



Connectivity Guide

ThingWorx Kepware Server Connecting to a CODESYS Ethernet Device

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1. Introduction

CODESYS® develops a runtime engine that includes a protocol stack which can run on a number of different devices. PLC vendors can design and/or manufacture the hardware using CODESYS for the runtime engine and protocol stack. The hardware platform determines the configuration settings for connecting to a CODESYS device from Kepware's CODESYS Ethernet driver, therefore configuration settings can vary from one device to another.

Once the IP address and appropriate port are selected, all devices that support CODESYS 3.X should connect to ThingWorx® Kepware® Server with the default settings. Devices that support CODESYS 2.3 require additional communication settings.

2. Supported CODESYS Devices

The following table is a summary outline of devices tested by Kepware and their associated settings.

2.1 Tested CODESYS Devices and their Communication Parameters

			Communication Parameters						
		Model	IP Address	Port	Protocol	Layer 7 Motorola Byte Order	Device Motorola Byte Order	PLC Login	ELAU-Max4 Version
Tested Devices	Wago 750-8100	V3	Hostname or IP Address	11740	N/A	N/A	N/A	N/A	N/A
	Schneider PacDrive LMC Pro2	V3		11740	N/A	N/A	N/A	N/A	N/A
	Wago 750-842	V2.3		2455	Level 2	Enable	Enable	Disable	Disable
	ELAU PacDrive C200	V2.3		5000	Level 4	Disable	Disable	Disable	Disable
	ELAU PacDrive C400	V2.3		5000	Level 4	Disable	Disable	Disable	Disable
	ABB AC-500	V2.3		1201	Level 2	Enable	Enable	Disable	Disable
	Eaton XV-303	V2.3		1200	Level 2	Disable	Disable	Enable	Disable

3. Supported CODESYS Devices and their Manufacturers

The following tables list all of the supported CODESYS devices, based on data from www.codesys.com (updated November 2017).

3.1 All Devices Running CODESYS Runtime and their Associated Manufacturers

Manufacturer	Device
3S-Smart Software Solutions GmbH	CODESYS Control RTE SL (for Beckhoff CX)
3S-Smart Software Solutions GmbH	CODESYS Control for BeagleBone SL
3S-Smart Software Solutions GmbH	CODESYS Control for Raspberry Pi SL
3S-Smart Software Solutions GmbH	CODESYS Control for IOT2000 SL
3S-Smart Software Solutions GmbH	CODESYS Control for PFC100 SL
3S-Smart Software Solutions GmbH	CODESYS Control RTE SL
3S-Smart Software Solutions GmbH	CODESYS Control for PFC200 SL
3S-Smart Software Solutions GmbH	CODESYS Control Win SL
3S-Smart Software Solutions GmbH	CODESYS Control for emPC-A/iMX6 SL
Advantech Europe B.V.	TPC-1881WP
Advantech Europe B.V.	APAX-5580
Advantech Europe B.V.	ADAM-5560CDS
Advantech Europe B.V.	ADAM-5560CE
Advantech Europe B.V.	UNO-2483G
Advantech Europe B.V.	TPC-1581WP
Advantech Europe B.V.	WA-CU1483G
Advantech Europe B.V.	WA-CT1581W
akYtec GmbH	akYtec SPK207
Altus Sistemas de Informática S.A.	Nexto Series
AMK Arnold Müller GmbH & Co. KG	A4 AMKAMAC
AMK Arnold Müller GmbH & Co. KG	A4 AMKAMAC
AMK Arnold Müller GmbH & Co. KG	AMKASmart iSA
ASEM S.p.A.	PB5000
ASEM S.p.A.	HT3400
ASEM S.p.A.	PB3400
ASEM S.p.A.	LBM2200
ASEM S.p.A.	LBM3400
ASEM S.p.A.	LBM40
ASEM S.p.A.	HT2200
ASEM S.p.A.	PB3200
ASEM S.p.A.	HT3000
ASEM S.p.A.	LP3X
ASEM S.p.A.	LP40

