

Industry Online Support

NEWS

Connecting SIMOCODE pro and Allen-Bradley Controller via EtherNet/IP

SIMOCODE pro V EIP

https://support.industry.siemens.com/cs/ww/en/view/109748968

Siemens Industry Online Support

When -



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# 1 Introduction

## 1.1 Overview

SIMOCODE pro is a flexible, modular motor management system for motors with constant rotation speed in the low voltage range.

The base unit SIMOCODE pro V EIP supports communication via EtherNet/IP and thus can be integrated in Allen-Bradley PLCs for example.



This document describes the parameterization and integration of a SIMOCODE pro V EIP into an Allen-Bradley PLC using Studio 5000 and SIMOCODE ES V14 (TIA Portal).

# 1.2 Components used

This application example has been created with the following hardware and software components:

Table 1-1: H	ardware ar	nd software	components
--------------	------------	-------------	------------

Component	Qty.	Article number	Note
SIMOCODE pro V EIP	1	3UF7013-1AB00-0	
Current/voltage measuring module	1	3UF7110-1AA00-0	
Connection cable	1	3UF7932-0AA00-0	For current/voltage measuring module
Contactors	2	3RT2015-1AB01	
Allen-Bradley ControlLogix PLC	1		
SIMOCODE ES V14 SP1	1	3ZS1322-4CC12-0YA5	
Allen-Bradley Studio 5000	1		

This application example consists of the following components:

Table	1-2:	Compnents	of the	application	example

Component	File name	Note
Documentation	109748968_SIMOCODE- EtherNetIP_DOC_V10_en.pdf	This document
User data types & example project	109748968_SIMOCODE- EtherNetIP_PROJ.zip	User data types and example project for Allen-Bradley Studio 5000

# 2 Engineering

# 2.1 Hardware setup

This application example is based on a reversing motor starter but can also be used for different applications.

Connect the components according to the following figure.



## 2.2 Configuration

### 2.2.1 Integrating SIMOCODE pro V EIP into Allen-Bradley Studio 5000

### Registering SIMOCODE pro V EIP in Studio 5000

- Download the EDS file for SIMOCODE pro V EIP: <u>https://support.industry.siemens.com/cs/ww/en/view/109741009</u>
- 2. Unzip the file.
- 3. Open Studio 5000.
- 4. Create a new project or open your existing project.
- 5. From the menu bar select "Tools > EDS Hardware Installation Tool".



### Figure 2-2: Registering SIMOCODE pro V EIP

6. Click "Next" in the wizard window.

7. Select "Register an EDS file(s)" and click "Next".

### Figure 2-3: Registering SIMOCODE pro V EIP

OCKWEILAU Options What	t task do you want to complete?
<u>.</u>	<ul> <li>Register an EDS file(s).</li> <li>This option will add a device(s) to our database.</li> </ul>
	O Unregister a device. This option will remove a device that has been registered by an EDS file from our database.
<b>X</b>	C Create an EDS file. This option creates a new EDS file that allows our software to recognize your device.
1	C Upload EDS file(s) from the device. This option uploads and registers the EDS file(s) stored in the device.
	<back next=""> Cancel</back>

8. Select "Register a single file", click on "Browse", select the downloaded EDS file and click "Next".

#### Figure 2-4: Registering SIMOCODE pro V EIP

Registration Electronic Data Sheet file(s) will be added to applications.	o your system for use in Rockwell Automation
Register a single file ter a directory of EDS files Named:	🗖 Look in subfolders
F:\ADM files\Siemens_Simocode_1_0.eds	Browse
* If there is an icon file (.ico) with the satisfies a second to the satisfies the second to the sec	ame name as the file(s) you are registering then this rice. To perform an installation test on the file(s), click Next
	< Back Next > Cancel

9. Click "Next" on the test results window.

Figure 2-5: Registering SIMOCODE pro V EIP

Rockwell Automation's EDS Wizard		
EDS File Installation Test Results This test evaluates each EDS file for errors in the file validity.	EDS file. This test does not guarantee EDS	
Installation Test Results └── Installation Test Results └── Installation Test Results └── Installation Test Results		
View file	< Back Next > C	ancel

10. Click "Next" if you do not want to change the graphic image.

Figure 2-6: Registering SIMOCODE pro V EIP

Rockwell Automation's EDS Wizard	
Change Graphic Image You can change the graphic image that is associated with a device.	J.
Product Types	
Change icon Motor Overload	
SIMOCODEproV EIP	
<back next=""></back>	Cancel

