clients, Large Operator Workplaces and Engineering Workplaces - must not exceed 55.	3BSE061257R1	

# Office Workplaces

## Office Workplaces

Smart Client Workplaces - Includes access to system information from the office network. Includes: View Process Graphics 2 displays, Trend displays, Build/view business graphics, historic data, alarm & events analyse (H & AE analyse requires IM).

	Article no.	
<b>Smart Client Workplace - Client 1-25</b> Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE070899R25	
<b>Smart Client Workplace - Client 26-50</b> Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE070899R50	
<b>Smart Client Workplace - Client 51-100</b> Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE070899R100	

# Extended Operator Workplaces

## Extended Operator Workplaces



### EOW-x2

Operator Console including motorized ergonomic desk, 1 large screen area (3840x1080 mm (2 monitors)), 2 sets of 2 wide screen motorized monitors, multi-client keyboard, public speakers, directed sound shower speaker, high frequency lighting, operator video camera, remote graphical distribution (25 m fiber cables and interface cards).

Software included: 1 EOW Workplace, 3 Large Operator Workplaces, 1 Video Camera Input Channel, 3 Video Clients.

Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.

### Article no.

3BSE070124R1



### EOW-x3

Operator Console including motorized ergonomic desk, 1 large screen area (5760x1080 mm (3 monitors)), 2 sets of 3 wide screen motorized monitors, multi-client keyboard, public speakers, directed sound shower speaker, high frequency lighting, operator video camera, remote graphical distribution (25 m fiber cables and interface cards).

Software included: 1 EOW Workplace, 3 Large Operator Workplaces, 1 Video Camera Input Channel, 3 Video Clients.

Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.

3BSE070125R1



### EOW-f2

Operator Console including desk, 1 large screen area (3840x1080 mm (2 monitors)), 2 sets of 2 wide screen monitors, multi-client keyboard, speakers, remote graphical distribution (25 m fiber cables and interface cards).

Software included: 1 EOW Workplace, 3 Large Operator Workplaces.

Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.

3BSE070126R1



### EOW-f3

Operator Console including desk, 1 large screen area (5760x1080 mm (3 monitors)), 2 sets of 3 wide screen monitors, multi-client keyboard, speakers, remote graphical distribution (25 m fiber cables and interface cards).

Software included: 1 EOW Workplace, 3 Large Operator Workplaces.

Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.

3BSE070127R1

# Extended Operations

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## Extended Operations

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	Article no.	
<b>Video Input Channel</b> Connection to attach a video stream from one video camera for recording or live viewing in the system. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE070134R1	
<b>Video Client</b> One concurrent client using video stream viewing from either recorded or live video source. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE070135R1	
<b>CAD Viewer</b> View CAD drawings in DXF and DWG formats store in aspects DWG (version 13, 14, 2000, 2004, 2007, 2010) DXF(version 12, 13, 14, 2000, 2004, 2007, 2010). Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE072023R1	

# Batch Management

## Batch Management

	Article no.	
<p><b>Batch Base System, 800xA 5.1</b></p> <p>Provides the basic server functionality for batch management. The batch server includes 10 Batch Equipment and 2000 Batch Procedures. 1 Batch client included.</p>	3BSE061258R1	
<p><b>Redundant Batch Server Option, 800xA 5.1</b></p> <p>Provides redundancy for the basic server functionality for batch management. (Requires Batch Base System, 3BSE061258R1)</p>	3BSE061259R1	
<p><b>Batch Management Full Client, 800xA 5.1</b></p> <p>This Client feature provides access to Batch Management functions. The Client feature is based upon concurrent users, not physical workstation installation. Including SL and SQL server licenses. Requires Operator Workplace Client - 3BSE061255R1, 3BSE061256R1 or 3BSE061257R1; or Engineering Workplace Client - 3BSE061342R1. Maximum 40. One Client is included with the Batch Base System.</p>	3BSE061260R1	
<p><b>Batch Schedule Interface, 800xA 5.1</b></p> <p>This feature provides external interface to Batch Management via the Web Service scheduling commands. Included in this feature is the Spreadsheet Scheduling interface desktop version, unlimited license. No need to order Simple Batch Parameter Management if you have this feature.</p>	3BSE061261R1	
<p><b>10 Additional Batch Equipment, 800xA 5.1</b></p> <p>The number of batch equipment instances includes each piece of equipment configured in Batch Management including both Units and Shared Equipment Modules.</p>	3BSE061262R1	
<p><b>100 Additional Batch Equipment, 800xA 5.1</b></p> <p>The number of batch equipment instances includes each piece of equipment configured in Batch Management including both Units and Shared Equipment Modules.</p>	3BSE061263R1	
<p><b>Batch Advanced Phase Templates, 800xA 5.1</b></p> <p>This feature provides access to the batch advanced templates control modules for phases, units and shared equipment modules. For use with AC 800M controllers. Batch Phase Control library option, includes 2000 Advanced Phases.</p>	3BSE061264R1	
<p><b>Simple Batch Parameter Management - Spreadsheet Scheduling interface desktop version</b></p> <p>Batch spreadsheet recipe scheduling tool for desk top PC interface to Batch Management. Supports Excel 2007 and 2010. XP or Win 7, Requires Feature Pack 3.</p>	3BSE070685R1	

## Basic Historian

Logging of signals for Operator trends is included in the core system for up to three months. Logging for a longer time period, archiving to external media like DVD, discs or web based Historian tools require Basic Historian Server.

Max 120,000 logs allowed in one server. (Includes archiving license, PDL, up to 12,000,000 events, MDI client and one Excel Data Access).

	Article no.
<b>Basic Historian Server, 800xA 5.1</b> With storage and archiving functions for: history data, events (Message Log), and production data (Production Data Log-PDL). Includes Licenses for: 500 History Logs one Multi-Display Interface (MDI) client one Display Builder for MDI one Desktop Trend client one Excel Data Access Batch reports with trending requires an additional licensed option, see Historian Data Access Options.	3BSE061265R1

## History Logs

Number of initial Information Management Hierarchical Logs in the system. Each signal to be logged counts as one log. Note: Information Management provides only Hierarchical Logs. (Total max 300,000 and max 50,000/Server.)

	Article no.
<b>100 History Logs, 800xA 5.1</b>	3BSE061266R1
<b>1,000 History Logs, 800xA 5.1</b>	3BSE061267R1
<b>15,000 History Logs, 800xA 5.1</b>	3BSE061268R1

## Dual History Logs

For parallel logging in two history servers. (Two Basic Historian Servers are required).  
 Number of initial Information Management Hierarchical Logs in the system. Each signal to be logged counts as one log. Note: Information Management provides only Hierarchical Logs. (Total max 150,000 and max 50,000/Server.)

	Article no.
<b>100 Dual History Logs, 800xA 5.1</b>	3BSE061269R1
<b>1,000 Dual History Logs, 800xA 5.1</b>	3BSE061270R1
<b>15,000 Dual History Logs, 800xA 5.1</b>	3BSE061271R1



## Consolidated History Logs

Consolidated logs collect data from multiple History Servers and store it in a single location. This provides a common history repository for viewing and reporting. (Total max 300,000 and max 50,000/Server.)

	Article no.
<b>100 Consolidated History Logs, 800xA 5.1</b>	3BSE061328R1
<b>1,000 Consolidated History Logs, 800xA 5.1</b>	3BSE061329R1
<b>15,000 Consolidated History Logs, 800xA 5.1</b>	3BSE061330R1

## Historian Display and Reporting Options

	Article no.
<b>Display Builder for MDI - Additional Client, 800xA 5.1</b> Provides the ability to create MDI information displays for desktop applications.	3BSE061331R1
<b>Multi-Display Interface (MDI) - Additional Client, 800xA 5.1</b> (Max 64 per Server). Provides the ability to view MDI information displays for desktop applications.	3BSE061332R1
<b>Desktop Trends - Additional Client, 800xA 5.1</b> Provides trend viewing for desktop applications. Includes web enabled trend display for long and short term history and stock ticker like viewer. (Max 64 per Server).	3BSE061333R1

## Historian Data Access Options

To access historical data through SQL from third party applications.

Batch Reports with trending requires the ODBC Server (3BSE061335R1) and ODBC Client (3BSE061336R1) option. This option provides the links necessary to connect the Oracle database (PDL) and the numeric log and process data.

Applications which utilize commercial third party reporting tools should also include the ODBC Server (3BSE061335R1) and ODBC Client (3BSE061336R1) option. The number of client connection is based on whether the applications utilizes the connection directly or indirectly. If the connection is made indirectly (using Oracle), then the client connection requires is only one. If the client connections are direct, then the number of clients should equal the number of concurrent users.

	Article no.
<b>Excel Data Access, 800xA 5.1</b> To access historical data through SQL from third party applications. Used to access historical data in Excel from non 800xA PC's. For 800xA Client PC's Excel Data Access is included. (Max 64 per Server).	3BSE061334R1
<b>ODBC Historical Data Server, 800xA 5.1</b> ODBC, includes third party code. (One per server.)	3BSE061335R1
<b>ODBC Client Connection, 800xA 5.1</b> ODBC Clients are purchased separately from the ODBC server. (Max 10 per ODBC Server.)	3BSE061336R1

## 800xA History Signals - Logs

History signals capable of storing actual and historic values retrieved from 800xA, Heritage ABB DCS systems and OPC sources. The signals include logging, trending, calculations and archiving. (Max 75,000 per Server node, signal storage for up to 6 data sources per Server).

	Article no.	
<b>800xA History Signals - Basic 100 signals</b> Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE067077R1	
<b>800xA History Signals - Basic 1000 signals</b> Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE067077R10	
<b>800xA History Signals - Basic 15000 signals</b> Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE067077R150	

## 800xA Dual History Signals - Logs

History signals for parallel logging in two history servers.

The number of dual history signals should match the number of history signals

	Article no.	
<b>800xA Dual History Signals - 100 signals</b> Note: At pricebook release a TSA was NEEDED for this item. Please, check current need of a TSA in the TSA Database before ordering.	3BSE073477R1	
<b>800xA Dual History Signals - 1000 signals</b> Note: At pricebook release a TSA was NEEDED for this item. Please, check current need of a TSA in the TSA Database before ordering.	3BSE073477R10	
<b>800xA Dual History Signals - 15000 signals</b> Note: At pricebook release a TSA was NEEDED for this item. Please, check current need of a TSA in the TSA Database before ordering.	3BSE067079R150	

## External Data access to 800xA History Signals

External access to history data via OPC and ODBC connectivity. This gives access to both, the current and the historical data. (Same size as total number of 800xA History Signals).

	Article no.	
<b>Data Access to 800xA History Signals - 100 signals</b> Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE067079R1	
<b>Data Access to 800xA History Signals - 1000 signals</b> Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE067079R10	
<b>Data Access to 800xA History Signals - 15000 signals</b> Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE067079R150	

# Control

## Control Software Licenses

The licensing model for the Control Software Integration has changed in 800xA 5.1. Licensing is now scaled on installed controller capacity instead of licensing on connected signals and devices to the controllers (CLPs). This change has been made to make the calculation of required Control Software licenses easier. Each installed controller or redundant pair in the plant requires a separate Control Software license, which is ordered through the price list. The easiest way to calculate the licenses is by using the 800xA Wizard. Each controller type has its own license, where the price of it depends on the capacity of the controller.

If a Control Software license that is too small is chosen initially, it is possible to upgrade to a larger one by ordering one, or several expansion items. The 800xA Wizards helps to do the calculation in this scenario as well. Each PM type has internally a unique Controller Capacity Points figure that relates to the capacity for the controller.

While ordering the different controller licenses, the total Controller Capacity Points are automatically calculated and summed up in the license. The 800xA system validates the actual points count against the current license; the license will be granted as long as there are enough points in the license.

	Article no.	
<b>PM851/PM851A Software License, 800xA 5.1</b> 13 Controller Capacity Points	3BSE061897R1	
<b>PM856/PM856A Software License, 800xA 5.1</b> 25 Controller Capacity Points	3BSE061898R1	
<b>PM860/PM860A Software License, 800xA 5.1</b> 40 Controller Capacity Points	3BSE061899R1	
<b>PM861/PM861A Software License, 800xA 5.1</b> 50 Controller Capacity Points	3BSE061900R1	
<b>PM864/PM864A Software License, 800xA 5.1</b> 67 Controller Capacity Points	3BSE061901R1	
<b>PM865 Software License, 800xA 5.1</b> 67 Controller Capacity Points	3BSE061916R1	
<b>PM866 Software License, 800xA 5.1</b> 100 Controller Capacity Points	3BSE061902R1	
<b>PM891 Software License, 800xA 5.1</b> 150 Controller Capacity Points	3BSE061903R1	

# Safety

## Enabler for combined PA Control and Certified Safety software

	Article no.	
<b>AC 800M High Integrity and Process Control, 800xA 5.1</b> One fixed license feature per AC 800M controller running both non-SIL and SIL applications in the same controller.	3BSE061341R1	

## Asset Optimization

	Article no.	
<p><b>100 Asset Monitors, 800xA 5.1</b> Asset monitoring and Basic Asset Monitor Library. Each Aspect Object being monitored by one or more asset monitors counts as one.</p>	3BSE061350R1	
<p><b>1000 Asset Monitors, 800xA 5.1</b> Asset monitoring and Basic Asset Monitor Library. Each Aspect Object being monitored by one or more asset monitors counts as one.</p>	3BSE061351R1	
<p><b>Generic Heat Exchanger Asset Monitor, 800xA 5.1</b> It monitors the performance against standard operating parameters independent of type of heat exchanger.</p>	3BSE061352R1	
<p><b>Shell and Tube Heat Exchanger Asset Monitor, 800xA 5.1</b> It monitors the performance against standard operating parameters based on the size of shell and tube heat exchanger.</p>	3BSE061353R1	
<p><b>Advanced Harmony Control System Monitoring, 800xA 5.1</b> Enables Harmony Control Network monitors for diagnostic monitoring, reporting, and analysis.</p>	3BSE061354R1	
<p><b>100 Control Loop Asset Monitors, 800xA 5.1</b> Each Control Loop Asset Monitor monitors and assesses the performance of a control loop in real-time and report significant problems related to the controller and final control element. The total quantity of Control Loop Asset Monitors must not exceed 500.</p>	3BSE061355R1	
<p><b>300 Control Loop Asset Monitors, 800xA 5.1</b> Each Control Loop Asset Monitor monitors and assesses the performance of a control loop in real-time and report significant problems related to the controller and final control element. The total quantity of Control Loop Asset Monitors must not exceed 500.</p>	3BSE064667R1	
<p><b>500 Control Loop Asset Monitors, 800xA 5.1</b> Each Control Loop Asset Monitor monitors and assesses the performance of a control loop in real-time and report significant problems related to the controller and final control element. The total quantity of Control Loop Asset Monitors must not exceed 500.</p>	3BSE064668R1	
<p><b>PC, Network and Software Monitoring, 800xA 5.1</b> Enables monitoring &amp; supervision of IT assets.</p>	3BSE061356R1	
<p><b>800xA Maximo Integration, 800xA 5.1</b> Enables integration into Maximo for work order management. Application Engineering available through ConsultIT. At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.</p>	3BSE061357R1	
<p><b>800xA SAP / Plant Maintenance Integration, 800xA 5.1</b> Enables integration into SAP for work order management. Application Engineering available through ConsultIT. At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.</p>	3BSE061358R1	

# Device Management & Fieldbuses

## Device Management HART

For HART devices to be accessed using Device Type Manager (DTM's) within System 800xA. Includes HART Device Library with generic and specific HART Device Aspect Objects incl. DTM's, I/O DTM for S800 and S900, HART Instruments Asset Monitor Library and OPC Server. Each HART device aspect object accessed with DTM counts as one. (Max 2500 per Connectivity Server if OPC Communication is used. For details refer to System Guide)

	Article no.	
100 HART Device Aspect Objects, 800xA 5.1	3BSE061359R1	
1,000 HART Device Aspect Objects, 800xA 5.1	3BSE061360R1	
10,000 HART Device Aspect Objects, 800xA 5.1	3BSE061361R1	
HART Multiplexer Connect, 800xA 5.1 Enables HART Device Integration to connect to HART devices using HART Multiplexers.	3BSE061362R1	

## Device Management FOUNDATION Fieldbus

For FOUNDATION Fieldbus (FF) devices to be accessed using Fieldbus Builder FF within System 800xA. Includes FF Device Library with FF Device Aspect Objects, FF Instruments Asset Monitor Library and OPC Server. Each FF device aspect object counts as one. (Max 1000 per Connectivity Server. For details refer to System Guide.)

	Article no.	
100 FF Device Aspect Objects, 800xA 5.1	3BSE061363R1	
1,000 FF Device Aspect Objects, 800xA 5.1	3BSE061364R1	
10,000 FF Device Aspect Objects, 800xA 5.1	3BSE061365R1	

## Device Management PROFIBUS

For PROFIBUS DP/PA devices to be accessed using Device Type Manager (DTM's) within System 800xA. Includes PROFIBUS Device Library with specific PROFIBUS Device Aspect Objects incl. DTM's, I/O DTM for S800 and S900, and PROFIBUS Instruments Asset Monitor Library. Each PROFIBUS device aspect object accessed with DTM counts as one. (Max 2500 per Connectivity Server if OPC communication is used. For details refer to System Guide.)

	Article no.	
100 PROFIBUS Device Aspect Objects, 800xA 5.1	3BSE061366R1	
1,000 PROFIBUS Device Aspect Objects, 800xA 5.1	3BSE061367R1	
10,000 PROFIBUS Device Aspect Objects, 800xA 5.1	3BSE061368R1	

# Device Management & Fieldbuses

## IEC 61850 Connect

For order of IEC 61850 related products, local organizations must comply with the Demands on the Purchaser to secure successful sales of IEC 61850 with System 800xA. Ref doc, 3BSE058798.

	Article no.
<p><b>IEC 61850-Ed1 Connect, 800xA 5.1</b></p> <p>Allows clients to access data directly from electrical devices (IEDs). Handles alarms from IEDs. Each item includes one IEC61850 OPC server instance and IEC 61850 Substation Operation Library with Faceplates to control substation equipment (Bay, Breaker, Switch,...) is included.</p>	3BSE061369R1
<p><b>Redundant IEC 61850-Ed1 Connect Option, 800xA 5.1</b></p> <p>Allows operation clients to access data and alarm and event values from Intelligent Electronic Devices (IEDs) through redundant Connectivity Servers.</p> <p>Requires IEC 61850-Ed1 Connect. The number of Redundant IEC 61850 OPC server instance licenses shall be less then or equal to the number of IEC 61850 OPC server instances, when redundancy is chosen.(max. 16 per System).</p>	3BSE061370R1

## Libraries

### Libraries

	Article no.
<p><b>INF190 Function Code Library for AC 800M, 800xA 5.1</b></p> <p>Requires separate media.</p>	3BSE061211R1
<p><b>MOD 300 CCF Library for AC 800M, 800xA 5.1</b></p> <p>Requires separate media.</p>	3BSE061210R1
<p><b>TCP Communication Library License</b></p> <p>Control functions to create TCP based communication protocols in the AC800M controller. Once licence is needed for each controller using the library.</p> <p>Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.</p>	3BSE070889R1
<p><b>UDP Communication Library License</b></p> <p>Control functions to create UDP based communication protocols in the AC800M controller. Once licence is needed for each controller using the library.</p> <p>Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.</p>	3BSE070891R1
<p><b>Machine Safety Library License Points</b></p> <p>Control functions for machine safety applications. Same amount of library points is needed as the summed up controller capacity points using the library.</p> <p>Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.</p>	

# Localization

National Language Support (NLS) is intended for the localization of the operator interface to the desired language. NLS contains a set of functions that are harmonized with the Windows regional settings to enable a multilingual environment for the System 800xA.

The System 800xA supports translations, mainly the operator interface and the operator manuals as shown in the Table 3 and Table 4. The translation, or System 800xA Language Package, is implemented as a system extension and is possible to install without stopping the system.

The NLS Localization Guide describes what and how localization can be performed by a project with or without an installed Language Package. The English version of the Windows operating system is required. The System 800xA Language Packages can be downloaded free of charge from ABB Library.

