

EN

P1PHxxx

Reflex Sensors with Background Suppression

Electronic



Interface Description

Subject to change without notice

Available as PDF version only

Version: 1.2.0

Status: 30.10.2019

www.wenglor.com

IO-Link P1PHxxx

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)
P1PH101	0x290F02	2690818	29 0F 02	41 15 2
P1PH102	0x290F0A	2690826	29 0F 0A	41 15 10
P1PH301	0x290F04	2690820	29 0F 04	41 15 4
P1PH303	0x290F0B	2690827	29 0F 0B	41 15 11
P1PH305	0x290F1A	2690842	29 0F 1A	41 15 26
P1PH306	0x290F1B	2690843	29 0F 1B	41 15 27
P1PH603	0x290F18	2690840	29 0F 18	41 15 24
P1PH604	0x290F19	2690841	29 0F 19	41 15 25
P1PH703	0x290F16	2690838	29 0F 16	41 15 22
P1PH704	0x290F17	2690839	29 0F 17	41 15 23

IO-Link Version:	V 1.1
Data Storage:	Yes
Blockparameter:	Yes
Min Cycle Time:	3,6 ms
SIO-Mode:	Yes
COM-Mode:	COM2
ISDU:	Yes
Process data In (Device to Master):	24 Bit
Process data Out (Master to Device):	—

Process data

Subindex	Name	Bit Offset	Datatype	Valid for Versions	Range
1	A1 Output	0	1 Bit	all	0 = Off 1 = On
2	Contamination Output	1	1 Bit	all	0 = Off 1 = On
3	—	2	1 Bit	—	—
4	No Signal	3	1 Bit	all	0 = Off 1 = On
5	Short Circuit	4	1 Bit	all	0 = Off 1 = On
6	Laser Error	5	1 Bit	P1PH703, P1PH704	0 = Off 1 = On
7	Overtemperature	6	1 Bit	all	0 = Off 1 = On
8	—	7	1 Bit	—	—
9	Signal	8	Uint16	all	0...511 1...510 = Distance 0 = False 511 = Distance measurement off

Octet 0

Subindex	9							
Bit Offset	23	22	21	20	19	18	17	16

Octet 1

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

Octet 2

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	Dy-namic	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	
Product Name	0x0012	18	0	R	String				P1PHxxx	
Product ID	0x0013	19	0	R	String				P1PHxxx	
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
Mesasured Value Settings										
Distance measurement	0x0301	769	0	R/W	UInt8	X			1	0 = On 1 = Off
Emitted Light	0x00E0	224	0	R/W	UInt8	X			0	0 = Light on 1 = Light off
Operating Mode	0x0110	272	0	R/W	UInt8	X			0	0 = Standard 1 = Interference-free
Hysteresis	0x0300	768	0	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	6 = Antivalent Switching Output	1 = Error Output 2 = Contamination Output 5 = Deactivated 6 = Antivalent Switching Output

Name	Index (hex)	Index (dec)	Sub-index	R/W	Data-type	Data Storage	Dy-namic	Modify others	Default value	Range
A1 (Switching Output)										
Source Swith Point	0x0230	560	0	R/W	Uint8	X			0	0 = Potentiometer 1 = IO-Link
A1 Switch Point	0x0270	624	0	R/W	Uint16	X			510	1...510
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			P1PH101, P1PH301, P1PH305, P1PH603, P1PH703: 1 P1PH102, P1PH303, P1PH306, P1PH604, P1PH704: 2	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			P1PH101, P1PH301, P1PH305, P1PH603, P1PH703: 1 P1PH102, P1PH303, P1PH306, P1PH604, P1PH704: 2	0 = PushPull 1 = PNP 2 = NPN
A2 (Error or Contamination Output)										
A2 ON Delay	0x0051	81	0	R/W	Uint16	X			0 ms	0...10000 ms
A2 OFF Delay	0x0061	97	0	R/W	Uint16	X			0 ms	0...10000 ms
A2 NO/NC	0x0211	529	0	R/W	Uint8	X			0 = NO	0 = NO 1 = NC
A2 Polarity	0x0221	545	0	R/W	Uint8	X			P1PH101, P1PH301, P1PH305, P1PH603, P1PH703: 1 P1PH102, P1PH303, P1PH306, P1PH604, P1PH704: 2	0 = PushPull 1 = PNP 2 = NPN
A2 (Antivalent)										
A2 Polarity	0x0221	545	0	R/W	Uint8	X			P1PH101, P1PH301, P1PH305, P1PH603, P1PH703: 1 P1PH102, P1PH303, P1PH306, P1PH604, P1PH704: 2	0 = PushPull 1 = PNP 2 = NPN
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 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	Uint16		X		0	0...511