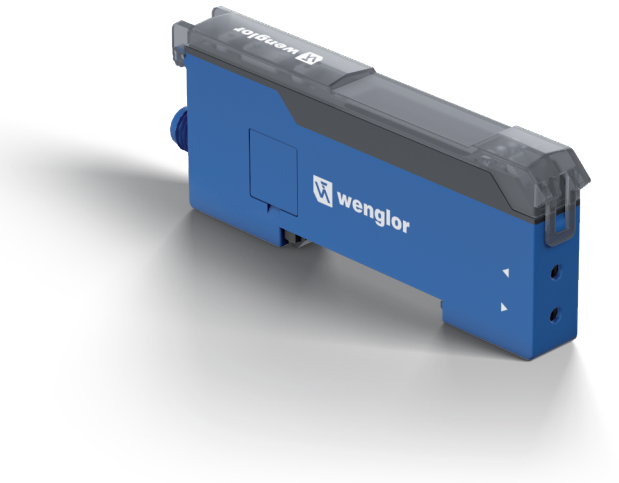
EN

P1XD2xx-Master

Fiber-optic amplifier



IO-Link

Interface Description

Subject to change without notice
Available as PDF version only
Version: 1.0.0
Status: 19.11.2024
www.wenglor.com

IO-Link P1XD2xx-Master

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)
P1XD202-Master	0x000056	86	00 00 56	0 0 86
P1XD204-Master	0x000057	87	00 00 57	0 0 87
P1XD212-Master	0x000058	88	00 00 58	0 0 88
P1XD214-Master	0x000059	89	00 00 59	0 0 89

IO-Link Information

IO-Link Version:	V1.1.3
Data Storage:	Yes
Blockparameter:	Yes
Min Cycle Time:	2 ms
SIO-Mode:	Yes
COM-Mode:	COM3
ISDU:	Yes
Process data In (Device to Master):	256 Bit
Process data Out (Master to Device):	8 Bit

IO-Link Profiles

Common Profile
Function Class Identification
Function Class Diagnosis
Smart Sensor Profil - Transducer Disable

Process data

Process Data Input (Device -> Master)

Subindex	Name	Bit Offset	Length	Range	
1	Signal Master	240	16 Bit	0 .. 9999	wenglor specific
2	Signal Sub Unit 1	224	16 Bit	0 .. 9999	wenglor specific
3	Signal Sub Unit 2	208	16 Bit	0 .. 9999	wenglor specific
4	Signal Sub Unit 3	192	16 Bit	0 .. 9999	wenglor specific
5	Signal Sub Unit 4	176	16 Bit	0 .. 9999	wenglor specific
6	Signal Sub Unit 5	160	16 Bit	0 .. 9999	wenglor specific
7	Signal Sub Unit 6	144	16 Bit	0 .. 9999	wenglor specific
8	Signal Sub Unit 7	128	16 Bit	0 .. 9999	wenglor specific
9	Signal Sub Unit 8	112	16 Bit	0 .. 9999	wenglor specific
10	Signal Sub Unit 9	96	16 Bit	0 .. 9999	wenglor specific
11	Signal Sub Unit 10	80	16 Bit	0 .. 9999	wenglor specific
12	Signal Sub Unit 11	64	16 Bit	0 .. 9999	wenglor specific
13	Signal Sub Unit 12	48	16 Bit	0 .. 9999	wenglor specific
14	Signal Sub Unit 13	32	16 Bit	0 .. 9999	wenglor specific
15	Error	31	1 Bit	0 = false 1 = true	wenglor specific
16	Warning	30	1 Bit	0 = false 1 = true	wenglor specific
17	Global SSC1	29	1 Bit	0 = false 1 = true	Smart Sensor Profil
18	Global SSC2	28	1 Bit	0 = false 1 = true	Smart Sensor Profil
19	Master SSC1	27	1 Bit	0 = false 1 = true	Smart Sensor Profil
20	Master SSC2	26	1 Bit	0 = false 1 = true	Smart Sensor Profil
21	Sub Unit 1 - SSC1	25	1 Bit	0 = false 1 = true	Smart Sensor Profil
22	Sub Unit 1 - SSC2	24	1 Bit	0 = false 1 = true	Smart Sensor Profil
23	Sub Unit 2 - SSC1	23	1 Bit	0 = false 1 = true	Smart Sensor Profil
24	Sub Unit 2 - SSC2	22	1 Bit	0 = false 1 = true	Smart Sensor Profil
25	Sub Unit 3 - SSC1	21	1 Bit	0 = false 1 = true	Smart Sensor Profil
26	Sub Unit 3 - SSC2	20	1 Bit	0 = false 1 = true	Smart Sensor Profil
27	Sub Unit 4 - SSC1	19	1 Bit	0 = false 1 = true	Smart Sensor Profil
28	Sub Unit 4 - SSC2	18	1 Bit	0 = false 1 = true	Smart Sensor Profil
29	Sub Unit 5 - SSC1	17	1 Bit	0 = false 1 = true	Smart Sensor Profil
30	Sub Unit 5 - SSC2	16	1 Bit	0 = false 1 = true	Smart Sensor Profil
31	Sub Unit 6 - SSC1	15	1 Bit	0 = false 1 = true	Smart Sensor Profil
32	Sub Unit 6 - SSC2	14	1 Bit	0 = false 1 = true	Smart Sensor Profil
33	Sub Unit 7 - SSC1	13	1 Bit	0 = false 1 = true	Smart Sensor Profil

