

EN

OPT2151 OPT2152

Reflex Sensors with Background Suppression

Electronic



Interface Description

Subject to change without notice

Available as PDF version only

Version: 1.0.0

Status: 08.12.2020

www.wenglor.com

IO-Link OPT2151/52

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)
OPT2151	0x3B0F16	3870486	3B 0F 16	59 15 22
OPT2152	0x3B0F17	3870487	3B 0F 17	59 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	Overtemperature	6	1 Bit	all	0 = Off 1 = On
7	—	7	1 Bit	—	—
8	Signal	8	Uint16	all	0...511 1...510 = Distance 0 = False 511 = Distance measurement off

Octet 0

Subindex	8							
Bit Offset	23	22	21	20	19	18	17	16

Octet 1

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

Octet 2

Subindex	7	6	5	4	3	2	1
Bit Offset	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				OPT215x	
Product ID	0x0013	19	0	R	String				OPT215x	
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			OPT2151: 1 OPT2152: 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			OPT2151: 1 OPT2152: 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			OPT2151: 1 OPT2152: 2	0 = PushPull 1 = PNP 2 = NPN
A2 (Antivalent)										
A2 Polarity	0x0221	545	0	R/W	Uint8	X			OPT2151: 1 OPT2152: 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