

EN

P1KY10x

High-Performance Distance Sensor



Interface Description

IO-Link P1KY10x

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)
P1KY101	0x370101	3604737	37 01 01	55 1 1
P1KY102	0x370201	3604993	37 02 01	55 2 1
P1KY103	0x370801	3606529	37 08 01	55 8 1
P1KY104	0x370901	3606785	37 09 01	55 9 1
P1KY105	0x370B69	3607401	37 0B 69	55 11 105
P1KY106	0x370202	3604994	37 02 02	55 02 02

IO-Link Version: V 1.1
Data Storage: Yes
Blockparameter: Yes
Min Cycle Time: 2,3 ms
SIO-Mode: Yes
COM-Mode: COM2
ISDU: Yes

Process data (Length: 16 Bit)

If parameter “Processdatatype” = 0

Subindex	Name	Bit Offset	Datatype	Range
1	A1 Output	0	1 Bit	0 = false 1 = true
2	A2 Output	1	1 Bit	0 = false 1 = true
3	Contamination Output	2	1 Bit	0 = false 1 = true
4	Error Output	3	1 Bit	0 = false 1 = true
5	Measured Value	4...15	Uint12	50...1500 mm

Octet 0

Subindex	5							
Bit Offset	15	14	13	12	11	10	9	8

Octet 1

Subindex	5				4	3	2	1
Bit Offset	7	6	5	4	3	2	1	0

Measured Value = 0 mm Object too close
 4094 mm Object too far
 4095 mm No signal

If parameter “Processdatatype” = 1

Subindex	Name	Bit Offset	Datatype	Range
1	Measured Value	0...15	16 Bit	50...1500 mm

Octet 0

Subindex	1 (MSB)							
Bit Offset	15	14	13	12	11	10	9	8

Octet 1

Subindex	1 (LSB)							
Bit Offset	7	6	5	4	3	2	1	0

Measured Value = 0 mm Object too close
 65534 mm Object too far
 65535 mm No signal

Parameter

Name	Index (hex)	Index (dec)	Sub-index	R/W	Data-type	Data Storage	Dyna-mic	Modify others	Default value	Range
Identification										
Vendor Name	0x0010	16	0	R	String				wenglor sensoric GmbH	
Vendor Text	0x0011	17	0	R	String				the innovative family	
Produkt Name	0x0012	18	0	R	String				P1KY10x	
Product ID	0x0013	19	0	R	String				P1KY10x	
Product Text	0x0014	20	0	R	String				High-Performance Distance Sensor	
Serial Number	0x0015	21	0	R	String				—	
Hardware Revision	0x0016	22	0	R	String				—	
Firmware Revision	0x0017	23	0	R	String				—	
Application Specific Name	0x0018	24	0	R/W	String 32 Byte	X			***	
Parameter										
Device Settings										
System Command	0x0002	2	0	W	UInt8			X	—	Device Reset = 0x80 (128) Factory Reset = 0x82 (130)
Device Access Locks. Parameter (write) Access Lock	0x000C	12	1	R/W	Bool	X			0	0 = unlocked 1 = Parameter Access locked
Device Access Locks. Data Storage Lock	0x000C	12	2	R/W	Bool	X			0	0 = unlocked 1 = Data Storage Locked
Device Access Locks. Local Parameterization	0x000C	12	3	R/W	Bool	X			0	0 = unlocked 1 = Local Parameterization locked
Mesasured Value Settings										
Processdatatype	0x005A	90	0	R/W	UInt8	X		X	0 = Outputs and Measured Value	0 = Outputs and Measured Value 1 = Measured Value only
Pin Function										
E/A1 Pin Function	0x0040	64	0	R/W	UInt8	X		X	0 = Switching Output	0 = Switching Output 1 = Error Output 2 = Contamination Output 4 = Extern Teach A2
E/A2 Pin Function	0x0041	64	0	R/W	UInt8	X		X	0 = Switching Output	0 = Switching Output 1 = Error Output 2 = Contamination Output 4 = Extern Teach A1 6 = Antivalent Switching Output
E/A1 (Switching Output)										
E/A1 Teach-In	0x0200	512	0	W	UInt8			X	—	1 = Do Teach
E/A1 Teach Mode	0x0290	656	0	W	UInt8	X		X	0 = Foreground	0 = Foreground 1 = Background 2 = Window
E/A1 Switch Point	0x0270	624	0	R/W	Sint16	X			P1KY105: 800 mm Rest: 200 mm	50...1500 mm
E/A1 Window Switch Point Near	0x0271	625	0	R/W	Sint16	X			30 mm	1...500 mm
E/A1 Window Switch Point Far	0x0272	626	0	R/W	Sint16	X			30 mm	1...500 mm
E/A1 Hysteresis	0x0300	768	0	R/W	UInt16	X			30 mm	30...225 mm
E/A1 ON Delay	0x0050	80	0	R/W	UInt16	X			0 ms	0...10000 ms
E/A1 OFF Delay	0x0060	96	0	R/W	UInt16	X			0 ms	0...10000 ms
E/A1 NO/NC	0x0210	528	0	R/W	UInt8	X			0 = NO P1KY106 : 1	0 = NO 1 = NC
E/A1 (Error or Contamination Output)										
E/A1 ON Delay	0x0050	80	0	R/W	UInt16	X			0 ms	0...10000 ms
E/A1 OFF Delay	0x0060	96	0	R/W	UInt16	X			0 ms	0...10000 ms
E/A1 NO/NC	0x0210	528	0	R/W	UInt8	X			0 = NO	0 = NO 1 = NC
E1 (Teach Input)										
E/A1 NO/NC	0x0210	528	0	R/W	UInt8	X			0 = NO	0 = NO (Ub active) 1 = NC (0 V active)
E/A2 (Switching Output)										