34	Sub Unit 7 - SSC2	12	1 Bit	0 = false 1 = true	Smart Sensor Profil
35	Sub Unit 8 - SSC1	11	1 Bit	0 = false 1 = true	Smart Sensor Profil
36	Sub Unit 8 - SSC2	10	1 Bit	0 = false 1 = true	Smart Sensor Profil
37	Sub Unit 9 - SSC1	9	1 Bit	0 = false 1 = true	Smart Sensor Profil
38	Sub Unit 9 - SSC2	8	1 Bit	0 = false 1 = true	Smart Sensor Profil
39	Sub Unit 10 - SSC1	7	1 Bit	0 = false 1 = true	Smart Sensor Profil
40	Sub Unit 10 - SSC2	6	1 Bit	0 = false 1 = true	Smart Sensor Profil
41	Sub Unit 11 - SSC1	5	1 Bit	0 = false 1 = true	Smart Sensor Profil
42	Sub Unit 11 - SSC2	4	1 Bit	0 = false 1 = true	Smart Sensor Profil
43	Sub Unit 12 - SSC1	3	1 Bit	0 = false 1 = true	Smart Sensor Profil
44	Sub Unit 12 - SSC2	2	1 Bit	0 = false 1 = true	Smart Sensor Profil
45	Sub Unit 13 - SSC1	1	1 Bit	0 = false 1 = true	Smart Sensor Profil
46	Sub Unit 13 - SSC2	0	1 Bit	0 = false 1 = true	Smart Sensor Profil

	Octet 0/2/4…26 (MSB)								**Octet 1/3/5/…27 (LSB)**								**Octet 28**								**Octet 29**							
Subindex	**1…14**																**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Bit Offset	255	254	253	252	251	250	249	248	247	246	245	244	243	242	241	240	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
	Signal 0…9999																															

	Octet 30								**Octet 31**							
Subindex	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**
Bit Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Process Data Output (Master -> Device)

Subindex	Name	Bit Offset	Length	Range
1	Control Signal (LED Control)	0	1 Bit	0 = Enabled 1 = Disabled
2	Find Me	1	1 Bit	0 = Off 1 = Blinking
3	not used	2	6 Bit	