ASEM S.p.A.	PB3000
ASEM S.p.A.	VK3200
ASEM S.p.A.	PB2200
ASEM S.p.A.	VPC2200
ASEM S.p.A.	LBM3300
ASEM S.p.A.	HT3200
ASEM S.p.A.	LP2200
ASEM S.p.A.	HT5000
Automata GmbH & Co. KG	A2-PAC
Automata GmbH & Co. KG	F3 Programmable Automation Controller
Automata GmbH & Co. KG	K1 Controller (ARM)
Beck IPC GmbH	com.tom BASIC
Beck IPC GmbH	com.tom RADIO
Beck IPC GmbH	com.tom M-BUS
Beck IPC GmbH	SC145
Beijer Electronics	X2 motion 10
Beijer Electronics	Distributed control - PIO
Beijer Electronics	X2 control 10
Beijer Electronics	X2 motion 7
Beijer Electronics	X2 motion 12
Beijer Electronics	X2 marine 7 SC
Beijer Electronics	X2 control 15
Beijer Electronics	X2 motion 4
Beijer Electronics	X2 control 4
Beijer Electronics	X2 motion 15
Beijer Electronics	X2 control 7
Beijer Electronics	X2 control 12
Beijer Electronics	X2 marine 15 SC
Berghof Automation GmbH	DC2115
Berghof Automation GmbH	ECC2200
Berghof Automation GmbH	DC2007
Berghof Automation GmbH	ECC 2220
Berghof Automation GmbH	DC2004
Berghof Automation GmbH	EC1000
Berghof Automation GmbH	EC2250
BIVIATOR AG	chimÃ¼ra BC 800
BIVIATOR AG	chimÃ¼ra ct 064
BIVIATOR AG	chimÃ¼ra tc 057
BIVIATOR AG	chimÃ¼ra tc 048
BIVIATOR AG	chimÃ¼ra ct 048
Bizerba GmbH & Co. KG	iS50 / iS50-Ex Weighing Terminal
Bosch Rexroth AG	IndraLogic XLC
Bosch Rexroth AG	IndraMotion MLC

Bosch Rexroth AG	IndraMotion MLD
Brunner Elektronik AG	Micro Drive
Brunner Elektronik AG	Panel IPC
CAM Technology Corporation	PAC-510, PAC-520 and PAC-715
CAM Technology Corporation	iPAC-530
Christ Elektronik GmbH	Touch-it CE Front Panel
CMZ SISTEMI ELETTRONICI S.r.l.	FCT300
CMZ SISTEMI ELETTRONICI S.r.l.	FCT200

3.2 All Products Running CODESYS Runtime by Company

Company	Product
CONTEC Co., Ltd.	CONPROSYS PAC series
CREVIS CO.,LTD	NA-9372
CrossControl AB	CCpilot VC
CrossControl AB	CrossCore XM
CrossControl AB	CrossFire SX
CrossControl AB	CCpilot XS
CrossControl AB	CCpilot XA
CrossControl AB	CCpilot VA
CrossControl AB	CCpilot XM
Datawatt BV	D05-MRTU
DEIF Wind Power Technology	AWC 500
Eaton Automation AG	XC-CPU202
Eaton Automation AG	HMI-PLC XVS-400 series
Eaton Automation AG	HMI-PLC XV-102 series
Eaton Automation AG	HMI-PLC XV-152 series
Eaton Automation AG	HMI-PLC XV-303 series
Eaton Automation AG	HMI-PLC XV-400 series
ECKELMANN AG	ISOBUS Job Computer
ECKELMANN AG	EXC880
ECKELMANN AG	Compact Operator and Control Units
ECKELMANN AG	EXC88
EleSy Company	ELSYMA-M01
EleSy Company	ELSY-TMK
elrest Automationssysteme GmbH	visio control P412
elrest Automationssysteme GmbH	combo control CM110
elrest Automationssysteme GmbH	combo control CM100
elrest Automationssysteme GmbH	visio control P205
elrest Automationssysteme GmbH	visio control PMC408
elrest Automationssysteme GmbH	visio control P303
elrest Automationssysteme GmbH	robusto control RMC501
elrest Automationssysteme GmbH	visio control P090