**Table 3. Supported Language Packages for Functional Areas**

Language Packages	Functional Areas							
	Base System	Safety	SMS & eMailing	*Asset Optimization	FOUNDATION FIELDBUS	Batch Management	** Information Management	* IEC 61850
English (default)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Chinese	Yes	Yes		Yes	Yes	Yes	Yes	
French	Yes	Yes	Yes				Yes	
German	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Russian	Yes	Yes					Yes	
Spanish	Yes	Yes	Yes				Yes	
Swedish	Yes	Yes	Yes			Yes	Yes	Yes

\* Only system messages

\*\* Storage of messages in local language

**Table 4. Supported Language Packages for Connectivity**

Language Packages	Connectivity			
	800xA for AC 800M	800xA for Advant Master	PLC Connect	800xA for Melody
English (default)	Yes	Yes	Yes	Yes
Chinese	Yes	Yes	Yes	
French	Yes	Yes		
German	Yes	Yes		Yes
Russian	Yes	Yes		
Spanish	Yes			
Swedish	Yes	Yes		

# Localization

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## System 800xA Language Package

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	Article no.	
System 800xA 5.1 Chinese Language Package	9ARD183928-001	
System 800xA 5.1 French Language Package	9ARD183928-002	
System 800xA 5.1 German Language Package	9ARD183928-003	
System 800xA 5.1 Russian Language Package	9ARD183928-004	
System 800xA 5.1 Spanish Language Package	9ARD183928-005	
System 800xA 5.1 Swedish Language Package	9ARD183928-006	

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## Translated Operator Manuals

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	Article no.	
Extended Operation in Chinese	3BSE036904-510	
Extended Operation in French	3BSE036904-510	
Extended Operation in German	3BSE036904-510	
Extended Operation in Russian	3BSE036904-510	
Extended Operation in Spanish	3BSE036904-510	
Extended Operation in Swedish	3BSE036904-510	

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## Installation and Localization

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	Article no.	
NLS installation manual	2PAA102031	
NLS localization guide	2PAA101940	

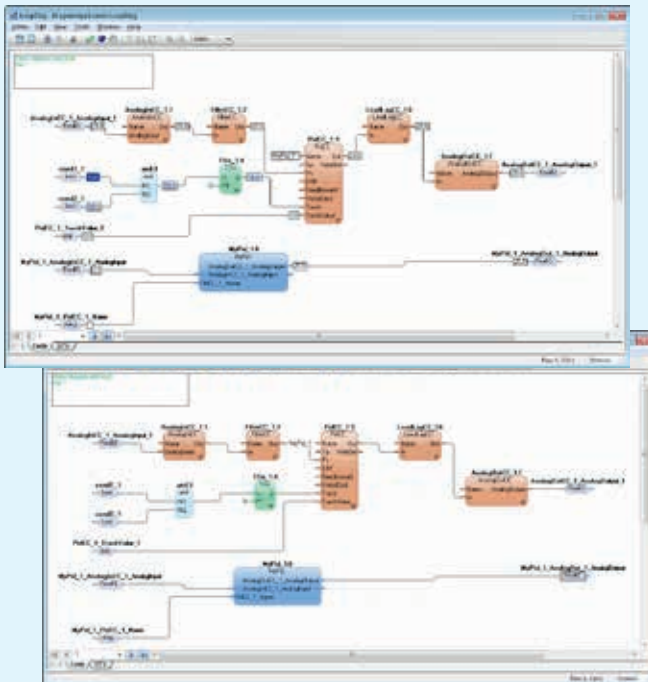


# System 800xA 5.1 Engineering

System 800xA Engineering provides real-time information integration for better and faster access. Working within a common engineering environment, 800xA Engineering supports a consistent information flow from design, through installation and commissioning, to operation and maintenance. It lays the foundation for continuous improvements in lifecycle and operation dimensions of information flow, resulting in efficient engineering and enhanced productivity.

## It provides:

- A fully integrated engineering environment for development and reuse of system standards, such as incorporating control logic, operator displays, field devices, asset monitoring, maintenance support.
- A single source of truth for all data within the system.
- A comprehensive set of libraries to streamline the engineering workflow.
- Integration with CAE tools via Process Engineering Tool Integration (System 800xA Engineering PETI)
- Audit trail identifies who made a change when and where. Change Reports utilize data serialization tools
- Test and debug utilizing AC 800M Soft Controller technology



Id	Name	Data type	Initial value	Description
1	FlowIn1	Liquid		IN Main in flow (the controlsignal for level)
2	FlowIn2	Liquid	default	IN Extra in flow (load disturbance)

```
[* Calculate some wire parameters of the tank *)
IF CosAlpha > 0.9 THEN
  CosAlpha = 0.9;
END_IF
IF CosAlpha < -0.9 THEN
  CosAlpha = -0.9;
END_IF;
SinAlpha := sqrt(1 - CosAlpha*CosAlpha);
rTop := (Radius*SinAlpha - Height*CosAlpha)/SinAlpha;
IF rTop < Radius THEN
  rMax := Radius;
ELSE
  rMax := rTop;
END_IF;
HexVolume := (Pi*Height/3.0)*(Radius*Radius + rTop*rTop + Radius*rMax);
MainCode / InputCode
```

## Standard Engineering Tools

	Article no.	
<p><b>Engineering Workplace - Additional Rich Client, 800xA 5.1</b> Includes Control Configuration for AC 800M, Buld Data Handling, Graphic Configuration, Document Manager, Parameter Manager, I/O allocation function and Script Manager Professional. The total quantity of Operator Workplace-Additional and Remote Clients, Large Operator Workplaces and Engineering Workplaces - must not exceed 55.</p>	3BSE061342R1	
<p><b>Advanced Engineering Workplace - Additional Rich Client</b> Includes one Engineering Workplace and in addition Management of Change and Load Evaluate Go. The total quantity of Operator Workplace-Additional and Remote Clients, Large Operator Workplaces and Engineering Workplaces - must not exceed 55. THIS ITEM NEEDS A TSA TO BE ORDERED</p>	3BSE070904R1	
<p><b>SoftController, 800xA 5.1</b> To be used with the programming tool Control Builder M. This product is to be used as a test tool only. One license is required per SoftController.</p>	3BSE061344R1	

## Professional Engineering Tools

Aspect Studio and Aspect Express are not available in the price list. Please, contact your BU Area Sales Manager for quotation.

	Article no.	
<p><b>Application Change Management</b> Version handling for engineering changes. Scaled by the number of handled entities. Order in groups of 50 handled entities. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.</p>	3BSE072024R1	
<p><b>Reuse Assistant, 800xA 5.1</b> (One per client.)</p>	3BSE061345R1	
<p><b>Process Engineering Tool Integration - Base for INtools, 800xA 5.1.</b> Supports synchronization of properties between INtools objects and existing 800xA objects and property map definition changes. New 800xA object creation is NOT supported.</p>	3BSE061346R1	
<p><b>Process Engineering Tool Integration - New Object Creation Support for INtools, 800xA 5.1.</b> Supports new 800xA object creation.</p>	3BSE061347R1	

# Engineering Base System

## Base System

	Article no.	
<b>Base System for Engineering, 800xA 5.1</b> Including System for 60,000 tags, one Engineering Workplace, one Operator Workplace, Connectivity -, System Data Publishing -, and System Options functions. The engineering system should not be used in production.	3BSE061375R1	
<b>Additional 60 000 Tags for Engineering, 800xA 5.1</b> The engineering system should not be used in production. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE061375R100	
<b>Engineering Workplace - Additional Rich Client, 800xA 5.1</b> Includes Control Configuration for AC 800M, Buld Data Handling, Graphic Configuration, Document Manager, Parameter Manager, I/O allocation function and Script Manager Professional.	3BSE061342R1	

## Basic Engineering Tools

### Basic Engineering Tools

Aspect Studio and Aspect Express are not available in the price list. Please, contact your BU Area Sales Manager for quotation.

	Article no.	
<b>Reuse Assistant, 800xA 5.1</b> (One per client.)	3BSE061345R1	
<b>Process Engineering Tool Integration - Base for INtools, 800xA 5.1</b> Supports synchronization of properties between INtools objects and existing 800xA objects and property map definition changes. New 800xA object creation is NOT supported.	3BSE061346R1	
<b>Process Engineering Tool Integration - New Object Creation Support for INtools, 800xA 5.1</b> Supports new 800xA object creation.	3BSE061347R1	
<b>SoftController, 800xA 5.1</b> To be used with the programming tool Control Builder M. This product is to be used as a test tool only. One license is required per SoftController	3BSE061344R1	

# Functional Area specific Tools

## Functional Area specific Tools

	Article no.	
<b>Batch Management Engineering, 800xA 5.1</b> Including Batch Procedure, Equipment, Server, and Advanced Phases.	3BSE061376R1	
<b>History Engineering (Information Management), 800xA 5.1</b> Including Basic Historian Server, History Logs, Dual History Logs, and Consolidated History Logs.	3BSE061377R1	
<b>MDI Engineering (Information Management), 800xA 5.1</b> Including Display Builder for MDI Client, Multiscreen Display Interface (MDI), Desktop Trends, and Excel Data Access	3BSE061378R1	
<b>PC, Network and Software Monitoring for Engineering (Asset Optimization), 800xA 5.1</b>	3BSE061379R1	
<b>HART Device Management for Engineering, 800xA 5.1</b>	3BSE061380R1	
<b>FOUNDATION Fieldbus Device Management for Engineering, 800xA 5.1</b>	3BSE061381R1	
<b>PROFIBUS Device Management for Engineering, 800xA 5.1</b>	3BSE061382R1	

# Safety

## Enabler for combined PA Control and Certified Safety software

	Article no.	
<b>AC 800M High Integrity and Process Control, 800xA 5.1</b> One fixed license feature per AC 800M controller running both non-SIL and SIL applications in the same controller.	3BSE061385R1	

# IEC 61850 Engineering Tool for 800xA 5.1

For order of IEC 61850 related products, local organizations must comply with the Demands on Purchaser to secure successful sales of IEC 61850 with System 800xA. Ref. doc, 3BSE058798. The engineering tool is licensed on a per seat basis separate from System 800xA licenses. The license is available in two versions depending on use:

- 1. ABB Internal use for project execution
- 2. End Customer use for on-site configuration changes

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## IEC 61850 Engineering Licence - Internal ABB use for project execution

This license is intended for projects delivered by ABB.

This license must not be delivered to end customer.

The License is a one-year license needs to be renewed on a yearly bases.

This license is not tied to a specific 800xA delivery, and can be used for any number of projects in parallel as long as a valid license is available.

	Article no.	
<b>IEC 61850-Ed1 Engineering Tool License for 800xA IET 4.x - for internal use only</b>	3BSE054252R1	
License for IET 4.x - Integrated Engineering Toolbox (combined IET/CCT tool).		

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## One-year Renewal

The IEC 61850 Engineering Tool license has to be renewed on a yearly bases.

	Article no.	
<b>IEC 61850-Ed1 Engineering Tool License for 800xA IET 4.x Renewal - for internal use only</b>	3BSE054535R1	

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## IEC 61850 Engineering Licence - End Customer use for on-site configuration changes

This license is intended for cases when the End Customer wants to make on-site configuration or communication changes.

This license is on-time fee (no renewal is necessary). Delivery of an End Customer license requires an approved TSA.

	Article no.	
<b>IEC 61850-Ed1 Engineering Tool License for 800xA - for External use</b>	3BSE054253R1	
Includes CCT 4.x -Communication Configuration Tool. This version don't support AC 800M/CI868 IEC 61850 cid-file configuration.		

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## Media for Internal ABB for project execution

The engineering tool software is available on separate media or can be downloaded from ABB Library. If software installation is done the license request file can be generated and together with valid license order the license key can be receive via mail.

	Article no.	
<b>IET 4.x - Integrated Engineering Toolbox for IEC 61850-Ed1 engineering</b>	3BSE054539R1	
For internal Use. Includes CCT 4.x - Communication Configuration Tool.		

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## Media for End Customers for on-site configuration changes

	Article no.	
<b>CCT 4.x - Communication configuration Tool for IEC 61850-Ed1 engineering</b>	3BSE054927R1	
For External Use.		



# System 800xA Software Management Program

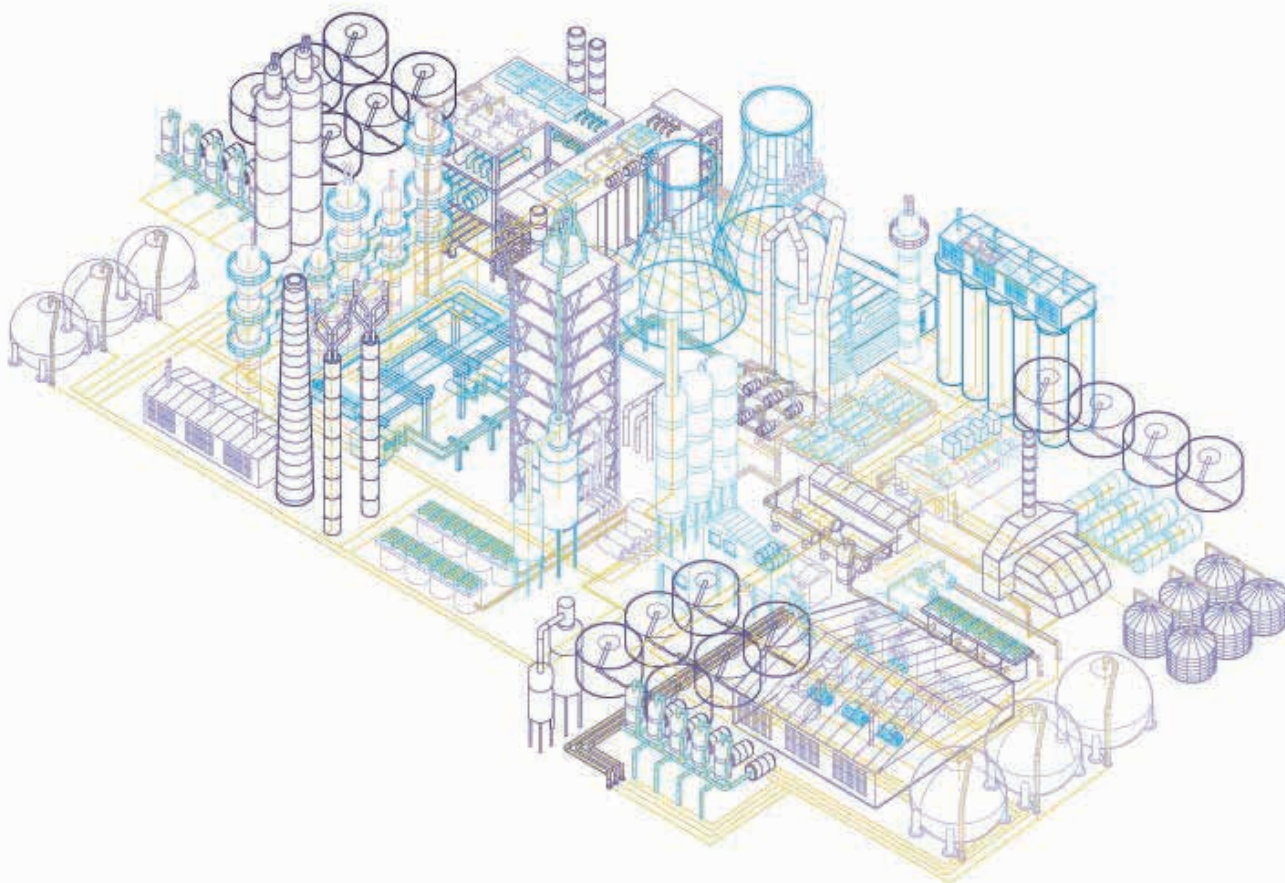
## Automation Sentinel Program Subscription Identification

ABB's Control System software is continuously enhanced and further improved. Automation Sentinel is the software management program for our products and the easiest way to profit from these improvements. It is intended to help customers manage and maintain their system software to take advantage of the continuous improvements and enhancements being made to our software.

The base subscription includes access to technical support from Level 3 and R&D support organizations. This support is being provided for troubleshooting of product defects and issues they encounter during the validity of the subscription. Note: These technical support services are for use during normal office hours Monday through Friday. Also included with the Sentinel subscription is a SolutionsBank subscription, that provides customers with on-line access to software and product documentation and downloads.

Before the agreement expires an Automation Sentinel renewal needs to be ordered to continue receiving maintenance updates, access to expert support resources, upgrades to new versions of the existing software, and maintain the option of evolution to 800xA in the future. These renewals are valid for a period of 12 months and run consecutively from the previous subscription. Failure to renew the Sentinel subscription will cause all updates, upgrades and enhancements to our software to no longer be provided to the customer. Once the subscription has expired, the options to rejoin the Automation Sentinel program is the purchase of Sentinel using the buy-in program in effect at the time or the purchase of new system software.

A valid Automation Sentinel Quotation - generated by Software Factory (SOFA) - must be submitted with all orders!



# Software Management

## Subscription Payment Type

For 1 year orders, select the Annual invoicing option.

By selecting the lump sum option, the invoice will include the entire 3 year contract value. By selecting 3 year contracts with the annual payment option, invoices will be sent out on an annual basis. Once at the time of order, once again in 12 months time and lastly at 24 months.

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## Annual Invoicing & Payment

When ordering a 3 year contract with annual payments, 3 consecutive items must be selected. When ordering a 5 year contract (for Third Party Systems Evolution) with annual payments, 5 consecutive items must be selected.

Example: Select 2PAA108141R1, 2PAA108141R2 and 2PAA108141R3 representing year 1, 2 & 3.

	Article no.	
Sentinel Points - Year 1	2PAA108141R1	
Sentinel Points - Year 2	2PAA108141R2	
Sentinel Points - Year 3	2PAA108141R3	
Sentinel Points - Year 4	2PAA108141R4	
Sentinel Points - Year 5	2PAA108141R5	

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## Lump Sum Payment

	Article no.	
Sentinel Points - 3 Years Lump Sum	2PAA108142R1	
Sentinel Points - 5 Years Lump Sum	2PAA108142R2	



## Automation Sentinel Upgrade Orders

Select Automation Sentinel Upgrade item to indicate upgrade of product with Automation Sentinel subscription.

	Article no.	
<p><b>Automation Sentinel Upgrade</b></p> <p>Automation Sentinel agreement number shall be given at ordering.</p>	3BSE047992R1	
<p><b>Panel Builder 800 Version 6, for upgrades only</b></p> <p>Media folder with Panel Builder 800 Version 6 containing the latest version of:</p> <ul style="list-style-type: none"> <li>-Panel Builder 800 Version 6</li> <li>-Firmware for panels</li> <li>-Manuals as pdf-files</li> <li>-Release Notes</li> <li>-Renewed license</li> </ul> <p>This item can be ordered by users with a valid Automation Sentinel agreement for Panel Builder 800 Version 6.</p>	3BSE069301R1	
<p><b>Panel Builder 800 Version 5, for upgrades only</b></p> <p>Media folder with Panel Builder 800 Version 5 containing the latest version of:</p> <ul style="list-style-type: none"> <li>-Panel Builder 800 Version 5 and Panel Tools</li> <li>-Firmware for panels</li> <li>-Manuals as pdf-files</li> <li>-Release Notes</li> <li>-Renewed license</li> </ul> <p>This item can be ordered by users with a valid Automation Sentinel agreement for Panel Builder 800 Version 5.</p>	3BSE052516R1	



# System 800xA Hardware

## AC 800M Controllers

### CPU Modules

Several CPU modules are available that vary in terms of processing power, memory size, and redundancy support. Each CPU module is equipped with built in Ethernet port(s) for communication with other controllers and for interaction with operators, engineers, managers, and higher level applications. These ports can be configured for redundancy for those cases where availability is of paramount importance. It is also equipped with two RS-232C ports that can be used for point-to-point communication with programming/debugging tools and with third-party systems and devices.

The SIL3-rated and IEC61508-certified, AC 800HI controller supports running both process control and safety application, in the same machine.

The AC 800M controller can be configured with 800xA control builder. When configured with the 800xA control builder AC 800M becomes a tightly integrated part of the 800xA DCS.

