

List of Tested Devices and Versions RA01

Rockwell Automation ControlLogix and EtherNet/IP plus HART
for Food & Beverage Industry



Table of Contents

1	Document Information.....	4
1.1	Purpose and Scope	4
1.2	Document History	4
1.3	Related Documents	4
2	Process Control System	5
2.1	Reference Software	5
2.2	Reference Hardware	7
3	Plant Asset Management System.....	7
3.1	Reference Software	7
4	Field Network Infrastructure.....	8
4.1	Reference Hardware	8
4.1.1	EtherNet/IP I/O Network	8
4.1.2	HART I/O	8
5	Field Devices.....	10
5.1	EtherNet/IP devices	10
5.2	HART devices	12

1 Document Information

1.1 Purpose and Scope

This document lists all relevant components and devices with versions as used for testing of the Reference Topology RA01. All content of this document is jointly developed, reviewed and approved by Rockwell Automation and Endress+Hauser as a common deliverable of Open Integration.

1.2 Document History

This is version 1.00.00 of this document. Version history:

Version	Released	Description
1.00.00	2018-10	Initial version

1.3 Related Documents

Please refer to related documents as listed below:

Document	Description
SD02272S/04/EN/01.18	Reference Topology RA01
SD02273S/04/EN/01.18	Integration Tutorial RA01
SD02274S/04/EN/01.18	Integration Test Summary RA01

2 Process Control System





























































2.1 Reference Software

Rockwell Automation	Detail	Description
Studio 5000 	Function	Configuration and commissioning of system backbone, all I/O and control strategies for Rockwell Automation controllers
	Order code	9324-RLD600ENE
	SW version	Version 24.01 Full Edition
	Operating system	Windows 8.1 Pro 64 bits
	Other relevant information	
FactoryTalk® View Studio 	Function	FactoryTalk® View Studio for FactoryTalk View Enterprise (both Site Edition and Machine Edition). Configuration software for HMI development
	Order code	9701-VWSTENE
	SW version	8.10.00
	Operating system	Windows 8.1 Pro 64 bits
	Other relevant information	
RSLinx Classic 	Function	RSLinx Classic for Rockwell Automation Networks and Devices is a comprehensive factory communication solution, providing Allen-Bradley programmable controller access to a wide variety of Rockwell Software and Allen-Bradley applications.
	Order code	RSLinx Classic Lite
	SW version	3.81.00
	Operating system	Windows 8.1 Pro 64 bits
	Other relevant information	
RA Library of Process Objects 	Function	Rockwell Automation Library of Process Objects. Includes Studio 5000 Add-On Instructions and FactoryTalk View Global Objects and Faceplates for Process Automation
	Order code	n/a
	Library version	3.50.09
	Operating system	Windows 8.1 Pro 64 bits
	Other relevant information	Library version 3.50.09 files: Process_Library_3.5-09.zip RA_EH_Integration_Objects_v3.5-09.zip


Compatibility verification of installed components can be found on Rockwell Automation web site (menu Compatibility / Download Center / Multi Product Selector / Find Downloads):

COMPARE SELECTIONS

SELECTIONS **DOWNLOADS** 



Version Downloads  Information	 Studio 5000 Logix Designer	 FactoryTalk View Site Edition	 Process Library
	24.01.00  	8.10.00  	3.50.09  
 Compatibility			
Studio 5000 Logix Designer 24.01.00			
FactoryTalk View Site Edition 8.10.00			
Process Library 3.50.09			
Other Products - Compatibility			
 Rockwell Services			
 Operating Systems			
	Studio 5000 Logix Designer	FactoryTalk View Site Edition	Process Library
	24.01.00	8.10.00	3.50.09
 General			
 Windows 10			
 Windows 2003			
 Windows 2003 R2			
 Windows 2008			
 Windows 2008 R2			
 Windows 2012			
 Windows 2012 R2			
 Windows 2016			
 Windows 7			
 Windows 8			
Windows 8 (home) 32-Bit			
Windows 8 (home) 64-Bit			
Windows 8 Enterprise 32-Bit			
Windows 8 Enterprise 64-Bit			
Windows 8 Professional 32-Bit			
Windows 8 Professional 64-Bit			
Windows 8.1 Enterprise 32-Bit			
Windows 8.1 Enterprise 64-Bit			
Windows 8.1 Professional 32-Bit			
Windows 8.1 Professional 64-Bit			