	Octet 0 (MSB)							
Subindex	**3**						**2**	**1**
Bit Offset	7	6	5	4	3	2	1	0

Identification

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Information										
Vendor Name	0x0010	**16**	0	R	String				wenglor sensoric GmbH	
Vendor Text	0x0011	**17**	0	R	String				the innovative family	
Product Name	0x0012	**18**	0	R	String				P1XD2xx-Master	
Product ID	0x0013	**19**	0	R	String				P1XD2xx-Master	
Product Text	0x0014	**20**	0	R	String				Fiber Optic Cable Sensor	
Serial Number	0x0015	**21**	0	R	String				-	
Hardware Version	0x0016	**22**	0	R	String				-	
Firmware Version	0x0017	**23**	0	R	String				-	
Tags										
Application Specific Tag	0x0018	**24**	0	R/W	String 32 Byte	X			***	
Function Tag	0x0019	**25**	0	R/W	String 32 Byte	X			***	
Location Tag	0x001A	**26**	0	R/W	String 32 Byte	X			***	
Sensor Localisation										
Find Me	0x1200	**4608**	0	R/W	Uint8		X		0 = Off	0 = Off 1 = Blinking

Parameter

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	NFC	Default value	Range
Reset Functions											
System Commands	0x0002	**2**	0	W	Uint8			X		-	Device Reset = 0x80 (128) Application Reset = 0x81 (129) Restore Factory Settings = 0x82 (130) Back-to-box = 0x83 (131)
General Device Settings											
Device Access Locks.Local Parameterization Lock	0x000C	**12**	3	R/W	Bool	X				0 = Unlocked	0 = Unlocked 1 = Locked
NFC Disable	0x0305	**773**	0	R/W	Uint8	X				0 = Unlocked	0 = Unlocked 1 = Read Only 2 = Locked
Cascade Mode Settings											
Number of Connected Sensors	0x500	**1280**	0	R	Uint8				X		1…14
Selected Sensor	0x501	**1281**	0	R/W	Uint8				X	0	0…13
Selected Sensor Type	0x502	**1282**	0	R	Uint8					0 = Master	0 = Master 1 = Sub Unit
Master Settings(Selected Sensor = 0)											
Device Settings											
Individual System Command	0x102E	**4142**	0	W	UInt8						1 = Restore Factory Settings