### Communication & I/O Modules

To each CPU module, a number of communication and I/O modules can be added, for example:

- Additional RS-232C ports
- PROFIBUS DP, PROFINET IO
- Foundation Fieldbus HSE/H1
- DeviceNet
- IEC 61850
- ABB INSUM interface
- MasterBus 300 interface
- MODBUS TCP
- S100 I/O interface
- S800L and S800 I/O modules

PM891



AC 800M



AC 800M high integrity



# AC 800M Controllers and users guide

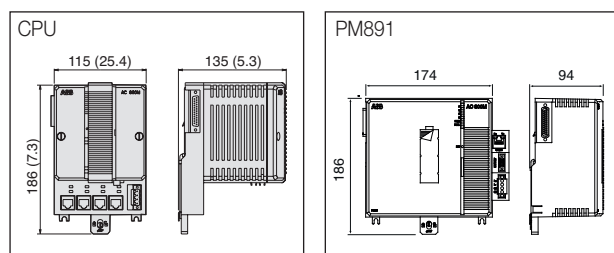
CPU's / Features	PM851A	PM856A	PM860A	PM861A	PM864A	PM865	PM866	PM891	
Processor Unit	PM851K01 incl: 1 PM851 CPU and required optional items	PM856K01 incl: 1 PM856 CPU and required optional items	PM860K01 incl: 1 PM860 CPU and required optional items	PM861AK01 incl: 1 PM861A CPU and required optional items PM861AK02 incl: 2 PM861A CPUs and required optional items	PM864AK01 incl: 1 PM864A CPU and required optional items PM864AK02 incl: 2 PM864A CPUs and required optional items	PM865AK01 incl: 1 PM865K01 CPU and required optional items PM865AK02 incl: 2 PM865K02 CPUs and required optional items	PM866K01 incl: 1 PM866 CPU and required optional items PM866K02 incl: 2 PM866 CPUs and required optional items	PM891K01 incl: 1 PM891 CPU and required optional items PM891K02 incl: 2 PM891 CPUs and required optional items	
High Integrity Controller	No	No	No	No	No	Yes	No	No	
Clock frequency	24 MHz	24 MHz	48 MHz	48 MHz	96 MHz	96 MHz	133 MHz	450 MHz	
Memory (RAM)	12 MB *	16 MB *	16 MB *	16 MB	32 MB	32 MB	64 MB	256 MB	
RAM available for application	6.372 MB	10.456 MB	10.457 MB	7.320 MB	23.663 MB	24.242 MB 22.415 MB w SM810 22.386 MB w SM811	51.402 MB	199.233 MB	
CPU redundancy support	No	No	No	Yes	Yes	Yes	Yes	Yes	
Communication interfaces	1 Ethernet port 2 RS-232C ports	2 Ethernet ports 2 RS-232C ports	2 Ethernet ports 2 RS-232C ports	2 Ethernet ports 2 RS-232C ports	2 Ethernet ports 2 RS-232C ports	2 Ethernet ports 2 RS-232C ports	2 Ethernet ports 2 RS-232C ports		
Performance, 1000 boolean operations (a:=b and c)	0.46 ms	0.46 ms	0.23 ms	0.23 ms	0.15 ms	0.15 ms	0.09 ms	0.043 ms	
Recommended Control Network backbone	100 Mbit/s - 1 Gbit/s Ethernet (IEEE 802.3)								
Dimensions	W 119 x H 186 x D 135 mm (4.7 x 7.3 x 5.3 in.)							W 174 x H 186 x D 94 mm	
Weight (including base)	1100 g (2.4 lb)	1100 g (2.4 lb)	1100 g (2.4 lb)	1200 g (2.6 lb)	1200 g (2.6 lb)	1200 g (2.6 lb)	1200 g (2.6 lb)	1600 g (3.5 lb)	

\* Available with 5.1 FP4 Firmware (or newer) else its 8 / 12 / 12 MB

## Environmental Data for AC 800M and S800 I/O

Climatic Operating Conditions	0 to +55 C (Storage -40 to +70C), RH = 5 to 95 % no condensation, IEC/EN 61131-2
Protection class	IP20 according to EN 60529, IEC 529
Corrosive protection	G3 compliant according to ISA-71.04
Electromagnetic Compatibility and CE-mark	Meets EMC directive 2004/108/EC according to EN 61000-6-2 and EN 61000-6-4
Electromagnetic Emission	Tested according to EN 61000-6-4 EMC – Generic Emission Standard, Part 2 – Industrial Environment
Electromagnetic Immunity	Tested according to EN 61000-6-2 EMC – Generic Immunity Standard, Part 2 – Industrial Environment
Electrical Safety	UL508, IEC/EN 61131-2
Hazardous Classified Locations	UL/CSA 60079-15 (Class 1 Zone 2)
Hazardous Classified Locations ATEX	S890 series of I/O modules: Category 3 (1) G, EEx nA [ia] IIC T4
Safety Integrity (IEC 61508)	PM865, AI880A, DI880, DO880: IEC 61508 up to SIL3

## Measurements



# AC 800M Processor Units

## AC 800M Processor Units

The Tool Cable TK212A is most useful when working with AC 800M. Please order a cable (Item 3BSC630197R1) together with your first order of PM851K01, PM856K01, PM860K01, PM861AK01, PM861AK02, PM864AK01, PM864AK02, PM865K01, PM865K02, PM866K01, PM866K02, PM891K01 or PM891K02.



### PM851AK01 Processor Unit

Package including:

- PM851A, CPU
- TP830, Baseplate, width = 115 mm
- TB850, CEX-bus terminator
- TB807, ModuleBus terminator
- Battery for memory backup (4943013-6)

### Article no.

3BSE066485R1



### PM856AK01 Processor Unit

Package including:

- PM856A, CPU
- TP830, Baseplate, width = 115 mm
- TB850, CEX-bus terminator
- TB807, ModuleBus terminator
- Battery for memory backup (4943013-6)

3BSE066490R1



### PM860AK01 Processor Unit

Package including:

- PM860A, CPU
- TP830, Baseplate, width = 115 mm
- TB850, CEX-bus terminator
- TB807, ModuleBus terminator
- Battery for memory backup (4943013-6)

3BSE066495R1



### PM861AK01 Processor Unit

Package including:

- PM861A, CPU
- TP830, Baseplate, width = 115 mm
- TB850, CEX-bus terminator
- TB807, ModuleBus terminator
- TB852, RCU-Link terminator
- Battery for memory backup (4943013-6)

3BSE018157R1



### PM861AK02 Redundant Processor Unit

Package including:

- 2 pcs PM861AK01, Processor unit.
- 1 pcs TK850, CEX-bus expansion cable.
- 1 pcs TK851, RCU-Link cable.

3BSE018160R1



### PM864AK01 Processor Unit

Package including:

- PM864A, CPU
- TP830, Baseplate, width = 115 mm
- TB850, CEX-bus terminator
- TB807, ModuleBus terminator
- TB852, RCU-Link terminator
- Battery for memory backup (4943013-6)

3BSE018161R1



### PM864AK02 Redundant Processor Unit

Package including:

- 2 pcs PM864AK01, Processor unit.
- 1 pcs TK850, CEX-bus expansion cable.
- 1 pcs TK851, RCU-Link cable.

3BSE018164R1

# AC 800M Processor Units



## PM866K01 Processor Unit

Package including:

- PM866, CPU
- TP830, Baseplate, width = 115 mm
- TB850, CEX-bus terminator
- TB807, ModuleBus terminator
- TB852, RCU-Link terminator
- Battery for memory backup (4943013-6)

## Article no.

3BSE050198R1



## PM866K02 Redundant Processor Units

Package including:

- 2 pcs PM866K01, Processor unit.
- 1 pcs TK850, CEX-bus expansion cable.
- 1 pcs TK851, RCU-Link cable.

3BSE050199R1



## PM891K01 Processor Unit

Package including:

- PM891 CPU Module
- TB850, CEX-bus terminator
- TB853, RCU Control Link Terminator

3BSE053241R1



## PM891K02 Redundant Processor Units

Package including:

- 2 pcs PM891K01 Processor Unit
- 1 pcs TK850V007 CEX-bus Extension Cable
- 1 pcs TK855 RCU Data Link Cable
- 1 pcs TK856 RCU Control Link Cable

Please note: The BC810K02 is not included in the PM891K02 Redundant Processor Unit kit. In order to make hot replacement of PM891 Processor Unit possible, the BC810K02 is required and has to be ordered separately.

3BSE053242R1



## SB822 Rechargeable battery unit

External DIN-rail mounted rechargeable battery unit including lithium-ion battery, 24 V DC connector and connection cable TK821V020. Width = 85 mm. Equivalent amount of Lithium metal = 0,8 g (0,03 oz).

3BSE018172R1

# AC 800M High Integrity Units

## AC 800M High Integrity Units

The PM865 CPU Unit is intended for use in High Integrity systems.

Local organizations must comply with the Qualifications to secure successful sales of ABB safety systems, to order safety equipment. Ref doc, 3BSE047224.



### PM865K01 Processor Unit

Package including:

- PM865, CPU
- TP830, Baseplate, width = 115 mm
- TB850, CEX-bus terminator
- TB807, ModuleBus terminator
- TB852, RCU-Link terminator
- Battery for memory backup (4943013-6)

### Article no.

3BSE031151R1



### PM865K02 Redundant Processor Unit

Package including:

- 2 pcs PM865K01, Processor unit.
- 1 pcs TK850, CEX-bus expansion cable.
- 1 pcs TK851, RCU-Link cable.

3BSE031150R1



### SM811K01 Safety CPU module kit

Collaborating safety CPU. Connects to CEX bus after BC810 CEX bus interconnection box.

Including:

- SM811, Safety Module
- TP868, Baseplate, width = 60 mm
- TK852V10, Synchronization link cable

3BSE018173R1



### SS823 Voting Device

Required in a High Integrity 800xA system. One per power supply unit, also at redundant configurations.

3BSE038226R1

## Extra Batteries

For extra Lithium batteries (4943013-6), please refer to Business Online.

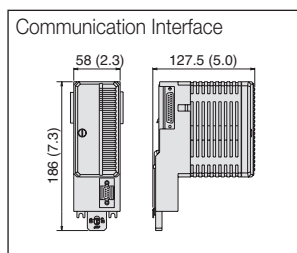


# Communication

Supported Communication modules	PROFIBUS	Foundation Fieldbus	RS-232 C	MB300	INSUM	Drivebus	S100 I/O interface	Genius TRIO I/O	Satt I/O	MODBUS TCP	IEC 61850
Module	CI854A	CI860	CI853	CI855	CI857	CI858	CI856	CI862	CI865	CI867	CI868
Protocol	DP-V1 (PA via Linking Device)	HSE (H1 via Linking Device)	MODBUS master, Comli master/slave, Siemens master, User defined protocols	MB300	IEEE 802.3	ABB's Drivebus	ABB's S100 I/O	Genius	ABB's Satt I/O	MODBUS TCP	IEC 61850
Transmission speed	9.6 - 12,000 kbits/s	10/100 Mbits/s	75 - 19 200 b/s	10 Mbits/s, 200 Datasets/s	10 Mbits/s	4 Mbits/s	-	38.4 - 153.6 kbit/s	-	10/100 Mbits/s (Ch1), 10 Mbits/s (Ch2)	10/100 Mbits/s
Hot Swap	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Connectors	DB female (9-pin)	RJ-45 female (8-pin)	RJ-45 female (8-pin)	RJ-45 female (8-pin)	RJ-45 female (8-pin)	Fiber-optic	Miniribbon (36-pin)	Phoenix (4-pin)	BNC	RJ-45 female (8-pin)	RJ-45 female (8-pin)

Supported Communication modules	AF100	PROFINET IO	Ethernet/IP	LD 800DN
Module	CI869	CI871	CI873	Linking Device
Protocol	AF100	PROFINET IO	Ethernet/IP	DeviceNet
Transmission speed	1,5 Mbit/s	10/100 Mbit/s	10/100 Mbit/s	Up to 500 Kbit/s
Hot Swap	Yes	Yes	Yes	No
Connectors	Phoenix (4-pin)	RJ-45 female (8-pin)	RJ-45 female (8-pin)	RJ-45 female (8-pin) Terminal block (5-pin)

# Measurements





# Communication

No articles, such as cables, hubs, switches etc, for Control Network are included in this price list.  
Please refer to Product Guide AC 800M, for recommended articles.

## Serial Interfaces on TP830

RS232-C interfaces for protocols COMLI, MODBUS, Siemens 3964R, the free-programmable serial protocol etc. Also for connection of engineering tool.



	Article no.
<b>TK212A Tool cable</b> RJ45 (male) to Dsub-9 (female), length 3 m. RJ45 8P8C plug (with shell). Cable : UL2464 26 AWG x 8C.	3BSC630197R1
<b>TC562 Short Distance Modem, G1 Compliant</b> length < 10 km. Point-to-point up to 1 km at 19200 bps. Power 24 V d.c. Width = 55 mm.	3BSC630049R1
<b>TK853V020 Modem Cable</b> Length 2 m. Cable for connection between modem TC562 and TP830.	3BSC950201R1

## Serial Communication Interface

RS232-C interfaces for protocols COMLI, MODBUS, Siemens 3964R, the free-programmable serial protocol etc.



	Article no.
<b>CI853K01 Dual RS232-C interface</b> Package including: - CI853, Communication Interface - TP853, Baseplate, width = 60 mm	3BSE018103R1

## MODBUS TCP



	Article no.
<b>CI867K01 MODBUS TCP Interface</b> Package including: - CI867 , Communication Interface - TP867 , Baseplate, width = 60 mm	3BSE043660R1

## PROFIBUS DP

The required PROFIBUS network components (Linking Devices, etc) must be ordered from price list 3BDD 013 232, PROFIBUS Network Components.



	Article no.
<b>CI854AK01 PROFIBUS DP-V1 Communication interface</b> Package including: - CI854A, Communication Interface - TP854, Baseplate, width = 60 mm	3BSE030220R1

## PROFINET IO



	Article no.
<b>CI871K01 PROFINET IO Communication Interface</b> Package including: - CI871, Communication Interface - TP867, Baseplate width = 60 mm	3BSE056767R1

# Communication



## FOUNDATION Fieldbus

The required FOUNDATION Fieldbus network components (Linking devices, etc) must be ordered from price list 3BDD 013 231, FOUNDATION Fieldbus Network Components.

	Article no.
<b>CI860K01 FOUNDATION Fieldbus HSE Interface</b>	3BSE032444R1
Package including:	
- CI860, Communication Interface	
- TP860, Baseplate, width = 60 mm	



## IEC 61850

For order of IEC 61850 related products, local organizations must comply with the Demands on the Purchaser to secure successful sales of IEC 61850 with System 800xA. Ref doc, 3BSE058798.

	Article no.
<b>CI868K01 IEC61850 Communication interface</b>	3BSE048845R1
Package including:	
- CI868 , Communication Interface	
- TP867 , Baseplate, width = 60 mm	



## Ethernet/IP

	Article no.
<b>CI873K01 Ethernet/IP Communication Interface</b>	3BSE056899R1
Packaging including:	
- CI873, Communication Interface	
- TP867, Baseplate width = 60 mm	
<b>LD 800DN EtherNet/IP to DeviceNet Linking Device, G1 Compliant</b>	3BSC690164R1
Package including:	
1 pcs LD 800 DN	
1 pcs Installation Guide	
2 pcs Termination resistors for DeviceNet, 1/4 W, 121 Ohm	
May only be used with CI873 Communication Interface.	



## Advant Fieldbus 100

	Article no.
<b>CI869K01 AF 100 Communication Interface</b>	3BSE049110R1
Package including:	
- CI869 , Communication Interface	
- TP869 , Baseplate, width = 60 mm	

# Communication

## MasterBus 300



### CI855K01 MB 300 Dual Ethernet port interface

Package including:  
 - CI855, MB300 Interface Module  
 - TP853, Base plate

#### Article no.

3BSE018106R1

## S100 I/O Bus



### CI856K01 S100 I/O interface

Installed on DIN rail. Communication bridge between AC 800M and S100 system. Package including:  
 - CI856, Communication Interface  
 - TP856, Baseplate, width = 60 mm

#### Article no.

3BSE026055R1

## TRIO



### CI862K01 TRIO Interface Kit, G1 Compliant

Package including:  
 - CI862, Communication Interface  
 - TP862, Baseplate, width = 60 mm

#### Article no.

3BUA000037R1



### CI862K02 Redundant TRIO Interface Kit with Connection Cable, G1 Compliant

Package including:  
 - 2 x CI862, Communication Interface  
 - 2 x TP862, Baseplate, width = 60 mm  
 - TK862 Cable, 1 m

#### Article no.

3BUA000111R1

## Satt I/O



For SATT 19" rack I/O and S200 I/O via ControlNet.

For additional Satt 19" rack I/O components, see price list 3BSE014353 (Interface) in price book 3BSE014360 (SattLine/SattCon).

### CI865K01 Communication Interface Module for Satt I/O

Package including:  
 - CI865, Communication Interface  
 - TP865, Baseplate, width = 60 mm

#### Article no.

3BSE040795R1

## INSUM



### CI857K01 INSUM Ethernet interface

Package including:  
 - CI857, Communication Interface  
 - TP853, Baseplate, width = 60 mm

#### Article no.

3BSE018144R1

# Communication

## DriveBus



	Article no.
<b>CI858K01 DriveBus Interface</b> Package including: - CI858, Communication Interface - TP858, Baseplate, width = 60 mm	3BSE018135R1

## MOD5



	Article no.
<b>CI872K01 MOD5 Communication interface</b> Installed on DIN rail. Communication interface between AC 800M and MOD5 system. Package including: - CI872,, Communication module - TP858, Baseplate, width = 60 mm	3BSE051129R1

## Bus Accessories



	Article no.
<b>TK850V007 CEX-Bus Extension Cable</b> Length = 0.7 m. Use of TK850V007 needs TK851 as CEX-bus terminator.	3BSC950192R1



<b>TB850 CEX-Bus Terminator</b> With 25-pin DB25P male connector. With screw fixing. A TB850 CEX-Bus terminator must always be installed on the last unit on the CEX-bus.	3BSC950193R1
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<b>TB851 CEX-Bus Terminator</b> With 25-pin DB25S female connector. With screw fixing. When Communication Interface units are mounted on adjacent DIN rails, they are connected by means of a CEX-Bus extension cable (TK850) and terminated using a TB851 CEX-Bus terminator.	3BSC950194R1
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<b>BC810K02 CEX-Bus Interconnection Unit</b> Including: - BC810, Interconnection Unit, 2 units - TP857, Baseplate, width = 60 mm, 2 units - TK851, Interconnection Cable - TB850, CEX-Bus Terminator, 2 units	3BSE031155R1
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<b>TK851V010 Connection Cable</b> Length = 1.0 m Used as: - RCU Link Cable - BC810 Interconnection Cable	3BSC950262R1
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<b>TB852 RCU Link Terminator</b>	3BSC950263R1
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<b>TB853 RCU Control Link Terminator</b>	3BSE057022R1
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<b>TK855 RCU Data Link Cable</b>	3BSC950356R1
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Length = 1.0 m Used as: RCU Data Link Cable	
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<b>TK856 RCU Control Link Cable</b>	3BSE057021R1
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Length = 1.0 m Used as: RCU Control Link Cable	
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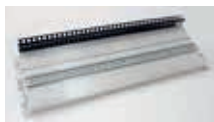
## Power Supply



	Article no.	
<p><b>SD822Z Power Supply Device</b>                      Input 115/230 V a.c. switch selectable, output 24 V d.c., 5 A.                      If redundant power application is required connect to SS822Z Voting Unit. Width = 65 mm. DIN rail mounted.</p>	3BSC610054R1	
<p><b>SD831 Power Supply Device, G2 Compliant</b>                      Input a.c. 100-240 V or d.c. 110-300 V. Output d.c. 24 V, 3 A.                      If redundant power application is required connect to SS8XX Voting unit. Width = 35 mm. DIN rail mounted.</p>	3BSC610064R1	
<p><b>SD832 Power Supply Device, G2 Compliant</b>                      Input a.c. 100-120/200-240 V. Output d.c. 24 V 5 A, auto-select input. If redundant power application is required connect to SD8XX Voting unit. Width = 35 mm. DIN rail mounted.</p>	3BSC610065R1	
<p><b>SD833 Power Supply Device, G2 Compliant</b>                      Input a.c. 100-120/200-240 V, auto-select input. Output d.c. 24 V 10 A. If redundant power application is required connect to SD8XX Voting unit. Width = 60 mm. DIN rail mounted.</p>	3BSC610066R1	
<p><b>SD834 Power Supply Device, G2 Compliant</b>                      Input a.c. 100-240 V or d.c. 110-300 V. Output d.c. 24 V 20 A.                      If redundant power application is required connect to SS8XX Voting unit. Width = 85 mm. DIN rail mounted.</p>	3BSC610067R1	
<p><b>SS822Z Power Voting Unit</b>                      With dual 24 V d.c 20 A inputs, single 24 V d.c. 20 A output.                      Each power input supervised. Used if redundant power supply is required. For use with power supply SD822Z.                      Width = 50 mm. DIN rail mounted.</p>	3BSC610055R1	
<p><b>SS832 Voting Device, G2 Compliant</b>                      Input d.c. 24 V. Dual 24 V to single 24 V, 2 x 10 A.                      Width = 35 mm. DIN rail mounted.</p>	3BSC610068R1	
<p><b>Mains Breaker Kit for DIN Rail</b>                      115/230 V a.c. with input terminals, breaker and 3 fused (6.3 A), double output terminals, width = 102,5 mm.</p>	3BSE022262R1	

# Mounting Rails

## Mounting Rails



**AI-profile with DIN rail and Cable Duct for RE820, mounting 719 mm (28,3").**  
DIN rail length 683 mm (26,9").

**Article no.**  
3BSE022257R1



**AI-profile with DIN Rail and Cable Duct for RM550, mounting 592 mm (24").**  
DIN rail length 556 mm (21,9").

3BSE022256R1



**AI-profile with DIN Rail and Cable Duct, mounting 465 mm (19").**  
DIN rail length 429 mm (16,9").

3BSE022255R1

# Extended warranty

## Extended warranty time on hardware for S800 I/O, S900 I/O, Fieldbus and AC 800M

Terms and conditions for the supply of products from Local Division Process Automation, LBU Open Control Systems within ABB AB in Sweden is valid.