11. Click "Next" on the summary and then "Finish".

## Inserting SIMOCODE pro V EIP on EtherNet/IP

1. In the "Controller Organizer" pane, right-click "Ethernet" and select "New Module..."

Figure 2-7: Adding a	new module		
🛓 📇 I/O Configura	ation		
🖶 📟 PointIO			
🔁 [0] 170	59-L16ER-BB1B E3	00r1	
🖨 🔂 Embe	dded I/O		
💋 [1]	Embedded Discr	ete_IO	
🛄 Expan	Expansion I/O, 0 Modules		
È╂ Ether			
	New Module	0	
	Discover Module		
ß	Paste	Ctrl+V	
	Properties	Alt+Enter	
	Print	•	

2. Search the catalog for "SIMOCODE", select the correct device and click "Create".

Figure 2-8: Creating a SIMOCODE device

SIMO	)			
	Module	Type Category Filters		
	CIP Motion Converter CIP Motion Drive CIP Motion Safety Drive Device			
	Communication			
		Description		

3. Open the module properties and give the device a unique name.

4. Assign an EtherNet/IP address.

Figure 2-9: Assigning an EtherNet/IP address

- 0 x Handler	I Model Popertier Local General Simocode (UP7013.12)  General Constant Simocode (UP7013.12)  Type Simone Model (UP7013.10)  Vendo  Pasce Local  Name  Inscriptor  Pasce Local  Descriptor  Pasce Local  Pa
Ethernet Address Private Networ 1 Private Netw	92.168.1.

5. In the module properties, click "Change". Select the size of the input/output window from the drop-down menu.

Notice the "Tag Suffix" field that shows the name assigned to the "Controller Tags" for the cyclic data. Click "OK" to finish.

Module Definition	on*						
Revision:	1 🔹 1 🔹						
Electronic Keying:	Compatible Module	•					
Connections:							
Name		1	Size			Tag	Suffix
Exclusive Owner	SIMOCODE Basic Type 3	Input:	•	20 SINT		2	Simo12:12
Exclusive Owner Exclusive Owner Input Only SIMOO Input Only SIMOO Input Only SIMOO Input Only SIMOO Input Only SIMOO Listen Only SIMO Listen Only SIMO Listen Only SIMO Listen Only SIMO	SIMOCODE Basic Type 4 Basic Overload Extended Overload DOE Basic Type 1 JODE Basic Type 2 JODE Basic Type 3 JODE Basic Type 4 JODE Basic Overload JODE Extended Overload JODE Extended Overload JCODE Basic Type 1 JCODE Basic Type 2 JCODE Basic Type 3 JCODE Basic Type 3	2			_		OK ())))ncel ()))) elp

6. Click "OK" to finalize your SIMOCODE pro V EIP device configuration.

## 2.2.2 Setting up cyclic data communication

Once you have completed adding a SIMOCODE pro V EIP to the network configuration, input and output cyclic controller tags with the same device name are added to the project.

The number of tags generated is directly related to the selected Basic Type. You can find additional information on Basic Types in chapter 3.1.

 Click on "Controller Tags" and search for "<Device name>:11" and "<Device name>:01", replacing "<Device name>" with your device's name.



### 2.2.3 Setting up acyclic data communication

The SIMOCODE pro V EIP also supports acyclic communication. This is accomplished in the Allen-Bradley controller with the use of "Message" commands. The SIMOCODE pro V EIP supports four object requests for data transfer.

Table	2-1.	Ohi	iects
Iable	Z-I.	OD	

Object	Class code	Length
Device diagnostics	0x0096	46 bytes
Measurement	0x0097	240 bytes
Statistical data	0x0098	228 bytes
Motor parameter	0x0099	116 bytes

In order to simplify the formatting of the available acyclic data, four data types are available for download. Follow these steps to request the data transfer via "Message" commands in Studio 5000:

1. Download the file "109748968\_SIMOCODE-EtherNetIP\_PROJ.zip" and unzip it:

https://support.industry.siemens.com/cs/ww/en/view/109748968

2. In the "Controller Organizer" pane, right-click on "User Data Types" and select "Import Data Type...".



Figure 2-12: Importing data types

- 3. Import the downloaded data types.
- 4. Create a controller tag of each of the imported data types.