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	NFC	Default value	Range
Measurement Settings											
Emitted Light	0x00E0	**224**	0	R/W	Uint8	X			X	0 = On	0 = On 1 = Off
Noise Filter	0x00D0	**208**	0	R/W	Uint8	X			X	2 = Minimum	0 = Maximum 1 = Medium 2 = Minimum
Emitting Power	0x0116	**278**	0	R/W	Uint8	X			X	0 = Maximum	0 = Maximum 1 = Medium 2 = Minimum
Emitting Color	0x0117	**279**	0	R/W	Uint8	X			X	2 = Pink	0 = Red 1 = Blue 2 = Pink
Gain	0x0118	**280**	0	R/W	Uint8	X			X	0 = Low	0 = Low 1 = High
SSC1											
Teach Mode	0x0290	**656**	0	R/W	Uint8	X			X	0 = Normal Teach	0 = Normal Teach 1 = Jump detection 2 = Minimal Teach 3 = Minimal Teach with Dynamic Readjustment 4 = Dynamic Teach 5 = Background Teach 6 = Window Teach
Teach-In	0x0200	**512**	0	W				X			1 = Teach-In 2 = Dynamic Teach Start 3 = Dynamic Teach Stop
Teach Status	0x01E0	**480**	0	R	Uint8					0 = Idle	0 = Idle 1 = Ongoing 2 = Last Teach Failed 3 = Last Teach Successful 4 = Last Teach Warning 5 = Teach Type Changed 6 = Last teach canceled 7 = Last teach not possible: emitter disabled 8 = Locked
Hysteresis	0x0250	**592**	0	R/W	Uint8	X			X	2 = Minimum	0 = Maximum 1 = Medium 2 = Minimum
Switching Point	0x0270	**624**	0	R/W	Uint16	X			X		0…9999
SSC1 (Teach Mode = Jump Detection)											
Signal Jump Minimum	0x02A0	**672**	0	R/W	Uint16	X			X	300	200 … 5000
Signal Jump Direction	0x02A2	**674**	0	R/W	Uint8	X			X	0 = Positive	0 = Positive 1 = Negative 2 = Both
Signal Jump Impulse	0x02A3	**675**	0	R/W	Uint16	X			X	0 = Hold	0 = Hold 1…10000 ms
Signal Jump Cycle Offset	0x02A4	**676**	0	R/W	Uint16	X			X	2000	50…20000
Maximum Recorded Signal Jump	0x02AF	**687**	0	R	Uint32		X				0…9999
Signal Jump Command	0x02C0	**704**	0	W	Uint8			X			1 = Reset Maximum Recorded Signal Jump SSC1
SSC1 (Teach Mode = Minimum Teach with Dynamic Readjustment)											
Teach Percentage	0x02F0	**752**	0	R/W	Uint8	X		X	X	10	3 … 30 %
Dynamic Readjustment Storage	0x0340	**832**	0	R/W	Uint8	X			X	1 = On	0 = Off 1 = On
Dynamic Readjustment Time	0x0320	**800**	0	R/W	Uint16	X			X	3600	5…3600 s
Switch Point	0x0278	**632**	0	R	Uint16				X		0…9999
SSC1 (Teach Mode = Dynamic Teach)											
Dynamic Teach Duration	0x02E0	**736**	0	R/W	Uint16	X			X	60	10…600 s
SSC1 (Teach Mode = Window Teach)											
Window Size High	0x0261	**609**	0	R/W	Uint16	X			X	1000	50…7000
Window Size Low	0x0260	**608**	0	R/W	Uint16	X			X	1000	50…7000

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	NFC	Default value	Range
SSC2											
Teach Mode	0x0291	**657**	0	R/W	Uint8	X			X	0 = Normal Teach	0 = Normal Teach 1 = Jump detection 2 = Minimal Teach 3 = Minimal Teach with Dynamic Readjustment 4 = Dynamic Teach 5 = Background Teach 6 = Window Teach
Teach-In	0x0201	**513**	0	W				X			1 = Teach-In
Teach Status	0x01E1	**481**	0	R	Uint8					0 = Idle	0 = Idle 1 = Ongoing 2 = Last Teach Failed 3 = Last Teach Successful 4 = Last Teach Warning 5 = Teach Type Changed 6 = Last teach canceled 7 = Last teach not possible: emitter disabled 8 = Locked
Hysteresis	0x0251	**593**	0	R/W	Uint8	X			X	2 = Minimum	0 = Maximum 1 = Medium 2 = Low
Switching Point	0x0271	**625**	0	R/W	Uint16	X			X		0 … 9999
SSC2 (Teach Mode = Jump Detection)											
Signal Jump Minimum	0x02B0	688	0	R/W	Uint16	X			X	300	200…5000
Signal Jump Direction	0x02B2	690	0	R/W	Uint8	X			X	0 = Positive	0 = Positive 1 = Negative 2 = Both
Signal Jump Impulse	0x02B3	691	0	R/W	Uint16	X			X	0 = Hold	0 = Hold 1…10000 ms
Signal Jump Cycle Offset	0x02B4	692	0	R/W	Uint16	X			X	2000	50…20000
Maximum Recorded Signal Jump	0x02BF	703	0	R	Uint32		X				0…9999
Signal Jump Command	0x02C0	704	0	W	Uint8			X			2 = Reset Maximum Recorded Signal Jump SSC2
SSC2 (Teach Mode = Minimum Teach with Dynamic Readjustment)											
Teach Percentage	0x02F1	753	0	R/W	Uint8	X		X	X	10	3…30 %
Dynamic Readjustment Storage	0x0341	833	0	R/W	Uint8	X			X	1 = On	0 = Off 1 = On
Dynamic Readjustment Time	0x0321	801	0	R/W	Uint16	X			X	3600	5…3600 s
Switch Point	0x0279	633	0	R	Uint16				X		0…9999
SSC2 (Teach Mode = Dynamic Teach)											
Dynamic Teach Duration	0x02E1	737	0	R/W	Uint16	X			X	60	10…600 s
SSC2 (Teach Mode = Window Teach)											
Window Size High	0x0263	611	0	R/W	Uint16	X			X	1000	50…7000
Window Size Low	0x0262	610	0	R/W	Uint16	X			X	1000	50…7000
Sub Unit Settings(Selected Sensor != 0)											
Information											
Product Name	0x1003	4099	0	R	String					P1XD2xx	
Serial Number	0x1000	4096	0	R	String					-	
Hardware Version	0x1001	4097	0	R	String					-	
Firmware Version	0x1002	4098	0	R	String					-	
Device Settings											
Find Me	0x1004	4100	0	R/W	Uint8		X			0 = Off	0 = Off 1 = Blinking
Individual System Command	0x1005	4142	0	W	UInt8				X		1 = Restore Factory Settings