Note that the price for the Extended Warranty Time order will be calculated as a percentage of the affected S800 I/O, S900 I/O, Fieldbus and AC 800M articles in the accompanying order.

Item A100 => 3% of the affected HW articles within the whole order.

Item A110 => 6% of the affected HW articles within the whole order.

Item A120 => 9% of the affected HW articles within the whole order.

	<b>Article no.</b>
<b>12 additional months warranty time - S800 I/O, S900 I/O, Fieldbus and AC 800M</b>	3BSE049878R1
<b>24 additional months warranty time - S800 I/O, S900 I/O, Fieldbus and AC 800M</b>	3BSE049878R2
<b>36 additional months warranty time - S800 I/O, S900 I/O, Fieldbus and AC 800M</b>	3BSE049878R3

# System 800xA Hardware

## S800 I/O

S800 I/O is a comprehensive and modular process I/O system that communicates with parent controllers over industry-standard field buses. Thanks to its broad connectivity it fits a wide range of process controllers from ABB and others.

By permitting installation in the field, close to sensors and actuators, S800 I/O reduces the installation cost by reducing the cost of cabling. And thanks to features such as hot swap of modules, on-line reconfiguration and redundancy options, it contributes to keeping production – and thereby profits up.

S800 I/O features include:

- Comprehensive coverage
- Flexible configuration and installation
- Ease of set up
- Reliability and accuracy
- HART pass-through
- Redundancy also on I/O module level
- High Integrity I/O modules certified to SIL3
- High accuracy time tagging
- Defined outputs at communication errors
- I/O modules with Intrinsic Safety interfaces

S800L I/O is a comprehensive, distributed and modular process I/O system that communicates with parent controllers over industry-standard fieldbuses. Thanks to its broad connectivity it fits a wide range of process controllers from ABB and others.

With its cost-effective design and just 59 mm depth installation, S800L I/O modules are the perfect choice for PLC applications. Robust mechanics, one-piece handling, easy mounting and smart connections save your time in all phases of installation. Configuration with the AC 800M controller is as easy as can be, since all necessary information is preinstalled with the Compact Control Builder. And, with the GSD file, S800L I/O can be used with any control system.

Furthermore, as S800L I/O is a subset of the comprehensive S800 I/O system with more than 8 million channels installed globally, you enjoy the same full-featured signal interfacing and high availability.

S800



S800



S800L



# S800 I/O Modules

Digital input modules	
DI810	16 channels, 2 groups of 8 channels, 24 V d.c., current sink.
DI811	16 channels, 2 groups of 8 channels, 48 V d.c., current sink.
DI814	16 channels, 2 groups of 8 channels, 24 V d.c., current source.
DI818	32 Channels, 2 groups of 16 channels, 24 V d.c., current sink.
DI820	8 channels, separate returns, 110 V d.c., 120 V a.c.
DI821	8 channels, separate returns, 220 V d.c., 230 V a.c.
DI825	With time tagging, 8 channels, separate returns, 125 V d.c.
DI828	16 Channels, separate returns, 110 V d.c, 120 V a.c. / d.c
DI830	With time tagging. 16 channels, 2 groups of 8 channels, 24 V d.c., current sink. Resolution: < 0.5 ms.
DI831	With time tagging. 16 channels, 2 groups of 8 channels, 48 V d.c., current sink. Resolution: < 0.5 ms.
DI885	With time tagging & wire-fault detection. 8 channels, common return, 24-48 V d.c., current sink. Resolution: 1 ms.
Pulse input module	
DP820	2 channels, separate returns, 0.25 Hz - 1.5 MHz, signal voltage: 5 / 12 V d.c.
DP840	8 channels, extended diagnostics, wire-fault detection, current limited sensor supply, 0.5-20 kHz, 12/24 V d.c or NAMUR, common return.
Digital output modules	
DO810	16 channels, 2 groups of 8 channels, 24 V, max 0.5 A d.c., transistor, current source, short-circuit-proof.
DO814	16 channels, 2 groups of 8 channels, 24 V d.c., max 0.5 A, transistor, current sink, short-circuit-proof.
DO815	8 channels, 2 groups of 4 channels, 24 V d.c., max 2 A, transistor, current source, short-circuit-proof, wire-fault detection.
DO818	32 Channels, 2 groups of 16 channels, 24 V, max 0.5 A d.c., transistor, current source, short-circuit-proof.
DO820	8 channels, separate returns, 5-250 V, max 3 A a.c./d.c., relay (N.O.).
DO821	8 channels, separate returns, 5-250 V, max 3 A a.c./d.c., relay (N.C.).
DO828	16 Channels, separate returns, 5-250 V a.c / 5-125 V d.c, max 2 A a.c./d.c., relay (N.O.).
Analog input modules	
AI810	8 channels, single-ended, 0(4)-20 mA, 0(2)-10 V, 12 bits.
AI815	8 channels with HART. 0(4)..20 mA, 0(1)..5 V, 12 bit, single ended, current limited transmitter supply.
AI820	Differential inputs, 4 channels, 0(1)-5 V, $\pm 0(2)$ -10 V, $\pm 0(4)$ -20 mA, 14 bits + sign.
AI825	Individually galvanically isolated channels, 4 channels, $\pm 0(2)$ -10 V, $\pm 0(4)$ - 20 mA, 14 bits + sign.
AI830A	RTD inputs, 8 channels, Pt100, Ni100, Ni120, Cu10, resistor 0-400 ohms, 14 bits, 3-wire.
AI835A	TC inputs, 8 channels, (7+ ref. junction), separate returns. TC types B, C, D, E, J, K, L, N, R, S, T, U, - 30...75 mV, 15 bits.
Analog output modules	
AO810V2	8 channels, common return, 0(4)-20 mA, 14 bits, load: 850 ohms (short-circuit-proof).
AO815	8 channels with HART. 4..20 mA, 12 bit, load: 750 ohms, common return, short-circuit-proof.
AO820	4 channels, individually galvanically isolated, separate returns, measuring range: $\pm 0(2)$ -10 V, $\pm 0(4)$ -20 mA, resolution: 12 bits + sign, load: 500 ohms (current) / 5 kohms (voltage), short-circuit-proof.
Intrinsic-safety modules	
DI890	8 channels, separate returns, proximity sensors (NAMUR) or voltage-free contact., current sink, wire-fault detection.
DO890	4 channels, separate returns, load 150-5000 ohms, 11 V @ 40 mA, current source, wire-fault detection, short circuit-proof.
AI890	8 channels, single-ended, 0(4)-20 mA, 12 bits, transmitter power supply.
AI893	8 channels, TC: 7 + ref. junction, sep. returns. TC types B, C, E, J, K, L, N, R, S, T, U, -10...80 mV. RTD: Pt50-1000, Ni100-500, Cu 10-100, resistor 0-4000 W, 3-wire. 15 bits + sign.
AI895	8 channels, single-ended, 4-20 mA, 12 bits, transmitter power supply, HART pass-through.
AO890	8 channels, common return, 0(4)-20 mA, 12 bits, load: 725 ohms short-circuit-proof.
AO895	8 channels, common return, 4-20 mA, 12 bits, load: 725 ohms short-circuit-proof, HART pass-through.
Redundant modules	
DI840	16 channels, common return, 24 V d.c., current sink, extended diagnostics, time-tagging, current limited sensor supply.
DP840	8 channels, common return, 0.5-20 kHz, 12/24 V d.c or NAMUR, extended diagnostics, wire-fault detection.
DO840	16 channels, common return, 24 V d.c., max. 0,5 A, transistor, current source, short-circuit-proof, extended diagnostics.
AI843	TC input, 8 channels + ref. junction. TC types: B, C, E, J, K, L, N, R, S, T, U, -30...75 mV, 16 bits, extended diagnostics.
AI845	8 channels, 12 bits, 0(4)-20 mA 0(1)-5 V, extended diagnostics, HART pass-through, current limited transmitter supply, single ended.
AO845	8 channels, 12 bits, common return, 4-20 mA, extended diagnostics, HART pass-through, 750 ohms.
High Integrity modules	
AI880A	4..20 mA, 8 channels, 12 bits, SIL3, current limited transmitter supply, also 0-20 mA, single ended, extended diagnostics, HART communication.
DI880	24 V d.c., 16 channels, 24 V d.c. inputs, SIL3, time-tagging, current limited sensor supply, common return, current sink, extended diagnostics.
DO880	24 V d.c., 16 channels, 0,5 A outputs, SIL3, wire-fault detection, 24 V, transistor, current source short-circuit-proof, common return, extended diagnostics.
SS823	Required in a High Integrity 800xA system. One per power supply unit, also at redundant configurations.



# S800L I/O Modules

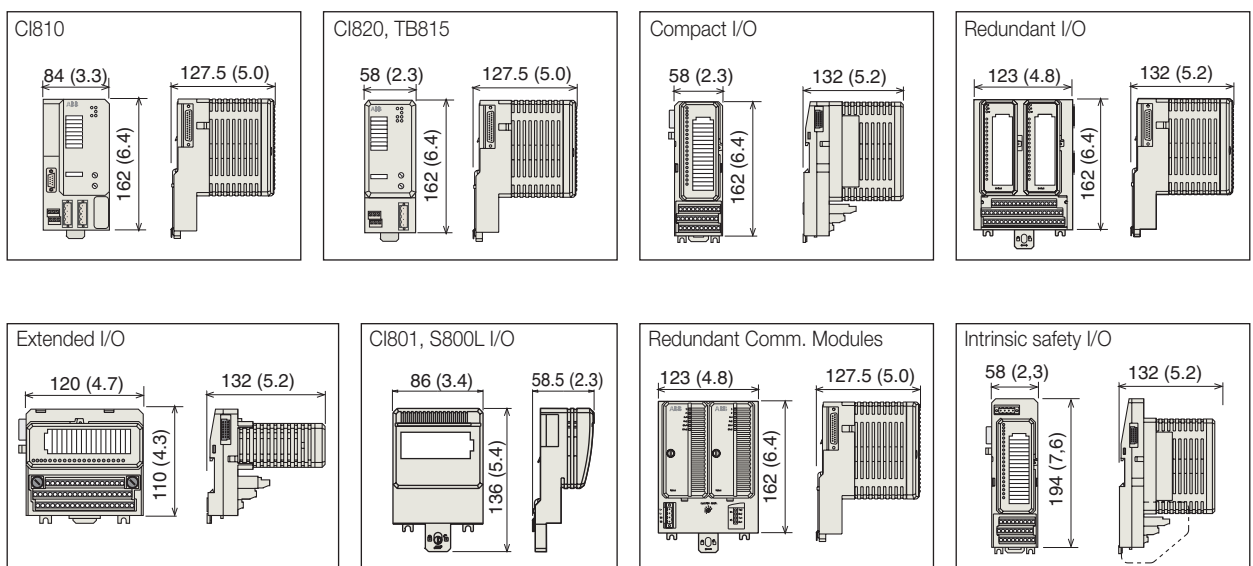
## S800L modules

DI801	16 channels, 1 group, 24 V d.c., current sink.
DI802	8 channels, 110 V d.c., 150 V a.c.
DI803	8 channels, 220 V d.c., 230 V a.c.
DO801	16 channels, common return, 24 V, max 0.5 A d.c., transistor, current source, short-circuit-proof.
DO802	8 channels, 5-250 V, max 2 A a.c./d.c., relay (N.O.).
AI801	8 channels, single-ended, 0(4)-20 mA, 12 bits.
AO801	8 channels, common return, 0(4)-20 mA, 12 bits, load: less than 750 ohms.

## Environmental Data for AC 800M and S800 I/O

Climatic Operating Conditions	0 to +55 C (Storage -40 to +70C), RH=5 to 95 % no condensation, IEC/EN 61131-2
Protection class	IP20 according to EN 60529, IEC 529
Corrosive protection	G2 compliant according to ISA-71.04 (G3 compliant according to ISA-71.04 available on request)
Electromagnetic Compatibility and CE-mark	Meets EMC directive 2004/108/EC according to EN 61000-6-2 and EN 61000-6-4
Electromagnetic Emission	Tested according to EN 61000-6-4 EMC – Generic Emission Standard, Part 2 – Industrial Environment
Electromagnetic Immunity	Tested according to EN 61000-6-2 EMC – Generic Immunity Standard, Part 2 – Industrial Environment
Electrical Safety	UL508, IEC/EN 61131-2
Hazardous Classified Locations	UL/CSA 60079-15 (Class 1 Zone 2)
Hazardous Classified Locations ATEX	S890 series of I/O modules: Category 3 (1) G, EEx nA [ia] IIC T4
Safety Integrity (IEC 61508)	PM865, AI880A, DI880, DO880: IEC 61508 up to SIL3

## Measurements

















Dimensions in mm (in.)

# S800 I/O modules – Users guide

	NAMUR inputs	Binary 24 V	Binary 48 V	Binary 110 V	Binary 230 V	Binary Relay	Analog Unipolar	Analog Bipolar	Temperature RTD	Temperature T/C	SOE	HART	Intrinsic safety	Redundant	High integrity	
<b>I/O Features S800</b>																
<b>Digital input modules</b>																
DI810		<input checked="" type="checkbox"/>														
DI811			<input checked="" type="checkbox"/>													
DI814		<input checked="" type="checkbox"/>														
DI818		<input checked="" type="checkbox"/>														
DI820				<input checked="" type="checkbox"/>												
DI821					<input checked="" type="checkbox"/>											
DI825				<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>					
DI828				<input checked="" type="checkbox"/>												
DI830		<input checked="" type="checkbox"/>									<input checked="" type="checkbox"/>					
DI831			<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>					
DI840		<input checked="" type="checkbox"/>									<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
DI880		<input checked="" type="checkbox"/>									<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
DI885		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>					
DI890	<input checked="" type="checkbox"/>												<input checked="" type="checkbox"/>			
<b>Digital output modules</b>																
DO810		<input checked="" type="checkbox"/>														
DO814		<input checked="" type="checkbox"/>														
DO815		<input checked="" type="checkbox"/>														
DO818		<input checked="" type="checkbox"/>														
DO820						<input checked="" type="checkbox"/>										
DO821						<input checked="" type="checkbox"/>										
DO828						<input checked="" type="checkbox"/>										
DO840		<input checked="" type="checkbox"/>												<input checked="" type="checkbox"/>		
DO880		<input checked="" type="checkbox"/>												<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
DO890													<input checked="" type="checkbox"/>			
<b>Pulse input modules</b>																
DP820		<input checked="" type="checkbox"/>														
DP840	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												<input checked="" type="checkbox"/>		
<b>Analog input modules</b>																
AI810							<input checked="" type="checkbox"/>									
AI815							<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>				
AI820								<input checked="" type="checkbox"/>								
AI825								<input checked="" type="checkbox"/>								
AI830A									<input checked="" type="checkbox"/>							
AI835A										<input checked="" type="checkbox"/>						
AI843										<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		
AI845							<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
AI880A							<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
AI890							<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>			
AI893									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
AI895							<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<b>Analog output modules</b>																
AO810V2							<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>			
AO815							<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>			
AO820								<input checked="" type="checkbox"/>								
AO845							<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
AO890							<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>			
AO895							<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>			
<b>S800L modules</b>																
DI801		<input checked="" type="checkbox"/>														
DI802				<input checked="" type="checkbox"/>												
DI803					<input checked="" type="checkbox"/>											
DO801		<input checked="" type="checkbox"/>														
DO802						<input checked="" type="checkbox"/>										
AI801							<input checked="" type="checkbox"/>									
AO801							<input checked="" type="checkbox"/>									

## Field Communication Interface

Modules are compliant to ISA-S71.04 level G3, unless explicitly stated differently.

		Article no.	
	<p><b>CI801 PROFIBUS DP-V1 Communication Interface</b> Including: 1 pce Power Supply Connector. 1 pce TB807 Modulebus Terminator. The basic system software loaded in CI801 does not support the following I/O modules: DI830, DI831, DI885, AI880A, DI880 and DO880.</p>	3BSE022366R1	
	<p><b>CI801 Engineering kit SW1.3</b> Including: 1 pce CD with GSD file, Memory Maps and Release Note. 1 pce Reference Manual Memory Maps for CI801.</p>	3BSE038540R1300	
	<p><b>CI810B AF100 Field Comm. Interface</b> 2*AF100 Twisted Pair Connections. Including: 1 pce Power Supply Connector. 1 pce TB807 Modulebus Terminator The basic system software loaded.</p>	3BSE020520R1	
	<p><b>CI820V1 S800 Redundant FCI</b> 1*AF100 Modem, 0.5 FEPROM, 0.5MB SRAM, 16MHz Two CI820 must be ordered for redundancy. One item A070 must also be ordered with this item. The basic system software is loaded.</p>	3BSE025255R1	
	<p><b>CI840A PROFIBUS DP-V1 Communication Interface.</b> <b>For 1+1 redundant operation.</b> Two CI840A and one TU847 or one TU846 must be ordered. The basic system software loaded in CI840A does not support the following I/O modules: DI830, DI831, DI885, AI880A, DI880, DO880 and ABB Drives.</p>	3BSE041882R1	
	<p><b>CI840 Engineering kit SW 4.0</b> Including: 1 pce CD with GSD file, Memory Maps and Release Notes. 1 pce Reference Manual Memory Maps for CI840.</p>	3BSE031694R4000	
	<p><b>TB815 Interconnection Unit</b> Including: 1 pce TB807 Modulebus Terminator. Used for interconnection of two CI820.</p>	3BSE013204R1	
	<p><b>TU846 Module Termination Unit, MTU, for 1+1 CI840.</b> <b>Support for redundant I/O.</b> Vertical mounting of modules. Including: 1 pce Power Supply Connector. 2 pcs TB807 Modulebus Terminator.</p>	3BSE022460R1	
	<p><b>TU847 Module Termination Unit for 1+1 CI840.</b> <b>Support for non-redundant I/O.</b> Vertical mounting of modules. Including: 1 pce Power Supply Connector. 1 pce TB807 Modulebus Terminator.</p>	3BSE022462R1	
	<p><b>Extra, Front label set FCI/AC 70/TB</b> Sheet with 12 labels. For CI810, CI820, CI830, and TB820.</p>	3BSC970089R1	
	<p><b>Extra, Label set, item design. FCI/AC70/TB</b> Sheet with 40 labels. For CI810, CI820, CI830, and TB820.</p>	3BSC970091R1	
	<p><b>Mounting kit</b> For vertical mounting of CI801, CI840, and TB840 on a vertical DIN rail.</p>	3BSE040749R1	
	<p><b>Mounting profile 1800, 2 DIN rails and 1 cable duct.</b> DIN rail length : 1650 mm + 210 mm (65") + (8.3").</p>	3BSE049768R1	
	<p><b>Al-profile with DIN Rail and Cable Duct, mounting 465 mm (19").</b> DIN rail length 429 mm (16,9").</p>	3BSE022255R1	
	<p><b>Al-profile with DIN Rail and Cable Duct for RM550, mounting 592 mm (24").</b> DIN rail length 556 mm (21,9").</p>	3BSE022256R1	

## Upgrade Kit and Tool Cables

Upgrading of CI801, CI810, CI820, CI830, CI840 or CI840A to latest software version are available for download from ABB Library/Solutions Bank.

Item 3BSC950004R1 is cable connecting a PC to CI810, CI820 and CI830 for download of software. Item 3BSC630197R1 is cable connecting a PC to CI840 or CI840A for download of software. CI801 requires items 3BSC630197R1 and 3BSE038407R1 for download of software



### TK527V030 Interface cable

L = 3 m. DE9 pin to DE9 socket.  
For connection of CI810, CI820 and CI830 to PC.

#### Article no.

3BSC950004R1



### TK212A Tool cable

RJ45 (male) to Dsub-9 (female), length 3 m. RJ45 8P8C plug (with shell). Cable : UL2464 26 AWG x 8C.

3BSC630197R1



### FS801K01 Service adapter kit

Including:  
1 pcs Service adapter FS801  
1 pcs cable TK802  
For connection of CI801 to PC. A cable TK212A is also needed.

3BSE038407R1

## Advant Fieldbus 100



### TC501V150 Termination unit, 150 Ohm

For Twisted Pair cable with impedance  $Z=150$  Ohm  
Two required per AF 100 bus segment.

#### Article no.

3BSC550038R3

### TC506 AF100 Trunk Tap

Main Trunk Cable Tap to Local Trunk Cable, Capac.Shield Decoupling. Consist of 5 DIN-mounted screw-terminals.

3BSC840074R1

### TC513V1 AF100 Twisted pair Coax Modem

Twisted pair/coax or coax/twisted pair cable Power 24V d.c.  
Rated isol 50V.