Name	Index (hex)	Index (dec)	Sub-index	R/W	Data-type	Data Storage	Dyna-mic	Modify others	Default value	Range
E/A2 Teach-In	0x0201	513	0	W	UInt8			X	—	1 = Do Teach
E/A2 Teach Mode	0x0291	657	0	R/W	UInt8	X		X	0 = Foreground	0 = Foreground 1 = Background 2 = Window
E/A2 Switch Point	0x0280	640	0	R/W	Sint16	X		X	P1KY105: 800 mm Rest: 200 mm	0...1500 mm
E/A2 Window Switch Point Near	0x0281	641	0	R/W	Sint16	X			30 mm	1..500 mm
E/A2 Window Switch Point Far	0x0282	642	0	R/W	Sint16	X			30 mm	1..500 mm
E/A2 Hysteresis	0x0301	769	0	R/W	UInt16	X			30 mm	30... 225 mm
E/A2 ON Delay	0x0051	81	0	R/W	UInt16	X			0 ms	0...10000 ms
E/A2 OFF Delay	0x0061	97	0	R/W	UInt16	X			0 ms	0...10000 ms
E/A2 NO/NC	0x0211	529	0	R/W	UInt8	X			0 = NO P1KY106 : 1	0 = NO 1 = NC
E/A2 (Error or Contamination Output)										
E/A2 ON Delay	0x0051	81	0	R/W	UInt16	X			0 ms	0...10000 ms
E/A2 OFF Delay	0x0061	97	0	R/W	UInt16	X			0 ms	0...10000 ms
E/A2 NO/NC	0x0211	529	0	R/W	UInt8	X			0 = NO	0 = NO 1 = NC
E2 (Teach Input)										
E/A2 NO/NC	0x0211	529	0	R/W	UInt8	X			0 = NO	0 = NO (Ub active) 1 = NC (0 V active)
Device Test										
Test Mode	0x0310	784	0	R/W	UInt8		X		0	0 = OFF 1 = ON
Test Output A1	0x0317	791	0	R/W	UInt8		X		0	0 = OFF 1 = ON
Test Output A2	0x0311	785	0	R/W	UInt8		X		0	0 = OFF 1 = ON
Test Input E2	0x0313	787	0	R	UInt8		X		0	0 = OFF 1 = ON
Test Error	0x0314	788	0	R/W	UInt8		X		0	0 = OFF 1 = ON
Test Contamination	0x0315	789	0	R/W	UInt8		X		0	0 = OFF 1 = ON
Test Measured Value	0x0316	790	0	R/W	Sint16		X		1000	50...1500 mm