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	NFC	Default value	Range
Measurement Settings											
Emitted Light	0x1008	4104	0	R/W	Uint8	X			X	0 = On	0 = On 1 = Off
Noise Filter	0x1007	4103	0	R/W	Uint8	X			X	2 = Minimum	0 = Maximum 1 = Medium 2 = Minimum
Emitting Power	0x1006	4102	0	R/W	Uint8	X			X	0 = Maximum	0 = Maximum 1 = Medium 2 = Minimum
Emitting Color	0x102C	4140	0	R/W	Uint8	X			X	2 = Pink	0 = Red 1 = Blue 2 = Pink
Gain	0x102D	4141	1	R/W	Uint9	X			X	0 = Low	0 = Low 1 = High
SSC1											
Teach Mode	0x1009	4105	0	R/W	Uint8	X			X	0 = Normal Teach	0 = Normal Teach 1 = Jump detection 2 = Minimal Teach 3 = Minimal Teach with Dynamic Readjustment 4 = Dynamic Teach 5 = Background Teach 6 = Window Teach
Teach-In	0x100B	4107	0	W				X			1 = Teach-In 2 = Dynamic Teach Start 3 = Dynamic Teach Stop
Teach Status	0x100D	4109	0	R	Uint8					0 = Idle	0 = Idle 1 = Ongoing 2 = Last Teach Failed 3 = Last Teach Successful 4 = Last Teach Warning 5 = Teach Type Changed 6 = Last teach canceled 7 = Last teach not possible: emitter disabled 8 = Locked
Hysteresis	0x100F	4111	0	R/W	Uint8	X			X	2 = Minimum	0 = Maximum 1 = Medium 2 = Minimum
Switching Point	0x1011	4113	0	R/W	Uint16	X			X		0 … 9999
SSC1 (Teach Mode = Jump Detection)											
Signal Jump Minimum	0x1013	4115	0	R/W	Uint16	X			X	300	200…5000
Signal Jump Direction	0x1014	4116	0	R/W	Uint8	X			X	0 = Positive	0 = Positive 1 = Negative 2 = Both
Signal Jump Impulse	0x1015	4117	0	R/W	Uint16	X			X	0 = Hold	0 = Hold 1…10000 ms
Signal Jump Cycle Offset	0x1016	4118	0	R/W	Uint16	X			X	2000	50…20000
Maximum Recorded Signal Jump	0x101B	4123	0	R	Uint32		X				0…9999
Signal Jump Command	0x101D	4125	0	W	Uint8			X			1 = Reset Maximum Recorded Signal Jump SSC1
SSC1 (Teach Mode = Minimum Teach with Dynamic Readjustment)											
Teach Percentage	0x1024	4132	0	R/W	Uint8	X		X	X	10	3 … 30 %
Dynamic Readjustment Storage	0x1028	4136	0	R/W	Uint8	X			X	1 = On	0 = Off 1 = On
Dynamic Readjustment Time	0x1026	4134	0	R/W	Uint16	X			X	3600	5…3600 s
Switch Point	0x102A	4138	0	R	Uint16				X		0…9999
SSC1 (Teach Mode = Dynamic Teach)											
Dynamic Teach Duration	0x101E	4126	0	R/W	Uint16	X			X	60	10…600 s