elrest Automationssysteme GmbH	combo control CM211
elrest Automationssysteme GmbH	visio control PMC410
elrest Automationssysteme GmbH	robusto control RMC500
elrest Automationssysteme GmbH	visio control P715
elrest Automationssysteme GmbH	robusto control RMC503
elrest Automationssysteme GmbH	visio control PMC405
elrest Automationssysteme GmbH	visio control P203
epis Automation GmbH & Co. KG	smart9 T043E, T070E, T104 E
epis Automation GmbH & Co. KG	econ9 PLC i4-100
epis Automation GmbH & Co. KG	cosys9 S101B, S101E, S201B, S201E
ESA AUTOMATION	EW100AB
ESA AUTOMATION	EW100AC
Eurotherm by Schneider Electric	E+PLC100
Eurotherm by Schneider Electric	E+PLC400
exceet electronics AG	CP-70
exceet electronics AG	CP-101
exceet electronics AG	eEP-M-CPU E3845
exceet electronics AG	CU-i.MX6
exceet electronics AG	eEP-M-CPU E3825
exceet electronics AG	eEP-CP-70w
exceet electronics AG	eEP-CP-154w
exceet electronics AG	UCP-43
exceet electronics AG	UCU-270
exceet electronics AG	CP-156
exceet electronics AG	UCP-43/70p
exceet electronics AG	i.MX6 UltraLite SoM
exceet electronics AG	UCP-70
exceet electronics AG	CU-100
exceet electronics AG	eEP-M-CPU iMX6
exceet electronics AG	UCP-43g
exceet electronics AG	eEP-CU
EXOR Deutschland GmbH	eTOP Series 500 Glass - Harsh Environmnet HMI
EXOR Deutschland GmbH	eTOP507-PLC
EXOR Deutschland GmbH	eTOP507G-PLC
EXOR Deutschland GmbH	eTOP Series 500 - Standard HMI
EXOR Deutschland GmbH	eTOP Series 600 - True Glass HMI
EXOR Deutschland GmbH	eTOP500
Festo AG & Co. KG	CPX-CEC-M1
Festo AG & Co. KG	CPX-E
Festo AG & Co. KG	CPX-CEC-C1
Festo AG & Co. KG	CDPX
Festo AG & Co. KG	CECC
Festo AG & Co. KG	CPX-CEC