3BSE018405R1

### TC514V2 AF100 Twisted pair to opto repeater

Twisted pair/optical fiber. Power 24V d.c. Rated isol 50V.

3BSE013281R1

### TC515V2 AF100 Twisted pair to twisted pair repeater

Twisted pair/twisted pair cable. Power 24V d.c. Rated isol 50V.

3BSE013284R1

### AF100K03 Connection Kit, single

For connection of one TC513 to a coax. bus line.

3BSE006251R1

# S800 I/O Modules

## Analog Input Modules



**AI810 Analog input 1 x 8 ch.**  
0(4)..20 mA, 0..10 V, 12 Bit, single ended, 0.1%, Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU835, TU838, TU850.

**Article no.**

3BSE008516R1



**AI815 Analog Input 1 x 8 ch. with HART**  
0(4)..20 mA, 0(1)..5 V, 12 bit, single ended, 0.1%, Rated isol. 50 V. Current limited transmitter power distribution. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU835, TU838, TU850.

3BSE052604R1



**AI820 Analog input 4 x 1 ch.**  
+/- 20 mA, 0(4)..20 mA, +/- 10 V, +/- 5 V, 0(1)..5 V, diff., 50 V CMV, 14 bit +sign. Rin(curr)250 Ohms, Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.

3BSE008544R1



**AI825 Analog Input 4 x 1 ch. Galv. isol.**  
-20..20 mA, 0(4)..20 mA, -10..10 V, 0(2)..10 V, Galvanically isolated channels. 14 Bit+sign, 0.1%, Rated isol. 250 V. Use Module Termination Unit TU811, TU813, TU831.

3BSE036456R1



**AI830A Analog input 1 x 8 ch. RTD**  
Pt100, Ni100/120, Cu 10, R, Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.

3BSE040662R1



**AI835A Analog input 8 ch. Thermocouple/mV**  
Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.

3BSE051306R1



**AI843 Analog Input, Redundant or Single 1 x 8 ch. Thermocouple/mV.**  
Rated isol. 50 V. Use Modules Termination Unit TU830, TU833, TU842, TU843.

3BSE028925R1



**AI845 Analog Input, Redundant or single 1 x 8 ch. HART.**  
0(4)..20 mA, 0(1)..5 V, 12 bit, single ended, 0.1%, Rated isol. 50 V. Current limited transmitter power distribution. Advanced on-board diagnostics. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU835, TU838, TU844, TU845.

3BSE023675R1



**AI890 Analog Input 1 x 8 ch. with Intrinsic Safety Interface**  
0(4)..20 mA single ended 0,1%. Rated isol. 50 V. Use Module Termination Unit TU890 or TU891.

3BSC690071R1

**AI893 Analog Input 8 ch. Temp. measuring. Intrinsic Safety Interf.**

3BSC690141R1

For TC and RTD sensors. Rated isol. 50 V. Use Module Termination Unit TU890 or TU891.

**AI895 Analog Input 1 x 8 ch. with Intrinsic Safety and HART.**  
4...20 mA single ended 0,1%. Rated isol. 50 V. Use Module Termination Unit TU890 or TU891.

3BSC690086R1

## Analog Output Modules



**AO810V2 Analog Output 1 x 8 channels, 0(4)...20 mA**  
 0(4)..20 mA, 14 bit RLmax 500/850 Ohms, Rated isolation 50 V.  
 Use module Termination Unit TU810, TU812, TU814, TU830 or TU833.

**Article no.**  
 3BSE038415R1



**AO815 Analog Output 1 x 8 ch. with HART**  
 4..20 mA, 12 bit, 0.1%, RLmax 750 ohm, Rated isol. 50 V.  
 Use Module Termination Unit TU810, TU812, TU814, TU830 or TU833.

3BSE052605R1



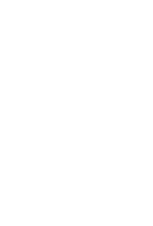
**AO820 Analog Output 4 x 1 ch.**  
 +/-20 mA, 0(4)..20 mA, +/-10 V, 12 bit + sign. Indiv. isol. ch. RL max 500 Ohms, Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.

3BSE008546R1



**AO845A Analog Output Redundant or single 1 x 8 ch. HART**  
 4..20 mA, 12 bit, 0.1%, RLmax 750 ohm, Rated isol. 50 V.  
 Advanced on-board diagnostics. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU842, TU843.

3BSE045584R1



**AO890 Analog Output 1 x 8 ch. with Intrinsic Safety Interface**  
 0(4)..20 mA 0,1%. RL max 750 ohm Rated isol. 50 V. Use Module Termination Unit TU890 or TU891.

3BSC690072R1

**AO895 Analog Output 1 x 8 ch. with Intrinsic Safety and HART.**  
 4..20 mA 0,1%. RL max 750 ohm Rated isol. 50 V. Use Module Termination Unit TU890 or TU891.

3BSC690087R1

# S800 I/O Modules

## Digital Input Modules



**DI810 Digital Input 24 V d.c. 2 x 8 ch.**

Rated isolation 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838.

**Article no.**

3BSE008508R1



**DI811 2 x 8 ch. 48 V Digital input**

48 Vd.c. 2 x 8 ch, Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838.

3BSE008552R1



**DI814 Digital Input 24 V d.c. Current Source 2 x 8 ch.**

Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838.

3BUR001454R1



**DI818 Digital Input 24V d.c. 32 ch**

2x16 ch, Rated isol. 50V, Use Module Termination Unit TU818, TU819, TU830.

3BSE069052R1

Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.



**DI820 Digital Input, 120 V a.c.**

8 x 1 ch, Rated isol. 250 V. Use Module Termination Unit TU811, TU813, TU831.

3BSE008512R1



**DI821 Digital Input 230 V a.c.**

8 x 1 ch, Rated isol. 250 V. Use Module Termination Unit TU811, TU813, TU831.

3BSE008550R1



**DI825 Digital Input 1 x 8 ch, 125 V d.c. SOE.**

Individually Isolated channels, Rated isol. 250 V. Use Module Termination Unit TU811, TU813, TU831.

3BSE036373R1



**DI828 Digital Input, 120V a.c./d.c. 16 ch**

16x1 ch, Rated isol. 250V, Use Module Termination Unit TU851.

3BSE069054R1

Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.



**DI830 Digital Input 24 V d.c. SOE**

2 x 8 ch, Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838.

3BSE013210R1



**DI831 Digital Input 48 V d.c., SOE.**

2 x 8 ch, Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838.

3BSE013212R1



**DI840 Digital Input. Redundant or single, 24 V d.c., 1 x 16 ch.**

Advanced On-Board diagnostics. Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838, TU842, TU843.

3BSE020836R1



**DI885 Digital Input 24/48 V d.c., SOE.**

1 x 8 ch, Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.

3BSE013088R1



**DI890 Digital Input 8 x 1 ch. with Intrinsic Safety Interface**

Rated isol. 50 V. Use Module Termination Unit TU890 or TU891.

3BSC690073R1

## Digital Output Modules



**DO810 Digital Output 24 V d.c.**

2 x 8 ch. 0.5 A, Short circuit proof, Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.

**Article no.**

3BSE008510R1



**DO814 Digital Output current sinking**

2 x 8 ch. 0,5 A, shortcut circuit proof, Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU838.

3BUR001455R1



**DO815 Digital Output 24 V d.c**

2 x 4 ch. 2.0 A, short circuit proof. Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.

3BSE013258R1



**DO818 Digital Output 24V d.c. 32 ch**

2x16 ch, 0.5A, Short circuit proof, Rated isol. 50V, Use Module Termination Unit TU818, TU819, TU830  
Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.

3BSE069053R1



**DO820 Digital Output, Relay. Normal open.**

8 x 1 ch, 24-230 V a.c. 3 A, cos phi > 0.4, d.c. 42 W, Rated isol. 250 V. Use Module Termination Unit TU811, TU813, TU831, TU836, TU837.

3BSE008514R1



**DO821 Digital Output, Relay. Normal closed.**

8 x 1 ch, 24-230 V a.c. 3 A, cos phi > 0.4, d.c. 42 W, Rated isol. 250 V. Use Module Termination Unit TU811, TU813, TU831, TU836, TU837.

3BSE013250R1



**DO828 Digital Output, Relay Normally Open, 16 ch**

16x1 ch, 5-250V a.c and 5-125V d.c, max 2A, Rated isol. 250V, Use Module Termination Unit TU851

3BSE069055R1

Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.



**DO840 Digital Output. Redundant or single.**

24 V d.c., 0.5 A. 2 x 8 ch. Advanced On-board diagnostics. Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU842, TU843.

3BSE020838R1

**DO890 Digital Output 4 x 1 ch. with Intrinsic Safety Interface**

Rated isol. 50 V. Use Module Termination Unit TU890 or TU891.

3BSC690074R1

## Pulse Counting Modules



**DP820 Pulse Counter RS-422, Current, 5 V, (12 V), 24 V.**

2 ch. bidirectional pulse counters and frequency measurement. 1,5 MHz Rated isol 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833.

**Article no.**

3BSE013228R1

**DP840 Pulse Counter or Frequency Measurement Module. Redundant or single.**

1 x 8 ch, 20 kHz. Rated isol. 50 V. Use Module Termination Unit TU810, TU812, TU814, TU830, TU833, TU842, TU843, TU844, TU845.

3BSE028926R1



# S800 I/O Modules

## Label sets for I/O Modules



	Article no.	
<b>Transparent film fronts</b> Set of 12 transparent plastic film fronts. To be used with ordinary paper quality.	3BSE072159R1	
<b>White colored plastic coated paper</b> One sheet of size A4. Original paper quality. No need to use transparent films.	3BSE072160R1	
<b>Yellow colored plastic coated paper</b> One sheet of size A4. Original paper quality. No need to use transparent films. To be used with DI880, DO880, AI880A.	3BSE072161R1	

## High Integrity I/O Modules

### High Integrity I/O Modules







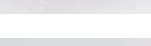
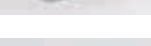

The modules can only be connected to AC 800M controller PM865. Direct connection to the modulebus and via the optical modulebus via TB840 (not TB820).



	Article no.	
<b>AI880A High Integrity Analog Input. Single or Redundant HART.</b> 4..20 mA, 8 ch. Current input. HART communication. Certified for SIL3. Requires configuration according to Safety Manual.	3BSE039293R1	
<b>DI880 High Integrity Digital Input. Single or Redundant</b> 24 V d.c., 16 ch. 24 V d.c. inputs. Certified for SIL3. Requires configuration according to Safety Manual.	3BSE028586R1	
<b>DO880 High Integrity Digital Output. Single or Redundant</b> 24 V d.c., 16 ch. 0,5 A Outputs. Certified for SIL3. Requires configuration according to Safety Manual.	3BSE028602R1	
<b>SS823 Voting Device</b> Required in a High Integrity 800xA system. One per power supply unit, also at redundant configurations.	3BSE038226R1	










# Module Termination Units

## Module Termination Units

		Article no.
	<b>TU805K01 Termination Units for two or three wire connection of DI801 and DO801</b> Include 10 pcs of Termination Unit TU805.	3BSE035990R1
	<b>TU810V1 Compact Module Termination Unit, MTU, 50 V.</b> 2 x 8 signal terminals, rated isol. 50 V.	3BSE013230R1
	<b>TU811V1 Compact Module Termination Unit, MTU, 250 V.</b> 1 x 8 signal terminals, rated isol. 250 V.	3BSE013231R1
	<b>TU812V1 Compact Module Termination Unit, MTU, 50 V.</b> With 25 pin D-sub connector, rated isol. 50 V. D-sub (female) connector is not enclosed.	3BSE013232R1
	<b>TU813 Compact Module Termination Unit, MTU, 250 V.</b> 2 x 8 Signal terminals, Rated isol. 250 V. Detachable (pluggable) connectors are enclosed.	3BSE036714R1
	<b>TU814V1 Compact Module Termination Unit, MTU, 50 V.</b> 2 x 8 Signal terminals, rated isol. 50 V. Detachable (pluggable) connectors are enclosed.	3BSE013233R1
	<b>TU818 Compact Module Termination Unit, MTU, 50V</b> 2x16 signal terminals, Rated isol. 50V Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE069209R1
	<b>TU819 Compact Module Termination Unit, MTU, 50V.</b> With 2x25 pin D-sub connector, Rated isol. 50V, D-sub (female) connector is not enclosed Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE068891R1
	<b>TU830V1 Extended Module Termination Unit, MTU, 50 V.</b> 2 x 16 signal terminals, rated isol. 50 V.	3BSE013234R1
	<b>TU831V1 Extended Module Termination Unit, MTU, 250 V.</b> 2 x 8 signal terminals, rated isol. 250 V.	3BSE013235R1
	<b>TU833 Extended Module Termination Unit, MTU, 50 V.</b> 2 x 16 signal terminals, Rated isol. 50 V. Spring-cage terminals.	3BSE038726R1
	<b>TU834 Extended Module Termination Unit, MTU 50 V.</b> Used with AI880/AI880A. Rated isol. 50 V. Shunt Stick not included.	3BSE040364R1
	<b>TU835V1 Extended Module Termination Unit, MTU, 50 V.</b> 8 fused power outlets, 8 signal terminals, rated isol. 50 V.	3BSE013236R1
	<b>TU836V1 Extended Module Termination Unit, MTU, 250 V.</b> 2 x 4 fused signals, 2 x 4 return terminals, 2 x 2 L 2 x 2 N terminals, rated isol. 250 V.	3BSE013237R1
	<b>TU837V1 Extended Module Termination Unit, MTU, 250 V.</b> 8 x 1 fused isol. signals, 8 x 1 L terminals, 2 x 6 N terminals, rated isol. 250 V.	3BSE013238R1
	<b>TU838 Extended Module Termination Unit, MTU, 50 V.</b> 2 x 4 fused transducer power outlets, 16 signal terminals, 2 x 4 return terminals, 2 x 2 L+, 2 x 2 L- terminals, rated isol. 50 V. Module is mounted horizontally.	3BSE008572R1
	<b>TU839 Extended Module Termination Unit, 250 V.</b> 2 x 8 signal terminals. 2 x 4 fused sensor power. Rated isol. 250 V.	3BSE046966R1

# Module Termination Units

## Module Termination Units

		Article no.	
	<b>TU842 Module Termination Unit, MTU, for redundant applications, 50 V.</b> Used for AO845, DI840, DO840. Horizontal mounted DIN rail. Rated isol. 50 V.	3BSE020850R1	
	<b>TU843 Module Termination Unit, MTU, for redundant applications, 50 V.</b> Used for AO845, DI840, DO840. Vertical mounted DIN rail. Rated isol. 50 V.	3BSE021443R1	
	<b>TU844 Module Termination Unit, MTU, for redundant applications, 50 V.</b> Used with AI845, AI880 and DP840. Horizontal mounted DIN rail. Rated isol. 50 V. Shunt Stick not included.	3BSE021445R1	
	<b>TU845 Module Termination Unit, MTU, for redundant applications, 50 V.</b> Used with AI845, AI880A and DP840. Vertical mounted DIN rail. Rated isol. 50 V. Shunt Stick not included.	3BSE021447R1	
	<b>TU850 Extended Module Termination Unit, MTU, 50 V.</b> 2 x 8 signal terminals and 2 x 8 disconnectable current limited sensor/transmitter outlet power terminals. Rated isol. 50 V.	3BSE050930R1	
	<b>TU851 Extended Module Termination Unit, MTU, 250V</b> 2x16 signal terminals, Rated isol. 250V. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE068782R1	
	<b>TU852 Module Termination Unit, MTU, for redundant applications, 50V</b> Horizontal mounted DIN rail, used with redundnat AO, DI, DO and DP I/O modules, with 2x25 pin D-sub connector, Rated isol. 50V. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE069964R1	
	<b>TU854 Module Termination Unit, MTU, for redundant applications, 50V.</b> Horizontal mounted DIN rail, used with redundnat AI and DP I/O modules, with 1x25 pin D-sub connector, Rated isol. 50V, Shunt Stick not included. Note: At pricebook release this item required a TSA to be ordered. Please, check current need of a TSA in the TSA Database before ordering.	3BSE069966R1	
	<b>TU890 Module Termination Unit for Intrinsic Safety applications</b> 3 x 9 signal terminals. Rated isol. 50 V. Including wiring separator.	3BSC690075R1	
	<b>TU891 Module Termination Unit for non Intrinsic Safety applications</b> 3 x 9 signal terminals Rated isol. 50 V.	3BSC840157R1	
	<b>TY801K01 8 pcs Shunt Stick TY801</b> 125 + 125 ohms shunt. Used for AI845 and AI880 on TU844, TU845.	3BSE023607R1	
	<b>TY804K01 8 pcs Shunt Stick TY804</b> 1000 ohms shunt. Used for DP840 on TU844, TU845.	3BSE033670R1	
	<b>TY820K01 10 pcs Temperature Sensor TY 820</b> TY820 is a temperature sensor with a PT 100 element. Can be used with AI835/AI835A and AI843 to measure cold junction Temperature.	3BSE056980R1	

# S800L I/O Modules

## Analog Input Modules



	Article no.
<b>AI801 Analog input 1 x 8 ch.</b> 0(4)...20 mA, 12 bit, single ended, 0.1%, Rated isol. 50 V.	3BSE020512R1

## Analog Output Modules



	Article no.
<b>AO801 Analog output 1 x 8 ch.</b> 0(4)...20 mA, 12 bit, RLmax 850 Ohm, Rated isol. 50 V.	3BSE020514R1

## Digital Input Modules



	Article no.
<b>DI801 Digital Input 24 V d.c.</b> 1 x 16 ch, Rated isol. 50 V.	3BSE020508R1
<b>DI802 Digital Input 120 V a.c./d.c., 8 x 1 ch.</b> Rated isol. 250 V.	3BSE022360R1
<b>DI803 Digital Input 230 V a.c./d.c., 8 x 1 ch.</b> Rated isol. 250 V.	3BSE022362R1

## Digital Output Modules



	Article no.
<b>DO801 Digital Output 16 ch. 24 V d.c. 0.5 A.</b> Short circuit proof, Rated isol. 50 V.	3BSE020510R1
<b>DO802 Digital Output, Relay. Normal open.</b> 8 x 1 ch, 24-230 V, a.c. Rated isol. 250 V.	3BSE022364R1

## Label sets for S800L I/O Modules



	Article no.
<b>Label Set S800L, 16 ch.</b> Sheet with 12 labels for 16 channels I/O modules.	3BSE019419R1
<b>Label Set S800L, 8 ch.</b> Sheet with 12 labels for 8 channels I/O modules.	3BSE019419R2

# ModuleBus Communication Parts

## Modulebus Communication Parts



	Article no.	
<b>TB805 Bus Outlet</b> Modulebus extension cable adaptor D-sub 25, female. One required per extension cable TK801.	3BSE008534R1	
<b>TB845, Dual Modulebus outlet</b> Modulebus extension cable adaptor two D-sub, female. Two TK801 cables for redundancy.	3BSE021437R1	
<b>TB806 Bus Inlet</b> Modulebus extension cable adaptor D-sub 25, male. One required per extension cable TK801.	3BSE008536R1	
<b>TB846, Dual Modulebus inlet</b> Modulebus extension cable adaptor two D-sub, male. Two TK801 cables for redundancy.	3BSE021439R1	
<b>TK801V003 Cable</b> Modulebus Extension Shielded Cable 0.3 m D-sub 25, male-female.	3BSC950089R1	
<b>TK801V006 Cable</b> Modulebus Extension Shielded Cable 0.6 m D-sub 25, male-female.	3BSC950089R2	
<b>TK801V012 Cable</b> Modulebus Extension Shielded Cable 1.2 m D-sub 25, male-female.	3BSC950089R3	
<b>TB807 Modulebus terminator</b>	3BSE008538R1	
<b>TB820V2 Modulebus Cluster Modem</b> Optical cluster modem for non redundant operation. Including: 1 pce Power Supply Connector 1 pce TB807 Modulebus Terminator.	3BSE013208R1	
<b>TB825 Optical Media Conv.</b> Short to long distance optical fiber conversion. For modulebus communication up to 1000 m.	3BSE036634R1	
<b>TB826 Long range optical media converter</b> Short to long distance optical fiber conversion. For modulebus communication up to 5000 m, for S800 I/O HI up to 20000 m.	3BSE061637R1	
<b>TB840A Modulebus Cluster Modem</b> Optical cluster modem for 1 + 1 redundant operation.	3BSE037760R1	
<b>TB810 Modulebus Optical Port</b> Used together with CI810, CI820, CI830. Use with S800 I/O and ABB Drives (10 Mbits driver).	3BSE008560R1	
<b>TB811 Modulebus Optical Port, G2 Compliant</b> Used together with CI810, CI820, CI830. Used with ABB Drives equipment. (5 Mbits driver).	3BSE008568R1	
<b>TB842 Modulebus Optical Port</b> Used together with CI801 and CI840, connected via TB806 or TB846. (10 Mbits driver).	3BSE022464R1	
<b>TU807 Termination Unit for TB840/TB840A</b> Support for single modulebus I/O. Including: 1 pce TB807.	3BSE039025R1	
<b>TU840 Termination Unit for 1+1 TB840.</b> Support for redundant I/O. Including: 1 pce Power Supply Connector 2 pcs TB807 Modulebus Terminator	3BSE020846R1	

# ModuleBus Communication Parts

## Modulebus Communication Parts



### TU841 Termination unit for 1+1 TB840

Support for non-redundant I/O.