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	NFC	Default value	Range
SSC1 (Teach Mode = Window Teach)											
Window Size High	0x1020	4128	0	R/W	Uint16	X			X	1000	50…7000
Window Size Low	0x1021	4129	0	R/W	Uint16	X			X	1000	50…7000
SSC2											
Teach Mode	0x100A	4106	0	R/W	Uint8	X			X	0 = Normal Teach	0 = Normal Teach 1 = Jump detection 2 = Minimal Teach 3 = Minimal Teach with Dynamic Readjustment 4 = Dynamic Teach 5 = Background Teach 6 = Window Teach
Teach-In	0x100C	4108	0	W				X			1 = Teach-In
Teach Status	0x100E	4110	0	R	Uint8					0 = Idle	0 = Idle 1 = Ongoing 2 = Last Teach Failed 3 = Last Teach Successful 4 = Last Teach Warning 5 = Teach Type Changed 6 = Last teach canceled 7 = Last teach not possible: emitter disabled 8 = Locked
Hysteresis	0x1010	4112	0	R/W	Uint8	X			X	2 = Minimum	0 = Maximum 1 = Medium 2 = Low
Switching Point	0x1012	4114	0	R/W	Uint16	X			X		0 … 9999
SSC2 (Teach Mode = Jump Detection)											
Signal Jump Minimum	0x1017	4119	0	R/W	Uint16	X			X	300	200 … 5000
Signal Jump Direction	0x1018	4120	0	R/W	Uint8	X			X	0 = Positive	0 = Positive 1 = Negative 2 = Both
Signal Jump Impulse	0x1019	4121	0	R/W	Uint16	X			X	0 = Hold	0 = Hold 1…10000 ms
Signal Jump Cycle Offset	0x101A	4122	0	R/W	Uint16	X			X	2000	50…20000
Maximum Recorded Signal Jump	0x101C	4124	0	R	Uint32		X				0…9999
Signal Jump Command	0x101D	4125	0	W	Uint8			X			2 = Reset Maximum Recorded Signal Jump SSC2
SSC2 (Teach Mode = Minimum Teach with Dynamic Readjustment)											
Teach Percentage	0x1025	4133	0	R/W	Uint8	X		X	X	10	3…30 %
Dynamic Readjustment Storage	0x1029	4137	0	R/W	Uint8	X			X	1 = On	0 = Off 1 = On
Dynamic Readjustment Time	0x1027	4135	0	R/W	Uint16	X			X	3600	5…3600 s
Switch Point	0x102B	4139	0	R	Uint16				X		0…9999
SSC2 (Teach Mode = Dynamic Teach)											
Dynamic Teach Duration	0x101F	4127	0	R/W	Uint16	X			X	60	10…600 s
SSC2 (Teach Mode = Window Teach)											
Window Size High	0x1022	4130	0	R/W	Uint16	X			X	1000	50…7000
Window Size Low	0x1023	4131	0	R/W	Uint16	X			X	1000	50…7000
Pin Function											
A1 Pin Function	0x0040	64	0	R/W	Uint8	X		X	X	0 = Switching Output SSC 1	0 = Switching Output SSC1 1 = Error Output 2 = Warning Output
E/A2 Pin Function	0x0041	65	0	R/W	Uint8	X		X	X	P1XD2x2: 0 = Switching Output SSC2 P1XD2x4: 4 = Teach Input	0 = Switching Output SSC2 1 = Error Output 2 = Warning Output 4 = Teach Input 5 = Disabled 6 = Antivalent Output of SSC1