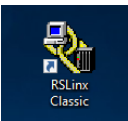
2.2 Reference Hardware

Rockwell Automation 	Detail	Description
	Function	Controller
	Order name, code	1756-L72 ControlLogix 5570 Controller
	FW version	V24.12
	Other relevant information	

3 Plant Asset Management System

3.1 Reference Software

Endress+Hauser  <small>People for Process Automation</small> FieldCare 	Detail	Description
	Function	Configuration, commissioning and condition monitoring of intelligent field devices.
	Order code	SFE500-NEGB101
	SW version	V2.13.00
	DTM library	V2.46.00
	Operating system	Windows 7 Professional (x64)

Rockwell Automation CommDTM <i>FactoryTalk®</i> Linx™ CommDTM	Detail	Description
	Function	FactoryTalk® Linx CommDTM for path thru communication with EtherNet/IP and HART devices
	Order code	
	SW version	V1.0.65
	Other relevant information	
RSLink Classic 	Function	RSLink Classic for Rockwell Automation Networks and Devices is a comprehensive factory communication solution, providing Allen-Bradley programmable controller access to a wide variety of Rockwell Software and Allen-Bradley applications.
	Order code	RSLink Classic Lite
	SW version	3.81.00
	Operating system	Windows 8.1 Pro 64 bits
	Other relevant information	



4 Field Network Infrastructure

4.1 Reference Hardware

4.1.1 EtherNet/IP I/O Network

The EtherNet/IP I/O Network is mandatory for this reference topology, with relevant impact to integration tests. It may be built in a Star, Device Level Ring or Linear Bus Topology, as well as any combination of those. Rockwell Automation and Endress+Hauser recommend using the components as listed below:

Reference hardware:



 Stratix 5400 	Detail	Description
	Function	Managed Industrial Ethernet Switch with Static and InterVLAN Routing.
	Order name, code	1783-HMS16TG4CGN
	FW version	Version 15.2(6) EA
	CommDTM	
	Other relevant information	


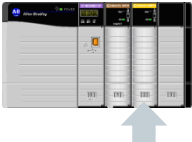
4.1.2 HART I/O

HART I/O is necessary to connect complementary HART devices, as required if EtherNet/IP options are not available or not reasonable to be used. This topology considers two alternative HART I/O options provided by Rockwell Automation:

4.1.2.1 1756 ControlLogix I/O


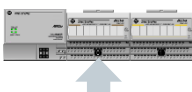

Reference hardware:

 ControlLogix EtherNet/IP Bridge 	Detail	Description
	Function	EtherNet 10-100M Bridge Module (2-Ports)
	Order name, code	1756-AENTR
	FW version	10.010
	CommDTM	
	Other relevant information	Path thru support by FactoryTalk® Linx CommDTM, see chapter 3.1

Rockwell Automation	Detail	Description
ControlLogix HART Input Module 	Function	Analog Differential Isolated Input HART - Current 8 Pts (36 Pin)
	Order name, code	1756-IF8IH
	FW version	1.001
	CommDTM	
	Other relevant information	Path thru support by FactoryTalk® Linx CommDTM, see chapter 3.1
ControlLogix HART Output Module 	Function	Analog Output HART Isolated - Current 8 Pts (36 Pin)
	Order name, code	1756-OF8IH
	FW version	1.001
	CommDTM	
	Other relevant information	Path thru support by FactoryTalk® Linx CommDTM, see chapter 3.1





4.1.2.2 1794 Flex I/O





Reference hardware:



Rockwell Automation	Detail	Description
Flex IO 	Function	FLEX I/O Dual Port EtherNet/IP Adapter Module
	Order name, code	1794-AENTR
	FW version	1.017
	CommDTM	
	Other relevant information	Path thru support by FactoryTalk® Linx CommDTM, see chapter 3.1
Flex IO 	Function	Isolated Input HART Analog Module, 8 Point
	Order name, code	1794-IF8IH
	FW version	1.1
	CommDTM	
	Other relevant information	Path thru support by FactoryTalk® Linx CommDTM, see chapter 3.1
Flex IO 	Function	Isolated Output HART Analog Module, 8 Point
	Order name, code	1794-OF8IH
	FW version	1.1
	CommDTM	
	Other relevant information	Path thru support by FactoryTalk® Linx CommDTM, see chapter 3.1