Googol Technology (SZ) Limited	CPAC
Grossenbacher Systeme AG	EP-370 5.7 bis 15"
Hans Turck GmbH & Co. KG	BL67-PG-EN-V3-WV
Hans Turck GmbH & Co. KG	BL67-PG-EN-V3
Hans Turck GmbH & Co. KG	BL20-PG-EN-V3
Hans Turck GmbH & Co. KG	TX507-P3CV01
Hans Turck GmbH & Co. KG	TX513-P3CV01
Hans Turck GmbH & Co. KG	TBEN-L4-PLC-11
Hans Turck GmbH & Co. KG	VT250-57P-L7-DPM
Hans Turck GmbH & Co. KG	VT250-57C-L7-IPM
Hans Turck GmbH & Co. KG	VT250-57C-L7-COM
Hans Turck GmbH & Co. KG	VT250-57C-L7-DNM
Hans Turck GmbH & Co. KG	BL20-PG-EN-V3-WV
Hans Turck GmbH & Co. KG	TBEN-L5-PLC-10
Hans Turck GmbH & Co. KG	TBEN-L5-PLC-11
Hans Turck GmbH & Co. KG	TBEN-L4-PLC-10
Hans Turck GmbH & Co. KG	VT250-57P-L7-PNM
Hans Turck GmbH & Co. KG	TX510-P3CV01
HEINZMANN GmbH & Co. KG	XIOS UC1
Hitachi Europe GmbH	Micro-EHV+ MV-A40DR
Hitachi Europe GmbH	HX Series HX-CP1S08
Hitachi Europe GmbH	HX Series HX-CP1H16
Hitachi Europe GmbH	Micro-EHV+ MV-D64DR
Hitachi Europe GmbH	Micro-EHV+ MV-D40DR
Hitachi Europe GmbH	EHV+ Series EHV-CPU1102
Hitachi Europe GmbH	Micro-EHV+ MV-D40DTPS
Hitachi Europe GmbH	Micro-EHV+ MV-D64DTPS
Hitachi Europe GmbH	Micro-EHV+ MV-A64DR
Hitachi Europe GmbH	EHV+ Series EHV-CPU1025
Hottinger Baldwin Messtechnik GmbH	PMX
IDS GmbH	ACOS 720
IDS GmbH	ACOS 750
ifm electronic gmbh	SmartSPS AC1411/12 (AS-i, Profibus-DP-Slave)
ifm electronic gmbh	SmartSPS AC1421/22 (AS-i, EtherNet/IP-Device)
ifm electronic gmbh	SmartSPS AC1403/04 (AS-i, Profinet-Device)
ifm electronic gmbh	fehlersichere SmartSPS AC402S (AS-i, Profinet-Device)
ifm electronic gmbh	SmartSPS AC1401/02 (AS-i, Profinet-Device)
ifm electronic gmbh	fehlersichere SmartSPS AC412S (AS-i, Profibus-DP-Slave)
ifm electronic gmbh	fehlersichere SmartSPS AC432S (AS-i, EtherCAT-Slave)
ifm electronic gmbh	SmartSPS AC1433/34 (AS-i, EtherCAT-Slave)
ifm electronic gmbh	fehlersichere SmartSPS AC422S (AS-i, EtherNet/IP-Device)

ifm electronic gmbh	SmartSPS AC1423/24 (AS-i, EtherNet/IP-Device)
INTER CONTROL - Hermann Köhler Elektrik GmbH & Co. KG	digsy HMI
INTER CONTROL - Hermann Köhler Elektrik GmbH & Co. KG	digsy MTC-GB
INTER CONTROL - Hermann Köhler Elektrik GmbH & Co. KG	digsy fusion S
INTER CONTROL - Hermann Köhler Elektrik GmbH & Co. KG	digsy fusion G
INTER CONTROL - Hermann Köhler Elektrik GmbH & Co. KG	digsy MTC
Janz Tec AG	emVIEW-12T
Janz Tec AG	emPC-CX+
Janz Tec AG	emPC-CXR
Janz Tec AG	emPC-A/RPI3
Janz Tec AG	emPC-A/iMX6
Janz Tec AG	emVIEW-7/RPI3
Janz Tec AG	emVIEW-15WT
Janz Tec AG	emPC-CX+/ET
Janz Tec AG	emPC-X
Janz Tec AG	emVIEW-15T
Janz Tec AG	emVIEW-8T
Janz Tec AG	emVIEW-6T
Janz Tec AG	emPC-A500
JUMO GmbH & Co. KG	JUMO mTRON T
KEB Automation KG	KEB COMBICONTROL C6 ECON Box/BM
KEB Automation KG	KEB COMBICONTROL C6 COMPACT
KEB Automation KG	KEB COMBICONTROL C6 ECON Panel
KEB Automation KG	KEB COMBICONTROL C6 PERFORM Box
KEB Automation KG	KEB COMBIVERT H6 CONTROL UNIT
KEB Automation KG	KEB COMBIVERT P6
KEB Automation KG	KEB COMBICONTROL C6 PERFORM Panel
KEB Automation KG	KEB COMBICONTROL C6 HMI LC
KEBA AG	KeMotion
Kendrion Kuhnke Automation GmbH	Kuhnke Scout 1206
Kendrion Kuhnke Automation GmbH	Kuhnke Scout 705
Kendrion Kuhnke Automation GmbH	Kuhnke Scout 1006
Kendrion Kuhnke Automation GmbH	Kuhnke Scout 1005
Kendrion Kuhnke Automation GmbH	Kuhnke Vico 703 HMI
Kendrion Kuhnke Automation GmbH	Kuhnke Vico 706 HMI
Kendrion Kuhnke Automation GmbH	Kuhnke CODESYS Starterkit PLC & Motion
Kendrion Kuhnke Automation GmbH	Kuhnke Scout 706
Kendrion Kuhnke Automation GmbH	Kuhnke CODESYS Starterkit PLC & IO
Kendrion Kuhnke Automation GmbH	Kuhnke Scout 1205

