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the innovative family

EP1A001

IO-Link Analog Converter



IO-Link

Interface Description

Subject to change without notice
Available as PDF version only
Status: 11.03.2025
www.wenglor.com

EP1A001

Vendor ID

Product	hex	dec	hex (Bytes)	dec (Bytes)
wenglor sensoric GmbH	0x0057	87	00 57	0 87

Device ID

Product	hex	dec	hex (Bytes)	dec (Bytes)
EP1A001	0x000035	53	00 00 35	0 0 53

IO-Link Information

IO-Link Version:	V1.1
Data Storage:	Yes
Blockparameter:	Yes
Min Cycle time:	2,3 ms
SIO-Mode:	No
COM-Mode:	COM2
ISDU:	Yes
Process data In (Device to Master):	16 Bit
Process data Out (Master to Device):	-

Process Data

Process Data Input (Length: 16 Bit)
Device to Master

Index 0x40 = 1: Analog In U Unipolar 0..10 V

Subindex	Name	Bit Offset	Length	Range
1	Voltage	0	Int16	-4864…32511

Index 0x40 = 2: Analog In U Bipolar -10..10 V

Subindex	Name	Bit Offset	Length	Range
1	Voltage	0	Int16	-32512…32511

Index 0x40 = 3: Analog In I Unipolar 0..20 mA

Subindex	Name	Bit Offset	Length	Range
1	Current	0	Int16	-4864…32511

Index 0x40 = 4: Analog In I Unipolar 4..20 mA

Subindex	Name	Bit Offset	Length	Range
1	Current	0	Int16	-4864…32511

These values are outside the measurement range and show information about the measurement

Process data overrun	32767	0x7FFF
Process data underrun	-32768	0x8000

Parameter

Identification

Name	Index (hex)	Index (dec)	Sub-index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Information										
Vendor Name	10	**16**	0	R	String				wenglor	
Vendor Text	11	**17**	0	R	String				the innovative family	
Product Name	12	**18**	0	R	String				EP1A001	
Product ID	13	**19**	0	R	String				EP1A001	
Product Text	14	**20**	0	R	String				IOL/Analog Converter, AI Multi U/I	
Serial Number	15	**21**	0	R	String				-	
Hardware Version	16	**22**	0	R	String				-	
Firmware Version	17	**23**	0	R	String				-	
Device Access Locks	0C	**12**	0	R/W	Uint16	X			0 = unlocked	Bit 2 = 1: Data Storage locked
Application Specific Tag	18	**24**	0	R/W	String 32 Byte	X			***	

Parameter

Name	Index (hex)	Index (dec)	Sub-index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Settings										
ParamLowerLimit	0x0041	**65**	0	R/W	Uint16				-32768	-32768...32767
ParamUpperLimit	0x0042	**66**	0	R/W	Uint16				32767	-32768...32767
ParamFilterTime	0x0043	**67**	0	R/W	Uint8				0	0…64
ParamDeviceFunction	0x0044	**68**	0	R	Uint8				1	1 = Analog In U Unipolar 0..10V 2 = Analog In U Bipolar -10..10V 3 = Analog In I Unipolar 0..20mA 4 = Analog In I Unipolar 4..20mA
System Commands										
System Command	0x0002	**2**	0	W	Uint8				-	Device Reset = 0x80 (128) Restore Factory Settings = 0x82 (130)
Diagnosis										
ParamDiagnosisSetup	0x0040	**64**	0	R/W	UInt16				0	Bit 1: Lower user limit under-run Bit 2: Upper user limit over-run Bit 3: Temperature over-run Bit 4: Primary supply voltage over-run Bit 5: Primary supply voltage under-run Bit 11: Sensor supply current over-run Bit 14: Nominal range under-run (analog in) Bit 15: Nominal range over-run (analog in)

Observation

Name	Index (hex)	Index (dec)	Sub-index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Observation menu for device type										
Process Data In.Voltage /.Current	40	**64**	1	R	Int16		X		-	-

Diagnosis

Name	Index (hex)	Index (dec)	Sub-index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Status										
Device Status	0x0024	**36**	0	R	Uint8		X		0	0 = Device is OK 1 = Maintenance required 2 = Out of specification 3 = Functional check 4 = Failure
Detailed Device Status	0x0025	**37**	0	R	Array of OctectStringT3		X		0	Shows the pending Events (maximum 6)

Events

Name	Event Code	Type	Specification
No malfunction	0x0000	Notification	IO-Link
Device temperature over-run – Clear source of heat	0x4210	Warning	IO-Link
Primary supply voltage overrun – Check tolerance	0x5110	Warning	IO-Link
Primary supply voltage underrun – Check tolerance	0x5111	Warning	IO-Link
Parameter error – Check data sheet and values	0x6320	Error	IO-Link
Invalid factory data - Exchange device.	0x1800	Error	Vendor specific
Invalid parameter data - Exchange device.	0x1801	Error	Vendor specific
Lower threshold of process data value underrun	0x1802	Warning	Vendor specific
Upper threshold of process data value exceeded	0x1803	Warning	Vendor specific
Sensor supply overload - Check installation	0x1804	Error	Vendor specific
Analog input overrun	0x1805	Warning	Vendor specific
Analog input underrun	0x1806	Warning	Vendor specific