Including:

1 pce Power Supply Connector

1 pce TB807 Modulebus Terminator

### Article no.

3BSE020848R1



### TU848, MTU with individual power supply for red. TB840/TB840A

Support for dual modulebus.

Including:

2 pcs TB807

3BSE042558R1



### TU849, MTU with individual power supply for red. TB840/TB840A

Support for single modulebus.

Including:

1 pce TB807

3BSE042560R1



### TK811V015 POF Cable, 1.5 m, Duplex.

L = 1.5 m latching duplex connector Duplex plastic fibre.

3BSC950107R1

### TK811V050 POF Cable, 5 m, Duplex.

L = 5 m latching duplex connector Duplex plastic fibre.

3BSC950107R2

### TK811V150 POF Cable, 15 m, Duplex.

L = 15 m latching duplex connector Duplex plastic fibre.

3BSC950107R3



### TK812V015 POF Cable, 1.5 m, Simplex.

L = 1.5 m latching connector Simplex plastic fibre.

3BSC950118R1

### TK812V050 POF Cable, 5 m, Simplex.

L = 5.0 m latching connector Simplex plastic fibre.

3BSC950118R2

### TK812V150 POF Cable, 15 m, Simplex.

L = 15 m latching connector Simplex plastic fibre.

3BSC950118R3

## Power Supply



	Article no.	
<p><b>SD822Z Power Supply Device</b>                      Input 115/230 V a.c. switch selectable, output 24 V d.c., 5 A.                      If redundant power application is required connect to SS822Z Voting Unit. Width = 65 mm. DIN rail mounted.</p>	3BSC610054R1	
<p><b>SS822Z Power Voting Unit</b>                      With dual 24 V d.c 20 A inputs, single 24 V d.c. 20 A output.                      Each power input supervised. Used if redundant power supply is required. For use with power supply SD822Z.                      Width = 50 mm. DIN rail mounted.</p>	3BSC610055R1	
<p><b>SD831 Power Supply Device, G2 Compliant</b>                      Input a.c. 100-240 V or d.c. 110-300 V. Output d.c. 24 V 3 A. If redundant power application is required connect to SS8XX Voting unit. Width = 35 mm. DIN rail mounted.</p>	3BSC610064R1	
<p><b>SD832 Power Supply Device, G2 Compliant</b>                      Input a.c. 100-120/200-240 V. Output d.c. 24 V 5 A, auto-select input. If redundant power application is required connect to SD8XX Voting unit. Width = 35 mm. DIN rail mounted.</p>	3BSC610065R1	
<p><b>SD833 Power Supply Device, G2 Compliant</b>                      Input a.c. 100-120/200-240 V, auto-select input. Output d.c. 24 V 10 A. If redundant power application is required connect to SD8XX Voting unit. Width = 60 mm. DIN rail mounted.</p>	3BSC610066R1	
<p><b>SD834 Power Supply Device, G2 Compliant</b>                      Input a.c. 100-240 V or d.c. 110-300 V. Output d.c. 24 V 20 A. If redundant power application is required connect to SS8XX Voting unit. Width = 85 mm. DIN rail mounted.</p>	3BSC610067R1	
<p><b>SS832 Voting Device, G2 Compliant</b>                      Input d.c. 24 V. Dual 24 V to single 24 V, 2 x 10 A.                      Width = 35 mm. DIN rail mounted.</p>	3BSC610068R1	

# Extended warranty

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## Extended warranty time on hardware for S800 I/O, S900 I/O, Fieldbus and AC 800M

Terms and conditions for the supply of products from Local Division Process Automation, LBU Open Control Systems within ABB AB in Sweden is valid.

Note that the price for the Extended Warranty Time order will be calculated as a percentage of the affected S800 I/O, S900 I/O, Fieldbus and AC 800M articles in the accompanying order.

Item A100 => 3% of the affected HW articles within the whole order.

Item A110 => 6% of the affected HW articles within the whole order.

Item A120 => 9% of the affected HW articles within the whole order.

	Article no.	
12 additional months warranty time - S800 I/O, S900 I/O, Fieldbus and AC 800M	3BSE049878R1	
24 additional months warranty time - S800 I/O, S900 I/O, Fieldbus and AC 800M	3BSE049878R2	
36 additional months warranty time - S800 I/O, S900 I/O, Fieldbus and AC 800M	3BSE049878R3	



# System 800xA Hardware

## S900 I/O

The S900 remote I/O system communicates with 800xA or other controllers over PROFIBUS. Suitable for applications in the chemical, pharmaceutical, oil and gas industries, S900 I/O can be installed in hazardous areas, thereby reducing mar-shalling and wiring costs. Further maintenance savings can be achieved through S900's extended diagnostics and the use of HART®-compliant field devices.

Three series of S900 I/O are available:

- S-series for applications in Zone 1 hazardous areas
- B-series for applications in Zone 2 hazardous areas
- N-series for applications in non hazardous areas

Additional solutions for specific applications are available:

- Field housing - for wall mounting and field mounting in Zone 1 installations with system approval fully certified in accordance with ATEX. The high-grade steel housing is prepared for wall-mounting with facility for insulated screen rails or terminals.
- CB220 compact box - S900 in compact form (with up to 4 I/O modules). This variant is suitable for use in applications such as temperature multiplexers and solenoid valve circuits.

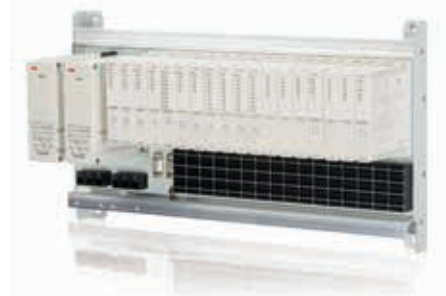
The S900 components are based on a passive backplane suitable for mounting on a DIN rail or directly in a sub-distribution board. The passive backplane includes internal bus communication, terminals for field circuits, communication, and power supply. The function modules are plugged into the backplane in their appropriate slots. The redundant backplane has two slots for power supply units, two slots for communication interfaces, and 16 slots for function modules. Digital function modules have up to 8 channels, analog modules up to four. Therefore, when using a redundant backplane, 128 digital or 64 analog channels can be connected per station. In the case of the S and B series, up to ten S900 stations can be connected on a single fieldbus line.

Key S900 benefits include:

- Intrinsically safe - can be installed in Zone 1 and Zone 2 areas.
- Good price/performance ratio because external barriers have been removed and costs are reduced in terms of cabling, installation, hardware, and maintenance.
- High reliability thanks to smooth automatic transfer of data and to auto-diagnostics.
- Easy configuration using either FDT/DTM or GSD files, allowing easy integration with 800xA process control systems.
- High availability of the plant thanks to redundancy and hot-swap capability of all components during operation.

Series	Assembly	Field devices / signals	Hazardous area approval
S series	In Zone 1	In Zones 2, 1 and 0 (intrinsically safe signals)	ATEX Zone 1
B series	In Zone 2	In Zones 2, 1 and 0 (intrinsically safe signals)	ATEX Zone 2
N series	In safe areas	In safe areas	No

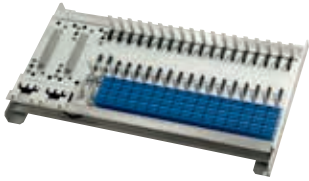
S900



	NAMUR inputs	Binary 24 V	Binary 48 V	Binary 110 V	Binary 230 V	Binary Relay	Analog Unipolar	Analog Bipolar	Temperature RTD	Temperature T/C	SOE	HART	Intrinsic safety	Redundant	High integrity
<b>I/O Features S900</b>															
<b>Digital I/O modules</b>															
DX910S,B,N*	<input checked="" type="checkbox"/>														S,B
<b>Digital output modules</b>															
DO910S,B,N*															S,B
DO930N			<input checked="" type="checkbox"/>												
<b>Pulse input modules</b>															
DP910S,B,N*						<input checked="" type="checkbox"/>									S,B
<b>Analog input modules</b>															
AI910S,B,N*							<input checked="" type="checkbox"/>								S,B
AI930S,B,N*							<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			S,B
AI931S,B,N*							<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			S,B
AI950S,B,N*									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					S,B
<b>Analog output modules</b>															
AO910S,B,N*							<input checked="" type="checkbox"/>								S,B
AO920S,B,N*							<input checked="" type="checkbox"/>								S,B
AO930S,B,N*							<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			S,B

# Redundant Termination Unit

## Termination Unit



- Termination Unit for up to 16 I/O modules
- Prepared for redundant system power and communication
- Up to 4 terminals per channel
- Preselection of fieldbus address
- Prepared for certified field housing
- Mounting in Zone 1 or Zone 2 possible

Name	Short Description	Article No.
TU921S	Redundant Termination Unit (TU16R-Ex) For 16 I/O-modules. Redundant communication and power. (Delivery includes CD910).	3KDE175111L9210
TU921B	Redundant Termination Unit (TU16R-B) For 16 I/O-modules. Redundant communication and power. (Delivery includes CD910).	3KDE175112L9210
TU921N	Redundant Termination Unit (TU16R) For 16 I/O-modules. Redundant communication and power. (Delivery includes CD910).	3KDE175113L9210

# Power supply

## Power supply



- Powering of communication interfaces and I/O modules
- Hot swap capability (SA920S in Zone 1, SA920B in Zone 2)
- Redundant powering
- Alarm in case of power failure (with redundancy)
- Switching On by tighten the 4 switch-on interlock screws (only SA920B and SA920S)

Name	Short Description	Article No.
SA920S	Power Supply For 24 V DC. The power supply filter type BP901S is not required. SA920S is the functional replacement for SA910S. Do not mix SA910S with SA920S for redundancy (observe Release Notes).	3BDH000602R1
SA920B	Power Supply For 24 V DC. The power supply filter type BP901S is not required. SA920B is the functional replacement for SA910B Do not mix SA910B with SA920B for redundancy (observe Release Notes).	3BDH000601R1
SA920N	Power Supply For 24 V DC. The power supply filter type BP901S is not required. SA920N is the functional replacement for SA910N Do not mix SA910N with SA920N for redundancy (observe Release Notes).	3BDH000600R1

# Communication interface

## Communication interface



- Fieldbus protocol PROFIBUS-DP V1 (EN 50170)
- Coupling of the internal CAN bus to external PROFIBUS
- HART protocol on PROFIBUS-DP V1
- Line or media redundancy via two coupling modules
- Electrical isolation between field bus, power
- Diagnosis, configuration and parameterization via PROFIBUS

Name	Short Description	Article No.
CI920AS	CI920AS Communication Interface V 2.1 (CIPBA-Ex) Use only CI920AS with the same firmware for redundancy for PROFIBUS DP-V1 (observe Release Notes).	3BDH000690R1
CI920AB	CI920AB Communication Interface V 2.1 (CIPBA-B) Use only CI920AB with the same firmware for redundancy for PROFIBUS DP-V1 (observe Release Notes).	3BDH000691R1

# Digital I/O modules

## Digital I/O modules



- Input for dry contacts or proximity switches (NAMUR)
- Output for low power intrinsically safe valves
- Short and break detection
- Electrical isolation between input / bus and input / power
- Common return for all inputs / outputs
- Configurable as a mixture of inputs and outputs
- 8 I/O channel, EEx ia II C

Name	Short Description	Article No.
DX910S	Digital Input or Output (DIO8-Ex) Input for dry contact or NAMUR initiator. Output for low power Intrinsic Safe valves.	3KDE175311L9100
DX910B	Digital Input or Output (DIO8-B) Input for dry contact or NAMUR initiator. Output for low power I.S. valves.	3KDE175312L9100
DX910N	Digital Input or Output (DIO8) Input for dry contact or NAMUR initiator. Output for low power valves.	3KDE175313L9100

# Solenoid driver



## Solenoid driver

- Output for intrinsically safe valves or alarms
- Integrated driving power
- Short and break detection
- Electrical isolation between output / bus and output / power
- Electrical isolation channel to channel
- 4 channels, EEx ia II C

Name	Short Description	Article No.
DO910S	Digital Output (DO4-Ex) Output for intrinsic safe valves.	3KDE175321L9100
DO910B	Digital Output (DO4-B) Output for intrinsic safe valves.	3KDE175322L9100
DO910N	Digital Output (DO4) Output for valves.	3KDE175323L9100

# Relay output



## Relay output

- Relay output for higher switching power
- Output configurable as NO or NC contact
- Electrical isolation between output / bus and output / power
- Electrical isolation channel to channel
- Configurable as 4 x changeover contact
- Configurable as 6 x NO contact

Name	Short Description	Article No.
DO930N	Relay Output (RO6) With 4 normally-open contacts and 2 changeover contacts (only to use with CI920N Article No 3BDS014113).	3BDS014114

# Frequency input



## Frequency input

- Frequency input for dry contacts or proximity switches
- Short and break detection
- Electrical isolation between input / bus and input / power
- Frequency measurement or counting applications
- 2 Function blocks
- Reset via fieldbus or control input
- Status outputs / Direction recognition

Name	Short Description	Article No.
DP910S	Frequency Input (FI2-Ex) Input for dry contact or NAMUR initiator.	3KDE175361L9100
DP910B	Frequency Input (FI2-B) Input for dry contact or NAMUR initiator.	3KDE175362L9100
DP910N	Frequency Input (FI2) Input for dry contact or NAMUR initiator.	3KDE175363L9100

# Analog input



## Analog input

- Power supply for 4...20 mA loop powered 2-wire transmitters
- Short and break detection
- Electrical isolation between input / bus and input / power
- Common return for all inputs
- 4 channels, EEx ia II C

Name	Short Description	Article No.
AI910S	Analog Input (AI4-Ex) Transmitter power supply, 4..20 mA.	3KDE175511L9100
AI910B	Analog Input (AI4-B) Transmitter power supply, 4..20 mA.	3KDE175512L9100
AI910N	Analog Input (AI4) Transmitter power supply, 4..20 mA.	3KDE175513L9100

# Analog input

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## Analog input, HART

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- Power supply for 4...20 mA loop powered 2-wire transmitters
- Short and break detection
- Electrical isolation between input / bus and input / power
- Common return for all inputs
- 4 channels, EEx ia II C
- Transmission of HART frames via the fieldbus

Name	Short Description	Article No.
AI930S	Analog Input, HART (AI4H-Ex) Transmitter power supply, 4..20 mA.	3KDE175511L9300
AI930B	Analog Input, HART (AI4H-B) Transmitter power supply, 4..20 mA.	3KDE175512L9300
AI930N	Analog Input, HART (AI4H) Transmitter power supply, 4..20 mA.	3KDE175513L9300

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## Analog input, HART

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- Passive inputs for 0/4...20 mA
- Short and break detection
- Electrical isolation between input / bus and input / power
- Common return for all inputs
- 4 channels, EEx ia II C
- Transmission of HART frames via the fieldbus

Name	Short Description	Article No.
AI931S	Analog Input, HART (AI4H-Ex) Passive input, 0/4..20 mA.	3KDE175511L9310
AI931B	Analog Input, HART (AI4H-B) Passive input, 0/4..20 mA.	3KDE175512L9310
AI931N	Analog Input, HART (AI4H) Passive input, 0/4..20 mA.	3KDE175513L9310

# Temperature input



## Temperature input

- Pt 100, Pt 1000, Ni 100, 0...3 kOhm in 2-/3-/4-wire technique
- Thermocouple Type B, E, J, K, L, N, R, S, T, U, mV
- Internal or external cold junction compensation
- Short and break detection
- Electrical isolation between input / bus and input / power
- Electrical isolation channel to channel
- 4 channels, EEx ia II C

Name	Short Description	Article No.
AI950S	Temperature (TI4-Ex) Pt100, Pt1000, Ni100 in 2-/3-/4-technology thermocouples type B, E, J, K, L, N, R, S, T isolated inputs channel by channel.	3KDE175521L9500
AI950B	Temperature (TI4-B) Pt100, Pt1000, Ni100 in 2-/3-/4-technology thermocouples type B, E, J, K, L, N, R, S, T isolated inputs channel by channel.	3KDE175522L9500
AI950N	Temperature (TI4) Pt100, Pt1000, Ni100 in 2-/3-/4-technology thermocouples type B, E, J, K, L, N, R, S, T isolated inputs channel by channel.	3KDE175523L9500

# Analog output



## Analog output

- Output signal 0/4...20 mA for actuators
- Short and break detection
- Electrical isolation between output / bus and output / power
- Output with common ground
- 4 channels, EEx ia II C

Name	Short Description	Article No.
AO910S	Analog Output (AO4-Ex) Output 0/4...20 mA.	3KDE175531L9100
AO910B	Analog Output (AO4-B) Output 0/4...20 mA.	3KDE175532L9100
AO910N	Analog Output (AO4) Output 0/4...20 mA.	3KDE175533L9100

# Analog output

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## Analog output, isolated

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- Output signal 0/4...20 mA for actuators
- Short and break detection
- Electrical isolation between output / bus and output / power
- Electrical isolation channel to channel
- 4 channels, EEx ia II C

Name	Short Description	Article No.
AO920S	Analog Output, isolated (AO4I-Ex) Output 0/4...20 mA. Isolated outputs channel by channel.	3KDE175531L9200
AO920B	Analog Output, isolated (AO4I-B) Output 0/4...20 mA. Isolated outputs channel by channel.	3KDE175532L9200
AO920N	Analog Output, isolated (AO4I) Output 0/4...20 mA. Isolated outputs channel by channel.	3KDE175533L9200

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## Analog output, HART

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- Output signal 0/4...20 mA for actuators
- Short and break detection
- Electrical isolation between output / bus and output / power
- Output with common ground
- 4 channels, EEx ia II C
- Transmission of HART frames via the fieldbus

Name	Short Description	Article No.
AO930S	Analog Output, HART (AO4H-Ex) Output 0/4...20 mA.	3KDE175531L9300
AO930B	Analog Output, HART (AO4H-B) Output 0/4...20 mA.	3KDE175532L9300
AO930N	Analog Output, HART (AO4H) Output 0/4...20 mA.	3KDE175533L9300



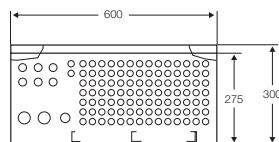
# Field housing



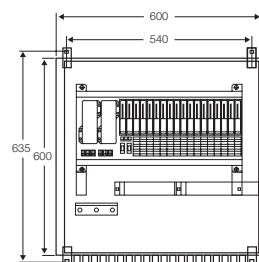
## Field housing

- Stainless steel field housing for extended Termination Unit
- Prepared for wall mounting
- Optional isolated shielding bar or terminals
- Mounting in Zone 1 or Zone 2

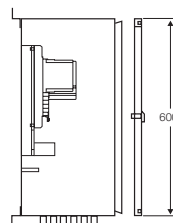
Name	Short Description	Article No.
FH660S - 0000	Empty field housing, without system certificate	3KDE175804L
FH660S - 0100	Field housing Including the following components: Termination Unit (backplane) TU921S 1 Power supply filter BP901S.	3KDE175804V0100
FH660S - 1100	Field housing Including the following components: Termination Unit (backplane) TU921S 2 Terminals (UK10N) 1 Power supply filter BP901S.	3KDE175804V1100
FH660S - 1110	Field housing Including the following components: Termination Unit (backplane) TU921S 2 Terminals (UK10N) 1 Power supply filter BP901S 1 Switch.	3KDE175804V1110
FH660S - 0200	Field housing Including the following components: Termination Unit (backplane) TU921S 2 Power supply filters BP901S.	3KDE175804V0200
FH660S - 2200	Field housing Including the following components: Termination Unit (backplane) TU921S 4 Terminals (UK10N) 2 Power supply filters BP901S.	3KDE175804V2200
FH660S - 2220	Field housing Including the following components: Termination Unit (backplane) TU921S 4 Terminals (UK10N) 2 Power supply filters BP901S 2 Switches.	3KDE175804V2220



Bottom view FH660S



Front (inside) view FH660S



Side view FH660S

# Field housing

Name	Short Description	Article No.
FH680S - 0000	Empty field housing, without system certificate	3KDE175811L
FH680S - 0100	Field housing Including the following components: Termination Unit (backplane) TU921S 1 Power supply filter BP901S.	3KDE175811V0100
FH680S - 0110	Field housing Including the following components: Termination Unit (backplane) TU921S 1 Power supply filter BP901S 1 Switch.	3KDE175811V0110
FH680S - 0200	Field housing Including the following components: Termination Unit (backplane) TU921S 2 Power supply filters BP901S.	3KDE175811V0200
FH680S - 0220	Field housing Including the following components: Termination Unit (backplane) TU921S 2 Power supply filters BP901S 2 Switches.	3KDE175811V0220