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	NFC	Default value	Range
Digital Outputs											
A1 (SSC)											
A1 NO/NC	0x0210	528	0	R/W	Uint8	X			X	0 = NO	0 = NO 1 = NC
A1 NPN/PNP/P-P	0x0220	544	0	R/W	Uint8	X			X	P1XD20x: 0 = PNP P1XD21x: 1 = NPN	0 = PNP 1 = NPN 2 = Push-Pull
On Delay	0x0050	80	0	R/W	Uint16	X			X	0	0…10000 ms
Off Delay	0x0060	96	0	R/W	Uint16	X			X	0	0…10000 ms
Impulse	0x0070	112	0	R/W	Uint16	X			X	0	0…10000 ms
A1 (Error or Warning Output)											
A1 NO/NC	0x0210	528	0	R/W	Uint8	X			X	0 = NO	0 = NO 1 = NC
A1 NPN/PNP/P-P	0x0220	544	0	R/W	Uint8	X			X	P1XD20x: 0 = PNP P1XD21x: 1 = NPN	0 = PNP 1 = NPN 2 = Push-Pull
A2 (SSC)											
A2 NO/NC	0x0211	529	0	R/W	Uint8	X			X	0 = NO	0 = NO 1= NC
A2 NPN/PNP/P-P	0x0221	545	0	R/W	Uint8	X			X	P1XD20x: 0 = PNP P1XD21x: 1 = NPN	0 = PNP 1 = NPN 2 = Push-Pull
On Delay	0x0051	81	0	R/W	Uint16	X			X	0	0 … 10000 ms
Off Delay	0x0061	97	0	R/W	Uint16	X			X	0	0 … 10000 ms
Impulse	0x0071	113	0	R/W	Uint16	X			X	0	0 … 10000 ms
A2 (Error or Warning Output)											
A2 NO/NC	0x0211	529	0	R/W	Uint8	X			X	0 = NO	0 = NO 1= NC
A2 NPN/PNP/P-P	0x0221	545	0	R/W	Uint8	X			X	P1XD20x: 0 = PNP P1XD21x: 1 = NPN	0 = PNP 1 = NPN 2 = Push-Pull
Digital Inputs											
E2 (Teach input or Trigger)											
Ub Active/Inactive	0x0261	609	0	R/W	Uint8	X			X	0 = Ub Active	0 = Ub Active 1 = Ub Inactive