Figure 2-13: Creating controller tags for SIMOCODE

Name	Alias For	Base Tag	Data Type
Run			BOOL
Simo_read_Device_Diagnosis			BOOL
Simo_read_Measurement			BOOL
Simo read Statistical Data			BOOL
⊡ Simo12_0x0096_Device_Diagnosis_Object			_0x0096_Devic
. Simo12_0x0097_Measurement_Object			_0x0097_Meas
⊡-Simo12_0x0098_Statistical_Data_Object			_0x0098_Statisti
⊞-Simo12 0x0099 write Motor Parameter			0x0099 Motor
Simo12_write_Motor_Parameter			BOOL
. SIMOCODE_byte0			INT
. SIMOCODE_byte1			INT
SIMOCODE_output_byte0			SINT

5. Create a program to call the "Message" command for each of the controller tags you just created.

Figure 2-14: Creating programs for communication



6. In each program, use the "Message" command to read or write data to the SIMOCODE pro V EIP unit.

Figure 2-15: Message command



7. To configure the "Message" command, click on the button with the three dots.

- 8. On the Configuration tab, select the following values for the Measurement object:
  - Message type: CIP Generic
  - Service type: Custom
  - Service code: 1
  - Instance: 1
  - Class: 97
  - Attribute: 0
  - Source Element: Name of the controller tag of type UDT you created for measured values
  - Length: 240
  - Destination Element: Name of the controller tag of type UDT you created for measured values.

#### Figure 2-16: Message configuration

Configuratio Message	n Commu Type:	nication Tag	c		•	]	
Service Type: Service Code: Instance:	Custom	Hex) Class: Attribute	97	<ul> <li>(Hex)</li> <li>(Hex)</li> </ul>	Source Element: Source Length: Destination Elem	Simo12_0x 240 ent: Simo12_0x New Tar	0097_Measur <del>-</del> (Bytes) 0097_Measu - g
Enable	⊖ Enat de:	ole Waiting Extend	O Stari ed Error Co	t ode:	Done	Done Length:	240 •
Error Path: Error Text:				)K	Cancel	Apply	Help

9. On the Communication tab, click on "Browse" and select the SIMOCODE pro V EIP unit you wish to read the data from.

Figure	2-17:	Message	configuration

Configuration	Communication	Tag			
Path:	Simo12			Brow	se
	Simo12				
Broade	cast	-			
Communic	ation Method				
CIP	OH+ Cha	annel: 'A'	💌 Destinatio	n Link: 0	*
CIP Wit Source	th Sou ID Sou	urce Link: 0	Destinatio	n Node: 0	(Octal)
Conne	ected	Cach	e Connections	← Large	Connection
) Enable	O Enable Waiti	ing O Start	Dono	Dono Longth:	240
		Fing Start	@ Done	Done Lengin.	240
rror Path:		Extended Ellor Code			
rror Text:					

10. Download your configuration.

## 2.2.4 Configuring SIMOCODE pro V EIP with SIMOCODE ES V14

- 1. Open TIA Portal.
- 2. Create a new project or open your existing project.
- 3. Switch to the project view.
- 4. In the project tree, double-click on "Add new device".
- Select "Control devices", browse to "Detecting & Monitoring > SIRIUS monitoring and control devices > SIMOCODE pro > Basic unit", select the SIMOCODE pro V EIP device and click on "OK".

Figure 2-18: Add the SIMOCODE device

Add new device			×
Device name:			
Control device_1			
	Tives & starters     SIRIUS motor starters and soft st	Device:	
Controllers	Detecting & Monitoring      Gilden Structure and control d		
	✓ Motor Management System ✓ SIMOCODE pro ✓ Basic unit		SIMOCODE pro V EIP
	SIMOCODE pro C	Article no.:	3UF7 013-1A*00-0
HMI	<ul> <li>L SIMOCODE pro S</li> <li>SIMOCODE pro V</li> </ul>	Version:	V1.0 *
	SIMOCODE pro V MR	Description:	
	► IMOCODE pro V PN ▼ IMOCODE Pro V EIP ■ SIMOCODE Pro V EIP ■ SUF7 01~14*0000	SIRIUS motor SIMOCODE pr expandable v	management and control devices o V; Ethernet IP; 0.30A820A; vith expansion modules
PC systems			
Drives			
Cont	< m >		
Start device wizard			OK Cancel

6. Select an application profile and click on "Finish".

Figure 2-19: Application profiles

Sirius Device Wizard - Con	itrol device_1	×
	Application SIMOCODE pro V EIP - V1.0	
	Select an application for the device.	
	▼ Standard	
	Overload relay	H
Application	Direct startes	
	Reversing str	=
	Circuit break	
	Star-delta starr	
	Star-delta reversing starter	
	Dahlander	
	Dahlander reversing starter	
	Pole-changing starter	
	Pole-changing reversing starter	
		~
	Name:	
	Direct starter	
	Description:	
	SIMOCODE pro can switch a motor on and off with this control function.	
	Finish	Cancel
		)

- 7. If necessary, open "Devices & networks" from the project navigation and adjust the hardware configuration that was created according to the application profile.
- 8. Open "Parameters" of the SIMOCODE device from the project navigation.