Kendrion Kuhnke Automation GmbH	Kuhnke CODESYS Starterkit Panel PLC & EtherCAT IO
Kendrion Kuhnke Automation GmbH	Kuhnke Econo 206
Kendrion Kuhnke Automation GmbH	Kuhnke Controller 113
Kendrion Kuhnke Automation GmbH	Kuhnke FIO Safety PLC
Kendrion Kuhnke Automation GmbH	Kuhnke Controller 116
Lenze Automation GmbH	Controller 3200 C
Lenze Automation GmbH	Controller p500
Liebherr-Elektronik GmbH	Compact Control Unit
LTI Motion GmbH	ServoOne
LTI Motion GmbH	MotionOne CM
Mitsubishi Electric EUROPE B.V.	Q12DCCPU-V - iQ Platform C Controller
MKT Modulare Komponenten Technik	CODESYS-ARM11 IP20
MKT Modulare Komponenten Technik	CODESYS-ARM11/HMI
Motorola Solutions Israel Ltd.	ACE1000
NAP automotive Produkte GmbH	MCA430
NEXCOM	IPPC 1640P
NEXCOM	APPC 0840T
NEXCOM	NIFE 200
NEXCOM	NIFE 100
NEXCOM	IPPC 2160P
NEXCOM	APPC 1245T
Nidec Control Techniques Limited	Unidrive M200 AC drive
Nidec Control Techniques Limited	Unidrive M700 AC drive
Nidec Control Techniques Limited	Unidrive M701 AC drive
Nidec Control Techniques Limited	MCi200 option module
Nidec Control Techniques Limited	Unidrive M702 AC drive
Nidec Control Techniques Limited	Unidrive M600 AC drive
Nidec Control Techniques Limited	Unidrive M300 AC drive
Nidec Control Techniques Limited	Unidrive M400 AC drive
NIVUS GmbH	NivuLink
Num AG	Flexium+/Flexium
Parker Hannifin GmbH	PAC Parker Automation Controller
PsiControl Mechatronics	iLo Controller Platform
Qube Solutions UG	PiXtend
Qube Solutions UG	PiXtend V2
Research Laboratory of Design Automation	NScon-CE-I
Research Laboratory of Design Automation	NLcon-CED10
Research Laboratory of Design Automation	NLcon-CED7
Research Laboratory of Design Automation	NLcon-CE-485-I
Research Laboratory of Design Automation	NLcon-CED15
Ritter Elektronik GmbH	EL392
SBS S.p.A.	EK-IA1-TP Codesys PLC with KNX interface
Schneider Automation S.A.S.	Modicon ATV-IMC

