

P2KHxxx

Reflex Sensors with Background Suppression

High-End with Teach-in



Interface Description

IO-Link P2KHxxx

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)
P2KH016	0x291807	2693127	29 18 07	41 24 7
P2KH024	0x291808	2693128	29 18 08	41 24 8
P2KH017	0x29180D	2693133	29 18 0D	41 24 13
P2KH031	0x29180E	2693134	29 18 0E	41 24 14

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

Process data (Length: 16 Bit)

Subindex	Name	Bit Offset	Datatype	Range
1	A1 Output	0	1 Bit	0 = Off 1 = On
2	Contamination Output	1	1 Bit	0 = False 1 = True
3	A2 Output	2	1 Bit	0 = Off 1 = On
4	No Signal	3	1 Bit	0 = false 1 = true
5	Short Circuit	4	1 Bit	0 = false 1 = true
6	Laser Error (only for P2KH017/P2KH031)	5	1 Bit	0 = false 1 = true
7	Overtemperature	6	1 Bit	0 = false 1 = true
8	Memory Busy	7	1 Bit	0 = false 1 = true
9	Signal	8	Uint8	0...255

Octet 0

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

Octet 1

Subindex	8	7	6	5	4	3	2	1
Bit Offset	7	6	5	4	3	2	1	0

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				P2KHxxx	
Product ID	0x0013	19	0	R	String				P2KHxxx	
Product Text	0x0014	20	0	R	String				Reflex Sensor with Background Suppression	
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	—	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										
Emitted Light	0x00E0	224		R/W	UInt8	X			0	0 = Light on 1 = Light off
Operating Mode	0x0110	272		R/W	UInt8	X			0	0 = Standard 1 = Interference-free
Hysteresis	0x0300	768		R/W	UInt8	X			0	0 = Small 1 = Large
Pin Function										
A1 Pin Function	0x0040	64	0	R/W	UInt8	X		X	0 = Switching Output	0 = Switching Output 1 = Error Output 2 = Contamination Output
E/A2 Pin Function	0x0041	65	0	R/W	UInt8	X		X	0 = Switching Output	0 = Switching Output 1 = Error Output 2 = Contamination Output 4 = Extern Teach A1 Input 6 = Antivalent Switching Output
A1 (Switching Output)										
A1 Teach-In	0x0200	512	0	W	UInt8			X	—	1 = Do Teach
A1 Teach Mode	0x0290	656	0	W	UInt8	X		X	0 = Foreground	0 = Foreground 1 = Background
A1 Switch Point	0x0270	624	0	R/W	UInt8	X			255	0...255
A1 ON Delay	0x0050	80	0	R/W	UInt16	X			0 ms	0...10000 ms
A1 OFF Delay	0x0060	96	0	R/W	UInt16	X			0 ms	0...10000 ms
A1 NO/NC	0x0210	528	0	R/W	UInt8	X			0 = NO	0 = NO 1 = NC
A1 Polarity	0x0220	544	0	R/W	UInt8	X			P2KH016/017: 1 = PNP P2KH024/031: 2 = NPN	0 = PushPull 1 = PNP 2 = NPN
A1 (Error or Contamination Output)										
A1 ON Delay	0x0050	80	0	R/W	UInt16	X			0 ms	0...10000 ms
A1 OFF Delay	0x0060	96	0	R/W	UInt16	X			0 ms	0...10000 ms
A1 NO/NC	0x0210	528	0	R/W	UInt8	X			0 = NO	0 = NO 1 = NC
A1 Polarity	0x0220	544	0	R/W	UInt8	X			P2KH016/017: 1 = PNP P2KH024/031: 2 = NPN	0 = PushPull 1 = PNP 2 = NPN

Name	Index (hex)	Index (dec)	Sub-index	R/W	Data-type	Data Storage	Dyna-mic	Modify others	Default value	Range
E/A2 (Switching Output)										
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
E/A2 Switch Point	0x0280	640	0	R/W	Uint8	X		X	255	0...255
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
E/A2 Polarity	0x0221	545	0	R/W	Uint8	X			P2KH016/017: 1 = PNP P2KH024/031: 2 = NPN	0 = PushPull 1 = PNP 2 = NPN
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
E/A2 Polarity	0x0221	545	0	R/W	Uint8	X			P2KH016/017: 1 = PNP P2KH024/031: 2 = NPN	0 = PushPull 1 = PNP 2 = NPN
E2 (Teach Input)										
Input Ub active/inactive	0x0260	608	0	R/W	Uint8	X			0 = Ub active	0 = Ub active 1 = Ub inactive
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	Uint8		X		255	0...255