Figure 2-20: Parameters

Projec	ct tree
Dev	rices
134	
Name	
• 🗋 :	SIMOCODE EIP Configuration
	Add new device
6	🚡 Devices & networks
•[	Control device_1 [SIMOCODE pro V EIP]
	T Device configuration
	0 Online & disconstrict
	Parameters
	To commissioning
	Charts
	🕨 🔯 Traces
	Ungrouped devices
•	Unassigned devices

9. In the area navigation, navigate to "Ethernet parameters" and set the IP address and subnet mask in according to the parameterization in Studio 5000 on page <u>11</u>.

#### Figure 2-21: Set the IP address



- 10. Make sure the check box "Overwrite IP parameters in device" is checked.
- 11. In the area navigation, navigate to "Motor protection".

12. Set the FLA rating for the motor. The default value is the lower range value for the selected measuring module.

SIMOCODE EIP Configuration	► Control device_1 [SIMOCODE]	pro V EIP] 🔸 Parameters
Identification     Ethernet parameters	Motor protection	
Configuration Motor protection Motor control	Reset	Manual
Machine monit	Overload/unbalance/stalled roto	or
Outputs	Overload protection	
<ul> <li>Standard functions</li> <li>Logic modules Analog value recording</li> </ul>	Set current Is1 Set current Is1:	0.30 Transformation ratio - active
	Class:	10
	Response to trip level:	trip
	Cooling down period:	300.0
	Pause time:	0.0
	Type of load:	tri-phase
	Response to prewarning level (I>115%Is):	warn

Figure 2-22: Set the FLA rating

13. If necessary, adjust the default parameters set by the chosen application profile. For more information on application profiles, refer to chapter <u>3.2</u>.

## 2.2.5 Downloading the configuration

- 1. Select the SIMOCODE pro V EIP device from the project navigation.
- 2. In the menu bar, select "Online > Download to device".
- 3. Select the communication path for download.
- 4. Click on "Load" and then "Finish".

# 2.3 Operation

### **Testing communication**

For switching the outputs of SIMOCODE pro on or off, you have to set the according bits in "SIMOCODE\_pro:O1".

For a reversing starter you set bit 2 to TRUE in your application program in order to start the motor in clockwise direction.

You can find additional information on the cyclic receive data of SIMOCODE in chapter 3.1.

# 3 Additional information

## 3.1 Basic Types

Once you have completed adding a SIMOCODE pro V EIP to the network configuration in Studio 5000, input and output cyclic controller tags with the same device name are added to the project.

The number of tags generated is directly related to the selected Basic Type.

· ·	0		<b>3</b> 1	
	Input data length	Input assembly	Output data length	Output assembly
Basic Type 1	10 bytes	150	4 bytes	100
Basic Type 2	4 bytes	151	2 bytes	101
Basic Type 3	20 bytes	152	6 bytes	102
Basic Type 4	488 bytes	153	6 bytes	103

Table 3-1: Comparison of data length for different Basic Types

For example, Basic Type 3 generates 20 bytes of input tags and 6 bytes of output tags. If you expand the input tags in Studio 5000, you will see tags indexed from (0) to (19) and output tags indexed from (0) to (5).

The input data these tags represent is assigned in "Parameters > Outputs > Cyclic Send Data" in SIMOCODE ES V14. The first 2 bytes are freely assignable to represent 16 discrete signals. The remaining bytes are freely assignable to represent up to 9 analog values.

The following paragraphs show the cyclic receive and send data of Basic Type 4 as an example.

For cyclic receive and send data of other Basic Types and additional information on Basic Types, refer to the SIMOCODE pro function manual:

https://support.industry.siemens.com/cs/ww/en/view/109743960/96438864651

## Cyclic receive data of Basic Type 4

The cyclic receive data of Basic Type 3 and Basic Type 4 is identical.

Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
0	Cycl. send byte 0 – bit 0.7	Cycl. receive byte 0 – bit 0.6	Cycl. receive byte 0 – bit 0.5	Cycl. receive byte 0 – bit 0.4	Cycl. receive byte 0 – bit 0.3	Cycl. receive byte 0 – bit 0.2	Cycl. receive byte 0 – bit 0.1	Cycl. receive byte 0 – bit 0.0
1	Cycl. receive byte 1 – bit 1.7	Cycl. receive byte 1 – bit 1.6	Cycl. receive byte 1 – bit 1.5	Cycl. receive byte 1 – bit 1.4	Cycl. receive byte 1 – bit 1.3	Cycl. receive byte 1 – bit 1.2	Cycl. receive byte 1 – bit 1.1	Cycl. receive byte 1 – bit 1.0
2, 3	Cycl. receive byte 2/3 – analog value 1							
4, 5	Cycl. receive byte 4/5 – analog value 2							

Table 3-2: Cyclic receive data of Basic Type 3 and Basic Type 4

### Cyclic send data of Basic Type 4

Basic Type 4 provides 488 input bytes of data. The signals for the first 20 bytes of data are freely assigned by the "Cyclic Send Data" area using SIMOCODE ES V14. The remaining data is pre-assigned as a combination of statistical and measured values.

Table 3-3: Cyclic send data of Basic Type 4

Byte	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
0	Cycl. send byte 0 – bit 0.7	Cycl. send byte 0 – bit 0.6	Cycl. send byte 0 – bit 0.5	Cycl. send byte 0 – bit 0.4	Cycl. send byte 0 – bit 0.3	Cycl. send byte 0 – bit 0.2	Cycl. send byte 0 – bit 0.1	Cycl. send byte 0 – bit 0.0
1	Cycl. send byte 1 – bit 1.7	Cycl. send byte 1 – bit 1.6	Cycl. send byte 1 – bit 1.5	Cycl. send byte 1 – bit 1.4	Cycl. send byte 1 – bit 1.3	Cycl. send byte 1 – bit 1.2	Cycl. send byte 1 – bit 1.1	Cycl. send byte 1 – bit 1.0
2 3	Cycl. send byte 2/3 – analog value 1			Cycl. analog float input 1				
4 5	Cycl. send byte 4/5 – analog value 1							
6 7	Cycl. send byte 6/7 – analog value 3			Cycl. analog float input 2				
8 9	Cycl. send byte 8/9 – analog value 4							
10 11	Cycl. send byte 10/11– analog value 5				Cycl. analog float input 3			
12 13	Cycl. send byte 12/13 – analog value 6							
14 15	Cycl. send byte 14/15 – analog value 7				Cycl. analog float input 4			
16 17	Cycl. send byte 16/17 – analog value 8							
18 19	Cycl. send byte 18/19 – analog value 9							
20 259	Data of the measurement object							
260 487	Data of the statistical data object							

#### Figure 3-1: Assigning the cyclic send data in SIMOCODE ES V14

SIMO_EIP  Control device	_1 [SIMOCODE pro V EIP]	<ul> <li>Parameters</li> </ul>			
				All parameters	Base parameters
					E
Identification	Contra constructor				
Ethernet parameters	Cyclic send data				
Configuration	Byte 0				
<ul> <li>Motor protection</li> </ul>					
<ul> <li>Motor control</li> </ul>		Bit 0.0: 🍡 Not connected			12
<ul> <li>Machine monitoring</li> </ul>		Bit 0.1: Protection/Contro	I-Status - OFF		12
Inputs		Rit 0.2: Restaction/Control	Status Obla		in:
<ul> <li>Outputs</li> </ul>		bit 0.2.	-status - ona		18-
Basic unit		Bit 0.3: 🔀 Extended protect	on-Event - prewarning overload (I>115%Is)		1
Operator panel LEDs		Bit 0.4: 🍡 Not connected			12
Cyclic send data		Bit 0.5: 🚮 Status - remote m	ode		128
OPC-UA send data		Bit 0.6: Status - group fai	lt		11
Standard functions	-	Jun Status group fat			u*
<ul> <li>Logic modules</li> </ul>	•	Bit 0.7: Status - group wa	ming		15.
Analog value recording					
	Byte 1				
		Bit 1.0: 🍡 Not connected			12ª
		Bit 1.1: 🍡 Not connected			128
		Bit 1.2: 🍡 Not connected			121
		Bit 1.3: 🍡 Not connected			12
		Bit 1.4: 🍡 Not connected			121
		Bit 1.5: 2 Not connected			128
		Bit 1.6: 🍡 Not connected			128
		Bit 1.7: 🍡 Not connected			12*

## 3.2 Application profiles

Each of the application profiles chosen while adding the SIMOCODE device on page <u>18</u> has default parameters that are assigned in the background.