Schneider Automation S.A.S.	PacDrive 3 (ELAU)
Schneider Automation S.A.S.	Modicon M258
Schneider Automation S.A.S.	Modicon M251
Schneider Automation S.A.S.	Modicon M241
Schneider Automation S.A.S.	HMISCU
Schneider Automation S.A.S.	Modicon LMC058
Schraml GmbH	FWL-411
Schraml GmbH	FWL-49X
Schraml GmbH	FWL-45X
Schubert System Elektronik GmbH	Prime Cube ECM
Schubert System Elektronik GmbH	Prime Cube ACM
SchulerControl GmbH	SC460
SchulerControl GmbH	SC220
Sensor-Technik Wiedemann GmbH	ESX-3CS
Sensor-Technik Wiedemann GmbH	ESX-3XL
Sensor-Technik Wiedemann GmbH	ESX-3XM
Sensor-Technik Wiedemann GmbH	ESX-4CS
Sensor-Technik Wiedemann GmbH	ESX-3CM
Sensor-Technik Wiedemann GmbH	BCX
Servotronix Motion Control Ltd.	softMC 7
Servotronix Motion Control Ltd.	softMC 3
sm motion control gmbh	smmx.tp12
sm motion control gmbh	smmx.mac
sm motion control gmbh	smmx.tp7
sm motion control gmbh	smmx.tp15
SMART IN OVATION GmbH	SMARTcontrol Touch
Sontheim Industrie Elektronik GmbH	IPC-FlexControl
Sontheim Industrie Elektronik GmbH	eControl nano
Sontheim Industrie Elektronik GmbH	eControl micro
STÄ-BER ANTRIEBSTECHNIK GmbH & Co. KG	MC6x01NT
STÄ-BER ANTRIEBSTECHNIK GmbH & Co. KG	MC6x01CT
STÄ-BER ANTRIEBSTECHNIK GmbH & Co. KG	MC6x15CA
STÄ-BER ANTRIEBSTECHNIK GmbH & Co. KG	MC6x05CA
STÄ-BER ANTRIEBSTECHNIK GmbH & Co. KG	MC6x11CT
SYS TEC electronic GmbH	PLCcore-iMX35 CODESYS
SYS TEC electronic GmbH	Development Kit PLCcore-iMX35 CODESYS
Syslogic Group	s2409
Syslogic Group	s734
Syslogic Group	TPA206

SysTec GmbH	IT9000E
TELESTAR S.r.l.	ZERO M
TELESTAR S.r.l.	ZERO T
TELESTAR S.r.l.	Carrier Board
TELESTAR S.r.l.	ZERO P
TRsystems GmbH	notion.A tablet
TRsystems GmbH	notion.B tablet
TRsystems GmbH	notion.B 200 computer
TRsystems GmbH	notion.A computer
TRsystems GmbH	notion.C tablet
TRsystems GmbH	notion.C computer
VELTRU AG	VELTRU C10 Robot Controller
VELTRU AG	VELTRU C10 Vision Controller
WAGO Kontakttechnik GmbH & Co. KG	750-8101 PFC100 CS 2ETH
WAGO Kontakttechnik GmbH & Co. KG	750-8203 PFC200 CS 2ETH CAN
WAGO Kontakttechnik GmbH & Co. KG	750-8102 PFC100 CS 2ETH RS
WAGO Kontakttechnik GmbH & Co. KG	750-8206 PFC200 CS 2ETH RS CAN DPS
WAGO Kontakttechnik GmbH & Co. KG	750-8204 PFC200 CS 2ETH RS CAN
WAGO Kontakttechnik GmbH & Co. KG	750-8202 PFC200 CS 2ETH RS
WAGO Kontakttechnik GmbH & Co. KG	750-8207 PFC200 CS 2ETH RS 3G
WAGO Kontakttechnik GmbH & Co. KG	750-8100 PFC100 CS 2ETH ECO
Zhejiang SUPCON Electronics Co. Ltd.	PAC515H-1
Zhejiang SUPCON Electronics Co. Ltd.	PAC515-1
Zhejiang SUPCON Electronics Co. Ltd.	PAC516-1
Zhejiang SUPCON Electronics Co. Ltd.	PAC413-1
Zhejiang SUPCON Electronics Co. Ltd.	PAC513-1
Zhejiang SUPCON Electronics Co. Ltd.	PAC415-1