5 Field Devices






5.1 EtherNet/IP devices






Endress+Hauser  People for Process Automation		Detail	Description	Device Type
Liquiline 	Function		Liquid Analyzer Transmitter	0x109C
	Order Code		CM444-AAM2DA0F260BAAAAZ1	
	Serial No.		KC008405G00	
	FW version		01.06.05	
	EDS		EH_AN_Liquiline_CM44x_0x109C_0x02_0x01.zip	
	AOP		EH_AN_Liquiline_CM44x_0x109C_0x02_0x01_AOP1.20.zip	
	DTM		n.a.	
Promag 100 	Function		Electromagnetic Flow Transmitter	0x103A
	Order Code		5H1B02-AADNBBNFFAS0AAEEB73Z1	
	Serial No.		KC108B19000	
	FW version		01.01.01	
	EDS		EH_ETH_FL_Promag 100_0x103A_0x02_0x01.zip	
	AOP		AOP_EH_Flow_V1-61.zip	
	DTM		Promag 100 / 5x1B / EIP / FW 1.01.zz / Dev. Rev. 2 V1.6.0.174 / 2015-05-29 / DTM Library 2.46	
Promag 300/500 	Function		Electromagnetic Flow Transmitter	0x103C
	Order Code		5H5B02-AAINAAAAGAABERFDAS0AA1ABEB	
	Serial No.		MB11C719000	
	FW version		01.00.03	
	EDS		EH_EIP_FL_Promag300500_0x103C_0x01_EDS.zip	
	AOP		EH_EIP_FL_Promag300500_0x103C_0x01_AOP.zip	
	DTM		Promag 300 500 / 5x3x 5x5x / EIP / FW 1.00.zz / Dev. Rev. 1 V1.10.0.59 / 2017-12-01 / DTM Library 2.46	


Endress+Hauser  People for Process Automation		Detail	Description	Device Type
Promass 100 	Function		Coriolis Flow Transmitter	0x104A
	Order Code		8F1B08-AADNBBNSAAASAAE71Z1	
	Serial No.		KC08BB02000	
	FW version		01.02.01	
	EDS		EH_ETH_FL_Promass100_0x104A_0x03_0x01.zip	
	AOP		AOP_EH_Flow_V1-61.zip	
	DTM		Promass 100 / 8x1B / EIP / FW 1.02.zz / Dev. Rev. 3 V1.6.0.463 / 2015-05-29 / DTM Library 2.46	
Promass 300/500 	Function		Coriolis Flow Transmitter	0x103B
	Order Code		8E3B08-AAINAAAGARSAD2SHA1ABEB	
	Serial No.		MB09E602000	
	FW version		01.00.03	
	EDS		EH_EIP_FL_Promass300500_0x103B_0x01_EDS.zip	
	AOP		EH_EIP_FL_Promass300500_0x103B_0x01_AOP.zip	
	DTM		Promass 300 500 / 8x3x 8x5x / EIP / FW 1.00.zz / Dev. Rev. 1 V1.10.0.94 / 2017-12-01 / DTM Library 2.46	
Memograph M 	Function		Advanced Data Manager	0x107A
	Order Code		RSG45-AA2CAAAAAA1E1AA	
	Serial No.		M603FA04484	
	FW version		02.02.01	
	EDS		EH_ETH_CO_Memograph_M_0x107A_0x02_0x01.zip	
	AOP		EH_EIP_CO_MemographM_0x107A_0x02_AOP_1_6.zip	
	DTM		n.a.	

 FLUID CONTROL SYSTEMS		Detail	Description	Device Type
Industrial Ethernet Gateway 	Function		EtherNet/IP Gateway Type ME43	0x21CC
	Order Code		307390	
	Serial No.		1002	
	FW version		A.02.06.00	
	EDS		00696465_008652_KONF_D\EtherNetIP\ EthernetIP-Buerkert-AirLINE-8652.eds	