## Accessories

Name	Short Description	Article No.
S900 - BI100	Field Housing roof Weather protection. Fits to all field housing.	3KDE175831L1000

# Compact box

## Compact box



Name	Short Description	Article No.
CB220S	Compact-Box For power supply SA911S, communication interface CI920S and four I/O modules S900 type S (Delivery includes CD910).	3KDE175611L2210
CB220B	Compact-Box For power supply SA911B, communication interface CI920B and four I/O modules S900 type B (Delivery includes CD910).	3KDE175612L2210
CB220N	Compact-Box For power supply SA911N, communication interface CI920N and four I/O modules S900 type N (Delivery includes CD910).	3KDE175613L2210

# Power supply for CB220x

## Power supply for CB220x



Similar illustration

- Powering of communication interfaces and I/O modules
- Hot swap capability (SA911S in Zone 1, SA911B in Zone 2)

Name	Short Description	Article No.
SA911S	Power supply for CB220S For 24 VDC. The power supply filter type BP901S is not required.	3KDE175611L9110
SA911B	Power supply for CB220B For 24 VDC. The power supply filter type BP 901S is not required.	3KDE175612L9110
SA911N	Power supply for CB220N For 24 VDC. The power supply filter type BP901S is not required.	3KDE175613L9110

# Accessories for S900 Remote I/O

## Fieldbus isolating repeater

Name	Short Description	Article No.
BI913S	Fieldbus isolating repeater Separates an intrinsically safe RS485 fieldbus from a non intrinsically safe RS485 fieldbus with bus termination BARTEC Sekopia - 17-28S1-G121 (DIN rail) and 17-21S1-S111 (plug) mounted in DIN rail mounted housing with IP20 protection No longer deliverable. Use BI914S as replacement. For limited spare parts contact Orderbox Control Products DEAPR "orderbox.control-products@de.abb.com".	3KDE175831L9130
BI914S	Fieldbus isolating repeater Separates an intrinsically safe RS485 fieldbus from a non intrinsically safe RS485 fieldbus with bus termination mounted in DIN rail mounted housing with IP20 protection.	3BDH000649R1

## Ring-coupler

Name	Short Description	Article No.
BI923S	Ring-coupler RS485 / FO - intrinsically safe - Slave Separates an intrinsically safe fibre optic ring from a non intrinsically safe RS485 fieldbus. BARTEC - 07-7311-97WP5000 Mounted in DIN rail mounted housing with IP20 protection (Slave).	3KDE175831L9230
BI924S	Ring-coupler RS485 / FO intrinsically safe - Master Separates an intrinsically safe fibre optic ring from a non intrinsically safe RS485 fieldbus. BARTEC - 07-7311-97WP5200 Mounted in DIN rail mounted housing with IP20 protection (Master).	3KDE175831L9240
BI933S	Ring-coupler RS485 / FO Separates an intrinsically safe fibre optic ring from an intrinsically safe RS485 fieldbus. Mounted in separate field housing BARTEC - 07-3103-2512/177M (Slave). No longer deliverable. Use BI934S as replacement. For limited spare parts contact Orderbox Control Products DEAPR "orderbox.control-products@de.abb.com".	3KDE175831L9330
BI934S	Ring-coupler RS485 / FO intrinsically safe – Slave Separates an intrinsically safe fibre optic ring from one intrinsically safe RS485 fieldbus segment Mounted in separate field housing BARTEC - 07-3103-2512/371M Optical Plug FSMA Replacement for BI933S (Ready for order as from January 2010)	3BDH000674R0001

# Accessories for S900 Remote I/O

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## Accessories

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Name	Short Description	Article No.
BP914S	BP914S Intrinsically safe PROFIBUS-DP connector for CI920AS and CI920AB D-SUB Connector (color blue) for operating the intrinsically safe PROFIBUS-DP with CI920AS and CI920AB Siemens 6ES7972-0DA60-0XA0.	3BSE067082R1
IP920	Module housing IP20 protection for empty slots on the termination unit. For use in S900 S, B, and N systems.	3KDE175831L9200
IL910	Insert labels 380 pcs.	3KDE175839L9101

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## Software

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Name	Short Description	Article No.
BI992	ABB DTM S900 DP - License in combination with ABB DCS systems only For parameterization and configuration of the S900 station according to FDT 1.2, for all PROFIBUS-addresses inclusive HART. (Observe Release Notes).	3KDE175839L9920
CD910	Additional Software CD incl. S900 Documentation, Certificates, GSD (file) ABB DTM S900 DP. CD-ROM will be delivered with all TU921 and CB220 deliveries.	3KDE175839L9100

# Extended warranty

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## Extended warranty time on hardware for S800 I/O, S900 I/O, Fieldbus and AC 800M

Terms and conditions for the supply of products from Local Division Process Automation, LBU Open Control Systems within ABB AB in Sweden is valid.

Note that the price for the Extended Warranty Time order will be calculated as a percentage of the affected S800 I/O, S900 I/O, Fieldbus and AC 800M articles in the accompanying order.

Item A100 => 3% of the affected HW articles within the whole order.

Item A110 => 6% of the affected HW articles within the whole order.

Item A120 => 9% of the affected HW articles within the whole order.

	Article no.	
12 additional months warranty time - S800 I/O, S900 I/O, Fieldbus and AC 800M	3BSE049878R1	
24 additional months warranty time - S800 I/O, S900 I/O, Fieldbus and AC 800M	3BSE049878R2	
36 additional months warranty time - S800 I/O, S900 I/O, Fieldbus and AC 800M	3BSE049878R3	

# System 800xA Hardware

## Panel 800, version 5 and 6

Panel 800 is a user-friendly, intuitive and ergonomic operator panel that combines slim, space saving dimensions with a comprehensive range of advanced functions.

All panels are equipped with advanced functionality for process and equipment control, maneuvered either by function keys located next to the screen or by touching the LCD display. Combined with market leading performance and stunning graphical ability, the Panel 800 erodes the line between ordinary Operator Panels and PC based HMIs. Panel 800 is the successor after the Process Panels.

Panel 800 is designed specifically for ABB Control Network and AC 800M controllers, but thanks to the extensive driver library, the Panel 800 is compatible with most makes of PLC and ABB legacy control systems. When using it together with AC 800M, certain unique features become available, such as integrated alarm handling with the controller.

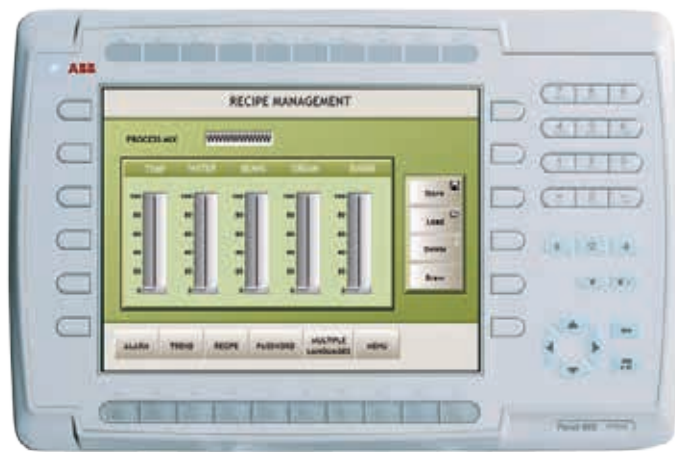
Panel 800 consists of a modern powerful hardware platform, which enables a very limited mounting depth. The frame is made of powder-coated aluminum, giving the panels a very robust look-and-feel. The front enclosure is designed to withstand demanding industrious usage according to the IP66 standard. The panels have also been certified by DNV and UL.

In December 2012, ABB launched the Panel 800 version 6 series. All Panel 800 Version 6 are developed to satisfy the demands of human-machine communication. Built-in functions such as displaying and controlling text, dynamic indication, time channels, alarm and recipe handling are included.

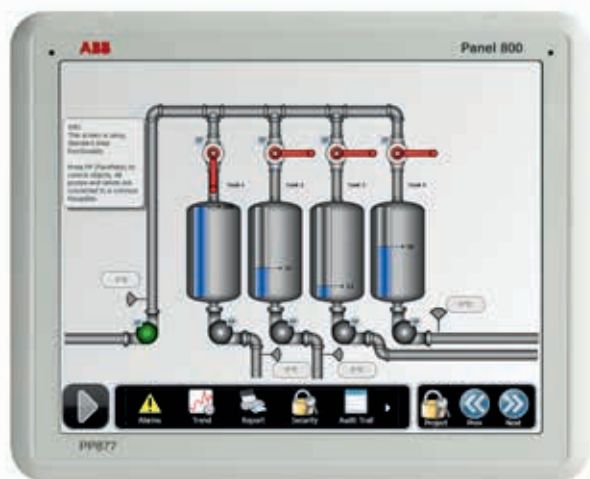
The Panel 800 Version 6 works primarily in an object-oriented way, making it easy to understand and use. Configuration is carried out on a PC using the Panel Builder configuration tool. The project can then be transferred and stored in the operator panel itself.

Various types of automation equipment such PLCs, servos or drives can be connected to the Panel 800 Version 6.

Key panel



Touch panel



# Specifications Panel 800

<b>Specifications Panel 800</b>	
Display backlight	CCFL/LED backlight with dimming function
CPU	316 or 416 MHz RISC CPU (Intel Xscale)
Memory, flash	32 MB (Intel StrataFlash)
Memory, RAM	64 MB
Flash memory for application	12 MB
Real time clock	YES
Power supply	+24 C14 20-30 V
Ambient temperature	0 ° to +50 °C
Relative humidity	5 - 85 % non-condensing
Housing material	Powder-coated aluminium
Front side material	Autotex F250 / F157 (keyboard), (PP865S in Stainless Steel 316/1.4401)
<b>Peripherals</b>	
Serial Ports	RS422/RS485, female, 25-pin D-Sub, RS232C, male, 9-pin D-Sub
Ethernet	Shielded RJ45 10/100 Mbit/sec
USB	Host type A (power consumption max. 500 mA), Device type B
PROFIBUS	Expansion slot for PROFIBUS DP
<b>Environmental Data for Panel 800</b>	
Climatic Operating Conditions	Vertical installation: 0 ° to +50 °C Horizontal installation: 0 ° to +40 °C Storage temperature -20 °C to +70 °C Relative humidity 5 - 85 % non-condensed
Protection class	Front panel seal IP 66 Rear panel seal IP 20
Electromagnetic Compatibility and CE-mark	Meets EMC directive 2004/108/EC
Electromagnetic Emission	Tested according to EN61000-6-4 (2007)
Electromagnetic Immunity	Tested according to EN61000-6-2 (2005)
Electrical Safety	UL508
Hazardous Classified Locations	UL 1604 Class I, Div 2 Groups A, B, C, D, T4
Marine Certificates	ABS, DNV, GL, RINA

Specifications	PP820A	PP826A	PP836A	PP846A
Display size	-	5,7"	6,5"	10,4"
Active area of display, W x H	127,0 x 33,8 mm			
Resolution	240 x 64 pixels	320 x 240 pixels	640 x 480 pixels	800 x 600 pixels
Interaction type	Function key	Function key	Function key	Function key
LED	16 (2 color)	16 (2 color)	16 (2 color)	20 (2 color)
Power consumption (normal/max)	0,15 A	0,3 A	0,4 A / 0,9 A	0,5 A / 1 A
<b>Dimensions</b>				
Front panel, W x H x D	202 x 187 x 57 mm	275 x 168 x 57 mm	285 x 177 x 60 mm	382 x 252 x 60 mm
Cut-out dimensions	166 x 149 mm	240 x 130 mm	246 x 139 mm	343 x 208 mm
Mounting depth	57 mm	58 mm	55 mm	58 mm
Weight	0,875 kg	1,11 kg	1,3 kg	2,3 kg

Specifications	PP815A	PP825A	PP835A	PP845A	PP865A
Display size	3,8"	5,7"	6,5"	10,4"	15"
Resolution	320 x 240 pixels	320 x 240 pixels	640 x 480 pixels	800 x 600 pixels	1024 x 768 pixels
Interaction type	Resistive Touch	Resistive Touch	Resistive Touch	Resistive Touch	Resistive Touch
LED	-	-	-	-	-
Power consumption (normal/max)	0,15 A	0,25 A	0,4 A / 0,9 A	0,5 A / 1 A	1,2 A / 1,7 A
<b>Dimensions</b>					
Front panel, W x H x D	156 x 119 x 59 mm	201 x 152 x 57 mm	219 x 154 x 60 mm	302 x 228 x 60 mm	398 x 304 x 60 mm
Cut-out dimensions	139 x 105 mm	180 x 130 mm	189 x 138 mm	265 x 206 mm	356 x 279 mm
Mounting depth	57 mm	57 mm	55 mm	58 mm	60 mm
Weight	0,56 kg	0,87 kg	1,1 kg	2 kg	3,7 kg

Specifications	PP871	PP874	PP877
Display size	4,3"	7"	10,4"
Resolution	480 x 272 pixels (16:9)	800 x 480 pixels (16:9)	640 x 480 pixels (4:3)
Interaction type	Resistive Touch	Resistive Touch	Resistive Touch
LED	-	-	-
Power consumption (normal/max)	3,6 W	6,0 W	9,6 W
<b>Dimensions</b>			
Front panel, W x H x D	145 x 103 x 49 mm	204 x 143 x 49 mm	280 x 228 x 51 mm
Cut-out dimensions	128 x 87 x 43 mm	187 x 126 x 43 mm	262 x 209 x 46 mm
Mounting	Panel mount and VESA 50 x 50	Panel mount and VESA 75 x 75	Panel mount and VESA 75 x 75
Net weight (kg)	ca. 0,5 kg	ca. 0,8 kg	ca. 1,5 kg



# Panel Builder 800 Version 6

## Panel Builder 800 Version 6



	Article no.
<b>Panel Builder 800 Version 6</b> Media folder with Panel Builder 800 Version 6 containing the latest version of: -Panel Builder 800 Version 6 -Firmware for panels -Manuals as pdf-files -Release Notes -License for one Panel Builder 800 Version 6 1 year Automation Sentinel Subscription included.	3BSE069300R1

# Panel 800

## Touch Panels



	Article no.
<b>PP871</b> 4,3" Touch panel. TFT 480x272 (16:9). Requires Panel Builder 800 Version 6 for configuration.	3BSE069270R1



<b>PP874</b> 7" Touch panel. TFT 800x480 (16:9). Requires Panel Builder 800 Version 6 for configuration.	3BSE069271R1
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<b>PP877</b> 10,4" Touch panel. TFT 640x480 (4:3). Requires Panel Builder 800 Version 6 for configuration.	3BSE069272R1
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## Communication Interface for Panel 800

	Article no.
<b>CB810 USB to Ethernet adapter for programming</b> USB to Ethernet adapter with software. Cross over Ethernet patch cable included.	3BSE042255R1

# Panel Builder 800 Version 5

## Panel Builder 800 Version 5



	Article no.
<p><b>Panel Builder 800 Version 5</b></p> <p>Media folder with Panel Builder 800 Version 5 containing the latest version of:</p> <ul style="list-style-type: none"> <li>-Panel Builder 800 Version 5 and Panel Tools</li> <li>-Firmware for panels</li> <li>-Manuals as pdf-files</li> <li>-Release Notes</li> <li>-License for one Panel Builder 800 Version 5</li> </ul> <p>1 year Automation Sentinel Subscription included.</p>	3BSE042250R1

# Panel 800

## Functional Key Panels

Configuration of Panel 800 requires a Panel Builder 800.








	Article no.
<p><b>PP820A</b></p> <p>240*64 pixels, graphics &amp; text, black/white</p> <ul style="list-style-type: none"> <li>- new CPU and power boards - no UL 1604 certification</li> </ul> <p>Requires Panel Builder 800 version 5 for configuring.</p> <p>To protect the front, it's recommended to use the RX820 Key Cover.</p>	3BSE042243R2
<p><b>PP826A</b></p> <p>5,7" TFT, 320x240 pixels, graphics &amp; text, color</p> <ul style="list-style-type: none"> <li>- new display, CPU and power boards - no UL 1604 certification</li> </ul> <p>Requires Panel Builder 800 version 5 for configuring.</p> <p>To protect the front, it's recommended to use the RX826 Key Cover.</p>	3BSE042244R3
<p><b>PP836A</b></p> <p>6,5" TFT, 640x480 pixels, graphics &amp; text, color</p> <ul style="list-style-type: none"> <li>- new display, CPU and power boards - no UL 1604 certification</li> </ul> <p>Requires Panel Builder 800 version 5 for configuring.</p> <p>To protect the front, it's recommended to use the RX836 Key Cover.</p>	3BSE042237R2
<p><b>PP846A</b></p> <p>10,4" TFT, 800x640 pixels, graphics &amp; text, color</p> <ul style="list-style-type: none"> <li>- new CPU and power boards - no UL 1604 certification</li> </ul> <p>Requires Panel Builder 800 version 5 for configuring.</p> <p>To protect the front, it's recommended to use the RX846 Key Cover</p>	3BSE042238R1

# Panel 800

## Touch Panels

Configuration of Panel 800 requires a Panel Builder 800.

		Article no.
	<p><b>PP815A</b>            3,5" TFT, 320x240 pixels, graphics &amp; text, touch, color            - new display, CPU and power boards - no UL 1604 certification            Requires Panel Builder 800 version 5 for configuring.            To protect the touch screen, it's recommended to use the RX815 Touch Cover.</p>	3BSE042239R2
	<p><b>PP825A</b>            5,7" TFT, 320*240 pixels, graphics &amp; text, touch, color            - new display, CPU and power boards - no UL 1604 certification            Requires Panel Builder 800 version 5 for configuring.            To protect the touch screen, it's recommended to use the RX825 Touch Cover.</p>	3BSE042240R3
	<p><b>PP835A</b>            6,5" TFT, 640x480 pixels, graphics &amp; text, touch, color            - new display, CPU and power boards - no UL 1604 certification            Requires Panel Builder 800 version 5 for configuring.            To protect the touch screen, it's recommended to use the RX835 Touch Cover.</p>	3BSE042234R2
	<p><b>PP845A</b>            10,4" TFT, 800x640 pixels, graphics &amp; text, touch, color            - new CPU and power boards - no UL 1604 certification            Requires Panel Builder 800 version 5 for configuring.            To protect the touch screen, it's recommended to use the RX845 Touch Cover.</p>	3BSE042235R2
	<p><b>PP865A</b>            15" TFT, 1024x768 pixels, graphics &amp; text, touch, color            - new CPU and power boards - no UL 1604 certification            Requires Panel Builder 800 version 5 for configuring.            To protect the touch screen, it's recommended to use the RX865 Touch Cover.</p>	3BSE042236R2

## Connection Cables for Panel 800



	Article no.
<b>TK854V030 Programming Cable</b> RS232 programming cable Panel 800 <--> PC. Length 3 m.	3BSE042251R1
<b>TK212A Tool cable</b> RJ45 (male) to Dsub-9 (female), length 3 m. RJ45 8P8C plug (with shell). Cable : UL2464 26 AWG x 8C. For serial communication between Panel 800 Version 5 panels and AC 800M.	3BSC630197R1

## Communication Interface for Panel 800



	Article no.
<b>CB801 PROFIBUS DP Communication Interface</b> PROFIBUS DP slave expansion module for Panel 800.	3BSE042245R1
<b>CB810 USB to Ethernet adapter for programming</b> USB to Ethernet adapter with software. Cross over Ethernet patch cable included.	3BSE042255R1

## Miscellaneous



	Article no.
<b>RX815 Touch cover for PP815/PP815A, 1 pcs</b>	3BSE049366R1
<b>RX820 Key cover for PP820/PP820A, 1 pcs</b>	3BSE049367R1
<b>RX825 Touch cover for PP825/PP825A, 1 pcs</b>	3BSE042246R1
<b>RX826 Key cover for PP826/PP826A, 1 pcs</b>	3BSE049368R1
<b>RX835 Touch cover for PP835/PP835A, 1 pcs</b>	3BSE042247R1
<b>RX836 Key cover for PP836/PP836A, 1 pcs</b>	3BSE049369R1
<b>RX845 Touch cover for PP845/PP845A, 1 pcs</b>	3BSE042248R1
<b>RX846 Key cover for PP846/PP846A, 1 pcs</b>	3BSE049370R1
<b>RX865 Touch cover for PP865/PP865A, 1 pcs</b>	3BSE042249R1



<b>MB801V512 Compact Flash card</b> Expansion Compact Flash memory for Panel 800 Version 5 panels, 512 MB.	3BSE042257R1
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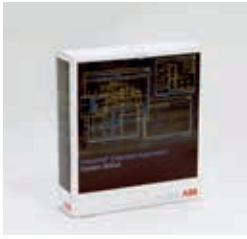
# Media and Documentation

## Related Documentation

A complete list of all documents applicable to the 800xA System is provided in Released User Documents (3BUA000263-510). This document lists applicable Release Notes and User Instructions. It is provided in PDF format and is included on the Release Notes/Documentation media provided with your system. Released User Documents are updated with each release and a new file is provided that contains all user documents applicable for that release with their applicable document number. Whenever a reference to a specific instruction is made, the instruction number is included in the reference.