For instance, in the case of "Overload relay", output 3 on the SIMOCODE EIP base unit is assigned as a fault contact. As long as no faults are present, the firmware turns on output 3. Outputs 1 and 2 can be freely assigned as remote outputs.

Up to 20 bytes of the data sent cyclically to the controller from SIMOCODE are defined in the "Output" area as well. This can be reviewed or changed under "Outputs > Cyclic send data". Binary signals can be selected in the first two bytes. Analog values can be selected for bytes 2 through 19.

Control device_1 [SIMOCODE pro V EIP]      Parameters
Outputs
Basic unit
BU - output 1: 2. Not connected
BU - output 2: 2. Not connected
BU - output 3: Protection/Control-Contactor control - 3 OE3
in not control control s que
Cyclic send data
Byte 0
byte v
Bit 0.0: 🍡 Not connected
Bit 0.1: 🍡 Not connected
Bit 0.2: 🍡 Not connected
Bit 0.3: Extended protection-Event - prewarning overload (I>115%Is)
Bit 0.4: 2 Not connected
Bit 0.5: 🔁 Not connected
Bit 0.6:
Bit 0.7: 📷 Status - group warning
•
Byte 1
Diet D. P. Herenested
Bit 1.0: " Not connected
Bit 1.1: 2 Not connected
Bit 1.2: CND connected
Bit 1.3: 2 Not connected
Bit 1.4: 🍡 Not connected
Bit 1.5: 🍡 Not connected
Bit 1.6: 🍡 Not connected
Bit 1.7: 🍡 Not connected
Analog values
Byte 2/3 (analog value): 🛫 max. current I_max (% of Is)
Input 1: "Byte 4/5": 2 Not connected
Input 2: "Byte 6/7": 2. Not connected
Input 3: "Byte 8/9": Not connected
Input 1: "Byte 10/11": Not connected

# 4 Appendix

## 4.1 Service and Support

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Product information, manuals, downloads, FAQs, application examples and videos – all information is accessible with just a few mouse clicks at: <u>https://support.industry.siemens.com</u>

#### **Technical Support**

The Technical Support of Siemens Industry provides you fast and competent support regarding all technical queries with numerous tailor-made offers – ranging from basic support to individual support contracts. You send queries to Technical Support via Web form: www.siemens.com/industry/supportrequest

#### Service offer

Our range of services includes, inter alia, the following:

- Product trainings
- Plant data services
- Spare parts services
- Repair services
- On-site and maintenance services
- Retrofitting and modernization services
- Service programs and contracts

You can find detailed information on our range of services in the service catalog: https://support.industry.siemens.com/cs/sc

#### Industry Online Support app

You will receive optimum support wherever you are with the "Siemens Industry Online Support" app. The app is available for Apple iOS, Android and Windows Phone:

https://support.industry.siemens.com/cs/ww/en/sc/2067

## 4.2 Links and Literature

Table 4-1: Links and Literature

No.	Торіс
\1\	Siemens Industry Online Support
	https://support.industry.siemens.com
\2\	Link to this entry page of this application example
	https://support.industry.siemens.com/cs/ww/en/view/109748968
\3\	Manual Collection – SIMOCODE pro
	https://support.industry.siemens.com/cs/ww/en/view/109743951
\4\	Function Manual – SIMOCODE pro – Communication
	https://support.industry.siemens.com/cs/ww/en/view/109743960
\5\	SINAMICS G: Speed Control of a G120 with Allen-Bradley controller
	(Compact/ControlLogix with RSLogix 5000) via EtherNet/IP
	https://support.industry.siemens.com/cs/ww/en/view/82843076
\6\	SIMOCODE pro V: Prevention of Pump Blockages by Changing the Direction of
	Rotation
	https://support.industry.siemens.com/cs/ww/en/view/109478058
\7\	SIMOCODE pro V EIP: EDS file for Ethernet/IP communication
	https://support.industry.siemens.com/cs/ww/en/view/109741009

# 4.3 Change documentation

Table 4-2: Change documentation

Version	Date	Modifications
V1.0	08/2017	First version