Diagnosis

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Master 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 StringT3		X		0	Shows the pending Events (maximum 4)
Additional Status Master										
Additional status Information	0x1300	4864	1	R	Bool		X		0	Contaminated Optics
			2							Emitted Light Off
			3							Fatal Error
			4							Temperature Error
			5							Temperature High
			6							Temperature Low
			7							Undervoltage
			8							Power Fault
			9							Short Circuit
			10							Basic Comunication Error
			11							General Comunication Error
Sub Unit Status										
Sub Unit Status	0x102F	4143	1	R	Uint8		X		0	0 = Device is operating properly 1 = Maintenance required 2 = Out of specification 3 = Functional check 4 = Failure
			2							
			3							
			4							
			5							
			6							
			7							
			8							
			9							
			10							
			11							
			12							
			13							
Additional Sub Unit Status Sensor 1										
Additional Sub Unit Status. Contaminated Optic	0x1030	4144	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Additional Sub Unit Status Sensor 2										
Additional Sub Unit Status. Contaminated Optic	0x1031	4145	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error
Additional Sub Unit Status Sensor 3										
Additional Sub Unit Status. Contaminated Optic	0x1032	4146	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Additional Sub Unit Status Sensor 4										
Additional Sub Unit Status. Contaminated Optic	0x1033	4147	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error
Additional Sub Unit Status Sensor 5										
Additional Sub Unit Status. Contaminated Optic	0x1034	4148	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Additional Sub Unit Status Sensor 6										
Additional Sub Unit Status. Contaminated Optic	0x1035	4149	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error
Additional Sub Unit Status Sensor 7										
Additional Sub Unit Status. Contaminated Optic	0x1036	4150	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Additional Sub Unit Status Sensor 8										
Additional Sub Unit Status. Contaminated Optic	0x1037	4151	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error
Additional Sub Unit Status Sensor 9										
Additional Sub Unit Status. Contaminated Optic	0x1038	4152	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Additional Sub Unit Status Sensor 10										
Additional Sub Unit Status. Contaminated Optic	0x1039	4153	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error
Additional Sub Unit Status Sensor 11										
Additional Sub Unit Status. Contaminated Optic	0x103A	4154	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Additional Sub Unit Status Sensor 12										
Additional Sub Unit Status. Contaminated Optic	0x103B	4155	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error
Additional Sub Unit Status Sensor 13										
Additional Sub Unit Status. Contaminated Optic	0x103C	4156	1	R	Bool		X		0	Contaminated Optics
Additional Sub Unit Status. Emitted Light Off			2							Emitted Light Off
Additional Sub Unit Status. Fatal Error			3							Fatal Error
Additional Sub Unit Status. Temperature Error			4							Temperature Error
Additional Sub Unit Status. Temperature High			5							Temperature High
Additional Sub Unit Status. Temperature Low			6							Temperature Low
Additional Sub Unit Status. Undervoltage			7							Undervoltage
Additional Sub Unit Status. Power Fault			8							Power Fault
Additional Sub Unit Status. Short Circuit			9							Short Circuit
Additional Sub Unit Status. Basic Comunication Error			10							Basic Comunication Error
Additional Sub Unit Status. General Comunication Error			11							General Comunication Error

Name	Index (hex)	Index (dec)	Sub -index	R/W	Datatype	Data Storage	Dynamic	Modify others	Default value	Range
Device Simulation										
Simulation Mode	0x0310	784	0	R/W	Uint8		X		0 = off	0 = off 1 = on
Device Simulation Enabled (Simulation Mode = 1)										
Signal Value	0x0315	789	0	R/W	Uint16		X		65535 = Use Process Value	0…9999 65535 = Use Process Value
Simulation SSC1	0x0331	817	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
Simulation SSC2	0x0332	818	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
Simulation Contaminated Optics	0x031C	796	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
Simulation Fatal Error	0x0323	803	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
Simulation Temperature Error	0x0324	804	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
Simulation Temperature High	0x0325	805	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
Simulation Temperature Low	0x032C	812	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
Simulation Undervoltage	0x0327	807	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
Simulation Power Fault	0x0329	809	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
Simulation Short Circuit	0x0328	808	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
Basic Communication Error	0x0328	808	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value
General Communication Error	0x0328	808	0	R/W	Uint8		X		255 = Use Process Value	0 = Off 1 = On 255 = Use process Value

Events

Supported Events

Name	Event Code	Type	Specification
General malfunction – unknown error	0x1000	Error	IO-Link
Short circuit – Check installation	0x7710	Error	IO-Link
Device temperature over-run – Clear source of heat	0x4210	Warning	IO-Link
Device temperature under-run – Insulate device	0x4220	Warning	IO-Link
Temperature fault – Overload	0x4000	Error	IO-Link
Primary supply voltage under-run – Check tolerance	0x5111	Warning	IO-Link
Cleaning Requiered	0x8C40	Warning	IO-Link
Emitter light changed (on/off)	0x1811	Notification	wenglor specific
Watchdog reset occurred	0x1812	Notification	wenglor specific
Basic Communication Error	0x1813	Error	wenglor specific
General Communication Error	0x1815	Error	wenglor specific