# System 800xA - Media



## System 800xA 5.1, 32/64 bit

The articles in this section may only be selected when ordering a new 800xA system, or if the end user has a valid Automation Sentinel agreement.

	Article no.
<b>System 800xA 5.1, 32/64 bit Product Box</b> Including: System 800xA 5.1, 32/64 bit and User Documentation on DVD and CD, Installation Manual and Mouse Pad.(Can not be delivered to Embargoed Countries. See A230 or A240.)	3BSE061216R512
<b>System 800xA 5.1, 32/64 bit Media only</b> Including: System 800xA 5.1, 32/64 bit and User Documentation on DVD and CD. (Can not be delivered to Embargoed Countries. See A230 or A240.)	3BSE061110R512
<b>System 800xA 5.1, 32/64 bit Product Box for T5 Countries</b> Including: System 800xA 5.1, 32/64 bit and User Documentation on DVD and CD, Installation Manual and Mouse Pad. (For deliveries to Embargoed Countries see document 3BSE035412-512.)	3BSE061217R512
<b>System 800xA 5.1, 32/64 bit Media only for T5 Countries</b> Including: System 800xA 5.1, 32/64 bit and User Documentation on DVD and CD. (For deliveries to Embargoed Countries see document 3BSE035412-512.)	3BSE061111R512

## Media - Office 2007 and 800xA for AC 100 5.1

### Office 2007 Enterprise for ABB System 800xA

	Article no.
<b>Office 2007 Enterprise for ABB System 800xA</b> Office Enterprise 2007 suite includes Word, Excel, PowerPoint, Outlook, Publisher, Access, InfoPath, Groove, OneNote, Communicator, Integrated Enterprise Content Management, Integrated Electronic Forms and Advanced Information Rights Management and Policy Capabilities.	3BSE065594R1
<b>800xA for AC 100 5.1 Product Box</b> Including: 800xA for AC 100 5.1 and AC 100 OPC Server Version 5.1, User Documentation on media, Installation Manual, and Mouse Pad.	3BSE064566R510

# Library - Media

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## Library - Media

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	Article no.	
<b>INFI90 Function Code Library for AC 800M</b> CD/DVD Media - INFI90FCLib Latest Revision.	3BUA000936R200	
<b>MOD 300 CCF Library for AC 800M</b> CD/DVD Media MODCCFLib 2.1-x latest revision - Supports System version 5.1.	3BUA000941R21	

# Dongles

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## Dongles

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	Article no.	
<b>Dongle for USB Port</b> To be used with 800xA 5.1 Rev A and later versions. For USB Dongle to 800xA 5.1 (no revision), 800xA 5.0, 800xA 4.1 and 800xA 3.1, please, purchase the Dongle from price book 3BSE41710, System 800xA Expansion.	3BSE064644R1	
<b>RAINBOW SuperPro Dongle for Parallel Port</b>	3BSE034585R1	

# User Documentation

Note! User Manuals are printed on demand and delivery time expects to 15 working days.

For S900 I/O documentation, please, refer to the S900 I/O and Fieldbus Network Components price book, 2PAA102823.



## User Documentation

	Article no.
<b>800xA Base System Documentation</b> Documents included: Manual Installation, Automated Installation, Upgrade, Network Configuration, IEC 61850 Engineering Workflow, IEC 61850 Configuration, IEC 61850 Operation Library Substation Equipment, PC Network and Software Monitoring Operation, PC Network and Software Monitoring Configuration, Administration and Security, Post Installation, Configuration, Operations, System Planning, Site Planning, Server Node Virtualization, Tools, Multisystem Integration, Maintenance, VideONet Connect.	3BSE071882-510
<b>800xA for Advant Master - Connectivity Documentation</b> Documents included: Advant Master Configuration, Advant Master Operation, Advant Master Graphic Library, Advant Master Extended Graphic Library.	3BSE071883-510
<b>800xA for Harmony - Connectivity Documentation</b> Documents included: Harmony Configuration, Harmony Operation.	3BSE071884-510
<b>800xA for DCI - Connectivity Documentation</b> Documents included: DCI Configuration, DCI Operation	3BSE071885-510
<b>800xA for AC 870P/Melody - Connectivity Documentation</b> Documents included: AC 870P/Melody Configuration, AC 870P/Melody Asset Management for HART devices Configuration, AC 870P/Melody Asset Management for HART devices Installation. Documentation for 800xA for AC 870P / Melody - Operation (Faceplate documentation) is not included in the product price and can be ordered market specific via ABB Utility Automation or ABB Process Industries.	3BSE071886-510
<b>800xA for MOD 300 - Connectivity Documentation</b> Documents included: MOD 300 Configuration, MOD 300 Operation.	3BSE071887-510
<b>PLC Connect - Connectivity Documentation</b> Documents included: PLC Connect Operation, PLC Connect Configuration.	3BSE071888-510
<b>800xA for Safeguard - Connectivity Documentation</b> Documents included: Safeguard Configuration, Safeguard Operation, Safeguard Graphic Library.	3BSE071889-510
<b>800xA for AC 100 - Connectivity Documentation</b> Documents included: AC 100 Aspect Object Types, AC 100/AC 100 OPC Server Installation, AC 100 OPC Server Configuration and Operation, AC 100 Configuration and Operation.	3BSE071890-510
<b>Operations Documentation</b> Documents included: Operations Operator Workplace Configuration.	3BSE071891-510
<b>Batch Management Documentation</b> Documents included: Batch Management Operation, Batch Management Configuration	3BSE071892-510



# User Documentation

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## User Documentation

	Article no.	
<b>Information Management Documentation</b> Documents included: Information Management Getting Started, Information Management Configuration, Information Management Display Services, Information Management Data Access and Reports.	3BSE071893-510	
<b>Engineering Documentation</b> Documents included: Engineering Studio, Engineering Studio Function Designer, Engineering Studio Topology Designer, Engineering Process Graphics, Engineering Process Graphics Migration Tool, Engineering Process Graphics based on Visual Basic, Engineering Aspect Studio, Engineering Aspect Express, Engineering Process Engineering Tool Integration, Engineering Studio Function Designer Getting Started, Engineering and Production Environments, Engineering Programmers Guide, Engineering Management of Change.	3BSE071894-510	
<b>AC 800M Documentation</b> Documents included: AC 800M Getting Started, AC 800M Configuration, AC 800M Planning, AC 800M Binary and Analog Handling, AC 800M Library Object Style Guide, AC 800M OPC Server, AC 800M Communication Protocols, AC 800M FOUNDATION Fieldbus HSE, AC 800M PROFIBUS DP Configuration, AC 800M PROFIBUS DP Installation, AC 800M ProfiNet IO Configuration, AC 800M AC 800M DriveBus, AC 800M Ethernet/IP DeviceNet Configuration, AC 800M Ethernet/IP DeviceNet Installation, AC 800M IEC 61850 Configuration, AC 800M Controller Hardware, AC 800M Interfacing SATT I/O. Advant Fieldbus 100 User Manual, TRIO/Genius Getting Started, TRIO/Genius.	3BSE071895-510	
<b>S800 I/O Documentation</b> Documents included: S800 I/O Getting Started, S800 I/O Modules and Termination Units, S800 I/O Fieldbus Communication Interface for PROFIBUS DP/DP-V1, S800 I/O Modules and Termination Units with Intrinsic Safety, S800 I/O DTM 5.3.	3BSE071896-510	
<b>S200 I/O Documentation</b> Documents included: S200 I/O Hardware.	3BSE071902-510	
<b>AC 800M High Integrity Documentation</b> Documents included: Safety Manual AC 800M High Integrity, AC 800M Protection Library for Machine Safety User and Safety Manual.	3BSE071897-510	
<b>Asset Optimization Documentation</b> Documents included: Asset Optimization Configuration, Asset Optimization Operation.	3BSE071898-510	
<b>Device Management and Fieldbus Documentation</b> Documents included: Device Management Device Library Wizard	3BSE071899-510	

# User Documentation

Note! User Manuals are printed on demand and delivery time expects to 15 working days.

For S900 I/O documentation, please, refer to the S900 I/O and Fieldbus Network Components price book, 2PAA102823.

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## User Documentation

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	Article no.	
<b>Device Management FOUNDATION Fieldbus Documentation</b> Documents included: Device Management FOUNDATION Fieldbus Configuration.	3BSE071900-510	
<b>Device Management PROFIBUS and HART Documentation</b> Documents included: Device Management PROFIBUS and HART Configuration, Device Management Basic PROFIBUS DTM 5.3, Device Management Basic HART DTM 5.2, Device Management PROFIBUS DTM Builder 5.3, Device Management HART DTM Builder 5.2, HART Pass Through.	3BSE071901-510	

# Safety User Documentation



## Safety User Documentation

	Article no.	
<b>System 800xA Safety 5.1 AC 800M High Integrity Safety Manual</b> To be used with System 800xA version 5.1	3BNP004865-510	
<b>System 800xA Safety 5.1 AC 800M High Integrity Safety Manual</b> To be used with System 800xA version 5.1 Rev A.	3BNP004865-511	

# Asset Optimization User Documentation



## Asset Optimization User Documentation

	Article no.	
<b>System 800xA Asset Optimization 5.1 Configuration</b>	3BUA000118-510	
<b>System 800xA Asset Optimization 5.1 Operation</b>	3BUA000150-510	
<b>System 800xA 5.1 PC, Network and Software Monitoring Operation</b>	3BUA000446-510	
<b>System 800xA 5.1 PC, Network and Software Monitoring Configuration</b>	3BUA000447-510	

# Device Management and Fieldbus User Documentation

## Device Management and Fieldbus



	Article no.	
System 800xA Device Management 5.1 Device Library Wizard	2PAA102573-510	

## Device Management FOUNDATION Fieldbus



	Article no.	
System 800xA Device Management 5.1 FOUNDATION Fieldbus Configuration	3BDD012902-510	

## Device Management PROFIBUS & HART



	Article no.	
System 800xA Device Management 5.1 PROFIBUS and HART Configuration	3BDD011934-510	
Device Management Basic PROFIBUS DTM 5.3	3BDD011938-510	
Device Management Basic HART DTM 5.2	3BDD011939-510	
Device Management PROFIBUS DTM Builder 5.3	3BDD011945-510	
Device Management HART DTM Builder 5.2	3BDD011946-510	

# Network User Documentation

## FOUNDATION Fieldbus Network Components

	Article no.	
<b>Media CD-ROM LD 800HSE Version 3.2, English</b> Documentation in pdf-format, tools, capabilities file, and bitmaps for LD 800HSE.	3BDD011678R0401	
<b>Media CD-ROM LD 800HSE Version 3.3.0, English</b> Documentation in pdf-format, tools, capabilities file, and bitmaps for LD 800HSE.	3BDD011678R0501	
<b>Printed User Instructions LD 800HSE Version 3.2, English</b> Describes in detail the FOUNDATION Fieldbus Linking Device LD 800HSE features, hardware installation, configuration, and diagnostics.	3BDD011677R0401	
<b>Printed User Instructions LD 800HSE Version 3.3.0, English</b> Describes in detail the FOUNDATION Fieldbus Linking Device LD 800HSE features, hardware installation, configuration, and diagnostics.	3BDD011677R0501	

# Reference documentation

This document includes listings of the Release Notes and User Instructions applicable for 800xA System Version 5.1. The listings include the title of the document and the corresponding document number. The documents are grouped by functional areas within the system and by Release Notes and User Instructions.

For more information about System 800xA please visit our web: [www.abb.com/800xA](http://www.abb.com/800xA)



## Release Notes

This table lists the Release Notes and applicable document numbers that are released for use with 800xA System Version 5.1.

Functional Area		Document number.	
800xA System	System 800xA 5.1 Release Notes Fixed problems	2PAA106187-510	
	System 800xA 5.1 Release Notes New functions and known problems	2PAA106188-510	



## User Instructions

This table lists the User Instructions and associated document numbers that are released for use with 800xA System Version 5.1.

Functional Area	Document title	Document number.		
System 800xA	System 800xA 5.1 Tools	2PAA101888-510		
	System 800xA 5.1 Configuration	3BDS011222-510		
	System 800xA 5.1 Network Configuration	3BSE034463-510		
	System 800xA 5.1 Installation	3BSE034678-510		
	System 800xA 5.1 Automated Installation	3BSE034679-510		
	System 800xA 5.1 Upgrade	3BSE036342-510		
	System 800xA 5.1 Multisystem Integration	3BSE037076-510		
	System 800xA 5.1 Administration and Security	3BSE037410-510		
	System 800xA 5.1 System Planning	3BSE041389-510		
	System 800xA 5.1 Maintenance	3BSE046784-510		
	System 800xA 5.1 Post Installation	3BUA000156-510		
	System 800xA 5.1 Site Planning	3BUA000258-510		
	System 800xA 5.1 Server Node Virtualization	3BSE056141-510		
	System Guide	System 800xA 5.1 System Guide Functional Description	3BSE038018-510	
		System 800xA 5.1 System Guide Technical Data and Configuration	3BSE041434-510	

# Reference documentation

Functional Area	Document title	Document number.	
Asset Optimization	System 800xA Asset Optimization 5.1 Configuration	3BUA000118-510	
	System 800xA Asset Optimization 5.1 Operation	3BUA000150-510	
PC, Network, and Software Monitoring	System 800xA 5.1 PC, Network, and Software Monitoring Operation	3BUA000446-510	
	System 800xA 5.1 PC, Network, and Software Monitoring Configuration	3BUA000447-510	
AC800M	AC 800M 5.0 SP2, 5.1 AC 800M DriveBus	3AFE68237432D E	
	AC 800M Foundation Fieldbus HSE	3BDD012903-510	
	AC 800M 5.0, 5.1 PROFIBUS DP Installation	3BDS009029R5001 A	
	AC 800M 5.1 Communication Protocols	3BSE035982-510	
	AC 800M 5.1 OPC Server	3BSE035983-510	
	AC 800M 5.1 Controller Hardware	3BSE036351-510	
	AC 800M 5.0, 5.1 Interfacing SATT I/O	3BSE042821R5001	
	AC 800M 5.1 Library Object Style Guide	3BSE042835-510	
	AC 800M 5.1 IEC 61850 Configuration	9ARD171385-510	
	AC 800M 5.1 PROFINET IO Configuration	3BDS021515-510	
	AC 800M 5.1 Ethernet/IP DeviceNet Configuration	9ARD000014-510	
	AC 800M 5.1 Ethernet/IP DeviceNet Installation	9ARD000015-510	
	Control	System 800xA Control 5.1 AC 800M Configuration	3BSE035980-510
		System 800xA Control 5.1 AC 800M Binary and Analog Handling	3BSE035981-510
System 800xA Control 5.1 AC 800M Getting Started		3BSE041880-510	
System 800xA Control 5.1 AC 800M Planning		3BSE043732-510	
Advant Fieldbus 100 User Manual		3BSE000506-510	

# Reference documentation

Functional Area	Document title	Document number.	
Device Management	System 800xA Device Management 5.1 Device Library Wizard	2PAA102573-510	
	System 800xA Device Management 5.1 FOUNDATION Fieldbus Configuration	3BDD012902-510	
	System 800xA Device Management 5.1 PROFIBUS and HART Configuration	3BDD011934-510	
	Device Management Basic PROFIBUS DTM 5.3	3BDD011938-510	
	Device Management Basic HART DTM 5.2	3BDD011939-510	
	Field IT - Linking Device Integration Pepperl+Fuchs Power Hub	2PAA102122R0201	
	Device Management PROFIBUS DP/FMS Redundancy Link Module, RLM01	3BDD011600R0601 A	
	Device Management FOUNDATION Fieldbus Linking Device, LD 800HSE 3.4.0/0	3BDD011677R0601	
	Device Management PROFIBUS DTM Builder 5.3	3BDD011945-510	
	Device Management HART DTM Builder 5.2	3BDD011946-510	
	System 800xA Engineering	System 800xA Engineering 5.1 Engineering Studio	3BDS011223-510
		System 800xA Engineering 5.1 Engineering Studio Function Designer	3BDS011224-510
		System 800xA Engineering 5.1 Engineering Studio Function Designer Getting Started	3BDS100968-510
		System 800xA Engineering 5.1 Process Graphics based on Visual Basic	3BSE030335-510
System 800xA Engineering 5.1 Aspect Studio		3BSE032792-510	
System 800xA Engineering 5.1 Aspect Express		3BSE032793-510	
System 800xA Engineering 5.1 Engineering and Production Environments		3BSE045030-510	
System 800xA Engineering 5.1 Engineering Studio Topology Designer		3BDS011225-510	
System 800xA Engineering 5.1 Process Graphics		3BSE049230-510	
System 800xA Engineering 5.1 Process Graphics Migration Tool		3BSE049231-510	

# Reference documentation

Functional Area	Document title	Document number.
IEC 61850	System 800xA IEC 61850 5.1 Engineering Workflow	9ARD171384-510
	System 800xA IEC 61850 5.1 Configuration	9ARD171387-510
Information Management	System 800xA Information Management 5.1 Getting Started	3BUF001091-510
	System 800xA Information Management 5.1 Configuration	3BUF001092-510
	System 800xA Information Management 5.1 Display Services	3BUF001093-510
	System 800xA Information Management 5.1 Data Access and Reports	3BUF001094-510
I/O	S900 I/O DTM 3.0.x	3BDD010407R0201 A
	S900 I/O S- and N-System with SA920 Installation	3BDD010421R0401 A
	S900 I/O PROFIBUS DP Communication Interface, CI920 1.4	3BDD010422R0301 A
	S900 I/O Digital I/O Modules DO910 and DX910	3BDD010423R0201 A
	S900 I/O Frequency Input/ Pulse Counter DP910N/ DP910S	3BDD010424R0201 A
	S900 I/O Analog I/O Modules (HART) AI930, AI931, AO930	3BDD010425R0201 A
	S900 I/O Temperature Input AI950	3BDD010426R0201 A
	S900 I/O B-System with SA920 Installation	3BDD010432R0401 A
	S900 I/O PROFIBUS DP Communication Interface, CI920 1.5	3BDD015031R0101 A
	S900 I/O Digital I/O Relay Module DO930N	3BDD010435R0201 A
	S800 I/O Getting Started	3BSE020923-510
	S800 I/O Modules and Termination Units	3BSE020924-510
	S800 I/O Fieldbus Communication Interface for PROFIBUS DP/DPV1	3BSE020926-510
	S800 I/O Modules and Termination Units with Intrinsic Safety Interface	3BSE020927-510
	S200 I/O Hardware	3BSE021356R4101 A
	S200L I/O Hardware	3BSE021357R4101 A
	System 800xA Operations	System 800xA Operations 5.1 Operator Workplace Configuration
System 800xA Operations 5.1		3BSE036904-510



# Reference documentation

Functional Area	Document title	Document number.	
PLC Connect	System 800xA 5.1 PLC Connect Operation	3BSE035040-510	
	System 800xA 5.1 PLC Connect Configuration	3BSE035041-510	
Batch Management	System 800xA Batch Management 5.1 Operation	3BUA000145-510	
	System 800xA Batch Management 5.1 Configuration	3BUA000146-510	
800xA for . . .	Advant Master	800xA for Advant Master 5.1 Extended Graphic Library	3BSE026427-510
		800xA for Advant Master 5.1 Configuration	3BSE030340-510
		800xA for Advant Master 5.1 Operation	3BSE030352-510
	Harmony	800xA for Advant Master 5.1 Graphic Library	3BSE030430-510
		800xA for Harmony 5.1 Configuration	3BUA000157-510
	Melody	800xA for Harmony 5.1 Operation	3BUA000158-510
		800xA for AC870P / Melody 5.1 Configuration	3BDD011741-510
	MOD 300	800xA for MOD 300 5.1 Configuration	3BUR002417-510
		800xA for MOD 300 5.1 Operation	3BUR002418-510
	Safeguard	800xA for Safeguard 5.1 Configuration	3BNP004848-510
		800xA for Safeguard 5.1 Operation	3BNP004849-510
		800xA for Safeguard 5.1 Graphic Library	3BSE044423-510
	TRIO/Genius	800xA for TRIO/Genius 5.1 Getting Started	3BUR002459-510
		800xA for TRIO/Genius 5.1	3BUR002460-510





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