5.2 HART devices

Endress+Hauser  People for Process Automation		Detail	Description	Device Type
<div>Cerabar M</div> 	Function	Absolute and Gauge Pressure Transmitter		0x0019
	Order Code	PMP51-AA21JA1KGBGCJA1+AAPA78		
	Serial No.	KC01B601129		
	FW version	01.00.03		
	HART revision	6.0		
	DTM	Cerabar M 5x / PMx 5x / V1.00.xx		
		V1.4.188.39 / 2017-03-31 / DTM Library 2.46		
<div>Deltapilot S</div> 	Function	Hydrostatic Level Transmitter		0x001A 0x111A
	Order Code	FMB70-ABA1F121GCAAPA72Z1		
	Serial No.	KC0095010AE		
	FW version	02.20.04		
	HART revision	7.0		
	DTM	Deltapilot S / FMB 70 / HART / Fw 2.20.zz / Dev. Rev. 22		
		V1.4.189.51 / 2018-02-19 / DTM Library 2.46		
<div>iTHERM</div> 	Function	Temperature Transmitter		0x00CC 0x11CC
	Order Code	TR10-ABA1CAS1M2000TZD		
	Serial No.	KC05CE14152		
	FW version	01.01.08		
	HART revision	7.5		
	DTM	iTEMP / TMT82 / HART / FW 1.01.zz / Dev.Rev2		
		V1.10.423.4213 / 2018-03-01 / DTM Library 2.46		
<div>Cerabar S</div> 	Function	Absolute and Gauge Pressure Transmitter		0x0018 0x1118
	Order Code	PMC71-ABA1H1GAAAA+PA72Z1		
	Serial No.	KC03140109C		
	FW version	02.20.04		
	HART revision	7.0		
	DTM	Cerabar S / PMx 7x / HART / FW2.20.zz / Dev.Rev.22		
		V1.4.189.51 / 2018-02-19 / DTM Library 2.46		

Endress+Hauser  People for Process Automation		Detail	Description	Device Type
Liquicap M 	Function		Capacitance Level Transmitter	0x001D
	Order Code		FMI51-A1ARCJA3A1A1	
	Serial No.		KC004E010F0	
	FW version		01.03.02	
	HART revision		5.0	
	DTM		Liquicap M / FMI 5x / 1.03.xx	
			V1.4.188.39 / 2017-03-31 / DTM Library 2.46	
Deltabar S 	Function		Differential Pressure Transmitter	0x0017 0x1117
	Order Code		PMD75-ABA7D11BAAA+PB72Z1	
	Serial No.		KC02950109D	
	FW version		02.20.04	
	HART revision		7.0	
	DTM		Deltabar S / xMD7x / HART / FW2.20.zz / Dev.Rev.22	
			V1.4.189.51 / 2018-02-19 / DTM Library 2.46	
Levelflex 	Function		Guided Radar Level Transmitter	0x0022 0x1122
	Order Code		FMP51-AAACCAAAA4GDJAAEH71Z1	
	Serial No.		N202500112C	
	FW version		01.03.01	
	HART revision		7.5	
	DTM		Levelflex / FMP5x / HART / FW 1.02.zz / Dev.Rev.4	
			V1.10.1.2369 / 2017-06-08 / DTM Library 2.46	
Smartec S 	Function		Conductivity Transmitter	0x0097
	Order Code		CLD134-PMV538HB1	
	Serial No.		KC011305G00	
	FW version		01.19.00	
	HART revision		5.0	
	DTM		Smartec S / CLD 132 / V1.11	
			V1.4.188.39 / 2017-03-31 / DTM Library 2.46	

Endress+Hauser  People for Process Automation		Detail	Description	Device Type
Micropilot 	Function		Radar Level Transmitter	0x0028 0x1128
	Order Code		FMR51-AAACCABAA5RVJAAEH72Z1	
	Serial No.		N2008D01134	
	FW version		01.02.01	
	HART revision		7.5	
	DTM		Micropilot / FMR5x / HART / FW 1.02.zz / Dev.Rev.3 V1.10.0.913 / 2017-06-08 / DTM Library 2.46	
Prowirl 200 	Function		Vortex Flow Transmitter	0x0038 0x1138
	Order Code		7F2B15-AAACCA1AASK+AA74Z1	
	Serial No.		KC104519000	
	FW version		01.02.04	
	HART revision		7.4	
	DTM		Prowirl 200 / 7x2B / HART / FW1.02.zz / Dev.Rev.03 V1.8.0.431 / 2016-09-12 / DTM Library 2.46	
Prosonic M 	Function		Ultrasonic Level Transmitter	0x0011
	Order Code		FMU40-ANB2A21	
	Serial No.		N201510109A	
	FW version		01.04.02	
	HART revision		5.0	
	DTM		Prosonic M / FMU 4x / V4.xx V1.4.188.39 / 2017-03-31 / DTM Library 2.46	

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